
Tackling Excessive Waiting Times for Elective
Surgery: A Comparison of Policies in Twelve OECD
Countries

Annexes 1, 2, 3

Jeremy Hurst and Luigi Siciliani

6

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ANNEX 1

THE COST OF WAITING

1. There have been a number of attempts to estimate directly the costs of waiting for elective surgery. The adverse consequences of delay can include: deterioration in the condition for which treatment is awaited, including death as an extreme outcome; the loss of utility from delay (especially if treatment can relieve significant pain or disability); a rise in the costs of total treatment, pre- or post-surgery; accumulation of any loss of income from work; and accumulation of income support payments (such as sickness benefits). Such costs are likely to vary greatly across conditions, across countries and through time. Two reviews of the literature on the costs of waiting (Naylor, 1994 and Harrison and New, 2000) have surveyed the evidence of both positive and adverse consequences of waiting. They have concluded that whereas many glimpses of the scale of these consequences of waiting can be obtained, some of which are reported below, more work needs to be done to gather evidence.

2. There are a large number of studies of the risks and costs of waiting for open-heart surgery, in general and for coronary artery bypass grafting (CABG) in particular. For example, the risk of dying while waiting for a CABG, based on evidence from 4 European and North American randomised trials, was put at 0.33%, or less, per month of delay for patients with stable angina (Rachlis et al, 1991). A study of waiting for elective open-heart surgery in Montreal suggested that there was no significant difference in hospital death rates between urgent and elective patients, where the average wait was 2.8 months. Moreover, there was no relationship between waiting times and outcomes among 206 elective patients. The authors drew the conclusion that short waiting before elective open heart surgery was safe and acceptable provided that rapid access to medical and surgical treatment was available should it become necessary (Carrier et al. 1993). In a larger study (Naylor et al., 1995) 8517 patients accepted for CABG in Ontario were followed. Mean waiting time was 17 days for patients in all urgency categories and 42 days for patients in the lowest urgency category. Waiting times generally reflected clinical acuity and patients rarely suffered from critical events or extreme delays while in the queue. In another Canadian study of queuing for CABG, where nearly all patients were treated within 6 months, there were no deaths among 275 non-urgent patients. However, 12.4% of patients required re-classification to higher priorities while waiting, because of worsening symptoms. Only 4% of patients thought that prioritisation on the basis of medical need was unfair but 64% experienced at least some anxiety while waiting. The authors concluded that triage had equitably stratified patients to a queue. Deaths were rare and could not be attributed to the triage process. Patients with worsening clinical status were safely accommodated with earlier waiting times but concerns remained about excessive waiting times and patient anxiety (Cox et al., 1996). In a small study of patients waiting for CABG in New Zealand it was found that waiting by elective patients was longer than in Canada. Median waiting was 181 days among patients waiting at home for CABG or 92 days among the 79 patients who actually received CABG. 8 patients were still waiting for surgery after 2 years. While waiting at home, one patient died and one had a myocardial infarction. 17 patients were readmitted to hospital with unstable angina while waiting (Doogue et al., 1997).

3. An international comparison of waiting times for coronary revascularisation in New York State, the Netherlands and Sweden (Bernstein et al., 1997) suggested that median waiting time for CABG was 17 days in New York, 72 days in the Netherlands and 59 days in Sweden. No data were available on death rates during waiting in New York, but in both the Netherlands and Sweden the death rates were 0.8%. However, there was no direct relationship between waiting times and death rates in these two countries. The authors noted that big differences had been reported in attitudes to waiting in two of the three areas. Almost 60% of Americans though it was essential or very important to get elective surgery without much

delay whereas 72% of Dutch physicians and patients thought waiting lists were acceptable to regulate access to medical services.

4. Meanwhile, a study of death on the waiting list for all patients awaiting cardiac surgery in the Netherlands in 1994 and 1995 (Plomp, J. et al., 1998) suggested that the incidence of death varied from: 1.33 per 1000 patient weeks, among patients waiting 2-4 weeks after being placed on a waiting list; to 0.68 per 1000 patient weeks, after 12 weeks. It was estimated that approximately 100 patients per year were dying in the Netherlands because of waiting for cardiac surgery. A subsequent study of patients awaiting CABG in Ontario indicated that whereas such patients were almost 3 times more likely to die than members of the general population of the same age and sex while waiting, they were less likely to die than similar patients suffering from coronary artery disease (matched for age and sex) who were not scheduled for CABG (Naylor et al. 2000). The median waiting time was 18 days. The authors of this study acknowledged that it fell short of a randomised trial of waiting and that certain factors were unobserved, such as morbidity and psychological distress among patients kept waiting. Finally, a further Dutch study (Koomen et al., 2001) of urgent and routine patients accepted for CABG, where median waiting time for the routine group was 69 days, suggested that there were 4 deaths and 4 myocardial infarctions (6 deaths or myocardial infarctions) per 100 patient years during waiting. There were also 16 cases of unstable angina per 100 years. There was a higher rate of adverse cardiological events earlier rather than later during waiting. The conclusion was drawn that, given the difficulty of predicting risk, the only way to diminish the complication rate would be to radically reduce waiting times, requiring a major expansion in surgical capacity.

5. Turning to other waiting list conditions, a study of patients waiting for varicose vein surgery in the UK found 'considerable deterioration' in their condition while waiting for surgery (Sarin et al, 1993). However, in this sample the medium wait was 20 months. In contrast, a study of patients waiting for prostatectomy or hip and knee joint replacement in New Zealand found much evidence of ill health but no evidence of deterioration during the time spent waiting (Derrett et al, 1999). Here, mean waiting times for prostatectomy and for hip and knee replacements were about 10 months. Similarly, A Swedish study of hip-replacement found no difference in outcome between two groups of patients one of which waited for a mean duration of 2 months for this procedure and one of which waited for a mean duration of 5 months (Nilsson and Lohmander, 2002).

6. It has been reported that 5-10% of people on waiting lists are on sick leave from work (Harrison and New, 2000). An Icelandic study of patients waiting for CABG (when average waiting time was 5-6 months) suggested that the unemployment rate rose from 12.5% at the time of diagnosis to 44.4 % at the time of treatment (Jónsdóttir et al., 1998). A Norwegian study of patients awaiting the same procedure suggested that there was a positive relationship between the time spent waiting and the delay before the patient returned to work after the operation (Lundborn, 1992).

7. A number of studies have attempted to measure subjective concern, or dissatisfaction, with waiting for elective surgery and the willingness to pay for reductions in waiting. A recent Dutch survey suggested that whereas more than three quarters of respondents to a survey of the general population felt that the government had not tackled the waiting list problem effectively, less than a quarter of patients who had had actual experience with a specialist or hospital in the last year considered the waiting time long or very long (van Praag, 2002). That seems to match the finding of surveys in other countries: people's views of healthcare are more positive when the respondents are users and the questions focus on the actual experience they have had with the service in question.

8. Turning to specific procedures, a Canadian study (Llewellyn-Thomas et al., 1999) explored patients' willingness to trade-off waiting time for CABG against surgical mortality risk. The results suggested that most patients were not prepared to endure 6 month waiting in exchange for a halving of

surgical mortality from 2% to 1%. However, many seemed to have a severely inflated perception of the risk of myocardial infarction in the queue (the mean perceived risk was 12.2% for waiting over 6 months). The conclusion was drawn that there was a need for interventions to modify the risk perceptions of patients who were required to wait.

9. An international survey of patients awaiting cataract surgery in Manitoba (Canada), Denmark and Barcelona, asked respondents about expected waiting times and dissatisfaction with waiting (Dunn et al., 1997). Expected median waiting time was about 5 months in Manitoba and Denmark and about 2 months in Barcelona. 43% of Manitoba patients, 57% of Danish patients and 29% of Barcelona patients thought that these waits were longer or much longer than they would like. About two thirds of the whole sample of patients in the three centres thought that 3 months was a reasonable wait for cataract surgery. 75% thought that waiting 6 months was too long. However, when the same groups of patients were asked about their willingness to pay higher taxes to eliminate waiting (Anderson, 1997) there was limited support for such a policy (15% Manitoba, 24% Denmark and 12% Barcelona). When they were asked about their willingness to pay to shorten waiting (to about one month) by purchasing private care, only a minority indicated their willingness to pay for such an alternative (15% in Manitoba, 12% in Denmark and 25% in Barcelona). In practice, only about 2% of the original patients scheduled for public surgery in the three locations opted to pay to jump the public queues by buying private care. Another study of patients waiting for cataract surgery in Saskatchewan (Canada), where the average waiting time was about 2.5 months, suggested that 87% of patients were not at all concerned with waiting (Hadjistavropoulos et al., 1998).

10. In the New Zealand study of patients waiting for prostatectomy and hip and knee replacement, cited above (Derrett, et al., 1999), half to two-thirds of patients with mild symptoms were prepared to wait indefinitely for surgery, depending on the condition. About 40% of those with moderate symptoms were not prepared to wait more than 6 months. Between 50% and 74% of patients with severe symptoms were not prepared to wait more than 6 months. In Ontario, a 5-year survey of patients who had received knee replacements in 5 hospitals found that the mean acceptable waiting time was about 13 weeks and the mean unacceptable waiting time was about 34 weeks. Actual mean waiting time was about 16 weeks (Ho et al. 1994).

11. Turning to monetary estimates of the cost of waiting, several authors have tried to estimate the monetary value of the disutility of waiting from the patient's point of view. Cullis and Jones, 1986, estimated the costs of waiting in England for a person on the waiting list at between £200 and £400 (in 2001 prices) per month in 1986 prices and at between 9.1% and 16.2% of the budget for the NHS. This was based on the assumption that the observed market price for private treatment (P) set an upper bound on the cost of waiting. If the costs of waiting for individuals in the queue were distributed uniformly between zero and P, then the average cost of waiting would be $P/2$ ¹. However, in another study, Propper estimated that people were willing to pay only about £65 (\$100) at 2001 prices to shorten time spent on the waiting list for non urgent treatment by 1 month (Propper, 1990 and 1995). She consulted a representative sample of the population in England and enquired about their willingness to pay to reduce waiting. That involved a hypothetical choice between immediate treatment at some positive cost in an NHS hospital and treatment after some positive wait in the same NHS hospital at zero cost. The respondents were asked to assume that the condition would neither deteriorate nor improve during the waiting period. Average waiting times were around 3-4 months for most elective conditions in England in 1989. An implication of her findings was that a then recent government waiting times initiative, to reduce waiting times over one year, had reduced waiting times worth about £49 million (at 2001 prices) at a cost of about £43 million. Meanwhile, a study of the willingness to pay for waiting-time reductions based on the international study of waiting for cataract surgery in Canada, Denmark and Spain, already referred to above, came up with estimates that the

1 However, in practice, P is likely to be an overestimate of the costs of waiting since private treatment offers choice of fully-trained surgeon and superior hotel services compared with NHS care.

average cataract patient would be willing to pay between \$24 and \$107 in 1992 prices (between £19 and £83 in 2001 prices) for a reduction in waiting time of one month (Bishai and Lang, 2000). That compared with £65 in 2001 prices from Propper's study.

12. A different question about cost has been explored by Quan et al., 2002: does delay in treating patients awaiting elective procedures increase the cost of health services? Quan et al. looked at waiting times and total physician and prescription claim costs before and after surgery for patients awaiting cholecystectomy (mean wait for elective patients, 60 days), discectomy (mean wait 65 days), total hip replacement (mean wait 94 days) hysterectomy (mean wait 55 days) and total knee replacement (mean wait 107 days). The study was based on patients in 3 urban hospitals in Alberta. They came up with a weak negative association between waiting times and costs, after controlling for other variables. This result seems likely to depend on the fact that they were not able to control for health status. Presumably, the patients who waited longer had lower acuity, were less disabled and had lesser need for physician attention and drugs, despite their longer waits.

13. Evidence of international differences in tolerance of waiting has been reported above from the studies by Dunn et al., 1997, Anderson et al., 1997 and Bernstein et al., 1997. Further evidence of international variations in tolerance of waiting for elective care has emerged from a study of public discontent in 5 OECD countries (Australia, Canada, New Zealand, the UK and the US) conducted by the Commonwealth Fund of New York (Donelan et al., 1999). In this survey of about 1000 adults in each country, questions were asked both about waiting for 'non-emergency surgery' and worry about waiting for 'non-emergency medical care'. Average waiting times and the proportion of respondents expressing themselves as 'very worried' about waiting are shown in Table 1. There is little if any correlation between these two variables across countries. Indeed, the country for which the longest average waiting time was reported, the UK, had the lowest proportion of respondents expressing themselves as 'very worried' about waiting². It should be noted that these were surveys of the general population rather than surveys of people actually kept waiting.

Table A1.1		
	Mean waiting time for non-emergency surgery (months)	Percent of respondents reporting 'very worried' about waiting for non-emergency medical care (%)
Australia	1.6	25
Canada	1.5	20
New Zealand	1.6	38
United Kingdom	2.2	12
United States	0.9	14

Source: Donelan, et al., 1999

2 The average waiting time for non-emergency surgery in Table 1 has been estimated from interval data reported in the article (Exhibit 3). The estimate derived for the UK is 2.2 months. This is certainly an underestimate. The true figure was [about 3-4 months] in 1998. The likely reason for the underestimate is that the upper interval in the survey's question about waiting was '4 months or more'. The 33% of respondents who reported waiting '4 months or more' in the UK have been assigned a wait of 4 months. However, about 300,000 people (or about 25% of people on the waiting list) had been waiting over 6 months for elective surgery in the UK in 1998.

14. None of the studies reviewed above seem to have investigated the **benefits** of maintaining waiting times for elective surgery in terms of savings in surgical capacity and utilisation. However, Feldman, 1994, has made a heroic attempt to compare the cost of running a health system like that of the United States, which enjoys 'complete' health insurance for the bulk of the population at the expense of probable 'overutilisation' by the insured; with the cost of running a health system like that of the United Kingdom, which offers all citizens free access to public services, subject to capacity constraints and queuing for elective care. Using mainly the concept of lost consumer surplus, Feldman estimates that on plausible assumptions the cost per family of 'overutilisation' of insured services and higher prices in the US is about \$1,200 per typical family in 1984 dollars. Meanwhile, the hypothetical cost of rationing by waiting, UK style, would be between \$540 and \$830 per family in the US. He uses the methods of Cullis and Jones, 1986 to estimate the costs of waiting. If he had used the willingness to pay methods of Propper (1995) and Bishai and Lang (2000) his estimated gap between the costs of 'overutilisation' and of queuing would have widened considerably

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ANNEX 2

MEASUREMENT OF WAITING TIMES

Introduction

15. Accurate measurements of waiting times are required if policies are to be evidence-based. However, countries may differ with respect to both the definitions used and the aggregation method. This annex outlines the main issues related to the comparison of international figures of waiting times. Our main focus is at present “the waiting time between specialist assessment and the time the patient is admitted for surgery” (‘inpatient’ waiting time).

16. A more comprehensive measure of waiting for surgery would cover the whole period from the time that a GP refers the patient to a specialist to the time the patient is admitted for surgery. That will include any delay between a GP referral and the specialist’s initial assessment (‘outpatient’ waiting time) and any delay between the specialist assessment and the surgical treatment (‘inpatient’ waiting time).

When does the inpatient waiting time start and terminate?

17. It is quite clear that ‘inpatient’ waiting time terminates when the patient receives the treatment. It is less straightforward when ‘inpatient’ waiting time begins. Does it begin when the patient asks for a specialist consultation? Or when the specialist decides to register the patient on the waiting list? Moreover specialists may require time before taking a decision. For example a specialist may require tests or diagnostic procedures to be carried out before determining what treatment, if any, is required. Such tests may be conducted on the same day the patient attends the specialist’s visit, or may take substantially longer.

18. The focus of this project is mainly on the collection of administrative data. In many countries where data have been collected, waiting time is usually defined as the difference between “the time the patient is placed on the waiting list by a specialist and the time that the patient is admitted for treatment”. This definition is sufficiently general and in same time slightly vague. What do we mean for “the time the patient is placed on the waiting list”? Usually it is when the patient and the specialist have agreed that treatment is required. However, the specialist may place the patient on the list even before (at the first visit, for example). Anticipating that the patient will have to wait long, he may quickly add him/her to the list so that “his/her turn” will arrive sooner. This behavior tends to increase the measured waiting time. On the contrary, the specialist may delay the time of placing the patient on the list reducing measured waiting time because lengthy waiting is an indication of poor performance.

Mean or median?

19. Measures of waiting times are often aggregated through the utilization of statistics. The most commonly utilized are the mean and the median. Do these two measures differ in the particular case of waiting-times distributions? If waiting time is distributed according to a normal (Gaussian) distribution, the two measures coincide. However, as it is often observed, waiting-time distributions tend to be positively skewed. This implies that there is low proportion of patients with consistently long wait. In this case it is

usually recommended to use the median. The mean tends to be heavily influenced by the few patients with long waits. On the contrary, the median tends to be more stable and is not influenced by a few outliers.

Waiting time of the patients ‘admitted’ for treatment from the waiting list or waiting time of the patients ‘on the list’?

20. An important distinction exists between the waiting time of the patients ‘admitted’ for treatment from the waiting list and the waiting time of the patients ‘on the list’ at a point in time. Some countries may report both measurements, as in England, while others may report just one of the two. Most countries involved in the project report the waiting of the patients ‘admitted’, while Ireland and Spain (Insalud) report the waiting time of the patients ‘on the list’.

21. In general the two measures will differ. Labour economists have been particularly active in establishing exact relationships between the two measures in relation to duration of unemployment under several assumptions. In the following we straightforwardly adapt their results to the case of waiting times for surgery (Salant, 1977; Carlson and Horrigan, 1983; Bowers, 1980; Kaitz, 1970; from the medical literature see also Armstrong, 2000; Don, Lee, Goldacre, 1987; Sanmartin, 2001).

22. Assume that: i) the probability of being admitted for treatment is constant over time; ii) patients are homogenous (the probability of being admitted for treatment is constant across patients); iii) only patients who are or will be treated are included in the calculation of the two measures.

23. Then, in the steady state, the average ‘waiting time of the patients on the list’ is the same as the average ‘waiting time of the patients admitted’ for treatment (Salant, 1977; Carlson and Horrigan, 1983).

24. The intuitive explanation for this result is the following. On the one hand, the full length of waiting of any patient measured under the ‘waiting time of patients admitted’ always exceeds the partial length of any patient measured under the ‘waiting time of patients on the list’. This is often referred to as the ‘interruption bias’ (Salant, 1977, p.40-1; Bowers, 1980, p. 24). On the other hand, it is patients with longer than average full length of waiting who are more likely to be in progress when the ‘waiting time of the patients on the list’ is measured. This is known as ‘length bias’ (Salant, 1977, p.40; Bowers, 1980, p. 24).

25. Under the above assumptions i), ii) and iii), the ‘length bias’ and the ‘interruption bias’ exactly offset each other and the average waiting time of the patients on the list is equal to the average waiting time of the patients admitted for treatment (Salant, 1977, p.42).

26. Under more general assumptions, the two measures differ. The following relationships among the two measurements can be established.

27. We maintain assumptions ii) and iii) and modify assumption i). If the probability of receiving the treatment increases (decreases) with the time spent on the waiting list (*duration dependence*), then in the steady state the average ‘waiting time of the patients on the list’ at a point in time will be lower (higher) than the average ‘waiting time of the patients admitted’ for treatment (Salant, 1977, p.42; Carlson and Horrigan, 1983, p.1144). The extent of this difference will depend on how strongly the “hazard function” which describes the probability of receiving the treatment is dependent on waiting. If the probability of receiving treatment at first falls (as more urgent cases are selected first) and then rises (as those with long waits are given preference) there will, statistically, be two counter-balancing effects, and the relation between the two averages cannot be predicted.

28. If we maintain assumptions i) and iii) and modify ii), the following relationship can be established. If patients differ in the probability of receiving the treatment (*sorting*), then in the steady state

the average ‘waiting time of the patient on the list’ is higher than the average ‘waiting time of the patients admitted’ (Salant, 1977, p.42; Carlson and Horrigan, 1983, p.1145).

29. Finally, we can maintain assumptions i) and ii) and modify iii). The patients ‘on the waiting list’ may not always end up in receiving the treatment. For example, they may move house, be admitted as emergency cases, decide to purchase private treatment or die. Hence, they may not be included among the patients admitted. If the patients who will never be treated are long-waiting patients, these cases can be expected to dominate the calculation. For this reason the observed average waiting time of the patients on the list may be expected to be greater than the observed average of the patients admitted.

Aggregation at speciality level

30. Aggregate measures of waiting times may reflect a different composition of specialties. For example, within a certain country, policy makers may be particularly worried about the waiting time in the specialties characterized by high waiting time (for example orthopedics and ophthalmology). Other countries may focus their attention not only on specialties with high waiting time (in absolute terms) but also on specialties with high waiting time compared to clinical recommendation (in relative terms). One month of waiting may be regarded low if we consider ‘orthopedics’ but may be considered high for ‘oncology’. When analyzing waiting-time measures, it is important to control for the composition at specialty level. Computing the average waiting time of “ophthalmology, orthopedics and oncology” would lead to a lower value of wait compared to the measure of only “ophthalmology and orthopedics”. However, international comparisons at specialty level present difficulties. Countries differ in their categorization of specialties. Some specialties are more problematic than others. For example ‘general surgery’ in some countries may include ‘orthopedics’ while in others it does not. Some effort in homogenizing data at specialty level has been done in European countries (Eurostat, 2000).

Waiting time by main surgical procedures

31. It is often the case that data available on waiting time refer to ‘main surgical procedures’. Policymakers are interested in measuring waiting-times data for selected surgical procedures that are ‘common’ and frequently give rise to excessive waiting. Such main procedures include, for example, cataract surgery, coronary angioplasty, coronary bypass, inguinal and femoral hernia, hip replacement, and varicose veins. From an international point of view, we are interested in the comparability across countries in the waiting time for such main procedures, as several countries collect them. A common classification method is known as ICD-9-CM (ICD-9 Clinical Modification). This method is used by the OECD Health database to collect data on the number of some surgical procedure rates.

32. An alternative classification system is based on Diagnosis Related Groups (DRGs). While the name may suggest that this classification refers mainly to diagnoses, in practice at least half of the DRG categories refer to treatments and procedures (see McClellan, 1997, and Gilman, 1999 and 2000). The DRG system is an appropriate instrument to classify patients according to ‘main surgical procedures’.

33. However considerable difficulties arise in comparing data across OECD countries through a DRG system. The DRG system was first introduced in the Medicare Program in the US in 1983, which includes only the older population. Since then analogous (but not identical) DRG classifications have been developed in most of the other OECD countries, but for the entire population (old and young). For example the UK has developed the Healthcare Resource Groups (HRGs) and Australia has developed the Australian Diagnosis Related Groups (ADRGs). At present, cross-tabulation of surgical procedures across different countries results difficult and the ICD-9-CM should be preferred.

34. For a sub-set of counties (Denmark, Finland, Iceland, Norway and Sweden) an alternative system is provided by the “NOMESCO classification of Surgical Procedures” developed by the Nordic Medico-Statistical Committee.

Inpatient, day-surgery disaggregation

35. In several OECD countries, many procedures have been increasingly provided as day-surgery because of safer anaesthesia and less invasive techniques. Waiting time for day-surgery may differ from waiting for inpatient surgery. For example, day-surgery involves more minor surgery and hence patients with lower priority. We may then expect waiting time for day-surgery to be higher than for inpatient surgery. However, if there are dedicated facilities for day surgery, waiting times may be shorter, because elective patients are not crowded out by emergency admissions. Day-surgery activity now accounts for more than 50% of overall surgical activity in some countries. Omitting the waiting times for day-surgery will provide a very partial description of the waiting-time phenomenon.

Waiting time of the patients admitted from the waiting list or waiting time of ‘all’ the patients admitted?

36. Does the waiting time refer to all the patients admitted for surgical treatments, only to the patients admitted from the waiting list or to some intermediate case? Patients may be classified into only two categories ‘emergency’ and ‘non-emergency’. But which patients are to be considered as ‘emergency’ cases? The ones treated in a few hours, in one day or one week? Alternatively, patients may be classified into three categories: either ‘urgent, planned and elective’; or ‘urgency level 1, urgency level 2, urgency level 3’ (this is for example the Australian case). To which patients does the waiting time refer? It may refer to the ‘planned and elective’ categories or only to the ‘elective’ category. It may refer to the ‘urgency level 2 and 3’ categories or only to the ‘level 3’ category. Confining measurement only to the least urgent patients (level 3) tends to increase the measure of waiting time. When comparing waiting times across countries, particular attention should then be given to considering homogenous categories of patients.

Waiting time of the patients ‘admitted’ from the waiting list or waiting time of the patients ‘removed’ from the waiting list?

37. As has been indicated above, some of the patients put on the waiting list may never receive the treatment. She/he may not be capable of receiving the treatment or she/he may have already received the treatment (in another hospital either public or private). She/he may also have died. These patients may represent a non-negligible part of the waiting list at any one time. Unless there are good management processes for taking such patients off the list when they no longer require treatment, they will introduce an (additional) upward bias in the measure of waiting time of the stock of patients on the list (at a census date). Conversely, they will not feature at all in the measure of waiting times of patients admitted. Since many countries report only the waiting time of the patients admitted from the waiting list, these patients who never complete their waits will be omitted from their published statistics.

Clearance time vs. waiting time

38. An often-used alternative measure to waiting time is the ‘clearance time’. The clearance time refers to the number of periods that is necessary to clear the list. It is computed as the ratio between the waiting list and the number of procedures provided in a certain period (for example one year). This measure raises some issues. The main weakness of this measure lies in the use in its formulation of the current activity. An increase in the current activity has the same impact on ‘clearance time’ as a permanent increase in the activity, which may not always be the case.

39. Moreover, it relies on the waiting list figures which may not be systematically updated. As has already been mentioned, not all of the patients on the waiting list necessarily receive the treatment. In this respect, this measure may over estimate the waiting time of the patients admitted. However 'clearance time' still remains an attractive measure since it relies on easily available data (the waiting list and the number of procedures).

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ANNEX 3

DETAILED COUNTRY REVIEWS

40. Annex 3 provides detailed country reviews, which present and discuss the main policy initiatives introduced in each of the 12 countries involved in this study.

41. Each country review contains an introduction on the main characteristics of the country, the main policy initiatives introduced to tackle waiting times and a discussion of the most interesting issues related to the country experience.

1. AUSTRALIA

Main characteristics of the Australian health system

42. The health care system in Australia is characterised by universal coverage and is financed mainly through general taxation and compulsory tax-based health insurance. In year 1999–2000, 71% of total revenue came from public sources, mainly from taxation (WHO, 2002). Total health expenditure accounted in 2000 for 8.3% of GDP. 72.3% of the total health expenditure was public (OECD, 2002 Health data).

43. *Hospitals.* In year 1998 there were 1 051 acute care hospitals, of which 734 were public (70% of the beds), and 317 were private. Large public hospitals provide advanced types of treatment such as intensive care and major surgery. Private hospitals provide mainly less complex non-emergency care. Although the stock of public beds declined substantially during the 1990s, the stock of private beds has increased slightly (WHO, 2002). The provision of public hospital services is the responsibility of the eight ‘State and Territory’ Governments. However, funding for public hospitals is shared between the Federal and ‘State and Territory’ Governments, which each contribute approximately to 45% of the cost of these hospitals. The remaining 10% is provided by private revenues (OECD, 2002).

44. The Federal Government’s contribution for public hospitals is provided through Agreements with each of the eight States and Territories. Current Agreements cover the period from 1998 to 2003. States and Territories are responsible for the total amount of funds, the number and location of public hospitals, the determination of the budgets, the range of services available, including the management of elective surgery. Public hospital services are provided free of charge, on the basis of clinical need, within a clinically appropriate time period and regardless of geographic location.

45. *Hospital remuneration system.* The system used to fund public hospitals is the responsibility of State and Territory governments. Remuneration systems include funding based on agreed levels of case-mix, funding based on past levels of expenditure, and funding based on demographic profiles. Some jurisdictions use a combination of methods to determine budget levels. In general, the level of waiting time for elective surgery is not a determinant of hospital funding. However, where extended waiting times are a result of changed demand and demographic patterns, this information may be used by health authorities in setting future hospital budgets.

46. Patients admitted to public hospitals can elect to be treated within that facility either as public or private patients. Public patients are treated free of charge. When a patient elects to be treated as a private patient at a public hospital, the patient is responsible for the charges raised. Patients who choose to be treated as private patients in public hospitals may pay for their care from their personal funds or through private health insurance arrangements. However, as already mentioned, access to services in public hospitals is on the basis of clinical need. Election of public or private patient status does not play any part in the determination of required clinical interventions. Under the universal health care arrangements, patients who elect to be treated as public patients can choose the hospital, but not the doctor. Some States and Territories also contract out to private hospitals some activity at the expense of the public system. In

the following table the different proportions of publicly and privately funded patients in publicly and privately owned hospitals are presented.

Table A3.1.1. **Distribution of Episodes – year 2001/2002**

	Publicly owned hospital	Privately owned hospital	
Publicly funded patients	55%	2%	56%
Privately funded patients	8%	35%	43%
Other / not reported	0%	1%	1%
Total	63%	37%	100%

Source: Based on “Australian Institute of Health and Welfare, Australian Hospital Statistics 2000-2001”.

47. *Patient choice.* Restrictions on the choice of the hospital are generally related to geography and the ability of the facility to provide the surgery required. Under the Australian Health Care Agreements, States and Territories are not permitted to refuse treatment to a person resident in a different state or territory. However most public elective surgery is performed within the state or territory of residence. Otherwise, the state or territory in which the person is resident compensates the State or Territory in which the procedure is performed, without any additional cost for the patient.

48. *Specialist remuneration.* The States and Territories determine the remuneration arrangements for specialists in public hospitals. The two most common categories of specialist are “Visiting medical officers” and “Salaried specialists”. “Visiting medical officers” are private specialists who work within the public system under contract or other arrangements and may be entitled to see private patients within the public hospital under agreed conditions. Visiting Medical Officers remuneration ranges from fee-for-service arrangements to “set service level” contracts. “Salaried specialists” at public hospitals may also be entitled to have a private practice for a proportion of their time under agreed conditions. The arrangements usually establish some fees to be paid to the hospital (to be used for specific training or equipment purchases as an example) as recognition of the cost of the facilities that the hospital provides. The proportion of specialists employed as “Salaried Specialists” as opposed to “Visiting Medical Officers”, may vary across jurisdictions. Specialists who work in public hospitals can also work in privately funded hospitals. However, contractual arrangements, especially for salaried specialists, may limit the extent to which this practice can be undertaken.

