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The Impact of Pay
Increases on Nurses'
Labour Market: A Review of
Evidence from Four OECD
Countries

**James Buchan,
Steven Black**

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**THE IMPACT OF PAY INCREASES ON NURSES' LABOUR MARKET: A REVIEW OF EVIDENCE
FROM FOUR OECD COUNTRIES**

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ABSTRACT

Nurses are usually the most numerous professionals in the healthcare workforce, and their contribution is a core component in attaining the policy objectives of improved productivity, quality of care and effectiveness in the health sector. The recent global economic crisis, and its related impacts on health sector funding and health labour market dynamics, has reinforced these policy priorities.

This report reviews the impact of pay increases on nurses' labour market indicators. It presents background data on trends in the numbers of nurses and the remuneration of nurses in OECD countries; summarises the limited evidence base on pay and labour market behaviour; reports on four case study countries where a significant pay raise was awarded to at least some categories of nurses in recent years in response to perceived labour market challenges – the United Kingdom (UK), New Zealand, Finland and the Czech Republic – using a variety of indicators to illustrate impact; and concludes with key points for policy makers.

There has been variable growth in nurses' employment levels in OECD countries in recent years, and nurses' pay rates, in comparison to other earnings in national economies, vary markedly across OECD countries.

The country case studies in this report highlight that there were several main drivers for the implementation of a pay rise for nurses, and also identified a range of possible indicators that can be used to assess the impact of changes to nurses' pay. The main impetus for a pay increase came from: labour market concerns (geographic or specialty shortages), which were reported in all four countries; pay equity issues (New Zealand and the UK); structural changes in the pay systems (e.g., increased flexibility) (Finland, New Zealand and the UK); attempts to improve organizational productivity and the quality of care (UK); and improving international pay competitiveness (Czech Republic after EU accession).

The review concludes by arguing that how nurses are paid - as well as how much they are paid – is an issue worthy of more detailed examination. While the same policy drivers exist in most OECD countries, nurses' pay systems are very different. The findings suggest that, in the short term at least, the pay increases in the four countries contributed to an increase in the potential “new” supply of entrants to nurse education; the effect on those already in work is more difficult to assess, as their behaviour is also impacted by the complex interaction of other aspects, such as working environment and working conditions, career possibilities, and individuals' priorities.

RESUME

Le personnel infirmier est habituellement la catégorie la plus nombreuse des professionnels de santé, et leur contribution joue un rôle essentiel dans l'atteinte des objectifs d'amélioration de la productivité, de la qualité des soins et de l'efficacité dans le secteur de la santé. La crise économique mondiale récente, et ses impacts sur le financement des dépenses de santé et sur la dynamique du marché du travail dans ce secteur, est venue renforcer ces objectifs.

Ce rapport examine l'impact des augmentations de salaire sur les indicateurs du marché du travail du personnel infirmier. Il présente des données de base sur les tendances concernant le nombre d'infirmières et leur rémunération dans les pays de l'OCDE ; résume les résultats des travaux de recherche disponibles sur les liens entre la rémunération des infirmières et les comportements sur le marché du travail ; présente de façon plus détaillée quatre études de cas de pays (Royaume-Uni, Nouvelle-Zélande, Finlande et République tchèque) où des augmentations significatives de salaire ont été octroyées à au moins certaines catégories d'infirmières et analyse l'impact de ces augmentations en utilisant différents indicateurs ; et conclut par quelques points clés à l'attention des décideurs politiques.

La croissance de l'emploi du personnel infirmier a été variable au cours des dernières années dans les pays de l'OCDE, et les salaires des infirmières, en comparaison avec le salaire moyen dans chacun des pays, varient fortement d'un pays à l'autre,

Les études de cas présentées dans ce rapport mettent en évidence plusieurs facteurs ayant entraîné une augmentation significative des salaires des infirmières dans les quatre pays en question, et identifient une série d'indicateurs susceptibles d'être utilisés pour mesurer l'impact de ces augmentations. Les principaux moteurs de ces augmentations de salaire sont venus : d'inquiétudes concernant le marché du travail dans les quatre pays (des pénuries sur le plan géographique ou au niveau de certaines spécialités) ; de questions entourant l'équité salariale (Nouvelle-Zélande et Royaume-Uni) ; des changements structurels dans les systèmes de paiements, notamment la mise en place d'une plus grande flexibilité (Finlande, Nouvelle-Zélande et Royaume-Uni) ; de tentatives d'amélioration de la productivité et de la qualité des soins (Royaume-Uni) ; et de l'amélioration de la compétitivité internationale des salaires (République tchèque après son entrée dans l'UE).

Une des conclusions de ce rapport est que non seulement le niveau moyen de rémunération des infirmières mais aussi les méthodes de paiement mériteraient des études plus approfondies. Ces méthodes de paiement varient fortement d'un pays à l'autre alors que les mêmes défis se posent dans la plupart des pays. Les résultats des études de cas suggèrent qu'au moins à court terme, les augmentations de salaire des infirmières dans les quatre pays ont contribué à accroître le nombre de personnes intéressées à étudier et travailler dans ce domaine. Il est toutefois difficile d'évaluer l'impact que ces augmentations ont eu sur les infirmières déjà sur le marché du travail, étant donné que leur comportement est aussi affecté par de nombreux facteurs tel que l'environnement et les conditions de travail ainsi que les priorités individuelles.

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INTRODUCTION

1. This paper focuses on assessing the impact of pay increases on nurses' labour market behaviour. It draws on OECD data, as well as that from other research studies, while also giving more detailed consideration to four OECD-country case studies: the United Kingdom (UK), New Zealand, Finland and the Czech Republic. These case studies are based on available data sets and previous research and provide an opportunity to examine in greater detail the drivers and policy responses, and to illustrate how different data sets and research can assess the impact of pay increases on nurses' labour market behaviour.