49. *Co-payments.* Public hospital services must be provided free of charge to patients who elect to be treated as ‘public’ patients.

50. *Primary care.* General practitioners mostly are self-employed and run their practices as small businesses. Group practices are the usual case with solo practitioners accounting for 14.5% of total practices. General practitioners may also perform minor surgery in their clinics. Some general practitioners, mostly in rural areas, also undertake more complex surgical procedures, such as appendectomies. Individuals are free to choose which general practitioner they wish to consult, restricted only by availability, particularly in rural areas. Patients may consult more than one general practitioner, since there is no requirement to enrol with a practice. As general practitioners usually are the first point of medical contact they act as gatekeepers to the rest of the health care system, especially since Medicare reimburses specialist consultation fees at a higher rate if the patient is referred by a general practitioner (WHO, 2002).

51. *Prioritisation of the patients on the waiting list.* Clinicians use clinical urgency categories to determine the priority for public elective surgery. Access to public elective surgery is determined by clinical specialists against three agreed clinical urgency categories (Category One = “admission within 30

days is desirable for a condition that has the potential to deteriorate quickly to the point that it may become an emergency". Category Two = "admission within 90 days is desirable for a condition causing some pain, dysfunction or disability, but which is not likely to deteriorate quickly or become an emergency". Category Three = "admission at some time in the future is acceptable for a condition causing minimal or no pain, dysfunction or disability, which is unlikely to deteriorate quickly and which does not have the potential to become an emergency. Data on patients in this category are reported against a waiting time of 12 months". Persons who wait for surgery beyond the time indicated for each category are referred to as "extended waits". Extended wait patients with a clinical urgency classification of Category One or Two are referred to as "overdue" for elective surgery. The sole criterion for determining the clinical urgency category is clinical need, which is determined by a medical specialist.

52. *Waiting times information.* The Australian Institute of Health and Welfare (AIHW) represents Australia's national agency for health and welfare statistics and information and has been producing data on waiting times for public elective surgery for several years (Moon, 1995; AIHW, 2000a, 2000b, 2001, 2002a, 2002b). Data are reported by speciality and by type of surgical procedure. There has been concern about the comparability of data in relation to the assignment of clinical urgency categories. To counter this concern, data for 1999-00 and 2000-01 has been presented using the distribution of days waited for surgery at the 50th and 90th percentiles for all patients.

53. In addition to the data collected by the AIHW States and Territories have been reporting waiting times data under the Australian Health Care Agreements since 1998-99 (according to agreed definitions of clinical urgency categories for elective surgery). Data on elective surgery waiting times is published in the Australian Health Care Agreements annual performance reports (for year 1998-99 Performance Report see <http://www.health.gov.au/haf/docs/hca/ahcarpt98.htm>). The Federal Department of Health and Ageing has also published data on waiting times for elective surgery in its annual report since 1995-96.

54. *Waiting times data.* Aggregate figures for inpatient waiting times (from specialist assessment to treatment) in public hospitals show that the mean waiting times have decreased in the last two years for many procedures. Waiting times for selected surgical procedures are available for two years 1999-2001 (see table below). Over this period, median waiting times of the patients admitted have decreased for cataract surgery, coronary bypass, cholecystectomy, total and partial hip replacement, knee replacement. On the other hand median waiting times have increased for prostatectomy, hysterectomy and varicose veins. At speciality level, median waiting times have decreased for vascular surgery, thoracic surgery, ophthalmology, ear nose and throat, gynaecology but they have increased for general surgery, urology, neurosurgery and plastic surgery.

Table A3.1.2. Mean and median waiting time for the (public) patients admitted for treatment by surgical procedure (days)

<i>Indicator procedure</i>	Mean			Median		
	1999-2000	2000-2001	% change	1999-2000	2000-2001	% change
Cataract surgery	179.2	177.4	-1.0%	120	109	-9.2%
Coronary bypass	44.0	32.8	-25.4%	22	19	-13.6%
Cholecystectomy	82.7	73.7	-10.9%	48	43	-10.4%
Inguinal and femoral hernia	86.8	84.3	-2.8%	46	46	0.0%
Prostatectomy	68.5	78.5	14.5%	24	28	16.7%
Vaginal hysterectomy	54.0	61.8	14.5%	38	39	2.6%
Total and partial hip replacement	163.1	145.3	-10.9%	98	83	-15.3%
Knee replacement	201.2	168.3	-16.3%	119.5	92.5	-22.6%
Ligation and stripping of varicose veins	215.6	251.4	16.6%	94	104	10.6%

Notes:

1. Data are for publicly funded patients only.
2. Data are only provided for 3 jurisdictions and only cover approximately 36.0% (1999-00) and 35.4% (2000-01) of admissions from waiting lists reported.
3. Inguinal and femoral hernia only includes inguinal hernia, femoral hernia is not included.
4. Vaginal hysterectomy includes all hysterectomies.
5. Waiting time refers to the time elapsed for a patient from the date they were added to the waiting list for the procedure to the date they were admitted to hospital for treatment. Days when the patient is 'not ready for care' are excluded.

Table A3.1.3. Mean and median waiting time for the (public) patients admitted for treatment by speciality (days)

<i>Specialty</i>	Mean			Median		
	1999-2000	2000-2001	% Change	1999-2000	2000-2001	% Change
General surgery	62.0	62.9	1.4%	26	28	7.7%
Vascular surgery	67.1	64.0	-4.7%	18	15	-16.7%
Thoracic surgery	32.7	28.1	-14.0%	14	12	-14.3%
Urology	51.2	55.9	9.2%	23	26	13.0%
Ophthalmology	147.8	142.4	-3.6%	79	72	-8.9%
Orthopaedic surgery	112.4	103.2	-8.2%	42	42	0.0%
Oto-rhino-laryngology (Ear Nose and Throat)	144.8	131.9	-8.9%	62	56	-9.7%
Gynaecology and Obstetrics	46.4	46.3	-0.2%	28	26	-7.1%
Neurosurgery	45.7	46.3	1.3%	14	17	21.4%
Plastic	79.8	75.7	-5.1%	27	28	3.7%
Other (please specify)	62.1	37.2	-40.0%	18	12	-33.3%

Notes:

1. Data are for publicly funded patients only.
2. Data are only provided for 3 jurisdictions and only cover approximately 36.0% (1999-00) and 35.4% (2000-01) of admissions from waiting lists reported.
3. Waiting time refers to the time elapsed for a patient from the date they were added to the waiting list for the procedure to the date they were admitted to hospital for treatment. Days when the patient is 'not ready for care' are excluded.

Source: Response to OECD Waiting Times data questionnaire, Australian Institute of Health and Welfare and the Department of Health and Ageing, Australia.

55. *Waiting time information for patients.* Many States and Territories have internet-based systems to enable prospective patients and their general practitioners to investigate waiting times for surgery in different hospitals. Some systems provide waiting times by doctor and procedure.

56. *Waiting list management.* The management of waiting lists is the responsibility of State and Territory governments. Hospitals regularly undertake audits of their waiting lists to ensure that they are updated and accurate. The frequency of these audits varies between jurisdictions and, in some cases, hospitals.

57. *Surgical activity.* Total surgical activity (for publicly and privately funded patients) decreased from 101.9 (per 1000 population) in 1994 to 91.6 in 1999. Over the whole period 1994-1999, the annual growth rate was negative and equal to -3.01%. Over the same period there was a reduction of inpatient care and an increase in day surgery. The annual growth rate for day-surgery between 1994 and 1999 was 5.6% (the rate went from 30.8 to 40.4 per 1000 population). The annual growth rate for inpatient surgery

was -6.4% (the rate went from 71.1 to 51.2 per 1000 population) (figure A3.1.1; OECD, 2002 Health data).

58. On the other hand, total surgical activity (for publicly and privately funded patients) has generally increased at a positive annual growth rate over the period 1993-2001 for common procedures like PTCA (12.5%), cataract (8.8%), knee replacement (7.8%), hip replacement (4%), cholecystectomy (2.8%), hysterectomy (2.7%), inguinal and femoral hernia (1.3%), coronary bypass (0.3%). Annual growth rates have been negative only for prostatectomy (-4%), varicose veins (-2.1%) and knee arthroscopy (-14.3%) (figure A3.1.2).

59. More than 50% of the surgical activity in year 2000-2001 was privately funded (and performed mainly in privately-owned hospitals but also in publicly-owned hospitals): cataract surgery (74.5%), PTCA (52.6%), coronary bypass (50.7%), cholecystectomy (47.9%), inguinal and femoral hernia (58.1%), prostatectomy (62.9%), vaginal hysterectomy (56.3%), knee arthroscopy (63.5%), hip replacement (58.4%), knee replacement (66.5%), varicose veins (61.8%) (figure A3.1.3).

60. The percentage of privately funded surgery declined for all the above mentioned surgical procedures between 1993-1998 with annual growth rates varying between -0.3 and -3.4. However this trend changed in the last two years. In 1999-2000 and 2000-2001 the percentage of privately funded surgery increased for these procedures at a rate ranging between 0.4-4.3% in the first year and 1-10.8% in the second year (with the exception of PTCA and knee arthroscopy in 1999-2000). This may have been due to an increase in private health insurance coverage, which increased from 30.5% to 44.1% of the population between 1999 and 2001 (figure A3.1.3).

61. Turning to the percentage of publicly funded patients treated in privately owned hospitals, this counted for between 4-6.7% for all the procedures considered in 2000-2001, with the exception of coronary bypass (for which this percentage is negligible). In the last seven years this percentage has been rising constantly for many procedures like cataract surgery, cholecystectomy, inguinal and femoral hernia, prostatectomy, vaginal hysterectomy while it has been fluctuating for most of the others (even if with an overall positive trend) (figure A3.1.4).

Figure A3.1.1. Inpatient and day-case surgery procedures

Figure A3.1.2. Number of treatments (per 100 000 population) by surgical procedure (total)

Figure A3.1.3. Percentage of publicly funded patients over total number of treatments performed (by surgical procedure)

Figure A3.1.4. Percentage of publicly funded patients treated in privately owned hospital

62. *Private health insurance.* The percentage of the population covered by private health insurance has been falling steadily from 50% in 1984 to 30.5% in 1998. Attempts to change this trend had been performed through several policies like the '1997 and 1998 PHI incentive schemes' and 'lifetime health cover' in 2000, which introduced several tax rebates. As a result, the percentage of the population covered by private health insurance has increased sharply from 30.5% in year 1999 to 44.1% in year 2002. Private insurance expenditure accounted for 8.1% of the total in 1998.

63. *Health expenditure.* Total health expenditure as a share of GDP increased from 7.8% in 1990 to 8.3% in year 2000. Real total health expenditure per capita increased (in National Currency Unit at 1995 price) at an annual growth rate of 3.12% over the period 1990-2000. Real public and private health expenditure per capita had annual growth rates of 3.9% and 1.33%, respectively, in the same two years.

Figure A3.1.5. Expenditure on health, per capita, NCU 95 GDP price

64. *Practising physicians.* In the last ten years the number of practising physicians has increased from 2.3 (per 1000 population) in year 1991 to 2.5 in year 1998.

Figure A3.1.6. Number of practising physicians, per 1000 population

Main policy initiatives

65. *Funding tied to agreed levels of waiting time performance.* Between 1995-96 and 1997-98, under the Medicare Agreements (the precursor of the current Australian Health Care Agreements), the Federal and the State and Territory Governments bilaterally agreed to performance targets for elective surgery waiting times and apportioned funds for the achievement of targets.

66. As part of this process, categories of clinical urgency for elective surgery waiting times were agreed (see section above "*Prioritisation of the patients on the waiting list*") and incorporated into the National Health Data Dictionary as the standard for assessing clinical urgency. By the end of the three-year period of reform (in 1997-98) under the Medicare Agreements, all States and Territories were able to report against the agreed categories of clinical urgency. Funding was used as an incentive to achieve this result.

67. However the report produced by AIHW (2001) showed that the proportion of patients admitted for surgery from waiting lists for each category of clinical urgency varied considerably across States and Territories. For example, the proportion of patients admitted for surgery within the clinical urgency classification of Category One varied from 16% to 44% across Australian jurisdictions. The reasons for this discrepancy have not been formally evaluated. Historical practice, consumer expectations, financial incentives from governments and political imperatives are some possible explanations for those differences. The variation between States and Territories has resulted in a revision to the method of presenting waiting times data, which includes the distribution of days waited for surgery at the 50th and 90th percentiles for all patients.

68. States and Territories have implemented a range of incentives for reducing waiting times linked to performance indicators over the last decade. As an example, one jurisdiction eliminated all extended waits for surgical patients with a clinical urgency classification of Category One (treatment required within 30 days) by offering performance bonuses for 'zero extended waits' for these patients on a monthly basis. Some States imposed targets for the proportion of surgical procedures undertaken as day-surgery admissions for each hospital.

69. Under the current Australian Health Care Agreements, specific funding is not tied to agreed levels of performance even if States and Territories continue to report waiting times data.

70. *Funding provided to improve access for elective surgery.* During the first year of the Medicare Agreements (1993-98), the Federal Government funded the States and Territories for a program aimed at improving public patient access to elective surgery based on clinical need and at improving the availability of accurate and nationally comparable and consistent data. The funding resulted in approximately 8 400 additional elective procedures being provided nationally.

71. *Sub-contracting services to private hospitals.* In the early to mid 1990s, the Federal Government made funding available to the private sector to treat public patients waiting for elective surgery. The response from the private sector to the initiative under the Medicare Agreement to treat public patients was poor with many proposals coming from regions and specialities where waiting times were not a major issue. This initiative has been abandoned.

72. In 2000, the Australian Capital Territory Government (a Territory Government) tendered for the provision of additional elective surgery from both public and private providers. Some additional elective surgery was carried out in private hospitals as a result of this initiative.

73. In general, the extent of contracting of public services from the private sector is a matter for determination by the states. The level of public patient activity in private hospitals varies between the States from being negligible to almost 20%. Between 1996-97 and 2000-01, there has been an increasing trend towards the treatment of public patients in private hospitals, with the proportion increasing from 2.4% in 1996-97 to 4.5% in 2000-01.

**Proportion of Public Patients Treated in Private Hospitals
Australia 1996-97 to 2000-01**

1996-97	2.4 %
1997-98	2.4 %
1998-99	2.9 %
1999-00	4.0 %
2000-01	4.5 %

Source: Australian Institute of Health and Welfare, Australian Hospital Statistics 2000-01

74. *Publication of Elective Surgery waiting time information.* Many States and Territories have established Internet-based services, which provide information to referring clinicians and to the general public on the elective surgery waiting times.

75. *Centralisation of elective surgery waiting lists.* Some States and Territories have centralised waiting list information to assist the re-allocation of people on elective surgery waiting lists in order to balance demand across specialists and hospitals. This re-allocation of patients is only undertaken with the consent of patients. In one Australian jurisdiction the median waiting time has decreased from almost 8.5 months to 6 months for all patients since the introduction of centralised waiting lists. However, there are no evaluations available which provide firm evidence of the causal relationship between the establishment of a centralised elective surgery waiting list system and the reduction in waiting times.

76. *Identification and promotion of innovative approaches to waiting time management.* The Federal Government funded two programs (one in 1995 and one in 1997) to identify and promote innovative approaches to the management of elective surgery. These programs (funded under the name of the National Demonstration Hospitals Program) focused on all facets of elective surgery management. 39 hospitals were involved in the project. The first phase (1995-1997) focused on effective management in elective surgery with particular attention being paid to ‘pre-admission assessment’, ‘operating theatre utilisation and scheduling’ and ‘discharge care planning’. The conclusion was drawn that best practice in elective surgery management would contain the following elements.

77. ‘Pre-admission and admission services’. The introduction of a ‘pre-admission service’ should be introduced with the aims of co-ordinating care from referral for surgery to admission; optimising patient’s health status prior to admission and facilitate day-surgery admission; optimising the operating room scheduling by reducing cancellations on the day of the scheduled surgery; educating the patient and the family in the operation and hospital procedures; and computerising patient’s data at the first contact and throughout the co-ordinate surgical services (NHDHP, 1997a).

78. ‘Operating theatre utilisation and scheduling’. Since operating room service is a high-cost service for the hospital, operating theatre utilisation needs to be brought up to 80-85% of capacity. To reach this target, it is first necessary to measure accurately operating room utilisation in order to analyse the efficiency of the allocations of operating sessions. Moreover an Operating Room Management Committee

needs to be introduced to monitor the cancelled operations (due to patient's medical condition, anaesthetic risk, lack of beds for patient admission) and number of unused sessions (NHDHP, 1997a).

79. 'Discharge planning and post-acute care'. Finally to improve the efficiency of the service, it is necessary to: identify patients at risk who require extended discharge planning; establish agreements with community services in relation to discharge or transfer; and involve a geriatrician and general practitioners in the discharge planning of older patients (NHDHP, 1997a).

80. An evaluation study for the 18 months period over which the program was implemented, has identified the following results (NHDHP, 1997b). 61% of the hospitals showed overall efficiency gains. Available beds reduced by 4.6%, average length of stay reduced by 6%, number of patients treated per bed increased by 6.3%. Moreover operating room utilisation increased by 5.1% and the number of procedures per hour increased by 5.5%. Cancellation of elective surgery on the planned day of admission decreased by 59%. The rate of unplanned, unbooked re-admissions reduced by 26%. Waiting list clearance time (the ratio between waiting list and activity) reduced in all hospitals (with the exception of one State).

81. Another finding of this program was that many hospitals seemed not to have adequate systems to integrate the management of all admissions (emergency and non-emergency medical and surgical admissions). As a result, the second phase (1997-1998) of the project focused on improvements in 'integrated bed management' to improve admission processes. 29 hospitals were involved. A third phase (1998-2001) was aimed at identifying innovative models to improve quality, co-ordination and integration of all the services provided within the hospitals. A fourth phase is about to be launched. The outcomes from the National Demonstration Hospitals Program remain available to hospitals. Many of the major elective surgery and bed management initiatives of the 1990s, such as the increase in the proportion of surgery performed on a day-surgery basis may be attributed, in part, to this program. More details of the outcomes of these programs can be located through the web-site of the Federal Health Department at <http://www.health.gov.au/hsdd/acc/ndhp/index.htm>.

82. *Increased capacity achieved through changed surgical practices.* Some States and Territories have promoted innovative surgical practices, such as the extension of day-surgery admissions within their hospitals.

83. *Incentives to increase private health insurance coverage.* The Commonwealth Government initiated a number of policies to reverse the sharp fall in private health insurance coverage, which fell from 50% in 1984 to 30.5% in 1998. The Commonwealth Government offered a number of financial incentives for people to subscribe voluntary health insurance. In July 1997, individuals with low income (up to AUS \$35 000 per year; AUS \$70 000 for families) received a subsidy for private health insurance. An additional 1% Medicare surcharge was levied upon individuals with a taxable income of over AUS \$50 000 (AUS \$100 000 for families) who do not have private insurance (WHO, 2001). In January 1999, a non-means tested 30% tax rebate was offered to those taking out private health insurance. In July 2000, under 'lifetime health cover', private health funds began to charge higher premiums for individuals over 30 years of age who had not maintained continuous membership of a private health fund (the premium increases by 2% each year of age in excess of 30 years until an individual has joined).

84. With the introduction of these measures, (hospital) private health insurance levels have increased significantly, from 30.5% of the population in June 1998, to 44.1% in June 2001. The age profile of people with private health insurance has also altered, with the proportion of people with private health insurance under the age of 65 increasing from 85.9% to 89.2% between March 2000 and March 2001 (Private Health Insurance Administration Council).

85. It is difficult to assess the impact of increased private insurance coverage on hospital activity and waiting times. Nevertheless, in 1999-2000 and 2000-2001 the percentage of privately funded surgery increased for all the 11 surgical procedures (for which data are available) in the range of 0.4-4.3% in the first year and 1-10.8% in the second year (with the exception of PTCA and knee arthroscopy in 1999-2000). This contrast with the negative trend that had characterized the percentage of privately funded surgery, which had declined in the period 1993-1998 with an annual growth rates varying between -0.3% and - 3.4%. Total activity for the selected surgical procedures did not grow any faster in the last three years than in the previous years (indeed in most cases it slowed), which suggests a substitution effect between public and private activity (rather than a boost to overall surgery rates).

86. Any assessment on the impact on waiting times is made more difficult since data are available only for the two years 1999/2000 and 2000/2001. Between the two years, a reduction in median waiting times for the patients admitted was observed for most of the surgical procedures including cataract surgery, coronary bypass, cholecystectomy, total and partial hip replacement and knee replacement. On the other hand, median waiting times increased for prostatectomy, hysterectomy and varicose veins. At speciality level, median waiting times decreased for vascular surgery, thoracic surgery, ophthalmology, ear nose and throat, and gynaecology but they increased for general surgery, urology, neuro-surgery and plastic surgery.

State-level policy initiatives

87. **Activity-based funding (Victoria).** From July 1993, the remuneration system for public hospitals in Victoria was switched from funding based on past expenditure to funding based on the activity performed (Street and Duckett, 1996). More precisely, 50% of the funding was related to case-mix adjusted activity through the implementation of Australian DRGs. However funding was not unlimited and was set to finance a 7% increase in activity. Moreover, the extra-funding was conditional on treating the patients on the list (as opposed to any type of patients) and also on eliminating any patients on the waiting list in 'category 1'. As a result of this policy, from July 1993 to July 1994, the number of patients on the list in 'category 1' (waiting more than 30 days) reduced dramatically from 849 to 5. Also the patients of 'category 2' (waiting more than 90 days) reduced from 5 435 to 3 026. The number of patients of 'category 3' remained stable at approximately 15 300 patients. Overall, the waiting list reduced from 28 745 to 24 041.

88. **Performance bonuses (Victoria).** At present, in Victoria, hospitals are rewarded with "earning bonuses" within the Hospital Access Program. In 2000/01 \$30m have been made available for financial incentives for elective surgery (\$13m), critical care (\$3.5m) and emergency care (\$13m). Service providers are allocated a bonus that is then reduced each time a target goal is not met. For elective surgery, indicators include the 'proportion of category 1 elective surgery patients treated within 30 days', 'the proportion of category 2 elective surgery patients treated within 90 days', 'average waiting time of category 2 elective surgery patients', 'average waiting time of category 3 elective surgery patients', and the length of the waiting list. More details about the scheme are provided in the following table (AHR, 2002).

Hospital Access Program – Incentive scheme, 2000/2001 (Victoria)

Indicator	Target	Bonus reduction
Proportion of category 1 elective surgery patients treated within 30 days	100%	20% per patient
Proportion of category 2 elective surgery patients treated within 90 days	75%	2% per % point below the target
Average waiting time of category 2 elective surgery patients	85 days	2% per % point above the target (capped at 20%)
Average waiting time of category 3 elective surgery patients	300 days	1% per % point above the target
Growth in elective surgery waiting list	No growth from January 2000	1% per % point above the target

89. **Management of hospital waiting lists (Australian Capital Territory).** As in other jurisdictions, the Australian Capital Territory has shifted its management from numbers of patients waiting on the list to waiting times. In 2000-01, the Health Department allocated \$10m specifically for the purpose of selectively purchasing services. It also encouraged hospitals to improve the quality of their waiting list data, with emphasis on ensuring patients were appropriately categorised. For example, within the contract for 'Calvary Hospital', incentive payments were related to the timely submission of inpatient discharge summaries (morbidity data) with at least 98% of coding completed, waiting list records, and emergency department data. An incentive payment of \$300 was made for every Aboriginal inpatient. An incentive payment of \$27 000 per month would be made where there were no Category 1 (long wait) patients on the waiting list (AHR, 2002).

90. **Waiting time initiatives (Western Australia).** A Central Wait List Bureau has been established to allow for the effective referral and patient placement of patients waiting long periods. Additional inpatient activity relating to these patients results in additional payment to hospitals, but eligibility for additional payment is conditional on the meeting of the target activity set in the Health Service Agreements (AHR, 2002).

91. **Waiting List Reduction Strategy (Queensland).** The Surgical Access Team is responsible for the co-ordination and implementation of the Government's *Waiting List Reduction Strategy*. The strategy aims to improve access to surgical services across Queensland Health and involves an eight-point plan to cut waiting times for surgery. The key elements of the strategy are detailed below (http://www.health.qld.gov.au/surgical_access/html/sat.htm):

- Publishing the waiting list for each hospital every three months so that funds may be channelled to where there is a demonstrated need.
- Supplying general practitioners with quarterly briefings on waiting lists to assist them when referring people for surgery.
- Evening out waiting lists by moving people, where appropriate, to a hospital where their procedure can be performed more speedily.
- Providing additional funding to finance extra surgery for complex procedures.
- Working with the specialist colleges to expand training places for new specialists to meet future demand.
- Using holiday times to keep operating theatres working for the benefit of those waiting for surgery.
- Monitoring waiting times for Accident and Emergency Departments to reduce excessive waits.
- Increasing levels of day surgery across the State to reduce the length of waiting times for elective surgery.

92. In addition, the current Government has committed Queensland Health to implement further strategies in relation to access to surgery.

- Injecting an additional \$20m into funding for waiting lists so more people can have their operations faster.
- Continuing to work towards a target of 50% day surgery procedures.
- Establishing a target of 80% day surgery admissions within two years.
- Establishing a central elective surgery booking bureau that will have improved patient focus and be more responsive to providing services to people where they live.
- Strengthening clinical protocols to ensure appropriate and timely treatment of patients based on clinical need.

Discussion

93. Waiting times for public patients (from specialist assessment to treatment) are significantly lower in Australia compared to several other countries like United Kingdom, Finland and Denmark. Nevertheless, waiting times are part of current policy debates and several policies have been adopted to tackle the problem.

94. Despite total surgical activity has reduced in the last seven years at an average annual growth rate of -3%, the number of treatments provided for common surgical procedures has in general increased. Real total health expenditure per capita has also increased at an annual growth rate of 3.12% over the period 1990-2000 (the public growth rate was 3.9% while the private was 1.33%).

95. Two policy initiatives that characterise the Australian policy debate have been the encouragement of day surgery activity and the increase in voluntary private health insurance coverage. Both these policies are believed to have had a positive impact on reducing waiting times.

96. One distinctive feature of the Australian health care system is that a high share of the population has voluntary private health insurance coverage. The percentage of the population covered by 'duplicative' PHI fell constantly from 50% in 1984 to 30.5% in 1998. For common surgical procedures, as much as 50% (or more) of the activity is indeed funded privately. However recent policies based on the introduction of several tax rebates have succeeded in bringing this coverage up to 44.1% in year 2002. This has been accompanied in the last three years by an increase in the proportion of the activity that is privately funded and by some reduction in waiting times for selected surgical procedures. However, it is difficult to assess to what extent the recent reduction in waiting times is due to the increase in PHI coverage, as comparable data are available only for two years.

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2. CANADA

Main characteristics of the Canadian health system

97. The Canadian health system is predominantly publicly funded but privately delivered. The health care system can be described as an “interlocking set of ten provincial and three territorial health insurance plans”, also known as “Medicare”. The system is characterised by universal coverage for medically necessary hospital care, inpatient and outpatient physician services.

98. The management and delivery of health care is the responsibility of each individual province or territory. Provinces and territories plan, finance, and evaluate the provision of hospital care, physician and allied health care services, some aspects of prescription care and public health.

99. Health care is financed mainly through taxation, in the form of provincial and federal personal and corporate income taxes. Some provinces use ancillary funding methods, which are nominally targeted for health care, such as sales taxes, payroll levies and lottery proceeds (Health Canada, 2002).

100. In 2000, total health expenditure in Canada accounted for 9.1% of GDP. Health care spending accounts for around one-third of provincial program expenditures. 70.8% of the expenditure is public, while the remaining is composed of private supplementary insurance, employer-sponsored benefits or directly out-of-pocket.

101. *Hospital.* 95% of hospitals are private not-for-profit, while only 5% of hospitals in Canada are private for-profit. Ownership usually resides with community-based not-for-profit corporations, religious organizations, or (rarely) with municipal governments or universities. However, the vast majority of hospital revenues come from a single payer (the provincial/territorial department of health). Provincial governments spent 32.1 billion (Canadian dollars) on hospitals in 2001, which represented almost one third of total provincial/territorial government expenditures on health care. Patients in most cases can choose the physician or the clinic of their choice (Health Canada, 2002). The for-profit hospital sector comprises mostly long-term care facilities or specialised services such as addiction centres.

102. *Hospital remuneration.* Provincial/territorial governments use a variety of approaches to finance hospitals. Moreover, provinces/territories do not use a single method to distribute funds to their hospitals. Most rely on a primary funding approach to allocate the majority of funds and a number of secondary methods to apportion lesser amounts (McKillop, 2001).

103. For the fiscal year 2000-2001, two jurisdictions (Alberta and Saskatchewan) used as their primary funding approach a “population-based method” (which uses demographic or other characteristics of the population such as age, gender, socio-economic status and mortality to determine the relative propensity of different population groups to seek health services). Two jurisdictions (Ontario and Quebec) used a global budget method (which adjusts the expenditure of the previous year as a basis for the upcoming period). Two (British Columbia and New Brunswick) used a “line-by-line” method (which derives a proposed funding level for each line item (such as for inpatient nursing services, medical/surgical supplies, housekeeping, etc.) or each program or department (such as family birthing unit; emergency care;

cardiac care). Five jurisdictions (Manitoba, Prince Edward Island, Nova Scotia, Newfoundland and Labrador, and Yukon) used a “ministerial discretion method” (where the decision is made by the Minister of Health, after the hospital specific request to fund an event not recognized by the usual funding approach, for example to cover a significant deficit). Approximately half of the jurisdictions also use secondary funding methods to determine some portion of operating funds. A third method is often used for funding capital projects.

104. *Specialist remuneration.* Most doctors are private practitioners who work in independent or group practices and enjoy a high degree of autonomy. Some doctors work in community health centres, hospital-based group practices or work in affiliation with hospital out-patient departments. Private practitioners are generally paid on a fee-for-service basis and submit their service claims directly to the provincial health insurance plan for payment. Physicians in other practice settings may also be paid on a fee-for-service basis, but are more likely to be salaried or remunerated through an alternative payment scheme. Compensation for physician services is also negotiated between the provinces and the provincial medical associations on the basis of fee and utilisation increases, subject to various forms of individual physician or global ceilings. Salaries for nurses are generally negotiated through collective bargaining between the unions and employers.

105. *Co-payments.* There are no deductibles or co-payments on coverage for publicly insured services.

106. *Waiting times.* Median waiting times in selected Provinces by main surgical procedure is provided in the following table.

Table A3.2.1. Median Waiting times for publicly funded patients (year 2001)

	ICD-9-CM code	Median waiting time in weeks
Cataract surgery	13.1-13.7	BC: 13.9, as of August 31, 2002
Coronary bypass	36.1	NF: range from 1.4-2.6 depending on quarter, 2001/2002 NS ¹ : range from 5-10.7 depending on quarter, 2001/2002 PE: Procedure not performed in this jurisdiction NB ² : range from 0.7-1.4 depending on quarter, 2000/2001 ON: 3.3, April 1, 2001 to June 30, 2002 MN ³ : range from 1.3-2.0 depending on quarter, 2001/2002 SK ⁴ : 1.43, 2000/2001 AB: Emergency: 0-1, Urgent in-patient: 1-1.7, Urgent out-patient: 17.4-21.9, Planned out-patient: 14.9-20.4, January to March, 2002
Total hip replacement	81.51-81.53	MN ⁵ : 15, January to March, 2002 SK ⁶ : 23.1, 2000/2001 AB: 8-30, depending on location, January to March, 2002 BC: 18.9, January to March, 2002
Total Knee replacement	81.54-81.55	MN ⁵ : 15, January to March, 2002 SK ⁶ : 41.6, 2000/2001 AB: 8-30, depending on location, January to March, 2002 BC: 23.0, January to March, 2002

Notes:

1. Nova Scotia: Median wait times do not reflect the four urgency queues that are actively managed by cardiac surgery and cardiology at the Queen Elizabeth II Health Sciences Centre in Halifax.
- Wait times do not include emergency cases (no delay) or urgent cases (requiring surgery within 24 hours).
2. New Brunswick: Patients who underwent bypass surgery on the same day as cardiac catheterization were excluded from the median wait time calculation. In 2000/2001, 2.3% of bypass surgeries occurred on the same day as catheterization. If a patient had more than one cardiac catheterization prior to the bypass procedure, the most recent was used for the calculation.
3. Manitoba: For the bypass surgery wait list, all patients are included even if they waited because of personal choice or other illness.
4. Saskatchewan cardiac wait list data reportedly has the following limitations: patients who have made a personal choice to delay surgery are included; data does not include all "emergency" cases; difficulty in distinguishing isolated, uncomplicated cases; difficulty with ascertaining the date of cardiac catheterization.
5. Manitoba's joint replacement database only includes Winnipeg. The database captures 60-65% of the total surgical volume performed in Winnipeg. Data include partial knee replacements.
6. Saskatchewan: The median wait times represent only non-emergency surgery for total hip or total knee replacement.
7. Source: OECD data questionnaire for the Waiting times project.

107. *Surgical activity.* Over the whole period 1994-2000, the annual growth rate for inpatient surgery was -4.2% (the rate went from 56.5 to 45.6 per 1 000 population). No information is available for day-surgery activity. At surgical procedure level, the numbers of coronary bypass, hip replacement, hysterectomy and prostatectomy procedures (per 1 000 population) have been increasing at an annual growth rate respectively of 4.65%, 2.06%, -1.93% and 5.43% over the period 1990-1999 (OECD Health data, 2002).

Figure A3.2.1. Inpatient surgical procedures

Figure A3.2.2. Number of treatments (per 100 000 population) by surgical procedure

108. *Private health insurance.* Although the provinces and territories provide some additional benefits to basic coverage, supplementary health services are mainly privately financed and Canadians must pay privately for these non-insured health benefits. The individual's out-of-pocket expenses may depend on the income or the ability to pay. Individuals and families may acquire private insurance, or benefit from an employment-based group insurance plan, to offset some portion of the expenses of supplementary health services. Under most provincial laws, private insurers are prohibited from offering coverage, which duplicates that of the governmental programs, but they can compete in the supplementary benefits market.

109. *Health expenditure.* Real total health expenditure per capita increased (in National Currency Unit at 1995 price) at an annual growth rate of 1.8% over the period 1990-2000. Real public and private health expenditure per capita have had annual growth rates of 1.45% and 2.76%, respectively, over the same period.

Figure A3.2.3. Expenditure on health, per capita, NCU 95 GDP price

110. *Primary care.* Canada's health care system relies extensively on general practitioners, who account for about 51% of all active physicians in Canada. They are usually the initial contact with the formal health care system and control access to most specialists, hospital admissions, diagnostic testing and prescription drug therapy.

111. *Practising physicians.* In the last ten years the number of practising physicians has remained stable at 2.1 (per 1000 population) between year 1990 and year 2000.

Figure A3.2.4. Number of practising physicians, per 1000 population

Main policy initiatives

112. **Ontario.** The “Cardiac Care Network of Ontario” (CCN) was established in 1990 to help addressing problems in the delivery of adult cardiac surgery in the province. CCN has since then developed processes to facilitate and monitor patient access, a broad range of guidelines for cardiac services and a comprehensive provincial cardiac information system to support the provision of care, research and continuous improvement in services. Initially focused on cardiac surgery, CCN’s priorities have been broadened to include catheterization, angioplasty and stents, as well as pacemakers, implantable cardiac defibrillators and cardiac rehabilitation. Two key indicators of patient access to care that have been carefully studied are patients’ waiting times and mortality rates for bypass surgery, which accounts for about 75% of all adult cardiac surgery. Patient deaths before and after surgery are analysed with the help of an independent health-services research organisation, the Institute for Clinical Evaluative Sciences in Ontario (for more detailed information see <http://www.ccn.on.ca>).

113. CCN uses information about patients and their medical condition to calculate an urgency rating score (URS), which aids physicians in prioritizing patients’ need. Numeric values are attached to measures of patient symptoms, stress testing, angiography, and left ventricular function and are summed to give an overall urgency rating score. URS values are grouped into three categories and associated with maximum waiting times for cardiovascular revascularization.

114. As an example consider the following “Open-heart Surgery Statistics”. Statistics are regularly collected to show how many adult patients have open-heart surgery at each of cardiac centres, how long patients usually wait for bypass surgery and whether their waiting time falls within a recommended time range. Patients are classified in four categories: ‘Emergency Patients’ which implies ‘Surgery without delay’; ‘Urgent Patients’ which implies ‘Surgery within 14 days’; ‘Semi-Urgent Patients’ which implies ‘surgery within 42 days’; ‘Elective Patients’ which implies ‘Surgery within 180 days’.

115. During the period July-September 2002, on average 880 patients per month received open-heart surgery. Patients classified either as ‘emergency or urgent’ had a median waiting time of three days and 75% of the patients received treatment in the recommended time range. Similarly patients classified as ‘semi-urgent’ had a median waiting time of 11 days and 74% of the patients received treatment in the recommended time range (42 days). Finally patients classified as ‘elective’ had a median waiting time of 34 days and 76% of the patients received treatment in the recommended time range (180 days).

116. **Saskatchewan.** Since 1998 several “Human Resource Initiatives” have been launched aimed at retaining and recruiting medical professionals in the province. Following the introduction of the \$12 million Fund a policy of “Enhanced Surgical Resources and Capacity” has been introduced. Among the effects there has been a transfer of a significant number of surgical procedures from the operating room into ambulatory care and a higher utilization of operating rooms (including Friday afternoon sessions). Funds have also been used to purchase capital equipment. Other policies included the “improvement of operating room booking procedures” and audit and validation of the waiting list (Glynn et al., 2002).

117. In August 2001 the Provincial Government established a Waiting List Strategy Team, which reviewed Saskatchewan’s initiatives. Its report was released in January 2002 and contained the following ten recommendations (Glynn et al., 2002; McGurran, 2002):

- Continue with the “Human Resources Initiatives” launched to recruit and retain medical professionals in the province.
- Develop a three-year surgical waiting list fund for operating, equipment and facilities (renovations and construction) costs to be allocated on the basis of acceptable business plans.

- Identify needed changes and investments to facilitate the maximum clinically appropriate use of day surgery.
- Define precisely the surgical services role for each hospital in each district.
- Saskatchewan Health and the districts should define the responsibilities of smaller and larger hospitals.
- Each district should develop operating room time allocation mechanisms to actively manage waiting lists across surgical specialities.
- Create an electronic province-wide surgery registry.
- Develop standardised priority criteria and tools to ensure that the process of prioritising the patients is fair and transparent.
- Designate surgical services co-ordinators to facilitate communication among districts, patients and referring physicians.
- Create the Saskatchewan Surgical Care Network to assist with improving access, equity, and efficiency in the provision of surgical services.

Saskatchewan is also developing a province wide surgical registry which would include WCWL urgency rating tools. It is presently being pilot tested in one small region.

118. **Manitoba.** The “Manitoba Cataract Waiting List Program” was introduced in 1993. A scoring system was developed based on a Visual Functioning Index (VF-14), a questionnaire with 14 items, with the aim of measuring the severity of functional impairment of the patients. The scoring system includes also the patient’s difficulty at work due to visual impairment, the potential loss of driver’s license and length of waiting. Since 1998 the data have been collected on a computer base. The hospital contacts each patient and administers the questionnaire over the phone. The results of the questionnaire are entered into the computer database, which creates a prioritization score. Ophthalmologists receive monthly lists of their patients in order of priority according to the scoring system. The doctor then indicates which patients will be operated on, and in what order. The ophthalmologist can revise/override the VF-14 score in some cases, and provides scores for patients who cannot be reached or who are not able to answer the questionnaire (Glynn et al., 2002; http://collection.nlc-bnc.ca/100/201/300/cdn_medical_association/cmaj/vol-164/issue-8/1177.asp).

119. **Nova Scotia.** The province is actively developing the Nova Scotia Hospital Information System (NshIS) to support resource allocation on an inter-facility basis. Provincial programs such as ICONS (Improving Cardiovascular Outcomes in Nova Scotia) have sophisticated databases and report extensively on patient outcomes, waiting times for service, and improvements in patient status following treatment. To improve access to diagnostic services, Nova Scotia is establishing a coordinated wait list strategy for CT and MRI services.

120. **British Columbia.** Since 1994 the Ministry of Health in the province of British Columbia has collected and posted on the Internet, waiting times data for a number of medical and surgical specialities. There are three broad categories of information on the site: waiting time data, supplementary educational information to help the consumer interpret the data, and waiting time trend data. The website lists 19 different surgical specialities (McGurran, 2002). Median waiting times are physician-specific and are based on the procedures completed in the previous three months. Median waiting times are presented

separately for day patients and inpatients, and the data are further broken down by priority status. Priority 1 (Urgent) indicates patients, whose health may be significantly compromised if the procedure is not performed within about two weeks of submitting the booking form to the hospital. Priority 2 and 3 indicate patients for whom surgery can be appropriately scheduled after two weeks (or more) after the submission of the booking forms to the hospital.

121. While median wait times are physician specific, they can be rolled up into specialties at a hospital, regional and provincial level, and when used with utilization rates at a regional level, the data can help in management and funding decisions regarding access. The median waiting time value, the number of cases completed at June 2002 and the annual growth rates between June 1998 and 2002 are summarised in the following table. The description of the time series is provided in figures A3.2.5-A3.2.8.

Figure A3.2.5. Median waiting time by speciality, British Columbia

Figure A3.2.6. Median waiting time by surgical procedure, British Columbia

Figure A3.2.7. Number of completed cases by speciality, per 1000 population, British Columbia

Figure A3.2.8. Number of completed cases by surgical procedure, per 1000 population, British Columbia

Table A3.2.2. Median waiting times and cases completed in British Columbia

	Median waiting time		Cases completed in the previous 6 months	
	Days (June 2002)	Annual growth rate (waiting times)	(per 1000 pop)	Annual growth rate (cases)
<i>Main speciality</i>				
Cardiac surgery	98	2.9%		
Ear, nose and throat	37.8	4.1%	142.8	-6.3%
General surgery	21.7	-1.6%	468.5	1.6%
Gynecology	23.1	6.1%	298.7	-6.6%
Neurosurgery	28	7.5%	47.7	-2.5%
Ophthalmology	58.8	4.7%	340.8	1.5%
Orthopaedic surgery	46.2	1.2%	331.6	0.1%
Urology	25.2	4.7%	272.4	-2.9%
Vascular surgery	16.8	4.7%	48.3	4.6%
<i>Surgical procedures</i>				
Cataract surgery	67.9	10.1%	302.7	2.7%
Hip replacement	132.3	15.6%	29.9	0.3%
Knee replacement	168	16.6%	32.0	4.1%

Note: growth rate is from June 1998 to June 2002

Source: Surgical Wait List Registry, Ministry of Health Services, Government of British Columbia, 2001.

122. **Western Canada Waiting List Project.** The project is a collaborative undertaking of 20 Partner organizations: seven regional health authorities; four medical associations; four provincial Ministries of Health and Health Canada; and four health research centers. The project was funded by the Health Canada's Health Transition Fund to address some of the key issues associated with waiting lists in Canada. A final report was released in 2001 (WCWL, 2001). WCWL_2 funded by the western provincial ministries of Health and Health Canada is implementing waiting list management tools in a carefully monitored

environment, developing benchmark waiting times, and adapting the original tools for use by primary care practitioners.

123. The overarching mission is to improve the fairness of the system so that Canadians' access to appropriate and effective medical services would be prioritized on the basis of need and potential to benefit. In more practical terms, the objective was to develop valid, reliable, clinically transparent, and useful tools to assist the management of waiting lists in cataract surgery, children's mental health services, general surgery, hip and knee replacement, and MRI scanning. The tools take the form of physician-scored point-count tools for assigning priority to patients on waiting lists. The priority criteria and the scoring system were developed through extensive clinical input from clinical panel members and several stages of empirical work assessing their validity and reliability (Hadorn, 2003).

124. In general, clinicians testing the priority criteria tools felt that they had significant face validity and the potential to be useful in clinical settings. The reliability of the tools was found to be strongest for the general surgery and hip and knee criteria and weakest for the diagnostic MRI scanning criteria. Weights comprising the point-count scoring systems were derived empirically through pilot testing of the forms and were refined based on clinical judgment.

125. Public opinion focus-group participants believed that the WCWL tools for patient prioritization represented potential improvements to the health care system. They supported the point-count concept. The mix of clinical and social/role criteria were deemed to be relevant and appropriate. Participants expressed a need for clear implementation guidelines and wanted to be involved in and informed about decisions made concerning the health care system (McGurran, Noseworthy, 2002).

126. As an example consider the priority scores developed for hip and knee replacement. The point-count tool consists in assigning points to proxy the need of the patients, with higher number of points indicating higher levels of need and lower suggested waiting time. Out of a total of 100 points the criteria used are: pain on motion (e.g. walking, bending) (0-13 points); pain at rest (e.g. while sitting, lying down, or causing sleep disturbance) (0-11 points), ability to walk without significant pain (0-7), other functional limitations (e.g. putting on shoes, managing stairs, sitting to standing, sexual activity, bathing, cooking, recreation or hobbies) (0-19 points), abnormal findings on physical exam related to affected joint (e.g. deformity, instability, leg length difference, restriction of range of motion on examination) (0-10 points), potential for progression of disease documented by radiographic findings (e.g. recurrent dislocation, x-ray evidence of protrusion, significant bone loss, component wear, impending fracture) (0-20 points), threat to patient role and independence in society (i.e. ability to work, give care to dependants, live independently (difficulty must be related to affected joint)) (0-20 points) (Arnett, Hadorn, 2003).

Proposals at Federal level

127. *Health care guarantee (Senate Committee recommendation)*. In October 2002 the Standing Senate Committee on Social Affairs, Science and Technology released the report "The Health of Canadians – The Federal Role. Final Report on the state of the health care system in Canada". Among the recommendations, the Senate Committee suggested the introduction of a Health Care Guarantee formulated in the following way "For each type of major procedure or treatment, a maximum needs-based waiting time be established and made public. When this maximum time is reached, the insurer (government) should pay for the patient to seek the procedure or treatment immediately in another jurisdiction, including, if necessary, another country (e.g., the United States)".

128. *Commission on the future of health care in Canada*. In November 2002 a final report was released by the Romanow commission "Building on values: the future of health care in Canada". On the topic "waiting times and the management of waiting lists", the commission recommended that Provincial

and Territorial governments should use the new proposed Diagnostic Services Fund directed to support increased access for medically necessary diagnostic services. It also proposed that Provincial and Territorial governments should take immediate action to manage waiting lists more effectively by implementing centralized approaches, setting standardized criteria, and providing clear information to patients on how long they can expect to wait.

Discussion

129. There is wide variability in waiting times across Canadian provinces or even within provinces. For example for “knee replacement” median waiting times in Alberta varied in the range (56-210 days) according to the location. Moreover it varied from 105 days in Manitoba to 291 days in Saskatchewan. However these variations may be partly due to inconsistencies in the methodology used to measure waiting times across jurisdictions. A Canadian study (McDonald et al., 1998) reported that the management of waiting lists is, in general, non-standardized, poorly monitored, and in grave need of retooling.

130. No time series is available on waiting times for the whole country, but British Columbia statistics suggest that over the period 1998-2002 waiting times have been growing for most main specialities and for three common surgical procedures. Annual growth rates for waiting times have varied between 1.2% and 7.5% for the main specialities (with the exception of general surgery for which the rate was -1.6) and between 10.1% and 16.6% for three common procedures (cataract, hip and knee replacement). At the same time, the volume of activity has increased for the three surgical procedures and for some of the specialities (vascular surgery, ophthalmology, orthopaedic surgery). This evidence suggests that the increase in demand for surgery was higher than the increase in the supply. For other specialities (ear, nose and throat; gynaecology, neurosurgery, urology) the volume of activity has reduced which may explain the increase in waiting times.

131. The main policy initiatives that characterise the Canadian debate have mainly focused on the development of priority tools that allow ordering of patients waiting on the list according to their severity and urgency. This has been the case for example of the Cardiac Care network of Ontario for cardiac-related surgical procedures, the “Manitoba Cataract Waiting List Program” and the “Western Canada Waiting List Project” for several procedures. It is taken for granted in this debate that some waiting time is justified for publicly funded patients in order to exploit fully the capacity of the hospitals and reduce to minimum the “idle capacity” (when the capacity remains unutilised). The issue remains then how to let patients wait according to some equitable criteria. The development of prioritisation tools represents the first step in this direction. However it still remains an open question as to what extent these tools can be made reliable (meaning that different specialists would rank similar patients with the same score). As suggested by the Western Canada Waiting List Project”, this may be the case for some procedures (as for general surgery and hip and knee replacement criteria) but not for others (diagnostic MRI scanning). Another challenge will be if these tools will be concretely taken up by surgeons and regions.

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3. DENMARK

Main characteristics of the Danish health system

132. The Danish health system is characterised by universal coverage and is financed mainly through general taxation. Responsibility for providing and financing health services is delegated to counties and municipalities. Total health expenditure accounted for 8.5% of GDP in 1999. 82% of total health expenditure was public. Of the remaining 18%, 16.5% was out-of-pocket payments and 1.5% was voluntary health insurance (WHO, 2001 and OECD Health data, 2002).

133. *Hospitals.* The majority of the hospitals are owned and financed by the counties with the exceptions of the hospitals in Copenhagen and private for-profit hospitals. The private sector plays a marginal role as a supplier in the Danish health care (only about 1% of all beds is private). However, the current government has suggested that private health insurance should be tax deductible.

134. *Hospital remuneration.* Publicly funded hospitals (either publicly owned or non-profit privately owned) are financed mainly through block grants (compensation rules exist for patients choosing to cross county boundaries since the early 1990s). The main criterion that drives the determination of the budget is past expenditure. Since 1999 the counties have been required to use 10% of their budgets for health care for activity-based funding. However in practice only 1% on average was used for this purpose. There no explicit link between the remuneration of the hospital and the waiting times level. However for many years areas (counties) with long waiting times have been provided with additional resources.

135. *Hospital specialist remuneration.* Hospital specialists are salaried and can work in both privately and publicly funded hospitals. Moreover specialists working in public hospitals are allowed to treat private outpatients outside the normal opening hours, according to an agreed number of hours. Moreover, according to the individual county, local agreements may allow specialists to rent facilities in public hospitals to treat private patients. There is no law that prohibits hospital specialists from offering surgical treatments to their own private patients within the public hospital where they work. However regulation may differ from county to county.

136. *Co-payments.* There are no co-payments for receiving publicly funded surgery (except in the case of the extra billing permitted to specialists outside the hospital under 'Group 2' rules).

137. *Primary care.* Primary health care is provided mainly by general practitioners (GPs) that act as gatekeepers for most Danish citizens. They are self-employed professionals who are paid by a mix of capitation fees and fee-for-service. In addition, there are a significant number of self-employed specialists outside hospitals in a wide range of specialities including ophthalmology and ear nose and throat. Such specialists are able to offer ambulatory surgery, where it is appropriate. GPs provide consultations free of charge and act as gatekeepers for most Danish citizens under 'Group 1' rules, but Danes can opt for 'Group 2' status, which allows them to consult specialists directly - at the risk of extra billing. Only about 2.5% of the population chooses Group 2.

138. *Prioritisation of the patients on the waiting list.* Patients are prioritised on the basis of the need for treatment. There are no centralised guidelines for prioritising the patients. The hospital specialists have

the main responsibility for assessing patient's need and decide whether to admit patients on the waiting list. For the future, all counties have agreed to introduce electronic booking systems.

139. *Waiting times.* In 2000 the Ministry of Health and the counties made a survey covering the Danish patients evaluation on publicly funded hospitals. The survey shows that 41% of the respondents considered that the waiting time from referral to admission was too long.

140. *Waiting times data.* There has been a long tradition of health care registries collecting data on various aspects of health care. Waiting times data have been collected since 1977 but the most accurate time series refer to the period 1990 until today.

141. Figures A3.3.1 and A3.3.2 provide the waiting times measurements for the patients admitted for treatment in ten years. The waiting time in this case begins with the GP referral (not the specialist assessment). Aggregate figures show how the waiting time has increased in the early nineties and has remained stable in the following years. The median waiting time of the patients 'with overnight stay' has increased from 38 days in 1992 to 57 days in year 1997. In the last three years it has declined to 55 days in 1999, 52 in 2000 and 53 in 2001. The other descriptive statistics, in terms of percentage of patients waiting more than 60 and 90 days, suggest a similar pattern. The percentage of patients waiting more than 90 days has increased from 27% in 1991 to 35% in 1994. This figure has then remained stable until 1999.

Figure A3.3.1. Median waiting time from GP referral to treatment

Figure A3.3.2. Percentage of the patients admitted waiting longer than 60 days and 90 days

142. Waiting times (from GP referral to treatment) broken down by main surgical procedure and by speciality are summarised in the following figures.

Figure A3.3.3a. and A3.3.3b. Median waiting time (from GP referral to treatment) by surgical procedure

Figure A3.3.4. Median waiting time (from GP referral to treatment) by speciality

Figure A3.3.5. Median waiting time (from GP referral to specialist visit) by speciality

143. *Surgical activity.* Examining the pattern on surgical activity over the last decade is to some extent complex. If we look at the volume of surgical activity for inpatients (patients with an overnight stay), we can observe a declining trend. In year 1990 the volume of surgical activity for patients with overnight stay was 77.3 per 1000 population (figure A3.3.6). This variable declined to 60.8 in year 1999. On the other hand the volume of activity performed as day-surgery has increased but data are available only since 1996. Day-surgery activity increased from 27.5 (per 1 000 population) in year 1996 to 33.9 in year 1999. Overall surgical activity has increased from 91.8 (per 1 000 population) in year 1996 to 94.7 in year 1999, which corresponds to an increase (on average) of 1% per annum over the period. We may then conclude that overall surgical activity has increased due to the increased use of day-surgical activity. This is also confirmed by the constant increase in the percentage of activity that is performed in day-surgery for several procedures like cataract, hernia, varicose veins and laparoscopic cholecystectomy (figure A3.3.7). For example the proportion of cataracts performed as day-surgery has increased from 77.6% to 99.1% from year 1996 to year 2000. For hernia the percentage has increased from 45.3% to 64.2%, for varicose veins from 53.4% to 62.6%, for laparoscopic cholecystectomy from 0.7% to 9.6%.

Figure A3.3.6. Inpatient and day-case surgery procedures

Figure A3.3.7. Percentage of the patients treated as day-cases for selected surgical procedures

Figure A3.3.8a. and A3.3.8b. Number of treatments (per 100000 population) by surgical procedure

144. *Public expenditure on inpatient care.* Per capita public expenditure for inpatient curative and rehabilitative care has increased in real terms from 4 677 (national currency unit 95 GDP price) in year 1990 to 5 266 in year 2000. The same variable, if measured as percentage of GDP, has remained fairly stable over the years 1990-1996 around the level of 2.6% of GDP and it has decreased to 2.4% in year 2000.

Figure A3.3.9. Expenditure on health, per capita, NCU 95 GDP price

Figure A3.3.10. Expenditure on health, as a percentage of GDP

145. *Practising physicians.* In the last ten years the number of practising physicians has increased from 3.1 (per 1000 population) in year 1990 to 3.4 in year 1999. However overall total hospital employment has remained quite stable around 16 (per 1000 population) during the same period.

Figure A3.3.11. Number of practising physicians, per 1000 population

Main policy initiatives

146. *Free choice of hospital.* Since 1993 Danish patients have had free choice of treatment in any publicly funded hospital. The free choice included initially only non-specialised treatments but it was extended later to all type of treatments. If a patient chooses to be treated in another county, the county of residence would be obliged to pay the county of treatment on a case-by-case basis but the patient has to pay the transport costs. In other words, 'money followed the patient' for cross-boundary flows. However 'money did not follow the patients' when patients moved within the county (hospital budgets are fixed). To make choice among hospitals better informed, the Ministry of Health started to publish information on aggregate waiting times on text-television in 1996/97 and, subsequently, in 1998 on the Internet. To improve further the available information, in 1998 the government invested 20 million DKK to promote electronic booking systems to establish a national information and booking system.

147. The waiting time information system has been launched on the internet on the 1st July 2002. The new system contains information on 131 examinations, treatments and operations. The hospitals report data to the system. They report the maximum number of weeks the uncomplicated patient can expect to wait.

148. Since July 2002, information on waiting time is provided through a Ministry of Health website on 131 examinations, treatments and operations by hospital. This database provides information on the maximum number of weeks the uncomplicated patient can expect to wait, which allows patients and general practitioners to choose the hospital with lower waiting times. Information on the length of the waiting list is also available. Despite the availability of the freedom of the patients in choosing the hospital, the use of such freedom is still limited. It has been estimated that only 5% of the patients exercise their right to choose their surgical provider.

149. *Activity-based financing.* Since 1999, the counties have been obliged to use a minimum of 10% of their grants for activity based financing in the health care sector. It was expected that this policy would generate an increase in production and in efficiency, hence reducing waiting times. However, activity-based financing accounted for less than 2% of the county budgets in 2000.

150. *Money follows the patient.* Since 1st July 2002, if a patient waits for more than two months within the public system, then the patient can receive the treatment not only in any other county, but also in any

private hospital or foreign hospital. The payment to the provider for the provision of the treatment is determined according to a DRG-based tariff. This policy is anticipated to induce an increase in the volume of activity both in the public hospitals with excess capacity and in the private sector.

151. *The National Heart Plan.* In 1993 the government and the counties agreed a National Heart Plan. The main purpose was to increase the level of activity and to reduce waiting times. Between 1993 and 2001, the volume of activity for certain cardiac procedures has increased sharply (see figures below) and waiting times have come down. The number of coronary bypass increased from 40 in year 1994 (per 100000 population) to 64 in year 1999. The number of PTCA increased from 24 (per 100000 population) in year 1994 to 82 in year 1999 (OECD health data) (The total number of CABG and PTCA increased from 2800 in 1993 to 8100 in 2000). The percentage of patients (on the list) waiting more than 4 weeks for coronary bypass and PTCA has reduced from 50% in year 1994 to 29% in year 2001. The pattern of waiting times and the volume of activity is described in the following two figures.

Figure A3.3.12. Waiting times for cardiac surgery

Figure A3.3.13. Volume of procedures for cardiac surgery

152. *Targets for counties.* Since 1999 the following service targets have been introduced at county level. 1) At least 85% of all the non-acute surgical inpatients have to be offered a date of treatment within three months. 2) At least 85% of all patients have to be offered an examination within four weeks from referral. 3) Non-acute patients must be informed about time and place of treatment at the latest 8 days after the referral from the GP. The targets should be fulfilled by end of 2002. Preliminary studies show that at present very few counties fulfil the targets.

153. *Waiting time guarantee for life threatening diseases.* This initiative was launched in 2000 and referred to certain heart conditions and five types of cancer (breast, lung, colon, rectum and uteri). Since 1st September 2001 all life threatening diseases were included in the guarantee. The maximum waiting times for the above diseases are as follows: 14 days for examination; 14 days for treatment; 14 days for aftercare. In 2001 a National Cancer Plan was also agreed which included, among several recommendations, an expansion of the capacity for examination and treatment. As a result of this policy, the provision of CT and MR scanners in Denmark has risen (from 52 CT scanners in year 2000 to 74 in 2002, from 29 MR scanners to 47 in 2002). The associated activity has risen from 110 000 cases in year 1997 to 140 000 in 2000 (a 28% increase).

154. *Increased funding to the counties.* In 2002 the new Danish government has allocated additional 1.5 billion Kroner to the health sector. The extra funding is going to be allocated to the counties according to the different demands. To avoid paying for the same service twice a baseline for each county was calculated taking in account criteria as population, sex and age. Furthermore the different economic agreements between the government and the counties were implemented in the estimation of the baseline. Counties which produce more activity than the baseline are given money from the 1.5 billion-fund.

Discussion

155. In the last ten years, different policies have been implemented at the same time in Denmark to reduce waiting times. It is therefore difficult to attribute variations in waiting times to any particular policy. Moreover, we do not know what would have happened to waiting times in the absence of any interventions. However in this section we will attempt to provide some comments, using the available evidence.

156. Over the whole period of the 1990-2000 health expenditure increased at an annual growth rate of 1.73% and physician numbers at an annual growth rate of 1.03%. The rate for total surgical activity (inpatients and day surgery) was 1% between 1996-1999. There was a considerable increase in the share of day-surgery (7.2% between 1996-1999) and a reduction in inpatient surgery (-2.6% between 1990-1999). Yet inpatient waiting times rose at an annual growth rate of 1.7% between 1990-2001 (day-surgery waiting times increased at a rate of 1.4% between 1996-1999).

157. It is difficult to say whether the “free choice of provider” introduced in 1993 had much impact on the trend in average inpatient waiting time. Although the number of patients using this option was small (around 5%) that might have been sufficient to convince some hospital managers that they were competing for some patients and resources at the margin. Potentially stronger incentives to increase supply have been put in place only recently by introducing in 1999 activity based funding (but only for a target 10%, and an actual 2%, of the grants received by the counties in 2000).