2. All OECD countries face challenges in balancing health workforce supply and demand issues over the coming years. Nurses are usually the most numerous health professionals in the workforce, greatly outnumbering physicians and other health professional groups in most OECD countries. Nurses are critical to the effective and responsive delivery of care, across acute care, primary care and long-term care settings; and their contribution is a core component in attaining the policy objectives of improved productivity and effectiveness in the health sector. The recent global economic crisis, and its related impacts on health sector funding and health labour market dynamics, has reinforced these policy priorities.

3. The crisis has impacted on nurse labour markets in some countries by increasing short-term availability of nurses' hours, as they look for employment or wish to increase the hours they work if they are in employment, while also impacting more broadly on health sector funding, with many countries looking to contain costs through productivity improvements or capping or reducing labour costs (e.g., by pay "freezes", skill mix changes or redundancies). However, there continue to be concerns in many countries about underlying shortages of nurses, and these concerns may intensify in the future as the demographic-driven demand for nursing care continues to increase and the ageing of the nursing workforce in many OECD countries precipitates a wave of retirements. These concerns have been prompting many countries to take actions to increase the number of nurses in training and retention rates in the profession; pay systems and pay levels are part of this overall effort. In this complex situation, it is important to analyse and understand better the impact of one of the most costly aspects of policy intervention – nurses' pay – on the desired impacts on nurses' labour markets

4. This report reviews the impact of pay increases on nurses' labour market indicators. It begins by presenting background data on trends in the numbers of nurses per capita in OECD countries, and trends in the remuneration of nurses. It then summarises key messages from the limited evidence base on pay and labour market behaviour; considers recent developments in the four case study countries, using a variety of indicators to illustrate impact; and concludes with key points for policy makers.

OVERVIEW OF NURSE EMPLOYMENT AND PAY IN OECD COUNTRIES

5. While health systems vary in terms of structure and funding sources, there are some similarities as well as critical differences when data on nurse staffing and remuneration are examined.

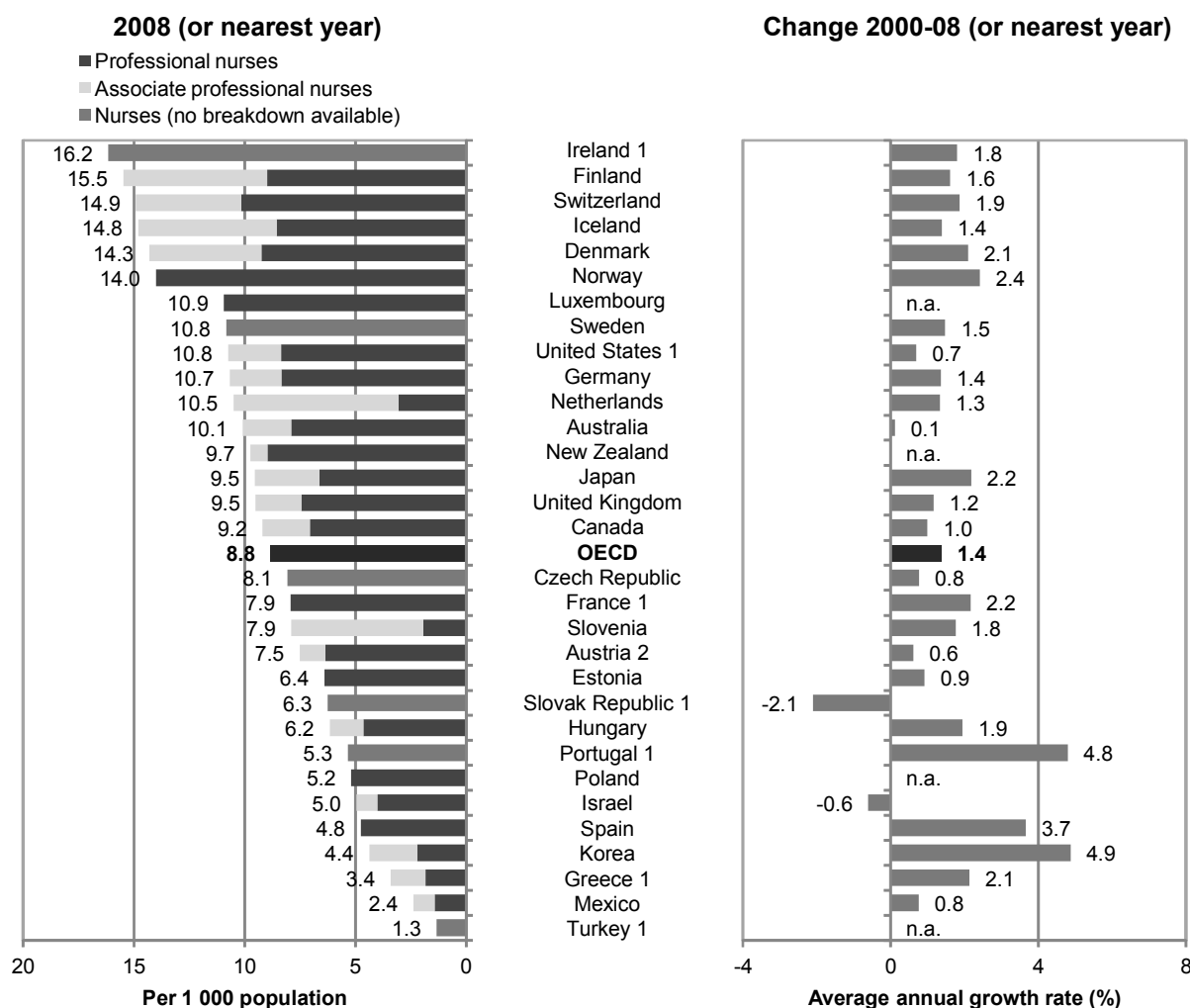
6. This section presents data from a data set developed in collaboration between the OECD, Eurostat and WHO-Europe on nurses and other health personnel. This joint data collection was launched in 2010, and the results as they relate to OECD countries are reported in OECD Health Data 2010 (OECD, 2010a). International data collection on nurses is a difficult task, given differences between countries in the sources and methods that are used to report data on nurses, and the wide diversity in the categories of nurses and nurse-related personnel (e.g., nursing aides). This new data set provides a more comprehensive picture and enables country comparison.