158. At a general level, the recent policy of “money follows the patients” seems more promising than earlier across-the-board initiatives. The possibility for patients to seek private care and care overseas should introduce a stronger competitive incentive on public providers. However this policy has been put in place only since July 2002 and we will need to wait to see if many patients take up the new freedoms and reductions in waiting times are achieved. It is one possibility that the new policy “money follows the patients” may induce some increase in expenditure as long as publicly-funded extra activity will be funded for treatments provided by public, private and foreign providers.

159. What was clearly successful in terms of waiting times were initiatives introduced for specific diseases, like the National Heart Plan of 1993. However, the cost must have been high. The volume of activity for bypass and PTCA increased sharply in the mid 1990s and waiting times responded by falling, although less than in proportion. Presumably, demand was increasing at the same time as extra supply was made available.

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4. ENGLAND

Main characteristics of the English health system

160. In the United Kingdom the health system is characterised by universal coverage and is financed mainly through general taxation. Health care is provided mainly by the National Health Service (NHS) although there is now a growing private sector. Total health expenditure accounted in year 2000 for 7.3% of the GDP. 81% of total health expenditure was public (OECD, 2002 Health data).

161. *Hospital remuneration.* Since 1991 there has been separation between purchasers (district health authorities and GP fundholders) and providers of hospital services. Public hospitals are remunerated according to contracts/arrangements that specify the services to be provided and the terms on which they are to be supplied. Initially, there were three types of contract: block contracts, cost-and-volume contracts and cost-per-case contracts (WHO, 1999). "Block contracts" specified a range of services in return for a fixed sum of money, including some indicative workload agreement. "Cost-and-volume" contracts specified that a provider would supply a given number of treatments or cases at an agreed price. If the number of cases exceeded the cost-and-volume agreement, extra cases were often paid for on a cost-per-case basis. "Cost-per-case" contracts were defined at the level of the individual patient. More recently a new form of contract emerged known as 'sophisticated block' contract. These typically involve a purchaser paying a hospital an agreed contract sum for access to a defined range of services or facilities. However, indicative patient activity targets or thresholds with 'floors' and 'ceilings' will also be included in the contract together with agreed mechanisms for further action if actual activity falls outside the specified range between the floor and the ceiling (WHO, 1999). In year 1994/1995, 69% of their main contracts with acute hospitals were sophisticated block contracts, 25% were cost-and-volume and 5% cost-per-case. Over time, hospital costing practices have been refined in order for prices to reflect the costs of episodes of treatment. The NHS Case Mix Office has been developing 'health related groups' (HRGs) as a basis for the costing and pricing of inpatient and day case services. In the future it is planned to use HRGs as the main vehicle for hospital financing.

162. *Specialist remuneration.* Public hospital doctors are salaried. In addition to their NHS earnings, full-time NHS consultants (i.e. senior specialists) are permitted to earn up to 10% of their gross income from private practice. Those consultants who opt for maximum part-time contracts are permitted to engage in private practice without restriction on their earnings by giving up payment for one NHS session per week. The new consultant contract has proposed a reduction on working hours available for private work. Private consultations and treatments can take place in publicly funded hospitals as well as in private hospitals.

163. *Co-payments.* There are no co-payments for receiving publicly funded surgery.

164. *Primary care.* General practitioners act as providers of general medical services and gatekeepers to secondary care. They are usually organized in groups or practices and are primarily remunerated by capitation according to the number of patients on their list. From 1991 larger practices were able to apply for the status of fund-holder, which meant that the GPs receive a budget to buy secondary care (ambulatory care, elective surgery) (WHO, 1999). Since 1998, all general practices have been required to join Primary

Care Groups or Primary Care Trusts which hold budgets for hospital and community care services as well as for prescribing.

165. *Waiting times.* Surgical activity, waiting times and waiting lists have been monitored for several decades. The mean and median waiting time of the patients on the list have decreased sharply from 40 and 21.8 weeks in March 1988 to 18.6 and 12.8 in September 1999 (figure A3.4.1). The quarterly growth rate has been negative and equal to -5.1% and -3.7%. However the mean and median waiting times of patients finally admitted to surgical units have changed little. They moved from 14.5 and 5.7 weeks in March 1989 to 13.9 and 6.9 in March 1999 (figure A3.4.2). Average annual growth rates were low and positive and respectively equal to 0.9% and 2.3%. The discrepancy in the behaviour of these two measures may be due to the policy of targeting patients with long waits for treatment. That affects mainly the waiting time of the patients on the list, because it is dominated by long waiters. Figures A3.4.3, A3.4.4, A3.4.5 describe the waiting time broken down by speciality (both inpatient and outpatient) and by main surgical procedure.

Figure A3.4.1. Mean and median inpatient waiting time of patients on the list

Figure A3.4.2. Mean and median inpatient waiting time of patients admitted

Figure A3.4.3. Median inpatient waiting time of patients admitted by speciality

Figure A3.4.4. Median outpatient waiting time of patients admitted by speciality

Figure A3.4.5a. and A3.4.5b.

Median inpatient waiting time of patients admitted by main surgical procedure

166. *Surgical Activity.* The rate of total surgical activity is at present not available. In the following figure the rate of treatments for eleven surgical procedures is presented over the period 1990-2000. Procedures like PTCA, knee replacement, cataract, bypass, hip replacement and have had positive annual growth rates respectively equal to 15.7%, 9.1%, 8.4%, 6.9%, 3.8%. For cholecystectomy and 'inguinal and femoral hernia' annual growth rates were lower but positive and equal to 1.8% and 1.2%. For 'vaginal hysterectomy' and 'prostatectomy' annual growth rates were negative and equal to -1.7% and -0.9%.

Figure A3.4.6a. and A3.4.6b. Number of treatments (per 100000 population) by main surgical procedure

167. *Health Expenditure.* In the United Kingdom total real health expenditure has increased steadily at an annual growth rate of 3.82% between year 1990 and year 2000 (public expenditure at a rate of 3.51%, private expenditure at a rate of 5.39% over the same period). In terms of its share of GDP, total health expenditure has increased at an annual growth rate of 1.98%, from 6% of the GDP in year 1990 to 7.3% of the GDP in year 2000. Public health expenditure has increased from 5% to 5.9% of the GDP over the same period, while private has increased from 1 to 1.4%.

Figure A3.4.7. Expenditure on health, per capita, NCU 95 GDP price

Figure A3.4.8. Number of practising physicians, per 1000 population

168. *Physicians.* The number of practising physicians in the United Kingdom has increased from 1.4 (per 1000 population) in year 1990 to 1.8 in year 2000. Hospital health employment has increased from 23.1 in year 1990 to 29.9 in year 2000.

169. *Population.* The percentage of the population older than 65 has increased from 15.7 in year 1990 to 15.8 in year 2000. Life expectancy has increased from 75.6 in year 1990 to 77.4 years in year 1999.

Main policy initiatives

170. *Early initiatives.* In 1986 a 'Waiting list fund' was created, which was used to fund reductions in waiting lists. Resources were allocated on the basis of a formula that reflected waiting lists and need. In 1991 there was a shift from waiting list to waiting time (the corresponding fund was also re-named as 'the waiting time fund'). The fund had the objective of redirecting the resources in the areas with a high number of patients waiting for very long time. During the period 1987/88 to 1993/94, 251 million pounds were spent. According to the 'Inter authority comparison and consultancy', the initiative was a partial success.

171. *Maximum waiting time guarantee.* In 1992 a maximum waiting time guarantee was introduced. The 'Patient's Charter' stated that patients should not wait for longer than two years. The limit was brought to 18 months in 1995. At the beginning this referred only to some specific procedures like hip, knee and cataract surgery. Since 1995 the guarantee has been extended to all hospital admissions. Moreover, in response to a rise in waiting for surgical consultations, a guarantee of six months on 'outpatient' waiting time was introduced.

172. In 1998 an additional 'performance fund' of 32 million pounds was introduced for the health authorities that achieved the greatest reductions in waiting lists and waiting times. Moreover, after 1998, executive directors of Health Authorities and Trusts that did not reach targets could be dismissed. Every year, performance reports are published for each Trust as part of a benchmarking exercise. Greater attention was paid to the monitoring of waiting times and lists and there were a few isolated reports of falsification of the figures by particular hospital trusts under this spotlight.

173. Recently, additional funding has been made available to reduce waiting lists. For the period 1998-9 to 2000-1 an increase of resources of 737 million pounds was made available. Special teams were introduced, including the 'National Patients Access Team', the 'Waiting List Action Team' and the 'Access Task Force'. Among their activities, the teams visit Trusts to offer solutions to waiting time problems, advise on reduction of unnecessary waiting, provide ideas for the redesign of services and to spread best practice. Recent initiatives have focused on: improving the management of emergency admissions, with a view to avoiding cancellation of planned surgery; increasing help to General Practitioners with the appropriateness of their referrals to specialists; and improving procedures to treat patients according to clinical need. There has been an increasing interest in prioritising patients correctly since it has been found that in many hospitals priority was being given to non-urgent patients to meet maximum waiting times targets.

The more recent initiatives

174. *Objectives.* The last 2000 NHS plan set out the following objectives for future initiatives. 1) Inpatient waiting time. The maximum waiting time will be brought from 18 months to six months for inpatient surgery in year 2005. It is expected that the average waiting time for an inpatient treatment would fall from *three* months to *seven* weeks (1.7 months). Outpatient waiting time. The maximum waiting time for an outpatient appointment will be brought from 6 months to 3 months in 2005. It is also expected the average waiting time for an outpatient appointment would fall from *seven* weeks to *five* weeks.

175. *Increase in capacity.* Meanwhile, a major increase in capacity is planned. An increase of 7 000 extra beds in hospitals and intermediate care facilities is planned to take place by 2004. That is a 7.4% increase in existing capacity, which stands at around 135 000 beds. 3 000 additional beds are planned between 2004-2008 ('Delivering the NHS plan', 2002). Of the 7 000 beds planned by 2004, around 2 100 extra beds will be in general and acute wards, 5 000 for extra intermediate care beds. The increase in the number of beds will be realised by the construction of over 100 new hospitals by 2010 (the construction of 9 new hospitals started in 2001, worth £1.3 billion, and the construction of 9 new hospitals started in 2002,

worth £1 billion). *Expansion in staff/personnel.* The increase in hospital beds will be accompanied by an increase in health care personnel. By 2004 there will be 7 500 more consultants, 2 000 more general practitioners; (15 000 more GPs and consultants by 2008); 20 000 more nurses; (35 000 nurses, midwives and health visitors by 2008); ('Delivering the NHS plan, 2002').

176. A 'new concordat with the private sector' has been developed as part of the NHS Plan (2000). For the first time there is a national framework for partnership between the private and voluntary sector and the NHS. The concordat highlights several areas for co-operative work with the private sector. For elective care this can take the form of NHS doctors and nurses using the operating theatres and facilities in private hospitals or it can mean the NHS buying certain services from the private sector. Since the private health sector in England is relatively small, overseas providers of health care may be invited to enter England with their own clinical teams. These providers will either use existing NHS facilities, where the NHS has spare physical capacity but cannot staff it, or they will develop their own free-standing facilities in 'Diagnostic and Treatment Centres'.

Financial and non-financial incentives to reduce waiting times.

177. In England a revised mix of financial and non-financial incentives has been introduced recently. The 'NHS plan' (2000) recognises that in the past not enough positive incentives have been put in place to reward providers that managed to reduce or maintain low waiting times. On the contrary, providers tended to benefit from extra funding if they maintained long waiting times and lists. A new incentive system of 'earned autonomy' has been introduced by which good performance is rewarded by the granting of more independence to managers. Performance is assessed according to a 'star rating' system under the 'Performance Assessment Framework'. All NHS organisations (health authorities, NHS trusts, primary care groups and trusts) are given star ratings. To be awarded three stars, hospital trusts must achieve all the key targets, or may fail one by only a small amount. They must also achieve above average performance on most of the other measures. To get two stars, hospital trusts must achieve good performance on most or all of the key targets and the other measures. It may do well on the key targets but less well on the other measures. Or it may fail some key targets but perform very well on the other measures. If a hospital trust is given one star, it will have failed several of the key targets. Even if it has done quite well on the key targets, it may have done badly on the other measures. A hospital trust will be given no stars if it has failed badly on the key targets, however well it does on the other measures. It should be noted that waiting times fall under one of several categories of performance ('patient/carer experience of NHS healthcare'). The other categories are 'health improvement', 'fair access', 'effective delivery of appropriate healthcare', 'efficiency', and 'health outcomes'.

178. Non-financial incentives. In general three star organisations are rewarded with greater autonomy and national recognition. They have automatic access to a 'National Performance Fund' and discretionary capital funds without having to bid. They have lighter and less frequent monitoring; c) monitoring and more freedom in deciding the local organisation of services. They can be recognised as best practice examples by the Modernisation Agency and have the possibility to take over no star organisations when the latter do not manage to reach national targets persistently. On the contrary one or no star organisations are subject to tight monitoring, varying according to what extent they are failing in satisfy the targets. In particular, they have to produce detailed recovery plans and their share of the National Health Performance Fund is controlled by the new Modernisation Agency, that uses it for targeted external assistance, aimed at improving the performance of the organisation. If the failure is persistent, NHS trusts are able to draw on a limited number of medical specialists that the Modernisation Agency employs on a retainer basis, in each region. The organisations that fail to respond to the above measures are put under the control of a new management team. Clinicians and managers from three star organisations could be used for this purpose. Alternatively, expressions of interest could be invited from elsewhere, and subject to a tender from an

approved list. Trusts could be merged, or large trusts split up into smaller or different clinical configurations, where appropriate.

179. Financial incentives (*The Performance Fund*). From April 2001 the Government introduced a National Health Performance Fund (building up to £500m a year by 2003/04). The fund, which is held and distributed regionally, provides incentives worth on average £5 million for each Health Authority area to reward progress against annually agreed objectives. The intention is to encourage year-on-year improvements regardless of differing local starting points.

180. *Financial incentives for personnel*. The Performance Fund will also include rewards for staff and organisations that reduce waiting times. The Performance Fund will enable NHS hospital trusts and primary care trusts to offer greater incentives to staff in clinical teams and primary health care teams linked to their contribution to service objectives. The reward could take the form of: money to buy new equipment or upgrade facilities to improve patient care; improved facilities and amenities for staff; non-consolidated cash incentives for individuals and teams. As part of these new arrangements a pilot project on team bonuses will be introduced in a number of NHS trusts.

181. *Increasing choice for the patients*. The government plans to encourage patients to choose providers with shorter waiting times. This will be accompanied by the provision of appropriate information on waiting times. The idea is to publish on the Internet up-to-date information on waiting for all major treatments at all providers. The patients will be able to choose among a range of different providers, both public and private (whoever offers the fastest treatment).

182. *Reform of the remuneration system of the hospitals (payment by results)*. Since 2002 the hospitals will be 'paid by results' (delivering the NHS plan, April 2002). Given that more resources are made available for the health care system (higher health expenditure), the remuneration system is going to be reformed in order to induce an increase in overall activity. The hospital payment system will switch from block contract to an activity-related remuneration system. For the years 2003-4 it is planned to introduce a payment method under which all providers will be contracted for a minimum volume of cases to achieve waiting time reductions. Providers will earn extra resources on a cost per case basis for additional patients that move to them. Health Resource Groups (HRG) - an English version of DRGs - will be used to determine a standard tariff for the same treatment regardless of the provider.

183. *Sending patients abroad*. Arrangements have been made to enable patients to be treated abroad through the NHS, with the first schemes contracting for services with hospitals in France and Germany.

184. *Fostering day-surgery*. In partnership with the private sector it is planned to introduce *Diagnostic and treatment centres* (NHS Plan), to increase the number of elective operations which can be treated in a single day or with a short stay. These Centres will separate routine hospital surgery from hospital emergency work so they can concentrate on getting waiting times down. As a result of this NHS Plan there will be 20 Diagnostic and Treatment Centres developed by 2004. By then, eight will be fully operational treating approximately 200000 patients a year'.

185. *Booking system*. 'Waiting lists for hospital appointments and admission will be abolished and replaced with booking systems giving all patients a choice of a convenient time within a guaranteed maximum waiting time'. 'The uncertainty of not knowing when your operation will happen will be replaced by the certainty of a booked date'. The objective is to improve the management of waiting lists reducing at minimum the cancellation of 'planned' appointments. Two thirds of all outpatient appointments and inpatient elective admissions will be pre-booked by 2003/04 and on the way to 100% pre-booking by 2005. It is expected that booking appointments will induce hospitals to better organise their activity (their clinic slots) and theatre sessions. From March 2002, if a patient's operation is cancelled by the hospital on the

day of surgery for non-clinical reasons, the hospital will have to offer another binding date within a maximum of the next 28 days or fund the patient's treatment at the time and hospital of the patient's choice. Around three-quarters of operations will be carried out on a day case basis with no overnight stay required.

186. *Reform of the remuneration system for specialists.* It is recognized that at present, the specialists' contract requires them to work an ambiguous 'five to seven' fixed sessions a week. In negotiations over a new contract, it has been proposed that this should be brought to seven fixed sessions a week. Existing specialists would continue to be able to undertake private practice in their own spare time. However in future, newly qualified specialist will be contracted to work exclusively for the NHS for perhaps the first seven years of their career, providing eight fixed sessions. In return financial rewards would be increased for newly qualified specialists. The right to undertake private practice would depend on fulfilling an NHS 'job plan' and meeting NHS service requirements, according to the receipt of satisfactory job appraisals. The government also proposes to introduce some new rewards for specialists who work mainly for the NHS in future. Bonus payments would be introduced. However, at the time of writing negotiations over this new contract are said to be in difficulties.

187. *Reducing waiting times for cardiac surgery.* A particular focus will be placed on reductions in waiting times for cardiac surgery. It is recognized that the NHS underprovides cardiac surgery and waiting times are excessive. It is planned to expand capacity to provide 3 000 extra heart operations in the two years to March 2002, at a cost of £50 million.

Discussion

188. Waiting times have been a persistent feature of the British National Health Service. The first waiting list and waiting time data were collected in the 1950s. This provides us with a unique opportunity to study the behaviour of waiting lists and waiting times in a public integrated health system over a period of several decades. Despite two or threefold increases in surgeons and surgical activity over these decades, waiting lists in England rose from around 400 000 patients in the early 1950s to more than one million throughout the 1990s. However, the waiting list per surgeon remained fairly constant suggesting that successive generations of surgeons may have been comfortable maintaining, on average, a queue of a certain length. Meanwhile, the indicator that is most relevant for measuring the performance of the system from the point of view of the patient, the mean waiting time of those admitted for elective surgery, has remained remarkably constant for several decades, at around 14-16 weeks. It is as though this indicator acts like a thermostat does in controlling temperature. In the short run, surgeons stop adding patients to lists when mean waiting times go above 16 weeks and resuming adding patients when it goes below 14 weeks. Meanwhile, in the medium term, in the face of a rising demand for surgery driven by technological change, successive governments have increased both funding for surgery and the capacity of the system, thereby helping to prevent a rise in waiting times above 16 weeks. If there are signs that waiting times are falling below 14 weeks, the financial 'tap' may be tightened. If there are signs that it is rising above 16 weeks, the 'tap' may be opened somewhat. Apart from this (postulated) underlying behaviour, waiting list policies seem to have had relatively little effect, except, recently, in the case of maximum waiting time guarantees which have changed the distribution and mean of waiting times for patients still waiting on the list (see below).

189. In addition, long waiting times have helped to encourage a significant number of patients to opt for private health care. However, there are other motives for choosing private care - such as choice of surgeon (public patients may be operated on by junior doctors). Around 17% of elective procedures in England are carried out privately (McPherson et al., 1987).

190. As far as the policies implemented in the last ten years are concerned, all have been based on “funding extra-activity” in public hospitals, by adding limited amounts of money to hospital budgets, and to some extent by purchasing activity from the private sector within the context of short-term arrangements. This has been accompanied by the introduction of successively lower overall maximum wait guarantees. These initiatives have had some success by eliminating, by 1998, the number of patients on the waiting list waiting over 18 months. The number of patients waiting more than 12 months on the list was reduced from more than 208 000 in September 1988 to approximately 42 000 in September 2001 (Martin et al., 2001). The mean and median waiting time of the patients on the list has decreased from 40.4 and 22.2 weeks respectively in March 1989, to 20 and 14.8 weeks respectively in March 1998. However, the reductions in long waiting seem to have been achieved at some ongoing cost to clinical prioritisation. In 2001, the National Audit Office reported that 20% of specialists told them that they frequently treated patients in different order to their clinical priority in order to avoid patients exceeding the 18 months target. Meanwhile, the mean and median waiting times of the patients admitted for treatment (not on the list) have remained fairly stable changing from 14.5 weeks and 5.7 weeks, respectively, in March 1990 to 16 and 6.4 weeks, respectively, in March 1998.

191. Another important reform in the British health care system was the separation between purchasers (health authorities and GP fundholders) and hospital providers in 1991. It was intended that public hospitals would compete on quality and on price for the available public funds for hospital services. In this way, it was hoped that hospitals would become more efficient and that, among other things, waiting times would be reduced. However, although there is evidence that hospital activity rose sharply in the years immediately following the reforms, that was accompanied by, and might have been due to, extra funding combined with targets for increasing activity. There is no evidence that the quasi-market experiment, per se, delivered waiting time reductions - at least judging by the mean and median waiting times of the patients admitted. Nevertheless, the separation between purchasers and providers of hospital services has been maintained. Moreover, after a period in which a competitive approach to hospital provision was discouraged in the late 1990s, there have now been moves not only to make more use of private hospitals (see above) but also, at the time of writing, to re-introduce a more competitive environment between public hospitals with activity-based funding, encouragement of GP and patient choice, and performance targets. These include a new policy of ‘payment by results’ based on activity-based funding, initially in 6 specialities particularly affected by waiting times (ophthalmology, cardiothoracic surgery, ENT, trauma and orthopaedics, general surgery and urology) (Department of Health 2002b).

192. The Government’s stated view is now that the British health care system was for many years under-funded. Following a long term review of the financial resource requirements of the NHS completed in April 2002 (Wanless, 2002), the Government announced that a 7.5% increase in resources for the NHS for each of the following 5 years (HM Treasury, 2002).

193. Current plans also include a major increase in capacity in the next ten years that will deliver more hospital beds, more surgeons and more nurses. However, it remains to be seen whether these investments will have any lasting effect on the mean and median waiting times of patients admitted, which have remained approximately constant in England for several decades. It is likely that significant reductions in waiting time will depend crucially on the incentives that are put in place to control demand. In that respect, it will be important to monitor the effects of the new rewards, both financial and non-financial, for good performance that have been put in place for managers and that are being negotiated for specialists.

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5. FINLAND

Main characteristics of the Finnish health system

194. The health care system in Finland is characterised by universal coverage and is financed mainly through general taxation. Both the state and the municipalities have the right to levy taxes. In 1999, about 43% of total health care costs were financed by the municipalities, about 18% by the state, 15% by the National Health Insurance (NHI) and about 24% by private sources (mainly households). About two thirds of total health care expenditure is spent on health services provided by municipalities (WHO, 2002). Total health expenditure accounted in year 2000 for 6.6% of GDP. 76% of the total health expenditure was public (OECD, 2002 Health data).

195. *Hospital remuneration.* Most hospitals are publicly owned by federations of municipalities (forming hospital districts). There are 5 university hospitals, 15 central hospitals and 24 other smaller specialized hospitals (“district hospitals”). There are only a few private hospitals, providing less than 5% of the hospital days in the country (WHO, 2002). Since 1993, hospital budgets are determined by the municipalities according to the services provided. There are no homogenous arrangements (or national guidelines) on how to determine the prices for hospital services. Hospitals and hospital districts are gradually adopting Diagnostic Related Groups (DRGs) as the basis for billing municipalities. In 2000, three hospital districts used DRGs and an additional two or three districts introduced them in 2001. An even greater number of hospital districts use DRGs as a tool for planning (WHO,2002).

196. *Specialist remuneration.* Specialists are salaried in publicly funded hospitals. Hourly pay is different for nightshifts and on-call services. Specialists working in publicly funded hospitals are allowed to work also in privately funded hospitals, conditional on the permission of the hospital’s board. The work has to be done outside the usual working hours, which are between 8am and 4pm. Specialists working in publicly funded hospitals are not allowed to see private outpatients (for a specialist visit) within the same hospital. However they are allowed to treat private inpatients (from two to eight patients per specialist per day). Private patients pay fee for service.

197. *Co-payments.* Out-patient visits cost 20 Euro. A day in the ward costs 25 Euro.

198. *Prioritisation of the patients on the waiting list.* Patients on the waiting list are treated in order of registration on the list. However if the health of the patient deteriorates, the treatment is made available earlier. The National Health Project has recently suggested introducing guidelines on how to prioritise patients on the list. Waiting lists are the responsibility of the leaders of the medical units, mainly doctors.

199. *Waiting times information.* In the Helsinki-area, open internet-based information for citizens about waiting times in different hospitals and for different treatments has been introduced. General practitioners and patients have the right to choose the provider with shorter waiting times within the same health care district. This type of internet-based data is spreading to other areas of the country.

200. *Waiting times.* Aggregate figures for waiting times for all surgical procedures (from specialist assessment to treatment) show that the average waiting time decreased in the early nineties and slowly

increased in subsequent years. The mean waiting time was 110 days in 1992, 92 days in 1993 and 123 days in 2001. The median waiting time was 47 days in 1992, 41 days in 1993 and varied between 54 and 57 days between 1995 and 2001. Waiting times for selected surgical procedures are available for the period 1997-2001. Over this period, median waiting times have decreased for cataract surgery, PTCA, coronary bypass and have increased for cholecystectomy, inguinal and femoral hernia, prostatectomy, vaginal hysterectomy, knee arthroscopy, total and partial hip replacement, knee replacement, varicose veins.

Figure A3.5.1. Mean waiting time for the patients admitted (total, inpatient, day-surgery).

Figure A3.5.2. Median waiting time for the patients admitted (total, inpatient, day-surgery).

Figure A3.5.3. Median inpatient waiting time for the patients admitted by surgical procedure

201. *Surgical activity.* Total surgical procedures rates (inpatient plus day surgery) increased from 79 (per 1000 population) in 1994 to 90 in 2000. Over the whole period 1994-2000, the annual growth rate was positive and equal to 2.7%. Over the same period there was a gradual reduction of surgical procedures carried out as inpatient care and a significant increase in day-surgery (OECD Health data, 2002). The annual growth rate for day-surgery between 1990 and 2000 was 23% (the rate went from 9.8 to 31.1 per 1000 population). The annual growth rate for inpatient surgery was -2.6% (the rate went from 69.2 to 58.9 per 1000 population). The pattern of the activity for several surgical procedures over the period 1997-2001 is described in figure A3.5.5.

Figure A3.5.4. Inpatient and day-case surgery procedures

Figure A3.5.5. Number of treatments (per 100 000 population) by surgical procedure

202. *Private health insurance.* Coverage by private health insurance is rather low in Finland. It accounts for 3% of the population. The government does not subsidise private health insurance. The level of privately funded activity accounts for 10% of cataract surgery and 5% of cardiac surgery.

203. *Health expenditure.* Total health expenditure in terms of GDP decreased from 9.1% in 1992 to 6.6% in year 2000. Real total health expenditure per capita increased slightly (in National Currency Unit at 1995 price) at an annual growth rate of 0.05% over the period 1990-2000. Real public and private health expenditure per capita have had annual growth rates of -0.69% and 2.78%, respectively, over the same period.

Figure A3.5.6. Expenditure on health, per capita, NCU 95 GDP price

204. *Practising physicians.* In the last ten years the number of practising physicians has increased from 2.4 (per 1000 population) in year 1990 to 3.1 in year 2000.

Figure A3.5.7. Number of practising physicians, per 1000 population

Main policy initiatives

205. On September 2001 the Council of State established a national project to secure the future of health care (Ministry of Social Affairs and Health, 2002). The task of the project was to prepare, by 31 March 2002, a plan and implementation programme to improve existing health care functions and the availability and quality of health care services. In the section "Ensuring access to treatment" of the final report the following issues, among others, were pointed out.

- “The availability of treatment varies in Finland both by type of illness and by geographical region. This is partly due to a lack of resources. Availability is also affected by varying treatment practices, skills shortages and old fashioned methods used in communications and information exchange. There are problems in communications both between health care service units and between these units and their clients.”
- “Most patients secure sufficiently rapid access to treatment. Of those patients on waiting lists, about 2 to 5% suffer from conditions in which the waiting period is considered to be too long. Waiting lists for operations mainly apply to a few patient groups. In certain groups the length of the waiting list varies considerably and without justification. One reason for this is variation in waiting list placement. The problems of access to treatment may be eliminated only if there is a common conception of the need for examination and treatment and on methods of treatment, and if waiting list data are monitored in real time using an electronic waiting list.”
- “According to a recent report, the costs of delayed treatment (sickness benefits, costs of medicines, social welfare expenses) for both the working population and pensioners exceed the costs of treatment, often very substantially. Delayed treatment has been shown in many investigations to greatly increase the risk of remaining on a disability pension.”

206. The report of the project contained the following main recommendations.

207. *Principle of timely treatment.* A principle should be introduced that specifies that access to treatment must occur within a reasonable time. The group suggests that a Decree of the Council of State, specifying the maximum waiting periods for access to a medical examination and treatment, should be included in legislation by 2005.

208. *Maximum waiting.* The aim should be for the patient to receive the preliminary assessment from a basic health care professional within three days, an initial assessment of a specialist physician within three weeks from the referral. Patients should have access to medically justified care or treatment within three and no more than six months. If treatment cannot be provided within the time limit at a facility maintained by the local authority or joint municipal board, then the treatment should be procured from another provider at no extra charge to the patient.

209. *Uniform criteria.* Patients should be placed on waiting lists on the basis of uniform criteria throughout the country. The Ministry of Social Affairs and Health and the Association of Finnish Local and Regional Authorities should co-operate to prepare national recommendations on the principles governing placement on waiting lists and on waiting list management by the end of 2003.

210. *Additional funding.* The need for additional funding for health care will be 0.7 billion Euro by 2007. Through this funding it will be possible to ensure that increased demand due to population ageing will be satisfied and that access to treatment will be provided within the prescribed periods.

211. *National monitoring.* The availability and quality of health care services will be monitored both nationally and regionally. Public and private service providers will be obliged by law to submit regular reports to an information system. Information on the effectiveness, quality, costs and productivity of treatment from publicly subsidised service providers must be made public. This information will guide the local authorities, and joint municipal boards that are responsible for arranging services, in selecting service providers of the highest standard and greatest efficiency, and will also help members of the public to make their choices.