7. One key indicator is the availability of practising nurses (or professionally active nurses). Figure 1 shows that there were about 9 nurses per 1 000 population on average across OECD countries in 2008, but with a range varying between a high of 14 practising nurses or more per 1 000 population (e.g., Ireland, Finland, Switzerland, Iceland) to a low of less than 4 nurses per 1 000 population (e.g., Turkey, Mexico and Greece). This first point is important as it highlights broad variation across OECD countries in the relative size of the nursing labour market.

8. A second point to note is that the mix between different categories of nurses varies across OECD countries. In some countries such as France, Norway, Poland and Spain, the lower-level category of “associate professional nurse” does not exist, and all nurses are reported in the higher-level, “professional nurse” category. In other countries such as Australia, Germany, the UK and the United States (US), the vast majority of nurses are considered to be higher-level nurses, and a minority are considered to be at the lower level. In yet another group of countries, including the Netherlands and Slovenia, the number of lower-level nurses is greater than the number of higher-level nurses.¹

¹ In addition to these two broad categories of nurses, other categories of caring personnel such as nursing aides play an important role in supporting nurses in care delivery in some countries. In countries such as the Netherlands, France and Spain, there are in fact more caring personnel than nurses (OECD, 2010a; OECD, 2010b).

Figure 1. Number of practising nurses per 1 000 population, 2008 and change from 2000-08, OECD countries



1. Data include not only nurses providing direct care to patients, but also those working in the health sector as managers, educators, researchers etc. (adding another 5-10% of nurses).

2. Austria reports only nurses employed in hospitals.

Source: OECD 2010a.

9. The first decade of the new century has seen a general trend of growth in the nursing workforce in most OECD countries; between 2000 and 2008, the number of nurses per capita rose at a rate of 1.4% per year on average (OECD, 2010a). The rate of increase varied markedly, being particularly rapid in Korea and Portugal, where the growth rate reached almost 5% per year during this period, although the number of nurses per capita in these two countries remains well below the OECD average in 2008.

10. One key issue in this policy context is how, and how much, nurses are paid. Pay is the main source of staffing costs, but it can also be an incentive, or disincentive, for nurse recruitment and retention; for motivation to work in certain regions, specialties, and working locations; and to work “differently”, through changed working practices. Pay is not the only incentive, and may not be the main incentive in some situations – other working conditions, career and education opportunities, flexible hours, and

participation in decision-making have also frequently been identified in research as major motivators for nurses and sources of nurse job satisfaction (see, e.g., Simoens, Villeneuve and Hurst, 2005; Institute of Medicine, 2010). However, it is clearly a major and highly visible, “measurable” element of the contract between the employing organisation and the nurse.

11. The collection of comparable data on the remuneration of nurses is a difficult task, because countries collect data based on different sources, covering different categories of nurses. The data presented in this section are collected by the OECD through the OECD Health Data questionnaire. These data generally focus on the remuneration of nurses working in hospitals, although the data coverage for some countries differs (see Box 1 concerning the definition and comparability limitations). In any case, the data should be interpreted with caution.

Box 1. OECD definition of remuneration of nurses and comparability limitations

The remuneration of nurses refers to average *gross* annual income, including social security contributions and income taxes payable by the employee. It should normally include all extra formal payments, such as bonuses and payments for night shifts and overtime. In most countries, the data relate specifically to nurses working in hospitals, although in New Zealand and the US the data also cover nurses working in other settings.

Data refer only to registered (“professional”) nurses in Australia, Denmark and Norway, resulting in an overestimation compared to other countries where lower-level nurses (“associate professional”) are also included.

The data relate to nurses working full time, with the exception of Belgium where part-time nurses are also included (resulting in an underestimation). The data for some countries do not include overtime payments (e.g., Italy and Portugal). None of the countries report data on informal payments, which in some countries may represent a significant part of total income.

Source: OECD 2010a.

12. The data on the remuneration of nurses is presented in three ways. First, it is compared with the average wage of all workers in each country, providing some indication on the relative financial attractiveness (and social status) of nursing compared to other occupations. Second, the remuneration level in each country is converted into a common currency, the US dollar, and adjusted for purchasing power parity, to provide an indication of the relative economic wellbeing of nurses compared with their counterparts in other countries. Third, the average annual growth rate in the remuneration of nurses compared to all workers is analysed in real terms (i.e., after removing the effects of inflation) over the period 2004-08.

13. In most countries, the remuneration of nurses is equal to or slightly above the average wage of all workers in their country (Fig. 2). This is particularly the case in Portugal, where the income of nurses is reportedly more than 80% greater than the average wage, and where there has also been a significant growth in the nurse-to-population ratio. In Luxembourg, it is 40% higher. On the other hand, the income of nurses is lower than the average wage in the Czech Republic, Slovak Republic and Hungary. Nurses in the Czech Republic obtained a pay increase in 2009, discussed later in this report, which is likely to have altered the situation in that country.