Discussion

212. Real health expenditure per capita grew at a low annual rate of 0.05% between 1990 and 2000. Real public expenditure had a negative annual growth rate (-0.69%). Nevertheless, total public surgical activity (inpatients and day surgery) had a positive annual growth rate of 2.7% between 1994 and 2000. Despite that, waiting times (from specialist assessment to treatment) rose at an annual growth rate of 1.5% during 1992-2001. Clearly, the expressed demand for publicly funded surgery rose more quickly than the supply. Presumably, in Finland, as in other OECD countries, the demand for elective surgery has been rising quickly because of technological advances and the aging of the population.

213. The new policy initiatives on waiting times in Finland, focus on the introduction of maximum waiting times, improvements of the management of waiting lists and additional funding. No evaluation of these recent policies is at present available.

214. An interesting hint from the debate in Finland includes the potential savings for the public sector (but not the health sector itself) that may arise from reducing waiting times. The higher the waiting times, the higher is the cost that the public sector must meet in terms of sickness benefits, costs of medicines and social welfare expenses both for the working population and for pensioners. For several patients, a national study has identified how these costs exceed the cost of the elective treatment.

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6. IRELAND

Main characteristics of the Irish health system

215. The Irish health system is a mix of both public and private institutions and funders. It is primarily tax-financed. Any person, regardless of nationality, who is accepted as being ordinarily resident in Ireland, is eligible for health and personal social services. To be eligible means that a person qualifies to avail of services, either without charge (full eligibility – i.e. category I) or subject to prescribed charges (limited eligibility – i.e. category II). To qualify for category I eligibility, one is considered as unable without undue hardship to arrange services for oneself and one's dependents. In addition everyone aged seventy years and over (regardless of means or income) has category I eligibility.

216. About one-third of the population has Category I eligibility. Any person ordinarily resident in Ireland who does not have category I eligibility qualifies for category II eligibility and is entitled for free hospital treatment subject to a statutory levy of €40 per day up to a maximum payment of €400 in any twelve consecutive months. Fees for general practitioner services are met by the individual.

217. A large proportion of the population (48%) who already have category II eligibility also subscribe to voluntary private health insurance. About half of private acute beds are located in public hospitals with the remaining half located in private hospitals. The total number of private acute beds in both private and public hospitals equates to approximately one third of all available acute hospitals beds.

218. *Acute Hospitals.* There are 56 publicly funded acute hospitals who receive funds directly or indirectly from the Department of Health and Children. There are 17 privately funded hospitals. Under the current arrangements, 80% of beds in publicly funded hospitals are designated for public patients (categories I and II) while 20% per cent are designated for private patients (both privately insured and out of pocket). There is evidence (Wiley, 2001) that the ratio between public and private activity within publicly funded hospitals has been operating reasonably well in the case of emergency admissions where these proportions (80% for public patients and 20% for private patients) are respected. The position regarding elective (planned or non-emergency) admissions is less satisfactory. In 2000, 29% of elective admissions were private while 71% were public patients. In summary, what should ideally be an 80/20 division between public and private patients has, in the case of elective treatment, become 71/29 (Wiley, 2001). The Health Strategy, Quality and Fairness – *A Health System for You*, noted 'that the position of public patients in public hospitals relative to private patients has deteriorated in recent years and that this has had an impact on the extent to which public patients on waiting lists can be treated within a reasonable period of time. The challenge is to ensure that a fair balance is achieved and that those who depend on the public system are not disadvantaged'.

219. *Hospital remuneration.* Budgets for public hospitals have, in the past, been based on historical funding. However, the Department of Health and Children's casemix programme, which has been in operation since 1992, presently operates in 32 hospitals (this number is increasing annually) which are responsible for 75% of all acute hospital discharges. Approximately 20% of the budgets of these 32 hospitals is based on their casemix performance and the percentage level of funding which is casemix dependent is rising incrementally. Public hospitals are however remunerated on a fee for service basis for privately funded patients either from private health insurance or from out of pocket payments.

220. *Specialist remuneration.* The common contract for medical consultants (specialists) in publicly funded hospitals specifies that medical consultants are entitled to engage in private practice within the public hospital or hospitals in which they are employed. Moreover, if their public contract permits, it is open for medical consultants to combine their public hospital commitments with private practice in other public or private hospitals.

221. *Co-payments.* Category I public inpatients receive services free of charge. Category II public inpatients are subject to a daily overnight charge (40 Euro in 2003) subject to an overall annual limit (400 Euro in 2003).

222. *Private health insurance.* Approximately 48% of the population are covered by private health insurance. It is open to citizens to make private arrangements for their health care. Private health insurance premiums are eligible for tax relief at the standard rate.

223. *Primary care.* Persons in category I register with a physician of their choice from a list of contracted physicians. Persons in category II are free to choose any GP or specialist and pay in full.

224. *Waiting times.* As with other OECD countries, waiting times in Ireland have been a persistent phenomenon in the last decade. Figure A3.6.1 shows the number of publicly funded patients who have been waiting for longer than three months. It can be seen that after a large reduction between year 1993 and 1994 (from 39 400 in March 1993 to 27 600 in March 1994), the number of patients waiting longer than three months has slowly fallen to 26 126 by December 2001.

Figure A3.6.1. Number of patients on the list waiting longer than three months

225. Figures A3.6.2 and A3.6.3 include the percentage of patients that have been on the waiting list for at least 12 months during the period 1993-2001 respectively by main specialities and by main surgical procedures. The percentage of the patients waiting more than 12 months has increased for all the main specialities (7.84%, 2.26%, 0.40%, 6.52%, 11.76% annual growth rates respectively for ENT, Ophthalmology, Orthopaedics, Plastic surgery, Urology between December 1993-December 2001; 12.59%, 8.01%, 5.39% annual growth rates respectively for Gynaecology, General surgery and Vascular surgery between December 1994-December 2001). The only exception is cardiac surgery where a sharp reductions in the last two years (26.6% reduction in year 2000 and 37.3% reduction in year 2001). The average growth rate between 1993-2001 has been -7.45% per annum.

226. An analogous pattern can be observed for waiting times broken down by surgical procedures. The percentage of the patients waiting more than 12 months has increased at an annual growth rate of 1.17%, 2.32%, 6.69%, 8.52% respectively for cataracts, total hip replacement, total knee replacement and varicose veins. The rate was -4.53% for CABG.

Figure A3.6.2a and A3.6.2b. Waiting time by main speciality

Figure A3.6.3. Waiting time by main surgical procedure

227. *Surgical procedures.* Total surgical activity has increased from 107.4 to 169.9 over the period 1995-2000 at an annual growth rate of 8.93%. Both in-patient surgical activity and day-case surgical activity have increased moving respectively from 65.7 to 100.3 and from 41.7 to 69.6 over the same period. Figure A3.6.5 describes the number of treatments broken down by main surgical procedure.

Figure A3.6.4. Number of surgical treatments (per 100 000 population)

Figure A3.6.5a and A3.6.5b. Number of treatments (per 100 000 population) by main surgical procedure

228. *Health expenditure.* Total health expenditure has increased in Ireland from 6.6% of GDP in 1990 to 7.6% in year 1992. It has then slowly decreased to 6.7% in year 2000. The real health expenditure per capita has dramatically increased in the years 1990-2000 passing from 788 (National Currency Unit at 1995 price) to 1498, with an annual growth rate of 6.63%. A significant part of total expenditure is private (23.9% in year 2000). Real public health expenditure per capita has increased at an annual rate of 7.01% per annum, while real private health expenditure per capita has increased at an annual rate of 4.76%.

Figure A3.6.6. Expenditure on health, per capita, NCU 95 GDP price

229. *Physicians.* The number of practising physicians has constantly increased from 1.6 (per 1000 population) in year 1990 to 2.3 in year 1999 at an annual growth rate of 4.11%. Total hospital employment has increased from 11.7 per 1000 population in year 1990 to 13.3 in year 2000 at an annual growth rate 2.55%.

Figure A3.6.7. Number of practising physicians, per 1000 population

230. *Ageing and life expectancy.* The percentage of the population older than 65 has remained fairly stable at 11.3-11.5 in the years 1990-2000. On the other hand life expectancy has increased from 74.9 to 76.5 years.

Main policy initiatives

231. *The Waiting List Initiative (dedicated funding).* The 'Waiting List Initiative' was introduced in June 1993 and initially operated on the basis of dedicated funding from the Ministry of Health and Children for a specified number of elective procedures (in participating Health Boards and voluntary hospitals). The aim of the initiative was to reduce waiting times for in-patient procedures in public hospitals to no longer than 12 months for adults and six months for children in target specialities. The Department of Health and Children negotiated with each health agency the amount of special funding to be provided in exchange of an agreed level of waiting list activity (Department of Health and Children, 1998). The overall activity performed when funding was provided had to be higher than the activity that the hospital would perform if the extra-funding was not made available. The criteria to allocate the funding to health boards and voluntary hospitals included: 1) The availability of spare capacity in each hospital to perform extra activity. 2) Whether hospitals with longest waiting list had spare capacity. 3) The price quoted by hospitals for targeted procedures and relative efficiency in targeted specialities. 4) The extent to which hospitals in previous years managed to reduce the waiting time or deliver agreed activity. Between 1993 and 1997, 58 million (pound) was spent on financing the Waiting List Initiative. However the amount of funding varied substantially over the years (20 million in 1993; 10 in 1994, 8 in 1995, 12 in 1996 and 8 in 1997). In Figure A3.6.4 the funding made available under the Waiting List Initiative is provided.

232. *Revisions of the Waiting List Initiative.* Following the recommendations of a Review Group (report published 1998) the Department of Health and Children revised and improved the criteria to allocate the funding under the Waiting List Initiative (with effect from 1998). These guidelines were further refined in February 2000. The main revisions included the following. 1) An earlier notification to hospitals was introduced on the level of funding that was to be made available to perform the extra activity. Hospitals would receive the information on the funding allocated in December, instead of July (as in the previous years). It was hoped that in this way hospitals could better plan their activity for the following year. 2) Hospitals were required to specify targets for waiting list activity during the year. 3) An increased focus was placed on waiting times as well as on waiting lists, with the objective of ensuring that patients would receive treatment within 12 months for adults and within 6 months for children. 4) Each hospital had to designate a co-ordinator of the waiting list work as a contact point with the funding agency. 5)

Hospitals were encouraged to undertake regular validation of waiting lists. Since 1997, the funding of the Waiting List Initiative has increased (12 million in 1998, 20 in 1999, 35 in 2000).

Figure A3.6.8. Funding for the Waiting List Initiative

233. *Current initiatives.* Current policy on tackling waiting lists are described in the latest Health Strategy document “Quality and Fairness, A Health System for you, Health Strategy”, 2001. *Objectives.* The Strategy places a new focus on waiting times and sets ambitious targets over the next three years (p.101). “By the end of 2002, no adult will wait longer than twelve months and no child will wait longer than six months to commence treatment following referral from an out-patient department” (from specialist assessment to inpatient treatment). These targets will be brought to six months for adults and to three months for children in 2003. It will be further reduced to three months for every type of patient in 2004. One of the goals of the Health Strategy is to ensure equitable access for all categories of patient to the health system. The aim is to reduce disparities of elective treatment between private and public patients within public hospitals. The main initiatives that are to be undertaken to reach these targets are summarised below

234. *National Treatment Purchase Fund.* A new dedicated ‘National Treatment Purchase Fund’ has been introduced with the primary purpose of purchasing treatment for public patients who have waited longest for treatment, until the target of treatment within three months is met. Where necessary, the Fund will be used to purchase treatment from private hospitals in Ireland, and from international providers but only for public patients. It may also make use of any existing capacity within public hospitals that provide extra activity. The fund will be managed by the ‘National Treatment Purchase Team’ which has been appointed by the Ministry for Health and Children.

235. *Large increase in capacity.* A large increase in hospital capacity is planned for the future. “Over the next ten years a total of 3 000 acute beds will be added to the system”. As a first step 709 additional beds will be provided in 2002 and 2003 in the public sector, thus providing extra capacity for the treatment of public patients on waiting lists. The number of acute care beds in Ireland in 1999 was 10 775 (OECD, 2000; latest available figure). The latest available figure for 2001 is 11 552 (Department of Health and Children). The increase in beds in 2002/2003 (709 beds) will account for a 6% increase in existing hospital capacity. The main intention is to increase the volume of activity for public patients through an increase in capacity of the public sector.

236. *National Hospitals Agency.* The Health Strategy made recommendations for the establishment of a National Hospitals Agency under the aegis of the Department of Health and Children. The functions of the Agency would include, among others, the management of a new National Waiting time database. This would allow, for example, the avoidance of any potential duplication of patients registered on the waiting lists of different hospitals. The new waiting times database will contain information both at speciality and at procedure level. Moreover it will also be broken down at specialist level. The establishment of the National Hospital Agency is being pursued in the context of a wider audit of structures within the health service as a whole.

237. *Revised contract for hospital specialists.* The Health Strategy proposed that newly appointed specialists within the publicly funded hospitals will work exclusively for public patients for a specified number of years. In this way specialists would focus on public patients at the beginning of their career and develop a private practice at a later stage. This matter will be addressed in the context of future negotiations of a revised contract for hospital consultants.

238. *Management of hospital admissions in publicly funded hospitals.* There will be a clear focus to ensure admissions to acute hospitals are managed so that the designated ratio between public and private beds is maintained and access by public patients is protected.

Discussion

239. Since 1993 the Irish Department of Health and Children has allocated dedicated funding which has been targeted at extra waiting list activity. In the same period real (public and private) health expenditure, the volume of surgical activity and the total number of physicians have constantly increased. On the other hand the population aged over 65 years old has remained relatively constant. Despite these major increases in spending, waiting times and waiting lists still continue to be a focus of policy concern and action in the Irish health care system.

240. It is possible that there has been a significant underlying demand for treatment in the Irish health care system. As long as the resources were increased to foster supply, the demand for treatment may have increased as well. In other words as long as more treatments were supplied each year, more patients were referred. Indeed there is evidence that at the beginning of the decade, health expenditure per capita in Ireland was among the lowest in OECD countries (777 US\$ PPP in 1990 compared to an OECD average of 1134 PPP US\$ - OECD average excludes the Slovak Republic and Hungary since time series are incomplete). The difference in total health expenditure have been largely reduced more recently (1576 US\$ PPP in 1998 compared to an OECD average of 1768 PPP US\$).

241. As regards the implementation of 'dedicated funding' policies (waiting list allocations) to finance extra activity, some incentive issues should be considered. For the Department of Health it may be difficult to distinguish between 'normal' activity and 'extra activity' provided by hospitals. Moreover dedicated funding introduces some uncertainty regarding the amount of resources on which hospitals may rely on a year to year basis. In this context hospitals may be conscious of the fact that a reduction of waiting time may imply a lower level of funding in the future. Overall all the incentives provided by 'dedicated funding' are placed on the supply side. This policy may have the effect of increasing the exits from the waiting list, but may have little impact on the entries on the waiting list. However, over time there has been a general improvement in the implementation of dedicated funding in terms of more clearly stated objectives for hospitals, better planning and more clearly defined financial incentives.

242. One interesting feature of the Irish health care system is that not all people are eligible for the public health service free of charge (category I) and a large proportion of the population have private health insurance. On the other hand emergency and elective treatments in publicly funded hospitals are provided to both categories of patients. Public hospitals provide treatment to category I patients free of charge, to category II patients for a small per diem. Moreover public hospitals also provide treatment to patients that have private health insurance or pay out of pocket. However while the budget for publicly funded patients tend to be fixed, for privately funded patients the hospital budget tends to increase with the volume of activity. The public hospital may then have an incentive to treat more privately funded patients in order to attract more resources. In other words there may be a financial incentive to give preferential treatment to privately funded patients. This idea has been recently supported by some empirical evidence (Wiley, 2001), showing that the size of private treatments in public hospitals is higher than expected. Proposals to balance the gap between publicly and privately funded treatments within public hospitals have been identified in the Health Strategy. These include the proposed revision of newly appointed specialist contracts to allow for the exclusive treatment of publicly funded patients, and closer monitoring to ensure admissions to acute hospitals are managed so that the designated ratio between public and privates is maintained and access by public patients is protected. These interventions would in part eliminate the incentive to provide preferential treatment to private patients within public hospitals and may have a beneficial effect in reducing waiting times.

243. Current policies to reduce waiting times in Ireland also include a large increase in resources for health care and a large increase in capacity (709 beds by 2002/2003), and purchasing treatment from the private sector and abroad. It is important that in future increases in supply will be accompanied by an adequate policy on demand, for example continuing to maintain positive financial incentives for hospitals which manage to maintain low waiting times and ensuring that increased resources have an impact on reducing waiting times.

244. A final note includes the measurement of waiting times in Ireland, which includes only the patients on the list as opposed to the patients admitted. Most of the countries have focused their attention on the alternative or complementary measurement of the patients admitted from the list. Ireland also is now setting about collecting waiting time information in this format.

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7. ITALY

Main characteristics of the Italian health system

245. The National Health Service in Italy is characterized by universal coverage and is currently financed through: a regional tax on productive activities (which replaced social health insurance contributions in 1997); general taxation collected centrally; various other regional taxes; and users' co-payments. Total health expenditure accounted in year 2000 for 8.1% of GDP. 73% of the total health expenditure was public (OECD, 2002 Health data).

246. *Hospitals.* Currently, hospital care is delivered partly by 842 public hospitals (61% of the total), which provide both outpatient and inpatient services. However, 'local health units' (the purchasers) also contract out services to 539 private hospitals (39% of the total), mainly not-for-profit institutions. In 1998, Italy had 276 000 beds: 91% were dedicated to ordinary admissions, 8% to day-case activities and 1% to private health care. Of about 250 000 beds for ordinary admissions in 1998, 81.5% were public (versus 83% in 1993) and 18.5% were private but accredited by the NHS (WHO,2002). University hospitals and specialized hospitals have the status of 'trusts' and are formally separated from 'local health units', and benefit from considerable financial independence. Public hospitals without 'trust' status are under the control of the 'local health units' but have some financial autonomy and a separate accounting system within the local health unit (WHO,2002).

247. *Hospital remuneration.* In 1992 the financing of hospital care was reformed switching from a cost-reimbursement system (based on bed-days and ex-post payments) to a prospective, activity-based, payment system for inpatient and outpatient care. Since 1995, hospitals were to be remunerated according to nationally predetermined rates based on DRGs for inpatient care (both ordinary and day-hospital) and on fee for service for outpatient care. Regions are free to set lower DRG rates if they wish but must take the national rate as the maximum level (WHO,2002). Regions are also allowed to provide additional funding to support specific hospital activities as 'emergency wards' and 'teaching and research activities'.

248. Funding rules for hospitals may differ significantly among Regions. For example in Lombardy all hospitals have had 'trust' status since 1998. That implies that local health units do not manage hospital structures directly and that all hospitals are financed by prospective payments. In the smallest Italian regions the regional health department negotiates directly both volume and financing with hospitals (which do not usually hold the status of trusts). In some southern regions the prospective funding based on DRGs has not yet been fully implemented (WHO,2002).

249. *Specialist remuneration.* Hospital physicians are salaried and are classified at two levels. First-level physicians play a supporting role to second level physicians. Second-level physicians usually have duties connected with organizing and managing the hospital unit and in prescribing the most appropriate therapeutic, diagnostic and preventive treatments for patients. First-level physicians earn about 41 300 Euro per year, and second-level physicians receive about 62 000 Euro, including nights and weekends on call for both types. Only specialists working "part-time" in publicly funded hospitals are allowed to work also in privately funded hospitals. However "full-time" specialists working in publicly funded hospitals are allowed to see private outpatients (for a specialist visit) or to treat private inpatients within the same hospital (*intramoenia*).

250. *Co-payments.* In publicly funded hospitals, patients are charged just for amenities (i.e. single room, telephone).

251. *Waiting times information (routine data).* There is no national registry on waiting times for elective surgery. Such registries might be available in some cases at Regional level but none had been identified at the time this draft was prepared. A pilot study to introduce a national registry was being undertaken by the Ministry of Health in 2002.

252. *Waiting times information (survey data).* There appear to be no survey data on waiting for surgery (inpatient waiting). However, data on waiting times for specialist assessments (outpatient waiting) and for certain diagnostic tests have been produced by the National Institute of Statistics (ISTAT) through a recent survey (ISTAT, 2002), which investigates the waiting time for outpatient visits and for diagnostic checking. The results of the survey are reported below and includes all people that in the four weeks before the interview had a specialist visit (number of days between the request and the visit).

Table A3.7.1. **People that in the four weeks before the interview had a specialist visit**

Type of hospital	days from request to the specialist visit						Total
	1-14	15-30	31-45	46-60	>60	None or fixed date ¹	
Public	30.3	18.4	2.2	3.5	4.6	40.9	100
Public (privately funded patients)	46.6	19.4	0.7	4.7	1.4	27.2	100
Accredited private (publicly funded patients)	36.9	12.9	1.2	1.7	1.9	45.5	100
Private (privately funded patients)	44.8	7.8	0.4	0.7	0.7	45.7	100
Total	39.1	12.2	1.1	1.8	2.2	43.6	100

Note: ¹This category includes all the people that did not wait at all or that had fixed an appointment with the specialist.

253. On average 17.3% has waited more than two weeks. However in the public hospitals, for publicly funded patients, this percentage increases to 28.8% (26.2% for privately funded patients). In private hospitals this percentages falls to 17.7% for publicly funded patients and to 9.6% for privately funded patients.

254. Across specialities the patients waiting longer were the ones asking for an ophthalmology visit with more than 8% of patients waiting longer than 45 days. More than 4% of the patients demanding treatment for cardiology, dermatology, orthopaedics and urology waited more than 45 days.

255. Similar information from the survey (ISTAT, 2002) is available for waiting times for diagnostic tests (blood test, urine test, MRI scanning, mammography, ecography). Overall 14% of the patients has waiting more than two weeks. However in the public hospitals this percentage increases to 17.8% and reduced to 6% for accredited private hospital and 6.8% for private hospitals. The diagnostic tests with highest waiting times were colon-rettoscopy (more that 47.3% waiting longer than three weeks), MRI (29.2%), mammography (27%) and gastroscopy (20.6%). Waiting times were lower for blood tests (2.3%), urine test (3.2%) and radiography test (5.4%).

Table A3.7.2. **People that in the four weeks before the interview had a diagnostic test**

	Days from request to the visit					Total
	1-7	8-14	15-21	>21	None or fixed date ¹	
Public	31.1	7.9	8.0	9.8	43.3	100
Private accredited	34.6	4.1	2.8	3.2	55.4	100
Private (pay)	39.9	4.3	3.0	3.8	49.1	100
Total	32.5	6.6	6.3	7.7	46.9	100

Note: ¹This category includes all the people that did not wait at all or that had fixed an appointment with the specialist.

256. *Surgical activity.* Total surgical activity increased rapidly from 112.3 (per 1000 population) in year 1996 to 138.6 in year 1999. Over the period 1996-1999 the annual growth rate was 7.27%. Over the same period there was an increase in both inpatient care and day-surgery. The annual growth rate in years 1996-1999 for day-surgery was 25.9% (from 14.8 to 29.51 per 1000 population) while for inpatient surgery it was 3.8% (from 97.5 to 109.1 per 1000 population).

Figure A3.7.1. Inpatient and day-case surgery procedures

Figure A3.7.2. Number of treatments (per 100 000 population) by surgical procedure

257. *Private health insurance.* It is estimated that at about 7 008 000 people (12.2% of the total population) have private health insurance, which is subsidised through a tax credit (OECD, 2002, Policy questionnaire).

258. *Health expenditure.* Total health expenditure in terms of GDP has remained fairly stable changing from 8% in 1991 to 8.1% in year 2000 (the minimum was 7.4% in 1995 and the maximum 8.4% in 1992). Real total health expenditure per capita (in National Currency Unit at 1995 price) increased at an annual rate of 1.45% over the period 1990-2000. Real public and private health expenditure per capita have had annual growth rates of 0.71% and 5.23% per annum, respectively, over the same period.

Figure A3.7.3. Expenditure on health, per capita, NCU 95 GDP price

259. *Practising physicians.* In the last ten years, the number of practising physicians has increased from 4.7 (per 1000 population) in 1990, to 6.0 in 2000 (OECD, 2002, Health Data). Italy reports to OECD Health Data the numbers of physicians entitled to practice rather than numbers actually practising.

Figure A3.7.4. Number of physicians entitled to practice, per 1000 population

Main policy initiatives

260. The reduction of waiting times for health services is one of the objectives included in the National Health Plan 1998-2000. All the institutional levels are involved in reaching such objective. The Ministry of Health has required the Regions to define the criteria to determine maximum waiting times (*decreto legislativo n. 124/1998*) and intends to finance regional projects devoted to reductions in waiting times. The Regions are to define criteria for the determination of maximum waiting times for the providers, and for the monitoring of the provision of health services.

261. *Initiatives undertaken to reduce waiting times.* In year 2001 the Ministry of Health conducted a survey to assess the current initiatives undertaken in the different Regions to deal with the problem of waiting lists. The main results of the survey are summarised below (Ministry of Health, 2002).

262. 85% of the providers reported that they had introduced a “Unified Booking Centre” for ambulatory care but only 22% had introduced one for inpatient care. A Unified Booking Centre is defined as “a centralised booking system, generally computer-based, that enables to organise more efficiently the booking, the access and the management of the units and to provide information to citizens”.

263. 72% of the providers stated that waiting lists were revised periodically to ensure that patients were still requiring treatment. However, 24% of the providers stated that they were still making use of “closed lists”, which include “lists that can be accessed only for a pre-defined time or that are limited in duration”. A Technical Commission set up by the Ministry of Health in December 2000 suggested that this type of “closed lists” should be abolished, on the grounds that they are not transparent and effective.

264. Among the *demand-side policies*, 39% of the providers reported some form of rationalisation of demand, which included the introduction of “patient pathways” (which identify the temporal sequence of diagnostic and therapeutic actions which provide care most effectively for particular types of patient) and of “homogenous waiting time groups” (which establish groups of patients with equal waiting time priority on the basis of clinical factors).

265. Among the *supply-side policies*, 80% of the providers increased utilisation (in terms of daily number of hours utilised) of existing capital facilities. 60% increased capital facilities themselves, improved health care organisation, and increased the number of hours worked by personnel (through the utilisation of incentive schemes). 43% of providers bought health services from their own specialists that work *intra-moenia* (i.e. that offer public and private consultations within the same public institution). 37% bought them from external private specialists.

266. 88% of the providers use “Service Charts” to inform the citizens on the procedures for booking services. However, only 42% provide information on waiting times. 47% of the providers produce information on how to access health care, on the Internet, but only 25% provide some information on waiting times through the Web.

267. 95% of the providers report the practice of monitoring waiting times and waiting lists. However, for 73%, the monitoring relates to waiting for “ambulatory care” and only for 33% it relates to inpatient waiting. 65% of providers monitor the prospective waiting time (the forecast of waiting given to the patient on arrival). 64% monitor the effective waiting time of the patients admitted and 50% monitor the number of patients on the list.

268. *Recommendations of the government.* In February 2002, the Government issued, in agreement with the Regions, a document that provides suggestions for actions to deal with waiting times. The suggested actions include: a) that Regions should identify maximum waiting times for outpatient and inpatient care; b) that Regions should establish a waiting time monitoring system; c) that Regions should improve management of the booking system; d) that Regions should include among the criteria for evaluating the chief executive’s performance, adherence of the hospital to pre-determined waiting times; e) that Regions should use the specialists working *intra-moenia* (i.e. that perform public and private visits within the same public institution) to reduce waiting times.

269. In more detail, the following suggestions have been put forward.

270. *Priority and appropriateness.* It is necessary to introduce initiatives that increase the appropriateness of services. Services that have a high risk of being offered inappropriately should have the lowest priority. If too many “inappropriate” treatments are provided, waiting times will not be reduced.

271. *General criteria for clinical priority.* The criteria for determining clinical priority include: the severity of the patient’s condition, the prognosis, the tendency of the condition to worsen, the presence of pain, and the quality of life.

272. *National classification of priority groups.* Patients should be put into four groups in terms of relative priority for medical and surgical treatments. “Group A” should consist of patients whose condition may worsen rapidly and for whom treatment should be provided within 30 days. “Group B” should consist of patients with intense pain and disability but whose condition should not worsen rapidly, and for whom treatment should be provided within 60 days. “Group C” should consist of patients with minimum pain and disability but whose condition should not worsen, and for whom treatment should be provided within 180 days. “Group D” should consist of patients with no pain or disability and for whom treatment should be provided within 12 months.

273. For ambulatory care, the following groups have been identified. For “group A” the service should be provided within 10 days for patients whose prognosis may be affected by the delay or for whom the delay of the service may generate pain or disability. For “group B” the service should be provided within 30 days for visits and within 60 days for diagnostic tests to patients that are in pain or have disability but whose prognosis is not affected by the delay. For “group C” the service should be provided within 180 days to patients who are in minimum pain and disability and whose prognosis is not affected by the delay.

274. *Identification of Maximum waiting times.* Maximum waiting time targets have been set for three main categories of services: “oncology” (cancer) services, “ambulatory services” and “inpatient services”. For “oncology” patients, the first visit should be provided within two weeks. Surgical intervention should be provided within 30 days for malign neoplasm. Chemotherapy and radiotherapy treatment should also be provided within 30 days. For “ambulatory services”, for example, cerebral M.R.I and abdominal ultrasound should be provided within 60 days, while cardiology visits and eye visits should be provided within 30 days. For inpatient services, maximum waiting times at national level have been identified only for few clinically and socially relevant treatments. For “cataract surgery” and “hip replacement”, 90% of the patients should receive treatment within 180 days while 50% of the patients should receive it within 90 days. For PTCA, 90% of the patients should receive treatment within 120 days while 50% of the patients should receive it within 60 days.

275. *Monitoring system.* As has been mentioned above, a new information flow to collect systematically data on waiting times to patients is being piloted currently (2002) by the Ministry of Health. The underlying idea is to enable the release of information about maximum waiting times to the citizens in order encourage patients to activate guarantee mechanisms (for example by enabling them to signal when the maximum waiting time has not been respected).

Discussion

276. Total surgical activity in Italy increased rapidly over the period 1996-1999 at an annual growth rate of 7.27 %. That followed the introduction of DRG-based funding for hospitals in 1995. It may be argued that the rapid increase in surgical activity was due to the introduction of activity based funding in hospitals. Indeed, during the same period, 1996-1999, real public expenditure increased at an average annual growth rate of 4.43% (as opposed to a much lower annual growth rate of 0.71% over the period 1990-2000). However it is necessary to underline that the implementation of the DRG system differed

markedly across different Regions. Unfortunately, no information appears to be available (at least at a national level) on inpatient waiting times during this period.