14. In Finland, the growth in the salary of nurses lagged behind the growth in the average wage between 2000 and 2007, but in late 2007, nurses obtained a substantial pay raise such that their wage is now more in line with the average wage (this is discussed in more detail in the case study section).

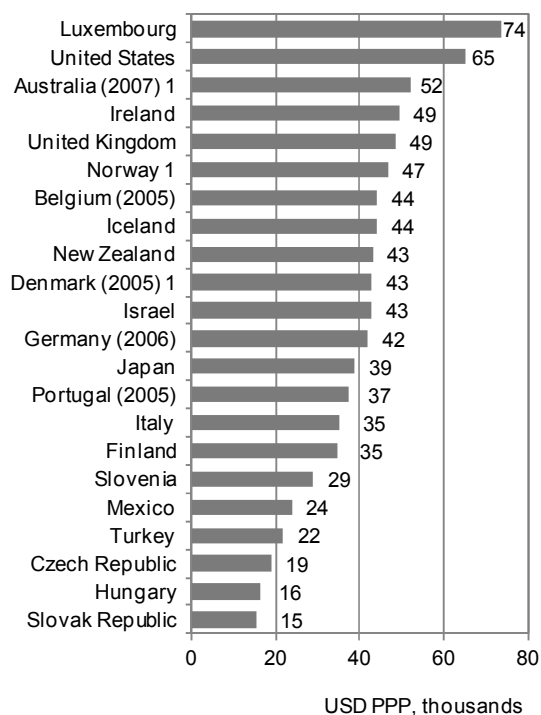
15. When converted to a common currency (in US dollars, adjusted for purchasing power parity (PPP)), the remuneration of nurses is four to five times higher in Luxembourg than in the Czech Republic,

Slovak Republic and Hungary (Fig. 3). Nurses in the US also have relatively high earnings compared with their counterparts in other countries.

Figure 2. Hospital nurses' remuneration, ratio to average wage, 2008 (or nearest year), OECD countries



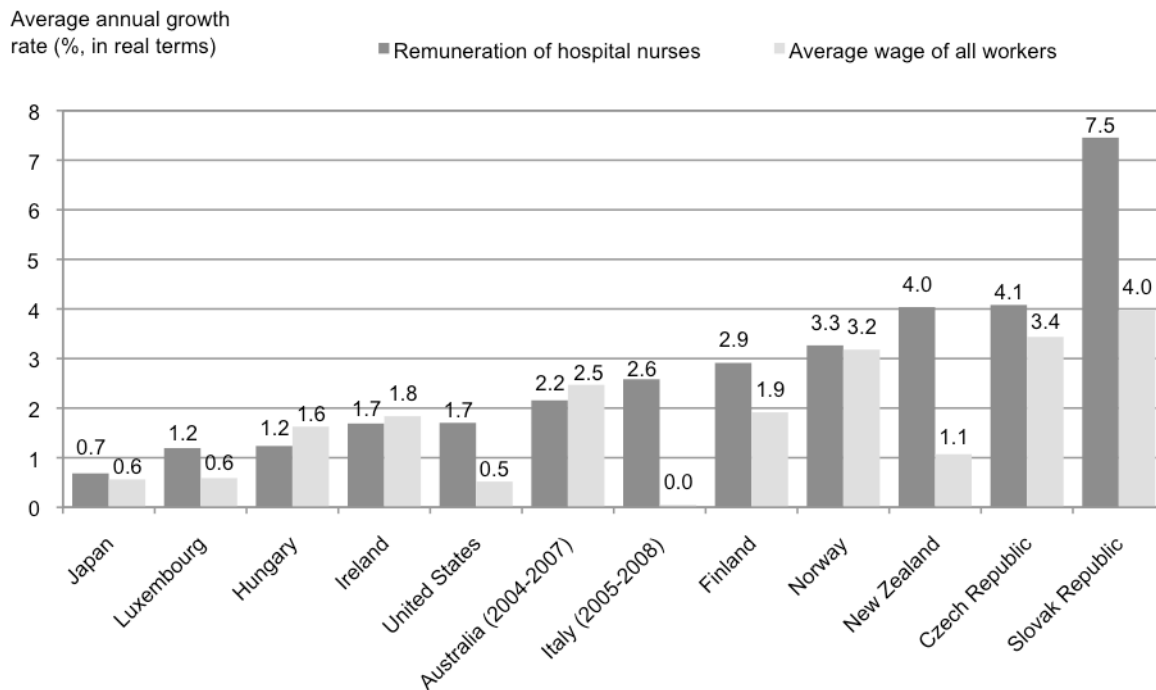
Figure 3. Hospital nurses' remuneration, USD PPP, 2008 (or nearest year), OECD countries



1. Data in Figures 2 and 3 refer to registered ("professional") nurses in Australia, Denmark and Norway.

Sources: OECD 2010a for the remuneration of nurses; OECD 2010b for average wage of workers in the economy.

16. The remuneration of nurses in real terms (i.e., after removing the effects of inflation) increased in all OECD countries between 2004 and 2008 (Fig. 4). The growth rate in the remuneration of nurses was particularly strong in the Slovak Republic and the Czech Republic, which started from a low relative base.

Figure 4. Growth in the remuneration of hospital nurses, 2004-2008, selected OECD countries

Sources: OECD 2010a for the remuneration of nurses; OECD 2010b and OECD 2010c for average wages in the economy. Average wages for all workers in Italy grew by less than 0.1% per year between 2005 and 2008. Data for UK not presented because of a break in data availability.