277. Nevertheless, waiting times are part of the current health policy debate and on-going proposals focus on: prioritisation guidelines; the introduction of maximum waiting time targets; and better monitoring through the introduction of a national registry. The common practice of having ‘closed’ waiting lists (lists that can be accessed only for a pre- defined duration) has been discouraged by the Ministry of Health. Unlike other OECD countries, most of the debate and evidence has focused on waiting times for specialist consultations and diagnostic tests. The evidence from survey data suggests moderate waiting for access to specialists and for certain diagnostic tests.

278. The focus on “specialist visits or diagnostic tests” is also reflected in the government proposals that suggest making use of the specialists working in *intra-moenia*. This proposal either is intended to encourage the hospitals to buy extra visits and tests from salaried specialists out of scheduled office hours, or to encourage the specialists to visit more privately funded patients (within public hospitals) on the assumption that this will imply a reduction in the demand of publicly funded patients.

279. Finally, an interesting proposal has arisen from the debate regarding the formulation of maximum waiting times guarantees for inpatient care. The maximum ‘inpatient’ waiting time targets, which apply only to certain surgical procedures, seem to have been designed in such a way as to avoid some of the potential conflict which can arise between such targets and clinical prioritisation. They specify, for “cataract surgery” and “hip replacement”, that 90% of the patients should be treated within 180 days while 50% of the patients should be treated within 90 days. That differs from the more traditional maximum waiting time target, which specifies that 100% of the patients should receive treatment within “x” days. This specification of the targets may help to lessen (at least partly) the clash that can arise between clinical prioritization, on the basis of the severity and urgency of the condition, and any maximum waiting time guarantees. By applying to only 50% and 90% of patients, the targets leave the clinicians with more room for manoeuvre in deciding whom to treat next.

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8. THE NETHERLANDS

Main characteristics of the Dutch health system

280. The health care system in The Netherlands is based on a system of public and private insurance schemes. About 60% of the population, with an annual income below a yearly-adjusted ceiling, are compulsorily insured for normal medical risks (general practitioner services, dental care, specialized medical care, maternity services, hospital services and transport). There are about 30 non-profit sickness funds, which operate nearly nationwide. The insured are charged both a percentage contribution, a part of which is payable by the employer, and a flat-rate contribution, set by the sickness funds. The scheme is also funded by an annually determined government grant. About 35% of the population, with an income over the same yearly-adjusted ceiling, can take out private insurance for acute health care risks. Private insurers are required to offer a standard insurance package with statutory regulations partly governing acceptance, the extent of the risk insured and the maximum premium to be charged (WHO, 1997). Long term care risks for the whole population are covered by public health insurance. Total health expenditure accounted in year 2000 for 8.1% of GDP. 68% of the total health expenditure was public (OECD, 2002 Health data).

281. *Hospitals.* Health care is delivered mainly by private non-profit hospitals, with a legal status of 'foundations'. At present, budgets are fixed annually and specify production agreements between health insurers and hospitals. The Central Agency for Health Care Tariffs, established in 1982, exercises strong control over the fees and charges (set by providers) for both public and private patients. It also oversees the setting of hospital budgets. At the end of each year it calculates whether the agreed production has been reached. Since 2003 a "diagnoses treatment combination" system (DBC; a type of DRG) will be used to determine hospital budgets. In 2001, 1 443 513 inpatient stays, 867 817 day treatments and in 21 654 135 outpatient visits were recorded (OECD, 2002).

282. The hospital budget consists of a fixed and a variable component. The fixed component of the budget is based on location and capacity-related factors such as: infrastructure, buildings, number of beds and number of specialists. The variable component is derived from the production-agreements with the health insurers and includes four factors: nursing days, number of admissions, number of first outpatient visits and volume of day care. The unit price for each of these factors is determined by an independent institution using historical financial data (the Central Agency for Health Care Tariffs). The total expenditure in health care is defined in a yearly-determined macro budget. This means that price times volume is a fixed number, so that a price change will automatically lead to a change in volume. In case of under- or over-production, changes to the tariff paid for hospital nursing days are used to balance the budget (Welvaarts, 2002).

283. *Fixed budgets for specialists.* In the early 1990's, fixed budgets for hospitals and specialists were introduced. This new form of remuneration was supposed to be piloted between 1995 and 1997 in five hospitals with financial support from the government. However, before the end of the experimental period, it was decided that all Dutch hospitals should introduce fixed budgets. During the experimental period, inpatient waiting times increased in five of the six hospitals (Mot, 2001). However, it is difficult to say to

what extent these increases in waiting were due to a reduction in activity resulting from the change in remuneration and to what extent they were due to an increase in demand for surgery.

284. *Hospital specialist remuneration.* Within publicly funded hospitals, approximately 40% of the specialists are salaried. The remaining 60% are organised in partnerships, which receive a fixed yearly budget, a so-called 'lump sum'. Additionally to their earnings from the lump sum, specialists are allowed to work also in private clinics. Specialists working in publicly funded hospitals are not allowed to see private outpatients (for a specialist visit) within the same hospital or to operate (surgically) on private patients within the same hospital.

285. *Co-payments.* There are no co-payments for patients admitted to publicly funded hospitals.

286. *Primary care.* People insured under the Health Insurance Act must register with a GP. GPs act as gate-keepers for specialist services. GPs are free to choose the hospital (on the basis of waiting times, for example) and they can refer patients to waiting lists in several hospitals simultaneously. Changing the hospital of referral after a certain period of time is also possible.

287. *Waiting times and prioritisation of the patients on the waiting list.* This is determined by the specialists and no standards have been formulated. Inpatient waiting times in The Netherlands exceed three months in many surgical specialities. Waiting times for some of the main surgical specialities and for some of the leading surgical procedures are provided below (Laeven, van Vliet, 2001). Note that for all the procedures listed below, waiting time increased between 2000 and 2001.

Table A3.8.1. **Mean waiting time of patients admitted (weeks) – year 2000**

	Inpatient	Day-surgery
Ophthalmology	15	11
Orthopedics	12	8
General surgery	9	8
Plastic surgery	24	15
ENT	9	5

Source: Van Hulst and Laeven, 2000

Table A3.8.2. **Mean waiting of patients admitted (weeks)**

<u>Surgical procedure</u>	ICD-9-CM code	Year 2000	Year 2001	% increase
Cataract surgery	13.1-13.7	15.8	16.6	5%
Percutaneous transluminal coronary angioplasty (PTCA)	36	2.6	11.9	366%
Coronary bypass	36.1	n.b.	17.8	
Cholecystectomy	51.2	10.1	13.0	29%
Inguinal and femoral hernia	53.0-53.3	10.8	12.4	15%
Prostatectomy	60.2-60.6	8.6	9.2	7%
Vaginal hysterectomy	68.5	8.7	9.5	9%
Knee arthroscopy	80.26,80.6	12.1	13.1	8%
Total and partial hip replacement	81.51-81.53	13.7	15.4	12%
Knee replacement	81.54-81.55	12.2	17.4	43%
Ligation and stripping of varicose veins	38.5	15.3	18.3	20%

Source: OECD data questionnaire.

288. *Waiting times data.* Hospitals started to develop uniform registers for waiting lists in 1997 and since 2000 waiting time data have been collected universally and regularly. Specialists and hospital administrators are responsible for the management of the waiting lists. Each month, the Association of Dutch Hospitals (NVZ) collects waiting list and waiting time data and a research institute processes them and returns the information to the hospital. In 2002 and 2003 hospitals will improve their registration practices further, with the help of a subsidy from the government.

289. Waiting times data are available on the Internet for patients and GPs and are published at most one month in arrears. They are reported for outpatient, inpatient and day surgery. Information is hospital-based and is broken down by speciality and by surgical procedure, but no information is provided at surgeon level. The Ministry of Health uses the information to make overviews and as an input for policy making. Health insurers use the information to provide “mediation” for their patients (i.e. finding a hospital where they can be treated sooner). Each trimester the NVZ sends “mirror information” to all the hospitals, in which each hospital is compared to others (a form of benchmarking). Patients searching for this comparative information on the web-site can specify a geographical region of interest and the software will provide a list of hospitals and their waiting times.

290. *Surgical activity.* Overall, surgical activity has increased from 61.7 (per 1000 population) in 1990 to 70.3 in 2000. The annual growth rate was 1.3%. However, all of the increase in surgical activity took place between 1990-1994 (in 1994 the rate was already 70.8). Between 1995 and 2000 the annual growth rate was negative, at -0.1%. Over the whole period, there was a gradual reduction of inpatient care and a significant increase in day-surgery. The annual growth rate between 1990 and 2000 for day-surgery was 5.6% (from 19 to 32.6 per 1000 population) while for inpatient surgery it was -1.2% (from 42.7 to 37.7 per 1000 population). The pattern of the number of treatments provided for several surgical procedures is provided in figure A3.8.2.

Figure A3.8.1. Inpatient and day-case surgery procedures

Figure A3.8.2. Number of treatments (per 100 000 population) by surgical procedure

291. *Health expenditure.* Total health expenditure in terms of GDP has remained fairly stable between the years 1990-2000 with an average level of 8.25%. Real total health expenditure per capita has increased (in National Currency Unit at 1995 price) at an annual growth rate of 2.36%. Real *public* and *private* health expenditure per capita have had similar annual growth rates of 2.43% and 2.22% respectively.

Figure A3.8.3. Expenditure on health, per capita, NCU 95 GDP price

292. *Practising physicians.* In the last ten years, the number of practising physicians has increased from 2.5 (per 1000 population) in 1990 to 3.2 in 2000.

Figure A3.8.4. Number of practising physicians, per 1000 population

293. *Population.* The percentage of the population older than 65 has increased from 12.8% in 1990 to 13.4 in 2000. Life expectancy has increased from 77 to 78.1 years.

Main policy initiatives

294. *Additional funding.* In 1997, the government provided additional resources to increase the supply of elective surgery through the introduction of a *Waiting list fund*. 71 general hospitals (out of 109) and all the eight university hospitals received additional resources to treat patients in need of cataract surgery,

cardiac surgery, and hip and knee replacement. 10 300 extra operations were performed during the year. In 1998-2000 a similar initiative was implemented, with priority given to ophthalmology and orthopaedics. Money was distributed partly to the hospital and partly to the specialists. 12 000 extra operations were performed in 1998. Over the four years 1997-2000, the Waiting list fund had a cost respectively of 19.8, 26.3, 31.5, and 31.7 million Euro. Between 1998 and 2000, respectively 2.4, 8.1, and 7.9 million Euro, were distributed to the specialists. The extra-funding represented respectively 0.28%, 0.39%, 0.83%, and 1.69% of hospital expenditure in each year. Total nominal hospital expenditure increased at an annual growth rate of 2.7% over the same period (Laeven, van Vliet, 2001).

295. *Evidence on the effectiveness of the waiting list fund.* In 1997, for the hospitals, which spent the money, mean waiting times of the patients admitted reduced by two weeks for ophthalmology and four weeks for orthopaedics. The number of patients on the list dropped by 16% for ophthalmology and 20% for orthopaedics. In 1998, mean waiting times decreased marginally (the waiting list remained unchanged). In year 1999 mean waiting times in these two specialities decreased further (the waiting list increased slightly) (Laeven, van Vliet, 2001).

296. In 1998, a committee was established to formulate recommendations for measures to deal with waiting times. All relevant parties - hospitals, insurance companies and patient/consumer organisations - were involved in the exercise. The committee formulated some recommendations and suggested an annual grant of 59 million Euro to be provided for their implementation over the period 1998-2002. Following these recommendations, the following policies, among others, were implemented.

297. *Uniform registration and transparency.* A uniform method of waiting list registration was established among all health suppliers, according to a common set of definitions, to make data comparable.

298. *Transparency for civilians.* As mentioned above, the organisation of general hospitals (the NVZ) introduced a web-site where consumers can view expected waiting times by hospital and surgical procedure, broken down by outpatient, day surgery and inpatient care. Regional waiting list information centres have been established where patients or GP's can find information on waiting times.

299. *Mediation for treatment.* According to the law, health insurers are responsible for doing everything they can to provide timely, effective and efficient care for their subscribers. To promote timeliness, many insurers have introduced a 'mediation for treatment service' which consists in searching for a hospital that can deliver care in a shorter time than the hospital to which their subscriber is initially referred. Some insurers have purchased health care abroad in private clinics for their subscribers (mainly in Germany and Belgium).

300. *Removing obstacles in the way of paying hospitals, surgeons/physicians and health insurers (activity-based funding).* Since 2000, hospitals have been paid on the basis of activity instead of receiving annually fixed budgets. Additional operations for patients on the waiting list are paid double. Furthermore, from 2002, each hospital has been free to decide on the number of physicians to be hired. Between 1995 and 2000 this number had been frozen. In 2003 the method of paying hospitals will (slowly) be changed into a 'Diagnosis treatment combination' system (DBC), comparable with the American DRG-pricing. The new DBC system is based on the following four principles: 1) focus on demand instead of supply; 2) make payments on delivery of service, instead of in advance; 3) decentralise responsibility; and 4) transfer financial risk to the health insurance organisations.

301. *Tackle long waiting lists with increased activity.* Considerable additional resources have been provided to increase the rate of delivery of procedures with long waiting lists.

302. *Standardisation of delivery time (Maximum acceptable waiting times).* The organisations representing hospitals, physicians and health insurers have agreed on maximum waiting times, acceptable medically and socially. 80% of the patients should receive outpatient care within 5 weeks while 80% of the patients should receive inpatient or day treatment within 7 weeks. The goal of all parties is to achieve delivery of specialist care within the above waiting time norms (the so called “Treeknormen”) by 2003.

303. *Priority treatment for key employees.* An interesting issue, which has surfaced the Dutch policy debate, is whether private employers should be able to pay for their key employees (who are put on waiting lists) to be given priority in publicly funded hospitals. The proposal was that employers could pay hospitals extra for the immediate treatment of their key employees, who were put on waiting lists, especially if these treatments could be performed outside normal working hours. It was argued that waiting times could be reduced for everyone. Employees would get immediate treatment and the non-employed would get quicker access because the waiting lists would be shorter. However, the Minister of Health gave a ruling against this proposal on equity grounds. Accordingly, hospitals are not currently allowed to discriminate patients according to their employment status (Brouwer, 1999; Brouwer and Hermans, 1999).

Discussion

304. The Netherlands represent an interesting case study for analysing waiting times because, despite the funding being based on a mix of public and private health insurance, waiting times for surgery are a significant problem. This differs from other countries funded by public health insurance (i.e. Germany, Austria and France) where waiting times problems have not been reported. The reason for the presence of waiting might be searched in the strong central controls over the last two decades on total health expenditure, fees and capacity that govern both public and private health insurance. Overall, in the 1990's real health expenditure per capita grew at an annual rate of 2.36% between 1990 and 2000, while total surgical activity had an annual growth rate equal to 1.3%. However all of this increase in surgical activity took place between the years 1990-1994, as between 1995-2000 the surgical rate has been stationary. Other factors explaining waiting times in the Netherlands is the shortages of qualified personnel, especially qualified nurses. Unfortunately there is no evidence on how inpatient waiting times were varying over the whole decade. All we know is that they were rising between 2000 and 2001.

305. In the last twenty years the Netherlands have been characterised by various experiments regarding the methods of hospitals remuneration.

306. In the 1980's, the Dutch government, influenced by the unfavourable state of the economy, introduced the principle of a macro-budget for total health care expenditures, which was intended to control the rate of increase of health expenditure and prevent medical over-consumption. However this was not entirely successful in preventing medical overconsumption since no mechanism was put in place to control the growth of the number of services (Mot, 2001).

307. In the early 1990's, fixed budgets for hospitals and specialists were introduced. This new form of remuneration was supposed to be piloted between 1995 and 1997 in five hospitals with financial support from the government. However, before the end of the experimental period, it was decided that all Dutch hospitals should introduce fixed budgets. During the experimental period, inpatient waiting times increased in five of the six hospitals (Mot, 2001).

308. In recent years there has been a counter move towards activity-based funding. Over the period 1997-2000 the remuneration system started to change, through the introduction of the waiting list fund, which funded extra-activity for specialities like ophthalmology and orthopaedics, which relaxed the budget constraints on the hospitals. From 2000, hospitals were remunerated according to the activity performed. A DRG-type remuneration system will be introduced by 2003. This reform is expected to encourage greater

productivity but also higher production, which may induce a raise of overall hospital expenditure (Welvaarts, 2002). It remains to be seen whether the new system will stop the recent deterioration in waiting times.

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9. NEW ZEALAND

Main characteristics of the health system in New Zealand

309. The health system in New Zealand is characterised by universal coverage and is financed predominantly through general taxation. Total health expenditure in New Zealand accounted for 8% of GDP in year 2000. 71% of total health expenditure was public (OECD, 2002).

310. *Hospitals.* In-patient and out-patient care is provided mainly by public hospitals that are administered by district health boards. In year 2001 there were 444 hospitals with 23 741 beds (6.2 per 100 population). 84 public hospitals count for 52% of all beds, while 360 private hospitals count for the remaining 48%. Private hospitals provide mainly elective surgery and long-term geriatric care but in general do not provide highly specialised care (WHO, 2001).

311. *Hospital remuneration.* Public hospitals are paid through a fixed operating budget that is intended to cover all operating expenses (major capital expenditure excluded). Hospitals are paid for each patient according to a set price and volume schedule, where the price refers to diagnosis related groups.

312. *Specialist remuneration.* Most specialists work within public hospitals and are paid on a salary basis, but many also maintain their private practices through which they can supplement their incomes. On the other hand in the private sector specialists are paid on a fee for service basis (WHO, 2001).

313. *Co-payments.* There are no charges for inpatient and outpatient care in public hospitals.

314. *Private health insurance and out of pocket payments.* The percentage of the population in year 2000 covered by private health insurance is estimated between 33% and 37% and private health insurance accounted for 6.25% of total health expenditure. In year 1999, total private out of pocket payments accounted for 22.6% of total health expenditure. 18.4% of this expenditure was devoted to medical and surgical care (WHO, 2001).

315. *Primary care.* General practitioners act as gatekeepers since individuals cannot access public hospitals if they are not referred by their general practitioners.

316. *Waiting times.* Data on waiting times are available quarterly for the two fiscal years 1999/2000, 2000/2001. The waiting times figures include all the patients on the list who have been given certainty of treatment within six months (this does not include patients in active review; see the more detailed description below). The number of patients (on the list) waiting for treatment has decreased from 35 500 in the first quarter of fiscal year 1999/2000 to 16 900 in the first quarter of fiscal year 2001/2002. An analogous reduction has been observed for the number of patients waiting (on the list) more than two years for treatment, which reduced from 14 200 to 3 400 over the same period (Figure A3.9.1). The number of patients (on the list) waiting for specialist assessment more than 6 months has decreased from 40 408 in the first quarter of fiscal year 1999/2000 to 32 547 in the first quarter of fiscal year 2001/2002. An analogous reduction has been observed in the number of patients waiting (on the list) for specialist assessment for

more than 18 months, which reduced from 12 453 to 6 253 over the same period (Figure A3.9.2). However it has to be pointed out that the numbers have fluctuated through time.

Figure A3.9.1. Number of the patients on the list waiting more than six months and two years

Figure A3.9.2. Number of the patients waiting for specialist assessment more than six months and 18 months

317. *Surgical activity.* Publicly funded surgical discharges for elective services have increased from approximately 159 000 in financial year 1995/96 to 218 000 in financial year 2000/01 at an annual growth rate of 7.4% (A guide to elective services, 2000; Figure A3.9.3). The increase in publicly funded surgical elective activity has been accompanied by an overall increase in funding for elective services from \$353 million in 1995/96 (6.84% of public health expenditure on health in year 1995) to \$525million in 2000/01 (7.5% of public health expenditure on health in year 2000). Funding in the four intermediate years 95/96 to 1999/2000 was respectively \$402, \$412, \$448, \$479 million (Figure A3.9.4).

Figure A3.9.3. Surgical discharges for elective services

Figure A3.9.4. Funding for elective services

318. *Health expenditure.* Total health expenditure has steadily increased in New Zealand from 6.9% of GDP in year 1990 to 8% in year 2000 (annual growth rate of 1.49%) (see Figure A3.9.5). Total real health expenditure per capita has also increased from 1 643 in year 1990 (at 1995 prices, national currency unit) to 2189 in year 2000 with an annual growth rate of 2.91%. However the increase has to be mainly attributed to the increase in private health expenditure (private health expenditure refers to expenditure for private health insurance or to out of pocket payments). Real private health expenditure per capita has increased at an annual rate of 5.23%, while public health expenditure per capita has increased at a rate of 0.71%. Public health expenditure has increased over the same period from 5.7% to 6.2% of GDP (0.84% annual growth rate), while private health expenditure has increased from 1.4% to 2.3% of GDP (4.14% annual growth rate).

Figure A3.9.5. Expenditure on health, per capita, NCU 95 GDP price

319. *Physicians.* The number of practising physicians has increased from 1.9 (per 1000 population) in year 1990 to 2.2 in year 2000 (Figure A3.9.6).

Figure A3.9.6. Number of practising physicians, per 1000 population

320. *Population.* The percentage of the population older than 65 years old has increased from 11.1 in year 1990 to 11.7 in year 2000. On the other hand, life expectancy has increased from 75.4 to 78.3 years from year 1990 to year 1999.

Main policy initiatives

321. *Introduction.* In 1992-3 New Zealand experienced major reforms in its health care system. As part of these reforms, a National Advisory Committee on core Health and Disability Services was created. The main purpose of this Committee was to advise the Ministry of Health on which services should be publicly funded and which not (Hefford and Holmes, 1999). However the Committee soon decided that the question to be answered was not to identify 'core' public funded services but instead to identify what were the eligibility criteria, in terms of likely health benefits, for patients to be entitled to have access to publicly funded services. The Committee proposed a replacement of waiting lists with a booking system as a better

way to manage patient demand for elective surgery. The first policy document on the implementation of a booking system was the 1996-7 Policy Guidelines for Regional Health Authorities (Shirley, 1996). These guidelines have been progressively implemented. In the following section, a detailed description is provided of the objectives of this reform and the strategies that have been adopted to reach it. The main advantages and disadvantages of the reform are discussed and the available evidence on its impact is presented.

322. *Objectives and strategies of the new waiting times policy.* The strategy of the government to reduce waiting times was set out in the document “Reduced Waiting times for public hospitals” (2000). This document is based on four stated objectives to be reached through seven strategies. The objectives and the strategies are briefly summarised. The four stated objectives are the following. 1) All patients with a level of need which can be met within the resources (funding) available should be provided with surgery within *six months* of assessment. 2) There should be delivery of a level of publicly funded service which is sufficient to ensure access to elective surgery before patients reach a state of unreasonable distress, ill health, and/or incapacity. 3) There should be national equity of access to electives - so that patients have similar access to elective services, regardless of where they live. 4) There should be a maximum waiting time of six months for first specialist assessment.

323. Objective 1 implies that surgical treatment will not be guaranteed to every patient: only to the ones with higher need. For those that have sufficiently high need, then the surgery will be provided within six months (at the latest) from the date that the specialist has assessed that the patients do indeed require the treatment. What is the level of need below which the treatment is not provided? The treatment is provided to the patients up to that level of need which is compatible with the level of resources available. As we will see later, tools and criteria for assessing the ‘need’ of patients play a crucial role in implementing this policy. Overall, the four objectives are challenging. The main novelty lies in the explicit recognition that the public service does not have sufficient resources to provide treatment to all the patients that might be deemed to benefit from, and wish to receive, treatment.

324. *Strategies.* The seven strategies to be followed to achieve the above objectives are summarised in the following.

Nationally consistent clinical assessment. *Clinical confidence.* This strategy is based on the development of ‘assessment tools’ and ‘guidelines’. These tools should support the clinicians in assessing the need of the patients in order to give higher priority to the patients with higher need. It is explicitly recognised that the developed and developing ‘assessment tools’ do not represent a ‘scoring system’ but are a means of informing treatment decisions by clinicians. The final decision remains the clinical judgement of the specialists. *National consistency in access.* The development and utilisation of the ‘assessment tools’ is also supposed to help assessing the need at regional level, reducing systematic disparities among regions. It may also help to bring about fairer access to communities with lower health status, as for the case of Maori and Pacific people. Access to the guidelines implemented in New Zealand is available at the following web site (www.nzgg-careplanes.org.nz). As an example of developed guidelines for the prioritisation of the patients in need of cataract surgery, the following criteria have been identified. Patients affected by “Lens induced glaucoma” should be treated within 4 weeks (urgent, 91-100 points). Patients categorised as “Cataract extraction required in order to treat posterior segment disease” should be treated within 12 weeks (semi-urgent, 71-90 points). For all other cataracts, a separate scoring system has been developed (1-50 points). For patients falling into this last category, points may be assigned according to the following criteria: “visual acuity score” (max 5 points), “clinical modifiers” (max 5 points), “severity of visual impairment” (max 10 points), “ability to work, give care, live independently” (max 5 points), “other disability” (max 5 points). If patients score 21-50 they

are considered “routine” and should be treated within six months. Patients scoring less than 20 are “deferrable” (for a more extensive description of, and introduction to, these prioritisation criteria, see the papers of Hadorn and Holmes, 1997a, 1997b).

Increase the supply of elective services. It is recognised that increasing the supply of services is also necessary to reduce waiting times. The volume of activity provided has reflected the level of funding made available to the providers, through the regular budget and the Waiting times fund.

Give patients certainty. This strategy consists in giving patients certainty about the eligibility for surgery (not certainty of treatment). It is suggested that patients should be classified on the basis of their level of need for surgery according to three possible categories: a) “scheduled for surgery/booked”, b) “certainty of treatment within six months”, c) “active care and review”. Patients with high need should be scheduled for treatment (*booked*) or given assurance that they will receive the treatment within 6 months (*certainty*). a) The first category (*scheduled for surgery/booked*) includes patients with high need that are ‘booked’ and are given a date for surgery. b) The second category (*certainty of treatment within six months*) in order of need includes patients that are not ‘booked’ but have sufficiently high need to be given ‘certainty’ of treatment within the following six months. c) The third category (*active care and review*) includes patients that cannot be offered surgery within six months. These patients are included in a category of ‘active care and review’. The specialist and the general practitioner provide jointly a ‘plan of care’ instead of offering surgery. The ‘plan of care’ should outline the dates for reviewing the patients at a later stage, contact persons and care strategies available. Finally, there are patients who would still benefit from the treatment, but the benefit is too low to be given any expectation of receiving surgery at public expense. In summary the main idea of this strategy is to give ‘certainty’, not certainty of treatment, but certainty of fair and expert assessment of need.

Improve the capability of public hospitals. It is recognised that some hospitals in the past did not have the capability to supply the ‘desired level of elective services’ and the ‘desired levels of quality and timeliness performance standards’. In order to reach sustainable reduction in waiting times, it is considered necessary to facilitate the development of public hospital capacity. In the short term, this may take the form of sub-contracting elective activity either to public or private providers to ensure that appropriate service levels are achieved in high need regions. However in this sub-contracting activity two main principles are to be followed: a) making use of available public capacity (public capacity should be absorbed before arrangements with private providers are made); and b) public disclosure of the contracts and arrangements made with private providers (there should be openness about the reasons for using private providers).

Better liaison between primary and secondary sectors. It is recognised that lack of communication between general practitioners and hospital specialists may induce some inefficiency in the management of patients waiting for treatment. The situation may be improved through the establishment of working groups and the development of integration projects between general practitioners and specialists. For example general practitioners may work within hospital clinics to improve the appropriateness of their referrals.

Actively manage sector performance. The implementation of waiting times initiatives requires the introduction of:

- (a) 'a facilitative approach which encourages best practice through collaboration and information sharing', for example through the provision of nation-wide forums, establishments of multi-party projects;
- (b) 'clear performance expectations and minimum standards, including tight accountability arrangements and effective monitoring'. It is recognised that to induce a change in the behaviour of the providers it is necessary to introduce defined performance expectations, to measure and monitor progress against those expectations, and to incentivise and sanction in the light of the performance achieved. As a consequence, the arrangements/accountability documents (between purchaser and provider) should clearly state who is responsible for achieving performance, the benefits from achieving adequate performance; the consequences in case adequate performance is not achieved. Examples of performance measurements are: the percentage of patients waiting less than six months for surgery from the time of the decision to treat; the percentage of patients who have a care plan which details their diagnosis, next actions planned, and whom to contact if there is a problem; the percentage of patients operated on who were booked or given certainty of treatment at the time of assessment; and the hospital's level and quality of data collection, analysis and feedback, to improve clinical practice (for example in assessing the relative need of patients). The strategy also suggests how the performance measurements should be used. The comparison of hospital performance, for example through league tables and benchmarking, can be useful to identify high performers and poor performers. The identification of high performers may be useful to identify best practice that can be spread to low performers. Hospitals that perform well would be rewarded with greater flexibility and less monitoring process in the management of waiting times. The identification of low performers would imply more monitoring and agreement on recovery plans.
- (c) 'Outcome focused accountability arrangements'. At present most hospital remuneration arrangements (*accountability arrangements*) are based on simple contracts that specify the volume for elective procedures for a given price (budget). There is recognition that this type of arrangement induces some forms of efficiency, for example a shorter length of stay, but does not foster increase in production beyond the purchased level. It is anticipated that in the longer-term hospitals may be remunerated on the basis of new forms of arrangements, by specifying, instead of the volume of activity, a pre-specified need of the population to be measured in clinical and human terms. Two illustrative examples are provided for the case of cataract surgery and hip replacement. 'All patients clinically assessed as requiring a cataract operation in order to keep their driver's licence will be provided with cataract surgery within six months of assessment (approximately x operations per 1000 people in the region)'. 'All patients clinically assessed as requiring a hip replacement to comfortably walk a flight of stairs will be provided with hip replacement surgery within six months of assessment (approximately y operations per 1000 people in the region)'.

Build public confidence. It is suggested that elective surgery policy should be made widely known to the public by providing information on which elective services are provided by the public hospitals.

Discussion

325. Despite the increase in funding for elective surgery, waiting lists still remain a problem in New Zealand. Meanwhile, the recent reforms in waiting times policy represent an interesting and important initiative because, unlike most of other OECD countries with waiting times problems, the government of

New Zealand has intervened also on the demand side, as well as on the supply side (indeed the publicly funded surgical discharges for elective services have increased at an annual growth rate of 7.4% between financial year 1995/96 and 2000/01).