17. Nurses in the UK and New Zealand, through the implementation of new pay determination systems in both countries in the mid-2000s, also received significant pay rises (this is also discussed in more detail in the case study section).

18. This section of the report has drawn from published OECD data to present a backdrop of recent trends in nurses' employment and pay in OECD countries. The data collated by the OECD highlights that there has been variable growth in nurses' employment levels in OECD countries in recent years, and that nurses' pay rates, in comparison to other earnings in national economies, varies markedly across OECD countries. In the next section of the report more detailed consideration is given to the research evidence on the impact of nurses' pay rates.

REVIEW OF LITERATURE ON THE IMPACT OF PAY ON NURSES' LABOUR MARKET BEHAVIOUR

19. The major constraint for policy makers in examining the evidence base on nurses' pay and labour market behaviour is that it is limited, fragmented and context specific. There is unresolved debate about the results of the limited research on the impact of pay on nurses' labour market behaviour, particularly on the relative impact of pay in comparison to other non-pay interventions, such as hours of work, career opportunities and so forth (see, e.g., Schumacher, 1997; Frijters *et al.*, 2003; De Gieter *et al.*, 2006; Kankaanranta and Rissanen, 2008).

20. In terms of the specific linkage between pay rates and labour market behaviour, some studies have argued that registered nurse labour supply is "fairly unresponsive to wage changes", particularly in the long term (see, e.g., Shields 2004), while others have argued the opposite (see, e.g., Buerhaus 1991; Spetz and Given, 2003). Some have argued that increases in pay have a more significant effect in attracting new entrants to the profession than in encouraging those already in employment to increase the number of hours they work (Chiha and Link, 2003; Buhr, 2009). Some have also argued that there is evidence of a "backward bending supply curve" in nursing, with nurses deciding to work fewer hours and substitute more hours of non-work activity when their hourly wages increase above a certain trigger level (see, e.g., Lin, 2003; Tellez *et al.*, 2009).

21. This interdependence between nurses' pay rates/pay changes, and the effect of the quality of the practice environment, are grossly under-explored. It could be argued, for example, that increasing pay if the working environment is unattractive may lead to reduced working hours, while the same pay increase intervention in a positive practice environment may have the opposite effect.

22. There has also been research, mainly in the US, on identifying the existence, or otherwise, of a monopsony² labour market in nursing, and on the impact of the unionisation of nurses on pay levels. Some researchers have argued that the monopsony effect, where there is only one major employer in a labour market means that nurses pay rates in these labour markets are at a lower level than would be the case where there were more employers competing for nurses skills in an open market. This debate is currently unresolved (see, e.g., Hirsch and Schumacher, 2005; Spetz *et al.*, 2011 for recent summaries).

23. The scope to generalise findings and conclusions from one country's labour market to another is constrained. Most English-language research in this area has been conducted in the US, where labour market dynamics and health system characteristics are very different from those in many other OECD countries. The US has, for example, relatively low unionisation rates amongst nurses; has localised pay determination with limited collective bargaining (while many other OECD countries retain some level of regional or national pay determination); and has very different labour laws from many other OECD countries.

² A monopsony is a market situation in which the product or service of several sellers (i.e., nurses) are sought by only one buyer (i.e., the only hospital employer in a local labour market). As such, it is an example of imperfect competition, where the "monopsonist" hospital employer may be able to dictate terms and conditions of employment.

24. Some of the published studies also have methodological weaknesses (for a discussion of research limitations see Buchan, 1992; Antonazzo *et al.*, 2003). Furthermore, most of the published studies examine the pay rates of individual nurses; they do not assess the impact on labour market behaviour of a specific pay and benefits award or pay increase, which can also include other significant elements of relevance to working nurses, such as changes in working hours, redesigned career structures, and so on. It can, therefore, be difficult to “unpick” the relative effect of different elements of a pay/benefits award (see, e.g., Kankaanranta and Rissanen, 2009 for a recent discussion of this challenge).
25. There has also been continual debate about the pros and cons of different models of local, regional and national-level pay determination for nurses and other occupations in the public sector in many OECD countries (see, e.g., Calmfors, 1993; OECD, 1997; Wallerstein, 1999; Bender and Elliot, 2003).
26. Within public sector health systems, health sector reform has sometimes included attempts to shift the locus of pay determination from national to local level on the grounds of greater managerial “flexibility” and decentralised authority. This was the case in New Zealand in the early 1990s and in the National Health Service (NHS) in the UK in the early/mid 1990s (this is discussed in more detail in the case study section). Local pay determination can hold the prospect of more local managerial input into paybill control, and the development of overall reward strategies more tailored to local needs and purposes. Counter-arguments in favour of retaining a national focus to nurses’ pay determination have been that national pay is simpler to operate, less time-consuming, and may be appropriate for monopsony labour markets, such as those for the health professions (see, e.g., Buchan, 2000; Grimshaw, 2000; Buchan and North, 2009).
27. Trade unions tend to favour national bargaining because it enables them to focus their efforts and maintain consistency across their membership. Where there is fragmented local bargaining, unions will usually attempt to “ratchet up” pay rates by targeting their pay bargaining efforts initially on relatively weaker managed units to secure pay increases, and then use these gains as the benchmark to achieve increases in other units. This is enabled if unions can maintain a national overview of pay rates and local labour market variations.
28. There can be a mixed view from public sector managers about the pros and cons of local pay determination. For example, the “voluntary” nature of the option to move to local pay determination in the UK’s NHS in the 1990s led to few employers attempting to shift away from national pay mechanisms, because of perceptions about costs and the complexity of handling all pay issues locally. They were also aware that localising the focus did not greatly increase local influence over pay determination, because there was no increase in the availability of financial resources to support local pay (Buchan, 2000).
29. The limited research evidence, if carefully considered, can give policy makers some insights into the likely impact of changes in nurses’ pay rates, or changes in the methods by which nurses’ pay is determined. What would be of additional support to policy makers and analysts would be whole system case studies which set out to examine the impact of a change in nurses pay determination by taking a broad-based assessment covering a range of labour market and/or attitudinal indicators to review impact and identify any unintended consequences. The next section of the report looks at four country case studies, taking a retrospective view to assess impact of an increase in nurses’ pay using a range of indicators.

OECD-COUNTRY CASE STUDIES

Introduction

30. In this section more detailed consideration is given to four countries which initiated pay increases for nurses that was in part at least a specific policy response to perceived labour market challenges. Each case study is retrospective and based on available data and indicators and also draws from previous published research. As such, each case is a unique description and assessment of the situation in one country; these more detailed data sets are not comparable across countries. Because they were conducted retrospectively the case studies are not standardised but do provide an insight into the policy drivers and policy responses, and illustrate various methods by which the impact of the pay increase can be assessed. The four countries that are considered are the United Kingdom (UK), New Zealand, Finland and the Czech Republic. These countries are at different points in the PPP comparison of nurses' pay (see Fig. 3): the Czech Republic is at the lower end, Finland is lower middle, New Zealand middle, and the UK towards the higher end.

United Kingdom

Background

31. The NHS was established in 1948 and since then has been the main employer of nurses in the UK. Analysis of NHS nurses' pay trends from 1948 until the early 1980s (Buchan, 1992) shows periods of decline in nurses' pay relative to average earnings, followed by "catch up" pay awards as a result of recommendations by "one-off" pay commissions or inquiries (these occurred in, e.g., 1968, 1970, 1974 and 1980).

32. By the mid-1990s, the NHS pay system was increasingly being seen as outdated and not fit for purpose. The system was based on national bargaining units, each involving multiple staff associations/trade unions. Many regarded this national system as complex and inflexible, constraining the development of new roles and unresponsive to the higher levels of contribution being made by experienced clinical staff (Buchan and Evans, 2007). It was also open to challenge on the basis of equal pay legislation (Department of Health, 1999; NHS Employers, 2006). Pressure to overhaul this pay system had been growing since the 1970s (Buchan and Evans, 2007; House of Commons Select Committee, 2007; National Audit Office, 2009).

33. The election of a Labour government in the UK in 1997 led to a commitment to "modernise" the NHS (Department of Health, 1997) and in February 1999, the government made proposals for a new pay framework for NHS staff – *Agenda for Change: Modernising the NHS Pay System* (Department of Health, 1999).

34. The proposals emphasised that the new system was designed to:

- Enable staff to give their best for patients, working in new ways and breaking down traditional barriers

- Pay fairly and equitably for work done, with career progression based on responsibility, competence and satisfactory performance
- Simplify and modernise conditions of service, with national core conditions and considerable local flexibility (Department of Health, 1999).

35. After several years of negotiation and development, implementation began with a piloting process in “early implementer” sites, followed by a full national roll-out from December 1st 2004. By the end of 2006, more than 99% of NHS staff were on Agenda for Change pay arrangements (Review Body, 2006).

Pay Intervention

36. There were three key components in the new pay system which differentiated it from the system it replaced: simplified national pay “spines” covering different staff groups; the use of agreed job descriptions and job evaluation to “price” jobs on the pay spine; and the introduction of the Knowledge and Skills Framework (KSF) – a new career development framework (NHS Employers, 2006; Buchan and Evans, 2007; National Audit Office, 2009).

37. Agenda for Change introduced a single new pay spine for all NHS nurses and other health professionals (other than physicians, who were not covered by the new system). This replaced a multiplicity of occupational pay grades, pay points and salary scales that had characterised the previous NHS pay system, where each profession had multiple pay grades and there were a range of occupation and profession-specific additional allowances. Agenda for Change also incorporated (or “bought out”) many of these supplementary payments and additional allowances paid under the previous system in order to simplify (“harmonise”) the new pay system (NHS Employers, 2006; Buchan and Evans, 2007).

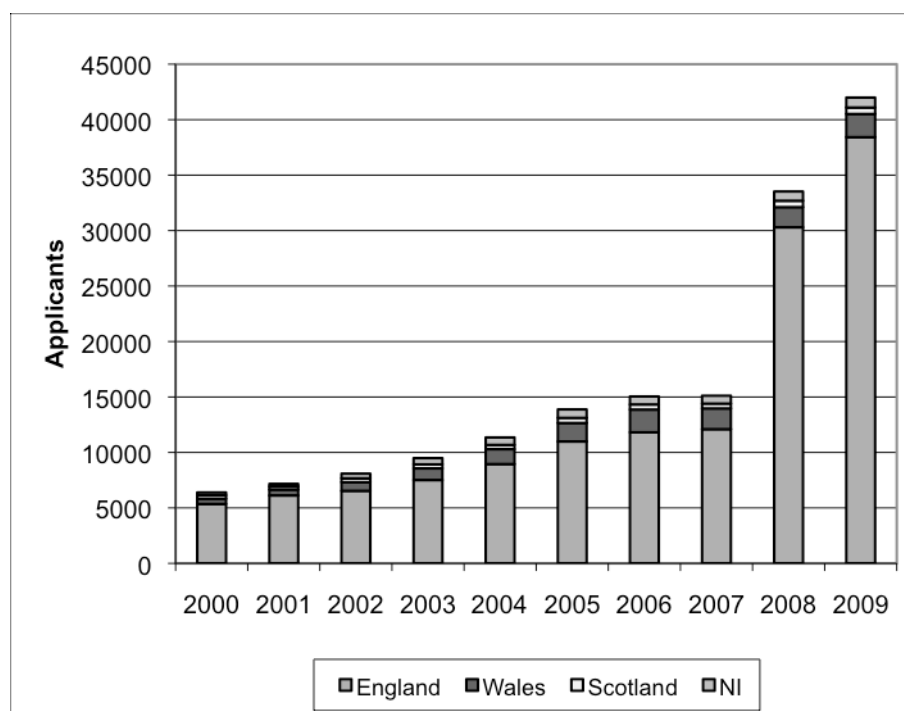
38. The Agenda for Change pay system was underpinned by a job evaluation scheme, which was based on 16 factors and was a “tailor-made” system for NHS staff. The job evaluation process depended upon agreed job descriptions for different types of job and role. In part, the use of a single job evaluation scheme was intended to support “equal pay for work of equal value”. The new pay spine was divided into nine pay bands, and staff covered by Agenda for Change were assimilated to one of these pay bands on the basis of job weight, as measured by the NHS job evaluation scheme (Buchan and Evans, 2007; National Audit Office, 2009).