326. The preliminary evidence suggests that at present the policy has been effective at least in reducing the number of long waiters (patients waiting longer than 6 months and 2 years). There has been a 56% reduction in the number of patients waiting more than six months for treatment between the third quarter 1999/2000 and the third quarter 2000/01. The reduction was 69% for patients waiting more than two years for treatment.

327. However a better description of the changes generated by the recent reforms is depicted in figure A3.9.7 which describes the status of the patients on the list in the last two years. The patients on the waiting list are broken down in three main categories: the number of 'patients that are either booked or have certainty of treatment within six months', the number of 'patients in active review', 'residual waiting list'. The first two categories have been already explained under the heading 'Give patients certainty', above. Residual waiting lists include patients that have waited for substantial periods of time, in many cases years, and whose current health status is often unknown (Elective Services First Quarterly Report, 2001/02). Over time, many of the patients on the residual waiting lists have been referred by their general practitioner for an updated specialist assessment, while others have been placed in 'active review'.

Figure A3.9.7. Status of the patients on the list

328. In the third quarter of fiscal year 1999/2000, 30% of the patients were 'booked or given certainty', and only 2% were in 'active review'. The remaining 68% of the patients on the list were assigned to a third category not explicitly envisaged by the government strategy, the so-called 'residual waiting list'. In the first quarter of fiscal year 2001/2002, the situation had changed significantly. 41% of the patients were 'booked or given certainty', and only 38% were in 'active review'. The remaining 21% of the patients were still classified as remaining on the 'residual waiting list'.

329. The latest available figures suggest that the number of patients booked or given certainty has remained quite stable (or slightly increased). It is worth noting that the number of patients 'on residual waiting list' and 'in active review' have been fairly stable on the last four quarters.

330. The persistence of residual waiting lists suggests that rationing patients on the basis of the 'severity' may not be a simple option to embrace, since surgeons may have severity thresholds that differ from those implied by government resource constraints. To some extent, it still remains to be fully evaluated how clinical guidelines can be made fully operational. It remains unclear to what extent the guidelines can be used consistently by different providers, and to what extent different providers using the same tools will take similar decisions regarding prioritisation of the patients. This is still an object of current research in New Zealand. For example, Gauld and Derrett (2000) argue that any scoring system may be open to abuse by clinicians and patients. Moreover, there is some evidence that certain prioritisation tools may be problematic in the sense that can lead to different scoring by different surgeons for similar patients (for example on cataract surgery see Halliwell, 1998; for cholecystectomy, see Dennett et al., 1998). Other studies seem more optimistic about the reliability of prioritisation tools in assessing severity, at least for general surgery, hip and knee replacement (Noseworthy, McGurran, 2001).

331. A final element of innovation in the reforms in New Zealand relates to the introduction of a "booking system". Compared to standard waiting list management, the main advantage of booking relates to the reduction in uncertainty for the patient about the date on which s(he) will receive treatment. Under standard waiting list management, it is generally the case that patients waiting are uncertain about the date of their treatment until their 'turn' arrives. This may create anxiety among patients because of their fear of

loosing their turn if they are not available to be admitted when the hospital calls them (Hefford and Holmes, 1999). The introduction of a booking system introduces certainty about timing and some peace of mind. However at present only approximately 40% of the patients in all the categories depicted in Figure A3.9.7 are booked or given certainty of treatment within six months. Moreover, from the available statistics, is not possible to ascertain what share of the 40% is actually “booked” and what share is given “certainty” of treatment.

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10. NORWAY

Main characteristics of the Norwegian health system

332. The Norwegian health system is characterised by universal coverage and is financed mainly through taxation and only to a small extent by out-of-pocket payments. In 1998, about 83% of total health expenditure was public. Prior to 2002 the health system was organized in three main political and administrative levels: national government (legislation and regulation), counties (secondary care) and municipalities (primary care). The 19 counties were responsible for financing, planning and provide specialised hospital care. They were also responsible for planning, building and managing hospitals. The health care system has been subject to a major reform in 2002. Since January 2002 responsibility for and ownership of hospital were removed from the counties to the state. Five regional enterprises have been established, each with its own professional board. The regional enterprises have organised the hospitals around 32 health enterprises. These are separate legal subjects and they are not an integral part of the central government administration. The main health policy objectives are determined by the central government and form the basis for the management of the enterprises. The regional health enterprises have statutory responsibility for ensuring the provision of health services to inhabitants in their geographical area, not only via their own health enterprises, but also from private specialists and private hospitals. The municipalities are still responsible for primary health care.

333. *Hospitals.* The takeover of responsibility for all hospitals by central government breaks a more than 30-year-long tradition of hospitals being owned and run by the counties. The counties were assigned responsibility for institutional health services since the Hospital Act was introduced on the 1st January 1970. Norway has 85 hospitals for its 4.5 million inhabitants. Five regional health enterprises have been established, which in turn have organised the hospitals and pharmacies around 32 health enterprises. In addition to public hospitals, there are seven small private hospitals. In 2002, the private hospitals accounted for around 100 beds compared with 13 000 beds in public hospitals. These private clinics specialize in open heart surgery, hip surgery and minor surgical procedures such as arthroscopy and sterilization, as well as inguinal hernia, cataracts and varicose vein operations in response to long waiting lists for such care in public hospitals. The regional health enterprises are encouraged to enter into agreements with private providers of health care. There is a growing number of private hospitals.

334. *Hospital remuneration.* At the beginning of this decade the hospitals received block grants. However since 1997 a partial activity-based financing system based on DRG was introduced. By 1999 18 out of 19 counties had chosen to implement the activity-based system. Since 2002 all regional enterprises have implemented this form of financing. The DRG system has often been criticised within the Norwegian debate for not encouraging research and education and for not taking into account adequately of the variations in patient case-mix. A committee has been established with the task of reviewing by the end of year 2002 the whole system of the financing of the hospitals and propose the necessary reforms. Outpatient consultations have since 1980 been financed by the National Insurance Unit on a cost per case basis.

335. *Specialist remuneration.* As a general rule specialists working in public hospitals are remunerated on a salary basis. However there has been some use of financial incentives in terms of remunerating overtime work in relation to projects to reduce waiting times. The type of financial incentives may vary

among the different projects. The hospital directors have the option of making individual agreements on salary increases with selected specialists. It has been the case for some specific projects that the specialists would receive a fixed share of the benefits of the project. There has not been a national regulation of the extent to which specialists are allowed to work both in private and publicly funded hospitals, or to visit or treat private patients within public hospitals. However some hospitals have imposed some restrictions on both these practices.

336. *Co-payments.* There are no co-payments for inpatients. Patients pay 114 NOK for a GP visit and 200 NOK for a specialist visit. However if the patient have already spent 1 350 NOK within the same year they are exempted from further payment.

337. *Private health insurance.* The role of private health insurance is moderate. Out of a population of 4.4 million people approximately 20000 people subscribe for private health insurance. Of these subscribers, 6000 people live in a municipality called Eidskog where all inhabitants are offered membership. The main insurers are Storebrand and Nordisk Helseassistanse that cover approximately 80% of the subscribers.

338. *Primary care.* Primary medical care is supplied by GPs who act as gatekeepers for specialist services. Most of them are self employed professionals under fee for service contracts with municipalities but about 20% are the salaried employees of municipalities.

339. *Waiting times.* A national system for registering patients placed on waiting lists was set up in 1990 and counties were required to report waiting times from 1992. Considerable improvements were made to waiting times data when a National Patient Register was set up in 1997.

Table A3.10.1. **Waiting times 'from specialist assessment to treatment' by surgical procedures for publicly funded patients (days)**

Year		2001	2001	2000	2000
	NOMESCO codes for surgical procedures	Mean waiting time	Median waiting time	Mean waiting time	Median waiting time
Cataract surgery	CJE20	63	28	39	21
Percutaneous transluminal coronary angioplasty (PTCA)	FNF, FNG	48	8	53	18
Coronary bypass	FNA – FNE	45	27	46	25
Cholecystectomy	JKA20, JKA21	75	53	103	63
Inguinal and femoral hernia	JAB	98	62	109	74
Prostatectomy	KED, KCH42	72	42	75	47
Vaginal hysterectomy	LCC10-20; LCD; LCE	61	35	64	37
Knee arthroscopy	NGA11	96	63	100	64
Total and partial hip replacement	NFB,NFC	124	92	133	99
Knee replacement	NGB, NGC	148	121	160	132
Ligation and stripping of varicose veins	PHB10-16; PHD	141	108	142	110

340. *Management of the waiting lists.* The hospital management is responsible for the figures on the waiting times from the institution. In most cases the referral from a General Practitioner is sent to the section in the hospital where the patient expects to be examined or treated. Either nurses or doctors decide whether to put the patients on the waiting list. However, most health enterprises have invested some resources to acquire personnel responsible to control and advise the specialists and nurses on how to register the patients on the waiting lists. The hospital management is aware that one of the most efficient ways to reduce waiting times is to keep the waiting lists updated. This avoids that long waiters, that do not require or desire the treatment anymore, are counted in the waiting time average.

341. *Health expenditure.* Total health expenditure has been varying in Norway in the last ten years. Total health expenditure was 7.8% of GDP in 1990, increased to 8.2% in 1992, remained stable at 8% in the period 1994-1997, increased to 8.5% in years 1998-9 and fell to 7.5% in year 2000. Private health expenditure over the same period has remained fairly stable at the level of 1.4%. All the variation in total health expenditure has to be attributed to variations in public health expenditure. On the other hand total real health expenditure per capita has constantly increased in the years 1991-2000 at an average annual growth rate of 2.42%, with the exception of last year 2000 when real expenditure fell.

Figure A3.10.1. Expenditure on health, per capita, NCU 95 GDP price

342. *Physicians.* The number of practising physicians has increased from 2.6 (per 1000 population) in year 1991 to 2.9 in year 2000 at an annual growth rate of 1.22%. Practising specialists have also increased from 2 to 2.2 over the same period. About 10% of physicians engaged in specialist health care are in private practice.

Figure A3.10.2. Number of practising physicians, per 1000 population

343. *Ageing and life expectancy.* The percentage of the population older than 65 has decreased from 16.3 in year 1990 to 15.4 in year 2000. Life expectancy has increased from 76.6 to 78.7 years.

Main policy initiatives

344. *Prioritisation in health care.* Considerable thought has been given to prioritisation of health care in Norway. In 1987 the Lonning Report, 'Guidelines for Prioritisation in Norwegian Health Care', suggested that health services could be divided into five groups in terms of priority. First priority was given to treatments that would save lives, second priority to treatments that were necessary to avoid serious consequences on health, third priority to treatments whose undesired effects would occur if they were not undertaken. Fourth priority was given to treatments with minor unfavourable consequences if they were not undertaken, fifth priority to treatments which, although they were demanded, had no documented effects. The report suggested that the last group of treatments should not be provided.

345. *Maximum Waiting Time Guarantee.* A 'Maximum waiting time guarantee' was introduced between year 1990-2000 by the Norwegian Parliament on behalf of the counties. One of the aims of the policy was to equalise waiting times across the country. The guarantee referred initially to a maximum period of six months and included only the non-emergency patients for whom waiting times could generate "damage to health". It did not include less severe patients that could have been allowed to wait substantially longer. Moreover, the counties were legally required to report hospital waiting times three times a year (Van den Noord et al., 1998). According to this legislation, the county councils were fully responsible for offering treatment to patients, who had been given a waiting-time guarantee, within six months, making use, if needed, of available capacity in other counties. In the first years the initiative did not show much evidence of being a success. Several problems were encountered. There was lack of experience in managing hospital data. There were no national guidelines to indicate which patients should

receive the guarantee. Counties did not feel responsible for failing to fulfil the guarantee and blamed the government for not providing enough resources (Christensen, 2001). The failure seems also to be supported by some empirical evidence. The number of patients on the waiting list increased from 227 000 to 301 000 during the period 1993-1996, especially for specialties like orthopedics, urology and otolaryngology (Van den Noord et al., 1998). In the same period the number of “violations” of waiting-time guarantees increased from 3 000 to 19 500 (Van den Noord et al., 1998). Moreover, several studies have shown that the proportion of patients granted a waiting-time guarantee varied both between and within counties, pointing to differences in interpretations of the criteria for giving a guarantee (OECD policy questionnaire, 2002).

346. *Revision of the Maximum Waiting Time Guarantee.* In 1997 some changes have been introduced to the guarantee and new guidelines were developed to review eligibility criteria. A Maximum Waiting Time guarantee of three months was introduced for patients who satisfied the following criteria. 1) Patients are non-emergent. 2) The illness is severe to the point that postponing the treatment would have serious consequences for the patient. 3) The offered treatment has documented effect. 4) The expected benefit is proportional to the expected cost of the treatment. If the patients had been on a waiting list for longer than three months, the county of residence was obliged to arrange treatment elsewhere (either in another county or abroad). A Maximum Waiting Time guarantee of six months was maintained for patients of lower priority. Moreover it was also introduced the right to be evaluated for a specialist visit within 30 working days after the referral from the general practitioner (outpatient waiting time).

347. It is difficult to evaluate the success or the failure of the revised maximum waiting time guarantee. Since the summer 1997, the number of patients waiting has been fairly constant at about 280 000 patients. However the number of patients with unfulfilled guarantee has fallen from 25 000 (December 1997) to 5 000 (April 1999). Despite the improvements compared to the antecedent guarantees, the system of a maximum waiting time guarantee was abandoned at the end of year 2000. The main reasons for abandoning the guarantee were that the guarantee did not protect adequately the patients with highest need (who needed the treatment much earlier than the expiration of the guarantee). Secondly, the guarantee was not binding in the sense that if patients would experience a violation of the guarantee itself, there would be no consequences involved for the provider (a proposal to introduce a penalty on hospitals that break the waiting time regulation was turned down by the parliament).

348. *Right to necessary health care.* The Maximum Waiting-time guarantee was replaced at beginning of year 2001 by the introduction of ‘the right to necessary health care’. The patient still has the right to receive the treatment in an ‘appropriate’ time limit, but this needs to be assessed on an individual basis. No general time limit is determined for all the patients. The patients that are entitled to receive the ‘right to necessary health care’ within an individual time limit should satisfy the following two criteria. 1) They risk a loss in life expectancy or quality of life if the health care is postponed. 2) The patients have expected benefits from the treatment and the expected benefits from the treatment are proportional to the costs of treatment. This initiative has reinforced the position of the patient since she/he is entitled of some legal rights. The patient has the chance to complain formally and can sue the hospital if the waiting time is too long according to the clinical conditions. On the other hand, the position of the patient has been weakened since no explicit time limit for waiting is defined anymore and it may prove difficult to verify the appropriateness of the time waited compared to the condition of the patient. Finally the hospitals may become reluctant to guarantee the patient the ‘right to necessary treatment’ and may provide it only to the patients for whom they know they will be able to satisfy it. There is lack of evidence on the number of patients that had their ‘right to necessary health care’ violated and the waiting time limits that have been assigned in different hospitals to the different groups of patients with similar diagnosis.

349. Patients still have the right to be evaluated for a specialist visit within 30 working days after the referral from the general practitioner.

350. *Increase in resources.* From 1994 to 1997, counties received extra resources to meet waiting time guarantees. Resources were however not conditional on the proof that extra activity had been carried out. There is no evidence on the effectiveness of this policy.

351. *Activity-based remuneration system.* Before 1997 the government provided funding to the counties for hospital care on the basis of a block grant system. The grants were provided according to a set of criteria as the per-capita income in the county, the age composition of the population and the population density. Since July 1997 the government has accompanied the block grants with the introduction of an activity based remuneration system. The aim was to raise elective activity by increasing hospital efficiency, with the explicit intention of helping to fulfil waiting times guarantees (Biorn et al., 2002). The activity-related grant corresponded in 1997 to 30% of the average DRG-based costs per inpatient treated. While the counties were partially financed on the basis of the activity, this was not necessarily the method that the counties used to finance hospitals. In 1997, 13 out of 19 counties had introduced activity-related financing for their hospitals. The remaining six counties continued to finance their hospitals through the use of fixed block grants. In 1999, 18 out of the 19 counties had chosen to implement the activity-based system. In the same year, the share of the reimbursement of the DRG costs has increased to 50% (since 1999 day care surgery has been financed based on DRGs). Since the beginning of 2002 the health care sector has been subject to major reforms. The ownership of the hospitals has passed from the counties to the State. Five regional enterprises have been formed. Under the new system the share of activity-related grant has increased to 60% of the average DRG-based costs per inpatient treated. The regional health enterprises also use activity-based funding of the DRG type when they buy day-surgery treatment from private specialists outside institutions. An econometric study in 48 Norwegian acute hospitals between 1992 and 2000 suggests that activity based funding led to a rise in the annual growth rate in hospital activity from 2% between 1992 and 1996 to 3.2% between 1997 and 1999. This seems to have been achieved by a rise in technical efficiency. However, cost efficiency seems to have been reduced - probably because tight labour supply led to higher compensation per worker in the form, for example, of overtime payments (Biorn, E. et al., 2002).

352. In 1996 a project was launched to experiment if a remuneration method where the payment follows the patient (fee-for-service) may have an impact on reducing waiting times for orthopaedic treatment. The project included two orthopaedic treatment centres in Oslo and Sør-Trøndelag. The project was successful in terms of reducing waiting times for orthopaedic treatments. The study also revealed that the waiting lists obtained from the hospitals were not updated, and there were discrepancies between the official figures for waiting times and the ones at the hospital. However the project revealed that the patients were willing to travel to obtain elective treatment. At the end of the project, the initiative was not renovated.

353. *Reducing waiting times for people on sick leave.* Since 1988 The Ministry of Health and Social Affairs has encouraged the projects aiming at reducing the waiting times for patients on sick leave in order to reduce the cost of sickness benefits. The Parliament has considered making this initiative a permanent one but some criticisms have been raised, in terms of giving priority to people that are employed as opposed to unemployed or retired.

354. *Buying health services abroad.* For several years, Norway has tried to increase capacity by buying health services abroad, especially from Sweden and more recently from Germany. The most recent initiative was launched at the end of year 2000. A grant of 1 billion NOK has been made available to treat abroad approximately 10 000 patients during a three years period. The initiative has been managed by the National Insurance Unit³. When patients are put on a waiting list, they receive an offer to receive the

3 The National Insurance Scheme is a state-run institution, which offers insurance against individual medical expenses (fee-for-service) for ambulatory care provided by hospitals and private practitioners.

treatment abroad. The National Insurance Unit takes care of negotiating contracts abroad and arranging for the patient the journey, the place and the time. At present most of the treatments are within the orthopaedic speciality and to a lower extent in plastic surgery. The cost of treating patients abroad has been evaluated approximately to be the same as at home. Within the same initiative, Norwegian physicians may also accompany the patients with the purpose to learn more about the methods that are applied abroad to increase hospital capacity. The initiative has often raised some questions and some criticisms. For example it has been claimed that the grant may be used more effectively to finance national initiatives. Moreover once patients return to Norway, they may still need some further assistance and treatment from the local hospitals. The initiative will continue also in 2003 with a budget of 85 million NOK. The main purpose is to transmit competence to Norwegian specialists in areas like: anorexia, cochlea, heart complaint, prostate-cancer, complicated neck and back-related diseases and Parkinson.

355. *Increase the choice of the patients.* Since the beginning of 2001 the free choice of the hospital has entered the Act for the Patients Rights. The main idea is to induce hospitals to compete to attract the patients, by providing a better service, higher supply and lower waiting times. To help patients to search for the hospitals with lower waiting times, a free phone line has been set up and expected waiting times for 35 main surgical procedures are provided on an Internet web page. Data are provided by surgical procedure and by hospital (not specialist). The service expects to be improved by middle of 2003 by providing waiting times for up to 200 procedures. At the time of referral the patient can freely choose the provider according to the shortest waiting times. However the patient is supposed to be referred only to one hospital and the referral is valid for a year after it has been issued. One further constraint is that the patients are prohibited to choose a type of hospital with a higher degree of specialisation compared to the one it was referred for. The three hospital types are (in order of degree of specialisation) local hospitals, county hospitals and regional hospitals. The costs for the patients are limited to a maximum of 440 NOK for the journey.

Discussion

356. Norway seems to have a moderately severe waiting times problem judging by the average waiting (estimated 53 days, WHO, 2000) in 1998. Waiting times for patients admitted in year 2000 and 2001 (see table A3.10.1) result to be also significantly lower compared to other countries.

357. The policy that has been maintained for the longest period is the “Maximum waiting time guarantee”. Since its introduction in year 1990, this guarantee differed from the guarantees implemented in other countries, for its lack of universality. The guarantee was ‘conditional’ and it included only the patients for whom waiting time could generate damage to health (the more severe). Despite the main idea to provide the guarantee to the more severe patients is conceptually desirable, it remains very difficult to operationalise. This is due to the lack of homogeneity in applying the criteria for evaluating the severity of the patients.

358. The policy revealed overall quite unsuccessful and the guarantee has been abandoned in year 2000 and substituted by the ‘right to necessary care’ in 2001, for which the maximum time has been eliminated. However even this reform suffers, maybe to a higher extent, from the same limitations. The patients still have the right to receive treatment in an appropriate time limit, which needs to be evaluated on an individual basis. The main problem lies in the high discretion for the providers both on the choice of the patients who are provided with the guarantee and in the choice of the appropriate time limit. On the other hand the introduction of the ‘right to necessary care’ is an attempt to respond to the main criticism of standard maximum waiting times guarantee, which is that it may induce inappropriate clinical prioritisation.

359. More recent reforms have approached the problem more directly on the supply side introducing DRG-based payments, buying treatments abroad increasing the choice of the patients.

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11. SPAIN

Main characteristics of the Spanish health system

360. The Spanish health system is characterised by universal coverage and is financed mainly through general taxation. Responsibility for provision of health services was until 2002 partly centralised under INSALUD (the National Institute of Health) and partly decentralised to 7 Autonomous Regions. From January 2002 it has been wholly decentralised to all 17 Autonomous Regions. Total health expenditure accounted in year 1999 for 7.7% of the GDP. 70% of total health expenditure was public (OECD, 2002 Health data).

361. *Hospitals.* Most of the hospitals are publicly owned. In year 1995, 68.8% of all hospital beds were public, 18.4% were private for-profit and 12.4% were private no-profit. Regions provide publicly funded health services mainly through publicly owned hospitals but also through private (profit or non-profit) hospitals that are contracted out. The percentage of public health expenditure that had been used to contract out services to private providers has been falling from 25% in 1979 to 15% in 1995 (WHO, 2000). Private hospitals provide discharge patients both for publicly funded and privately funded patients. In year 1996 47% of the discharged of privately owned hospitals was publicly funded. Of the remaining 53%, 43% was financed by private health insurance while the remaining 10% through out-of-pocket payments.

362. The following information refers specifically to Insalud. Insalud was, until January 2002, the organisation of the Central Government responsible for providing health services to more than 14 million people (about 35% of the population). It included 10 of the 17 Autonomous Communities and the cities of Ceuta and Melilla. Insalud owned 82 hospitals (three of them without surgical activity) with 40,416 beds, 890 operating theatres, 166 delivery rooms and 95 outpatient clinics.

363. *Hospital remuneration.* Among the publicly funded hospitals, publicly owned hospitals are in general remunerated with a fixed budget. The main criteria for the determination of the budget at hospital level are the past expenditure and the case-mix of the hospital. Among the publicly funded hospitals, private hospitals (private non-profit hospitals and private for-profit hospitals) are remunerated with a fee-for-service mechanism on the basis of the volume of activity performed. A fixed price for each type of procedure is utilised that includes amortisation costs. This is not the case of public hospitals, for which investments are financed in an independent way to activity remuneration.

364. *Specialist remuneration.* Specialists working within publicly funded hospitals are not allowed to visit private outpatients or to operate on patients within the same hospital. However specialists working within publicly funded hospitals are allowed to work in privately funded hospitals. Finally specialists working in publicly funded hospitals, who do not work in privately funded hospitals, have a greater remuneration compared to specialists that also work in privately funded hospitals.

365. *Co-payments.* There are no co-payments for receiving publicly funded surgery.

366. *Primary care.* General practitioners are the first contact for the patients and act as gate-keepers. They provide diagnosis and, when appropriate, treatments. Patients receiving specialist care return to general practitioners for follow-up treatment.

367. *Waiting times.* There are signs of some degree of dissatisfaction of the population with waiting for publicly funded non-emergency surgery. A sanitary barometer has been recently undertaken to measure within a scale between 1 and 7, to what extent the population was dissatisfied with waiting time for non-emergency surgery in public hospitals. The mean value resulted to be equal to 3.17 (Ministerio de Sanidad y Consumo. Barómetro Sanitario, 2000).

368. Insalud has recorded administrative data since 1996. More precisely, the waiting list information system was standardised and an obligatory minimum database was refined and implemented. To ensure correct monitoring, the waiting list registration from all surgical departments was centralised in the hospital's admitting department and a compulsory minimum database was established. Information of the minimum database had to be sent in electronic format to Insalud's central offices on a monthly basis. The database included individual information on the waiting time of each patient waiting for an intervention in an operating theatre and the number of entries and exits from the waiting list (including individual information on each patient removed from the waiting list). The information system was broken down by hospital, speciality or procedures and it included indicators such as cross-sectional and retrospective waiting times, entry-exit ratio, percentage of all planned interventions that came from the waiting list. This information was used by Insalud Central Authorities with comparative and management purposes (Hospital surgical waiting list goals monitoring). The data were analysed monthly to suggest actions to be taken by hospital managers. At the hospital level, the managers would then transmit this information to the specialists.

369. *Targets.* During the period 1996-2000, various targets have been defined in terms of reduction of mean waiting times and setting of maximum waiting time. The targets varied over this period of time and are summarised in Figure A3.11.1. At mid year 1996 only one target was introduced in terms of a maximum waiting time stating that 'no patient should be waiting for more than one year on the last day of 1996'. For year 1997 two targets were introduced both in terms of maximum (9 months) and mean waiting (100 days). After 3 years (in year 2000) the maximum waiting time was brought down to 6 months and the mean waiting time to 55 days.

Figure A3.11.1. Targets: mean and maximum waiting time of the patients on the list

370. *Waiting times.* The waiting times (of the patients on the list) have markedly reduced in INSALUD (which covers 40% of the Spanish population) over the period 1996-2000. The aggregate mean waiting time has decreased from 210 days in June 1996 to 136 days in December 1996. Another sharp fall was achieved in the following year, bringing the waiting time to 98 days in December 1997. In the last two years the waiting times has further decreased but at a lower rate of decline reaching the level of 66 days in December 1998 and 62 days in December 1999. A slight increase has resulted in the last year bringing the waiting time to 67 days in 2000.

371. We have also been provided with waiting times data by surgical procedure for INSALUD during the period 1992-2001. Waiting times have generally experienced a sharp decline in the first year 1992-1993, after which they have further reduced for most of the surgical procedures (growth rates between 1994-2000 varied between -2% and -10.3%) and increased for few (between 0.4% and 18.5%). More detailed information is provided in the following figures A3.11.3.

372. On the other hand, waiting times by main speciality in the Vasque country (which is also part of National Health System of Spain and covers 5% of the Spanish population) suggests how waiting times

have generally decreased for inpatient (figure A3.11.4) and increased for outpatient (figure A3.11.5). For inpatient waiting time, there has been a sharp decline in the first year 1992-1993. Between 1994 and 2001 waiting times have been either stable or declining, according to the speciality, with annual growth rates varying in the range -5.3% and 2.1%. On the other hand, outpatient waiting times have generally increased between the period 1996-2001. Excluding 'thoracic surgery' and 'gynaecology and obstetrics', which present large fluctuations, annual growth rates have been varying in the range -18.4% and 11.4% (most of the specialities had positive growth rates).

Figure A3.11.2. Mean waiting time of the patients on the list. Insalud.

Figure A3.11.3. Mean waiting time of the patients on the list by surgical procedure. Insalud.

Figure A3.11.4. Mean waiting time of the patients on the list by main speciality (inpatient and day surgery). Vasque country.

Figure A3.11.5. Mean waiting time of the patients on the list by main speciality (outpatient). Vasque country.

373. A similar decreasing pattern of aggregate waiting times can be identified by analysing the number of patients on the waiting list who have been waiting for longer than 6 months (Figure A3.11.6). The number of patients waiting more than six months was 54 348 in year 1996. This figure was more than halved by the end of 1997 falling to 24 993 patients. The number was drastically reduced at the end of years 1998 and 1999 (bringing the number to 530 and 513 respectively). Consistently with the slight rise in the mean waiting time, the number of patients waiting more than six months has started to increase once more. 2 826 patients were waiting more than six months at the end of year 2000.

Figure A3.11.6. Patients on the list waiting longer than 6 months

Figure A3.11.7. Patients on the waiting list

374. *Surgical Activity.* The reduction of waiting times has been accompanied by a rise in total activity over the years 1996-2000. Total activity increased on average at a 7.9% rate per annum for three years during the period 1996-1999 from 350 000 in year 1996 to 440 000 in year 1999. It increased by a lower rate of 2% in year 2000 (reaching the level of 450 000). Public surgical activity during normal hours increased from 341 000 in year 1997 to 402 000 in year 2000. Public extra activity (during extra hours) increased from 13 000 in year 1997 to 18 000 in year 1999, to slow down to 16 thousand in year 2000. The contracted out private activity increased from 22 thousand in 1997 to 23 thousand in year 1999, to 32 thousand in year 2000. The cost of the programs has increased over time passing from 18.6 million Euro in year 1996 to 30 in 1997, 48 in 1998 and 45 in 1999.

Figure A3.11.8. Surgical treatments

Figure A3.11.9. Cost of the initiatives

375. The above figures refer to Insalud, which included 35% of the population (and ten regions) between 1994 and 2001. We finally describe some relevant variables for Spain as a whole, as available from the OECD health data.

376. *Health Expenditure.* Total health expenditure has steadily increased in Spain from 6.6% of GDP to 7.7% in year 2000. However the increase can be mainly attributed to the increase in private health expenditure (private refers to funding: private health insurance or out of pocket payment). Public health

expenditure has increased from 5.2% to 5.4% of GDP, while private health expenditure has increased from 1.4% to 2.3%. Note that *public* health expenditure for inpatient care also remained fairly constant in Spain between years 1991-1999 varying between 2.9% and 3.3% of the GDP. Total real health expenditure per capita has also increased at an annual rate of 3.92% (2.69% for public and 7.6% for private).

Figure A3.11.10. Expenditure on health, per capita, NCU 95 GDP price

Figure A3.11.11. Number of practising physicians, per 1000 population

377. *Physicians.* The number of practising physicians increased from 2.3 (per 1000 population) in year 1990 to 3.3 in year 2000. Hospital health employment also increased from 11.0 in year 1990 to 16.4 in year 2000.

378. *Population.* The percentage of the population older than 65 has increased from 13.8 in year 1990 to 17.0 in year 2000. Life expectancy has increased from 76.9 to 78.7 years.

Main policy initiatives

379. *Target population.* The new concept of ‘target’ population was introduced, which includes the whole population of patients who were on the waiting list at a point in time. For example, when this concept was first introduced in 1996, it included all the ‘patients who had entered the waiting list before the 1st January 1996. The main idea of the government was to estimate what share of the target population could have been treated within the available capacity of public hospitals during ‘normal hours’. Supplementary funding was then provided for the treatment of patients in the residual target population who could not be treated in ‘normal hours’. Three possible types of hospitals could provide the extra-activity. Priority to provide extra treatments was given to the *public* hospitals providing activity in extra working hours in the afternoon (and increasing the allocation of afternoon theatre time). If the extra-activity provided by the hospital was not large enough to treat all the residual target population then funding could be allocated to neighbouring hospitals or to private contracted hospitals. The financial arrangements between the government and the providers are described in the following paragraph.

380. *Allocation of the funds.* Over the period 1997-2001 the funds have been allocated to hospitals on the basis of the achievement of different targets either in terms of the activity performed and achievement of maximum waiting time and mean waiting time. More precisely in 1996, the funding for extra-activity was based on the number and type of surgical procedures to be treated under the Waiting List Initiative (a fixed price was paid for each planned extra-procedure provided at the beginning of the year). However the funding was allocated only to hospitals that were proving to operate efficiently with a morning operating theatre usage of more than 75% (in 1996 the average was estimated to be 65%). The volume of activity to be performed and the corresponding funding was communicated to the hospitals at the beginning of the period (to be done in the afternoon session from the target population).

381. In year 1997 a very similar system of allocating funds was introduced. The only difference was that the funds were not allocated at the beginning of the year, but were deferred and distributed on a monthly basis according to the volume of patients treated (from the target population). The funding allocation system changed after 1998. The funding was allocated to the hospitals not only on the basis of the volume of activity but also on the achievement of monthly targets in terms of maximum waiting times (number of patients waiting more than six months) and mean waiting times. The hospitals failing to reach the target were penalised with a reduction of the funding proportional to the deviation from the objectives. In year 1998, these reductions in funding could be regained by the end of the year if the targets were satisfied by that time. In 1999, 60% of the funding allocated to hospitals was related to the satisfaction of the maximum waiting time target (6 months) and 40% to the satisfaction of the mean waiting time target.

In contrast to the previous year, the hospitals deviating from the maximum waiting time targets on a monthly basis could not regain the lost funding if they were able to satisfy the target by the end of the year. This was still partially possible for the funding related to the mean waiting time target.

382. *Financial incentives for hospitals and doctors.* In addition to the funding allocated to the hospitals on the basis of activity or (mean and maximum) waiting times targets, additional financial incentives were put in place also for the personnel working within the hospitals. Hospital managers could receive financial incentives conditionally on satisfaction of the targets. The incentives varied between 4 357 Euros and 7 513 Euros according to the hospital type. All categories of hospital personnel could receive some bonuses, which were proportional to their salaries (varying according to professional category). Since 1997, specialists were entitled to an increase in salary up to a maximum of 3%, nurses up to 2% and other staff up to 1%.

383. *Prioritisation of the patients on the list.* Insalud, in collaboration with groups of medical experts, national speciality associations and scientific societies, developed explicit guidelines on clinical prescription or surgical indication criteria for the most frequent waiting list pathologies. On the basis of these criteria and guidelines, the patients on the waiting list are supposed to be ranked in the two main categories of 'high-priority patients' and 'routine or low-priority patients'. The priority should be based on clinical factors, such as the underlying disorder, the natural progress of disease, and the degree of disability caused by the disease and the presence of concomitant pathologies. For a given level of clinical condition of the patients, priority should be given to the patients that have been waiting for the longest time.

Discussion

384. Overall the policy implemented within Insalud has been successful in reducing waiting times. One of the key factors in the reduction of waiting times, was the design of an appropriate incentive structure for the hospital (the deliverers of the surgical treatment). The policy was mainly based on the introduction of dedicated funding for increase in activity level either from public or private providers. This policy was similar on the surface to policies implemented in other countries but it contained several innovative ideas. First, money was allocated to hospitals only after they had provided the activity (this was not necessarily the case in other countries with similar policies). Second, money was allocated from the central authority directly to the hospital, without passing through the health authority. Third, the policy made use of all the available existing capacity of both public and private hospitals. Fourth, objectives were defined not only in terms of activity but also in terms of maximum and average waiting times. Fifth, after 1998, part of the extra funding was made conditional on reducing waiting times, which presumably introduced incentives on controlling the rate of entries on the list. As a result the overall surgical activity has increased by 7.6% per annum and waiting times have gone down from more than 200 days to approximately 60 days.

385. However, analysing the change in waiting times at surgical procedure level, the reductions in waiting times look less striking (see figure A3.11.3). The evidence at surgical procedure level show that waiting times (of the patients on the list) had already started to decline before the new policies were introduced in 1996. Nevertheless, by comparing the average annual growth rates between 1994-2000 and 1996-2000, we can see how overall waiting times have reduced more since 1996. For example the annual growth rate for inguinal and femoral hernia was 0.4% between 1994-2000, while it was -5% between 1996-2000. This evidence still suggests that the Spanish initiatives were successful in reducing waiting times of the patients on the list.

Table A3.11.1. Spain. Inpatient waiting times (of the patients on the list) for publicly funded patients

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	1994-2000 Avg. growth rate	1996-2000 Avg. growth rate
ICD-9- CM code	Mean waiting time	Est'd Mean waiting time										
Cataract surgery	68.07	62.13	61.62	54.54	58.24	55.39	55.52	47.62	47.64	54	-4.2%	-4.9%
Coronary bypass		148.29	25	7	44.43	54	4	39.75	20.8	29	-3.0%	-17.3%
Cholecystectomy	103.36	58.26	50.44	48.18	60.8	56.02	61.97	53.21	53.81	59	1.1%	-3.0%
Inguinal and fem. Hernia	84.61	49.96	47.01	48.27	59.35	47.86	54.86	44.42	48.29	59.5	0.4%	-5.0%
Prostatectomy	119.43	46.88	81.65	49.36	55.94	38.52	56.05	39.21	42.66	57	-10.3%	-6.6%
Vaginal hysterectomy	71.09		19	25.32	43.98	58.67	55.73	41.26	52.52	54	18.5%	4.5%
Knee arthroscopy	51.39	82.22	65.78	71.41	72.51	61.03	58.22	61.3	53.77	62.5	-3.3%	-7.2%
Hip replacement	271.43	77.25	81.53	97.24	80.65	70.02	72.29	63.71	59.77	66	-5.0%	-7.2%
Knee replacement	91.31	75.64	88.88	104.91	79.94	74.7	71.86	60.11	63.38	67.5	-5.5%	-5.6%
Varicose veins	232.75	80.39	57.23	69.41	66.05	57.04	78.32	58.61	50.63	64	-2.0%	-6.4%

386. On the other hand, the initiative of Insalud had a cost in terms of amount of annual funding provided, which was around 45 million Euro in the last two years. We don't have available information on public health expenditure for Insalud. However public health expenditure for Spain in terms of GDP has remained fairly stable at 5.5% of GDP in years 1995 and 1996 and 5.4% in the following four years. Public real health expenditure per capita has increased at an annual growth of 3.2% between year 1996 and 2001.

387. It is finally worth stressing how in Insalud, the large increase in surgical activity was made possible by the existing capacity both in the public and private sector. In other words, extra capacity did not need to be built (new hospitals) to provide extra activity. It seems also that public hospitals were not exploited at full capacity, since large part of the increase in activity has been performed within the normal hours. Moreover a large share of total hospital beds are private (18.4% in 1996) whose activity was only approximately half for publicly funded patients (47%), leaving wide margins for increasing further activity for publicly funded patients. The increase in activity was possibly favoured by the increase of physicians which increased from 2.6 (per 1000 population) in year 1994 to 3.3 in year 2000. The main task for the government from now on is going to be to maintain the waiting time at the low level which has been achieved.

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12. SWEDEN

Main characteristics of the Swedish health system

388. The Swedish health system is characterised by universal coverage and is financed mainly through general taxation (78%) and earmarked state grants (14%). Total health expenditure accounted in 1998 for 7.9% of the GDP. In the same year 83.5% of total health expenditure was public (OECD, Health data, 2002). The health system is organised in three main political and administrative levels, national government (legislation and control), county councils (primary and secondary care) and local municipalities (elderly care and nursing homes). The 21 county councils are responsible for financing health care mainly through regional income tax; for purchasing all health care for their inhabitants through district regional health authorities; providing health care mainly via salaried or contracted GPs and county council owned hospitals. Each county council is free to choose how to organise its health care provision. Within each county council, there are usually several health care districts, each with the overall responsibility of providing health services to the population in its area. A district usually consists of one hospital and several primary health care units.

389. *Hospitals.* The 21 county councils own and manage hospitals and specialist care. The 79 hospitals are divided into regional hospitals (9), central county hospitals (23) or district county hospitals (47), depending on their size and degree of specialization. A typical county runs two to four district county hospitals and a central county hospital. District hospitals are small hospitals with a minimum of four specialities (internal medicine, surgery, radiology, and anesthesiology). Central county hospitals are large hospitals with 15-20 specialties which treat patients who suffer from almost all diseases. Patients with more complex conditions, who require more specialized care, are treated in regional hospitals. Numbers of hospital beds were reduced during the 1990's from 58 000 to 32 000 and numbers of bed-days from 12.5 million to 8.9 million. This development was possible due to more intensive use of the bed resources and a shift to day case surgery. There are also 7 private hospitals and a growing number of private nursing homes and private local health centres. In 1999, private hospitals accounted for 333 beds.

390. *Hospital remuneration.* Since county councils are free to choose how to deliver health care, hospital remuneration arrangements differ among counties. It is therefore a question for each individual county council or region to decide how to remunerate its hospitals. Some county councils have introduced a purchaser/provider split where district health authorities act as purchasers and hospitals as providers. About half of the county councils and regions have implemented a DRG-based system for funding hospitals. A number of county councils still use more traditional global budget systems. The utilisation of DRG-based remuneration systems has often been accompanied by the introduction of price or volume ceilings. Retrospective fee for service reimbursements are used for patients who receive their treatment in a regional hospital, outside the county of residence. In the past, and to some degree, providers with longer waiting lists have, as a general rule, been able to attract more resources. On the other hand, more recently, some county councils have been discussing the introduction of a bonus system for hospitals with low waiting times.

391. *Specialist remuneration.* All hospital staff, including the specialists, is employed by county councils and is remunerated by salary. Specialists working in publicly funded hospitals are not allowed to

treat private patients within the hospital. On the other hand there is no law that prohibits specialists working in a publicly funded hospital from treating patients in a private hospital. However, in most county councils there must be a formal agreement with the employer about this 'extra' employment.

392. *Co-payments.* Each individual county council decides the level of cost sharing by patients. The patients usually pay a symbolic daily fee for each day spent in the hospital. Moreover patients pay between 10 to 15 Euro for a visit to a GP and 20 Euro for a specialist visit. However if the patients have already spent 90 Euro within the same fiscal year they are exempted from further payments.

393. *Private health insurance.* Private health care insurance is very limited and accounts for less than 1% of total health care revenues. It typically provides coverage supplementary to the public health system - mainly coverage for elective surgery. There was growing interest in such insurance in the 1980s, to avoid the queues in the public system. For about 90% of the insured, the premiums are paid by employers, in order to avoid employees' long-term sick leave⁴ (WHO, 2001). The insured are guaranteed immediate access to a private hospital, but not to a public hospital that is not allowed to receive money from insurance companies. The insurance company covers the costs of consultations, of the procedure required, of convalescence and of transport. Private health insurance premiums have not been tax deductible since 1988 (WHO, 2001). Traditionally, the (employer-purchased) private health insurance contracts used to cover top-level management. Now, the coverage has become more varied, covering other 'key staff members' regardless of their formal position in the company. There has also been a recent trend towards group-based private health insurance for employees.

394. *Primary care.* Sweden has one of the lowest ratios of general practitioners (0.6 per 1000 population) among OECD countries. Much of the access to hospital services follows referral from a GP, but this is not obligatory. Indeed, many patients access hospitals directly (WHO, 1998).

395. *Development of a National Database on Waiting times and Waiting lists.* Since 1996 the Federation of County councils together with some county councils had been working on the development of a national system for measuring waiting lists and waiting times. In 1999 the 'Dagmar-agreement' established that a database should be collected at a national level. In April 2000, the Federation of County Councils finally launched a national database on the Internet for waiting lists and waiting times (www.lf.se/vantetider). The data covers waiting times for inpatient elective care. Both the waiting times for a first specialist visit and the waiting times for inpatient treatment are included. All hospitals in Sweden will report to the database via the Internet. The database is administered by the Federation of County Councils and is still under development since there are still hospitals that, due to lack of relevant information systems, are not able to report all the requested information. However there is an obligation for the county councils to report in full by 2004, as part of the agreement on "increased accessibility to elective care" (see below).

396. The database includes outpatient and inpatient waiting times and waiting lists for 25 different specialities, for 6 diagnostic procedures and for 27 inpatient treatments. For each of the above variables, the information includes a) the *prospective waiting time* (in weeks) for a new patient who would be placed on the waiting list for elective surgery. The aim is to inform new elective patients of their prospective waiting time. The prospective waiting time is reported by each clinic and is a forecast based on the actual knowledge about the situation at the clinic. b) *The date* when the forecast of the prospective waiting time was made. The aim is to guarantee updated and accurate information. No prospective waiting time figures should be older than one month). c) *The number of patients on the waiting lists.* All booked and unbooked

4 The Swedish insurance company, Skandia, began to offer private health insurance in 1985, and currently the company is the largest in the business, with about 30 000 persons insured. In addition to Skandia, most insurance companies offer private health insurance, and approximately 120 000 persons are insured.

patients are included in this statistic independently of the priority group assigned to the patient. d) The number of patients on the waiting list who have *waited longer than 12 months*. e) The percentage of patients treated during the last four months who had an *actual waiting time less than 3 months*. f) *The median waiting time* among the patients treated during the last four months. g) *The waiting time for the 90th percentile*. h) *The volume of activity performed and number of patients added to the list*. The numbers waiting will be reported three times a year.

397. *Available evidence*. Available evidence on waiting times figures cover the period 1991-1996 and the 12 surgical procedures covered by the guarantee. The total median waiting time was about 12 weeks in 1991, declined to 8 weeks in 1992 and remained stable until 1994. However, in 1995 the waiting times started to increase once more, returning in 1996 to the 1991 level of 12 weeks. Table A3.12.1 presents data on the percentage of patients treated within 3 months, while table A3.12.2 shows the percentage of the patients that have been waiting on the list for at least 12 months in April 2002.

Figure A3.12.1. Median waiting time

Figure A3.12.2. Percentage of the patients waiting longer than 3, 6 and 9 months

Table A3.12.1. **Percentage of patients treated within 3 months, January-April 2002 (all priority groups)**

<i>Procedure</i>	<i>% with a waiting time less than 3 months</i>	<i>Response rate*</i>
PTCA	96	44
CABG	91	67
CPAP-treatment (sleeping disorders)	86	29
Hysterectomy, benign indication	77	55
Knee arthroscopy	72	43
Prostatectomy (benign indication)	68	49
Surgery of the spine	68	55
Tonsillectomy	60	46
Cholesystectomy	59	47
Inguinal hernia	54	42
Sterilisation	50	50
Plastic operation of the septum ¹	49	41
Varicose veins (non-cosmetic)	46	35
Prolapse of the uterus	45	56
Cataract surgery	42	38
Urine incontinence (women)	41	55
Primary hip-replacement	38	49
Hearing aid fitting	29	26
Reduction of the breast (non-cosmetic)	27	24
Primary knee replacement	26	48
Reconstruction of the breast (non cosmetic)	22	51
Total	53	28

**A3.12.2. Percent of the patients waiting on the list for more than 12 months
(at the 31st April, 2002)**

<i>Procedure</i>	<i>% over 12 months</i>	<i>Response rate (%)</i>
Varicose veins (non-cosmetic)	38	48
Inguinal hernia	25	46
Cholesystectomy	29	51
Primary hip-replacement	11	58
Primary knee replacement	17	58
Surgery of the spine	23	60
Knee arthroscopy	9	51
CABG	0	78
PTCA	0	53
Sterilisation	23	60
Urine incontinence (women)	8	60
Prolapse of the uterus	11	56
Hysterectomy, benign indication	2	57
Tonsillectomy	18	54
CPAP-treatment (sleeping disorders)	36	43
Plastic operation of the septum ¹	31	51
Hearing aid fitting	27	38
Cataract surgery	6	55
Reduction of the breast (non-cosmetic)	62	52
Reconstruction of the breast (non cosmetic)	43	46
Prostatectomy (benign indication)	24	52
Total	18	52

398. *Surgical activity.* Over the same period, total surgical activity (for the 12 surgical procedures covered by the guarantee) increased from approximately 160 000 in 1991 to 180 000 in 1992. The rate remained stable until 1994 and fell to about 175 000 in 1995.

Figure A3.12.3. Number of surgical procedures performed

399. *Health expenditure.* Total health expenditure has decreased slowly in Sweden from 8.6% of GDP in 1992 to 7.9% in year 1998. The real health expenditure per capita remained fairly stable in the years 1991-1998 around 16000 (National Currency Unit at 1995 price). The reduction in expenditure as a percentage of GDP has to be attributed to a large decrease in public health expenditure (from 6.6% of GDP in year 1990 to 6.6% in year 1998) since private health expenditure has increased from 0.8% to 1.3% in the same period. Real health expenditure per capita has a negative annual growth rate of -0.04% (-0.90 for public and 6.00 for private).

Figure A3.12.4. Expenditure on health, per capita, NCU 95 GDP price

400. *Physicians.* The number of practising physicians has increased from 2.7 (per 1000 population) in year 1992 to 2.9 in year 1999. Practising specialists have also increased from 2 to 2.2 over the same period.

Figure A3.12.5. Number of practising physicians, per 1000 population

401. *Ageing and life expectancy.* The percentage of the population older than 65 has decreased from 17.8 in year 1990 to 17.4 in year 2000. Life expectancy has increased from 77.6 to 79.7 years.

Main policy initiatives

402. *Early initiatives. Dedicated funding.* Several national initiatives have been undertaken since 1987 in Sweden to reduce waiting times and waiting lists (Hanning, 2001). Between 1987 and 1989 the government and the Federation of County Councils agreed to finance extra activity in hospitals which provided specific procedures like coronary artery bypass surgery, hip replacement and cataract surgery. The initiative had only a marginal effect on waiting time (Hanning, 2001).

403. In 1989 a new initiative was launched to improve the efficiency of hospital services, through the elimination of bottlenecks and increased activity. The initiative was carried out for all hospitals by the comparison of resources and activities in six specialities (cardiology, ophthalmology, gynaecology, orthopaedics, urology and general surgery). The impact on overall waiting time was unclear, although the initiative highlighted marked differences in waiting time across hospitals (Hanning, 2001).

404. *Maximum inpatient waiting time guarantee.* In 1991 the Government and the Federation of County Councils agreed upon the introduction of a three months maximum waiting time guarantee. Even though county council participation was optional, all the counties accepted the agreement. The guarantee lasted between 1992 and 1996 and it included twelve different surgical procedures for which high waiting lists had been observed (coronary angiography, CABG, PTCA, hip replacement, knee replacement, cataract surgery, inguinal hernia operation, cholecystectomy, operation on benign prostatic hyperplasia, operation on prolapse of uterus, operation for incontinence, hearing-aid fitting; see Hanning, 1996). On the basis of the guarantee, patients should have been offered a treatment within three months from the day that the decision was made to operate/treat, and the patient was placed on a waiting list. Patients not treated within 3 months were to be offered care at another hospital in the health services district, in another county council, or at private providers. The objectives of the guarantee were to stimulate an increase in the availability of the above treatments, to reduce waiting times and to bring about a fairer distribution of access to elective care throughout the country.

405. The guarantee was accompanied by the opportunity for patients to seek care from other providers if their local hospital was not able to provide the treatment within three months. The exercise of such choice would have resulted in an economic loss for the local hospital. However, very few patients used this opportunity, possibly because they were not aware of the option. The county councils managed the economic transfers for the patients who chose another provider (Hanning and Spangberg, 2000). In some cases it was the hospital department that was financially affected when it was not able to respect the guarantee. In other cases it was the hospital and in others the cost was met at central level. However, physician salaries were unaffected by the exercise of patient choice.

406. In the first year (1992) the introduction of the guarantee was accompanied by an increase in resources of 50 million Euros, provided by the central government. However hospitals could receive extra resources at local level, as well. According to Hanning and Spangberg, (2000), 30% of the departments received extra resources from the government grant. However overall 50% of the hospitals received extra resources, either from central or local government. No additional resources were made available in the following years, 1993-1998.

407. The maximum waiting times guarantee seemed to be successful in the first year, reducing median waiting times from 12 weeks to approximately 8 weeks in the period 1992-1993. Waiting times then started to increase again, bringing the level of waiting times up to 10 and 12 weeks in years 1994-96. A very similar pattern can be observed by looking at the percentage of the patients waiting more than 3, 6 and 9 months (Figure A3.12.2 and A3.12.3).

408. To some extent, the waiting times pattern is negatively correlated with the number of procedures performed over the same period, which was lower in year 1991 (160 000), increased to 180 000 in 1992-4, then finally decreased in 1995.

409. *Reform of long term care for the elderly.* At the same time as the implementation of the maximum waiting time guarantee, there were reforms to long-term care for the elderly. As part of these reforms, patients who received medical or surgical treatment within a hospital and required no further medical treatment became the responsibility of the municipalities. In particular, the municipalities became financially responsible for patients staying more than three days after they were considered medically ready for discharge. The assumption was that the number of beds was acting as a bottleneck. There was a lack of residual capacity for treating additional patients, leading to inefficient use of hospital personnel. This reform resulted in more “bed-days” becoming available for elective care (Hanning, 1996). There is evidence that the number of patients blocking beds actually decreased (from Hanning and Spangberg, 2000).

410. The above maximum waiting time guarantee was abandoned in 1997. Since then a political debate has followed concerning the opportunity for a new guarantee of three months that includes all inpatient elective care. In June 1998 the National Board of Health and Welfare investigated the possibility of having a compulsory waiting time guarantee of three months all over Sweden. In the concluding report the Board recommended against the introduction of the guarantee on the basis of the following arguments. 1) The waiting time guarantee should be seen as part of a wider “accessibility guarantee” which also includes related issues regarding the information of the patient, patient’s rights to choose treatment, with the final goal of strengthening the position of the patient. 2) The guarantee implications are often stated too vaguely and in practice the guarantee is just a guarantee to choose another hospital and not to get the treatment within three months. 3) It is unclear how the guarantee should be integrated with the guidelines for priority setting decided by Parliament (see related section on prioritisation of patients on the list). The overall opinion was that the priority guidelines were to be regarded as more important. 4) The waiting time guarantee for inpatient elective care is considered to be a guarantee for low priority patients.

411. *Maximum waiting time for primary care and specialist outpatient visits.* In 1997 the inpatient waiting time guarantee was abandoned. It was replaced by a new guarantee for primary care and specialist outpatient visits, which stated that the patients should get in contact with primary care (either by telephone or by a visit) on the same day they felt the need for care. The patient should be visited by the general practitioner within eight days. If the general practitioner refers the patient to a specialist, the waiting time should not be more than 30 days. If there is a clear diagnosis, the waiting time should not be more than 90 days. Six of the 21 county councils have made their own decisions to have waiting time guarantees. They vary in scope but they all stipulate that the patients’ should have the right to go to another provider if the waiting time exceeds the time limit that has been decided.

412. *Free choice (recommendation by the Federation of County Councils).* At the end of 2000, the Federation of County councils gave a recommendation to the county councils which suggested extending the possibility for patients to get elective treatment outside the home county council area (patients can always get emergency care all over the country). In 2002, all county councils decided to accept this recommendation. The recommendation states that patients should have free choice of provider within and in other counties for primary care (GP visit) and outpatient specialist care. The free choice to other counties includes also elective inpatient care (but not to highly specialised regional care) but only once the need for care has been confirmed in the home county council area (i.e. when the patient has been registered on a waiting list). Moreover, if the cost of the care is high, there must be an explicit approval from the home county council before the care is given. It is hoped that by giving more choice to the patients, their position will be reinforced and that the increased competition among the hospitals will force them to shorten the waiting lists.

413. *Agreement for increased accessibility to elective care (increased funding).* In spring 2001 the Government made available a grant of 3.75 billion Euro (1.25 billion per year over the period 2002–2004) to reduce waiting times by increasing hospital planned activity. The extra-funding will be distributed to the county councils on a population basis, as agreed between the Government and the Federation of County Councils. In order to receive the funding, each county council has to report an action plan for dealing with the waiting lists and complete a follow up report by the end of each year. The database on waiting times and waiting lists will be used to follow the development of the initiatives and county councils will be required to report the prospective waiting times in full by the end of year 2002. In the action plans provided by the county councils, different initiatives have been proposed to shorten waiting lists. These include the introduction of guidelines for management and administration of waiting lists, the improvement of the available information to the patients about the right to choose provider (call-service centres and information on the Internet), maximum waiting time guarantees and local targets for waiting times, financial incentive schemes for providers with shorter waiting times, guidelines for adding patients to the waiting list and the introduction of priority assessment.

414. *Prioritisation of the patients on the waiting list.* In 1999 the Swedish Parliament decided that priorities in Swedish health care should be guided by an ethical platform based on the three basic principles of human dignity, of need and solidarity, and of cost-effectiveness. The Parliament also identified the following five priority groups for political and administrative prioritisation. A) Patients affected by life threatening diseases and severe chronic diseases. B) Preventive care with documented benefit. C) Treatment of less severe and chronic diseases. D) Borderline cases. E) Care for reasons other than disease or injury. Those general guidelines should be applied to all health care services. When it comes more specifically to the prioritisation of patients on surgical waiting lists, the most common way of prioritising patients is a three level system with 'very urgent', 'urgent' and 'non-urgent'. The waiting times intervals for this classification may differ among different providers. However, it has become increasingly common to prioritise the patients by setting a 'medical urgency date' or a time limit over which the patient should be treated (for example within a week or within three weeks). No national rules or guidelines for the priority setting on waiting lists have been introduced (except for a recommendation from the National waiting list project to introduce a medical urgency date).

415. In year 2001 the National Waiting List Project conducted a study, which focused on the prioritisation of referrals and how it affected waiting times at hospital-based orthopaedic clinics. A questionnaire including 15 simulated orthopaedic referrals was distributed to physicians who handled referrals at orthopaedic hospitals in Sweden. The physicians were asked to evaluate each referral as if it were an actual case and then select one of eight possible prioritisation options. In most of the cases, the respondents assigned different priorities to the referrals. There was good agreement concerning cases of an acute nature, but less agreement for cases having a lower priority. The results suggest a need to discuss national guidelines on the prioritisation and management of the most common diagnostic groups in orthopaedics and a need to improve the referral as an instrument of communication. One of the alternatives in the orthopaedic study was to send the referred patient back to the referring physician.

Discussion

416. Several initiatives have been introduced in Sweden with the aim of reducing waiting times since the late 1980s. It seems that very early initiatives at the end of the 1980s, based on dedicated funding and benchmarking activity, did not prove to have any significant impact on waiting times.

417. There has been more national scrutiny of the effects of the introduction of the three months maximum waiting times guarantee, which was maintained between 1992 and 1996. This initiative has been extensively analysed. The initiative seemed to be successful initially, reducing median waiting times from 12 to approximately 8 weeks in the period 1992-1993. However, waiting times then increased again,

bringing average waiting time to 10 and then 12 weeks in the years 1994-96. The number of procedures performed rose in 1992 and remained fairly constant in the following three years. The explanation for the initial success may lie in the additional resources (500 million SEK) that were made available in the first year of implementation of the reform and the coincident increase in surgical activity. Another explanation may lie in the contemporaneous reform of long-term care of the elderly in which municipalities became financially responsible for inpatient stays longer than three days, after which the patient was considered medically ready for discharge. This reform had the effect of freeing up available capacity within the hospital sector, facilitating an increase in supply. Yet another explanation may lie in the possibility that the guarantee introduced an incentive to 'clean' the waiting list of patients who should not have been there - who had, for example, already received the treatment or no longer required it. Finally, the reforms may have induced a one-off burst of extra activity because of the spotlight they threw on the problem of waiting times.

418. Explanations for the long run failure of the maximum waiting time guarantee may be found in the lack of clear financial or non-financial incentives for providers that failed to respect the guarantee. The financial arrangements for patients choosing another provider (when the guarantee was not respected) varied substantially across counties. Few patients exercised choice and in none of these cases did the switch of provider exert financial pressures on the surgeons themselves. It has been questioned whether patients were fully aware of their right to seek treatment from an alternative provider. Moreover, it is likely that information of waiting times for specific procedures across hospitals was missing. More recently, information on waiting times has become more accurate, thanks to the development since 1996, with improvements in 1999, of a national waiting times database, that is easily accessible through the Internet and that covers both outpatient and inpatient waiting times.

419. In 1996 the guarantee was abandoned and completely redesigned. Instead of referring to inpatient waiting time, the guarantee refers to the first contact with the GP and the specialist outpatient visit. No evaluation of this new form of guarantee has been conducted. It seems that no explicit incentives have been put in place to reward providers that respect the guarantee.

420. More recently new initiatives have been pushed forward in 2001-2, which include more choice for the patients and extra funding for the counties under the 'Agreement for increased accessibility to elective care'. However it seems that increased choice will apply only to patients who cross county borders. That will involve only a limited number of patients. Moreover, it seems that the financial arrangements for patients moving within or across counties have not yet been clearly defined.

421. It is too early to evaluate the 'Agreement for increased accessibility to elective care' introduced in 2001, which will cost 1.25 billion Euro per year for three years.

422. Waiting times are still a persistent phenomenon in Sweden. Most of the initiatives have failed to resolve the issue. The stagnation of real health expenditure, which has remained fairly constant, and the reduction of total health expenditure as a percentage of GDP has not facilitated the reduction of waiting times. Also, there seem to have been few if any attempts to offer surgeons stronger financial incentives for increasing the rate of their activity or for reducing their propensity to form queues. For example, little or no use has been made of fee for service incentives and little or no use has been made of the private sector. Although competitive incentives have been introduced between public hospitals in some counties (Or, 2002) it has been with mixed effects.

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