39. In summary, the new pay system set out to provide a simplified approach to pay determination for nurses and other NHS staff, with a more systematic use of agreed job descriptions and job evaluation to “price” individual jobs within the workforce, linked to a new career development framework.

Indicators of Impact of Pay Increases on Nurses’ Labour Market

40. One indicator that can be used to measure the attractiveness of nursing as an occupation in the UK, as in other countries, is applications to pre-registration nurse education. In broad terms it appears that more students have been applying for study for nursing qualifications in recent years in the UK. Figure 5 below shows the numbers of applicants in each of the four UK countries (England, Northern Ireland, Wales and Scotland) from 2000 to 2009. There was gradual increase in applications in the period up to 2006-07 then a more marked increase.

Figure 5. Number of applicants for entry to nursing education at higher education institutions, 2000 to 2009, UK



Source: Buchan and Seccombe, 2010/ UCAS.

41. In part, some of the recent “increase” is because of a consolidation of data in 2009-10, but it may reflect people perceiving nursing as offering more secure employment in the current difficult post recession labour market in the UK. There has also been a marked change in the age profile of applicants from 2008 to 2009. Those aged 30 or over (taking those applicants living in the UK only) accounted for 36% of the increase, compared with 12% by those aged under 20 (Buchan and Seccombe, 2010).

42. The unique data set that comprises the membership surveys conducted by the Royal College of Nursing (RCN) gives some insight into nurses’ experiences and views of pay and conditions across the time period of implementation. These surveys have been conducted annually or bi-annually since the mid 1980s and as such give scope for long-term assessment of changes in nurses’ reported experiences and attitudes. For the purposes of this report, three surveys are considered – 2003, 2006 and 2009 (see, e.g., Ball and Pike, 2003; Ball and Pike, 2006; Ball and Pike 2009; see also Buchan and Ball, 2011).³

43. The 2006 survey, conducted just after implementation of Agenda for Change, asked nurses how they felt about their “new” Agenda for Change pay band. Just over half (54%) reported that they were satisfied that their pay band was fair, 40% were not, and 6% responded that they did not know. There was considerable variation in response from different sector of the NHS nursing workforce. Nurse managers or directors were less likely to be satisfied; 31% said it was fair, 63% said it was not, while 75% of sisters/charge nurses were satisfied that their pay band was fair and 22% did not. Full-time respondents were less likely than their part-time colleagues to feel that the pay band they moved to was fair.

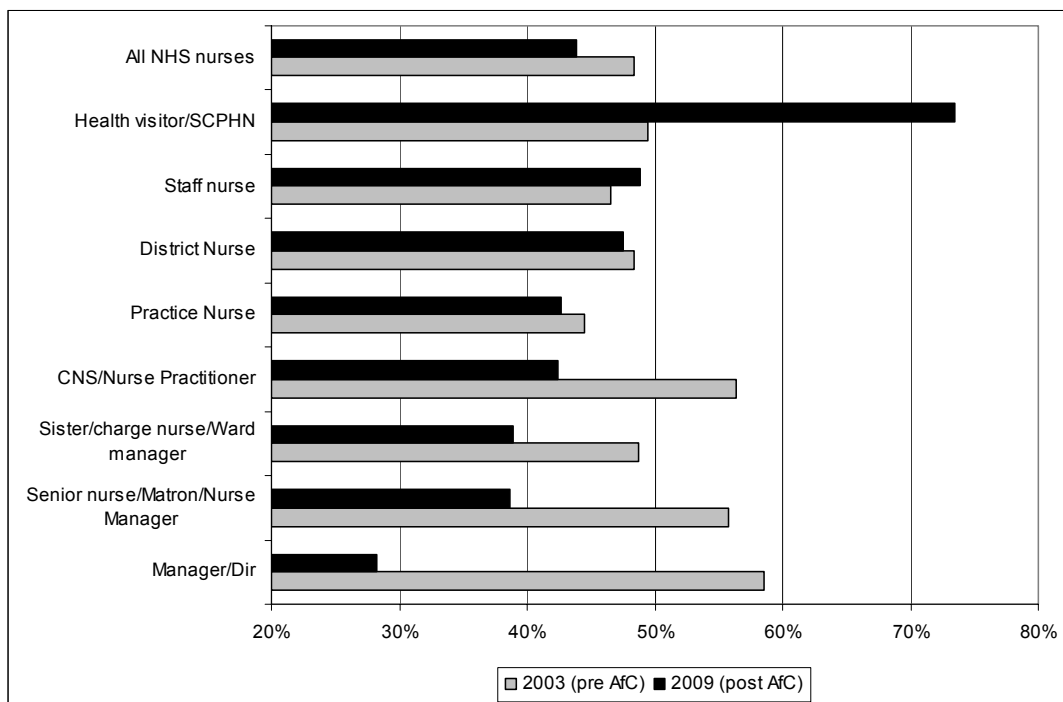
³ The RCN is the main trade union for nurses in the UK, representing more than 350 000. It conducts periodic independent sample surveys of its members with good response rates.

44. The most striking overall picture that emerged from the 2006 survey was that few respondents viewed Agenda for Change positively at that time, just after implementation. Only one in five thought that the new pay system was fairer than before Agenda for Change, but 55% disagreed with the statement. Implementation was criticised, with 63% saying the transition was too slow and only 24% saying they were satisfied with the way Agenda for Change was implemented in their organisation. Less than half (43%) said that their employer kept them well-informed about the transition to Agenda for Change.

45. Broader based research and analysis conducted just after implementation of Agenda for Change (Buchan and Evans, 2007; Jenkins, 2007) also highlighted difficulties with implementation, including inconsistent and uneven interpretation of the national guidelines for implementation; time delays in implementation in some organisations; incomplete linkage to, and establishment of the Knowledge and Skills Framework; and an absence of evaluation of the impact. There was also criticism (Buchan and Evans, 2007; House of Commons, 2007) that, in the early phase of implementation, there was little evidence emerging that Agenda for Change was delivering the claimed “benefits” (NHS Employers, 2006) of improved quality of care and effectiveness.

46. While the 2006 survey was conducted at the time of implementation, the next survey, in 2009, gave the opportunity to assess how the new system had matured and “bedded down” some years after implementation. The 2009 RCN survey asked NHS nurse respondents about their clinical grade immediately prior to the transition to Agenda for Change and their pay band immediately after transition. Figure 6 draws from data from the earlier 2003 RCN survey, which give a perspective from the period before Agenda for Change was piloted, and the 2009, post-implementation survey. It shows the proportion of respondents in different types of nursing job who reported that their grading was inappropriate in comparison to their role and responsibilities (in other words, they thought they were underpaid).

Figure 6. NHS nurses reporting that pay band/grade is inappropriate by job title (% response), 2003 and 2009, UK

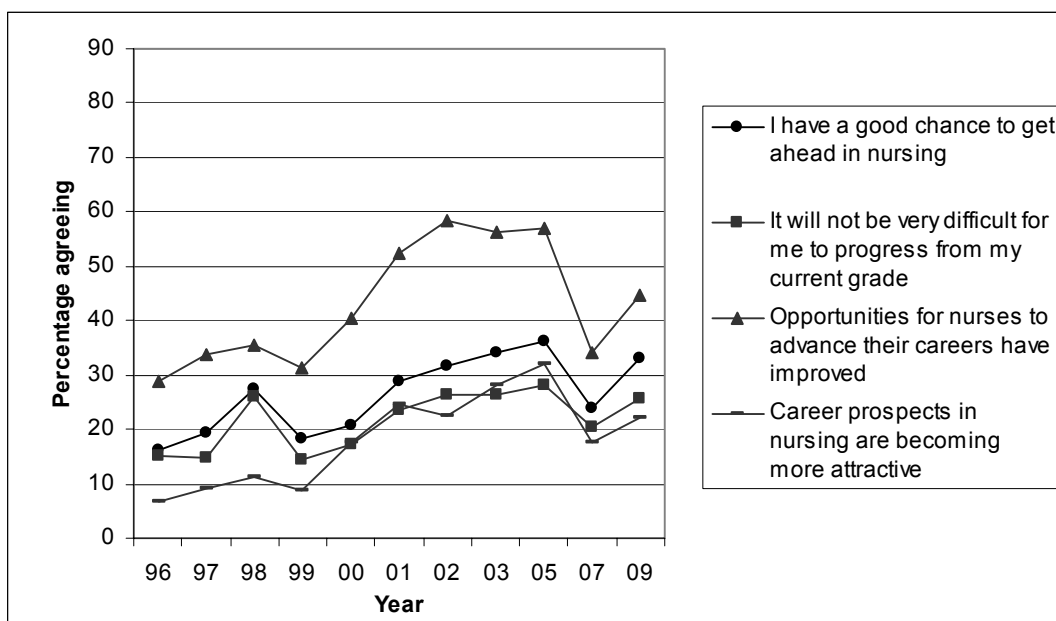


Source: Ball and Pike/Employment Research/RCN, 2009.

47. The data in Figure 6 shows that the way in which more senior NHS nurses view the grading of their post has changed since 2003. Prior to Agenda for Change (in 2003), nearly six in ten nurses (59%) working in managerial posts felt that their grade was inappropriate relative to their role and responsibilities. But in 2009, this figure had dropped by more than half to 28%. A similar, albeit less marked, change is apparent for other senior posts: 56% of senior nurses/matrons/nurse managers felt their grade was inappropriate in 2003 compared with 39% in 2009; 56% of clinical nurse specialists (CNS)/nurse practitioners in 2003 compared with 42% in 2009; and 49% of sisters/charge nurses in 2003 compared with 39% in 2009. On the other hand, one group – staff working as health visitors/community and primary health care nurses (CHPN) – stands out as having a markedly higher percentage of respondents reporting they thought their grade (and pay) was inappropriate in 2009 than in 2003.

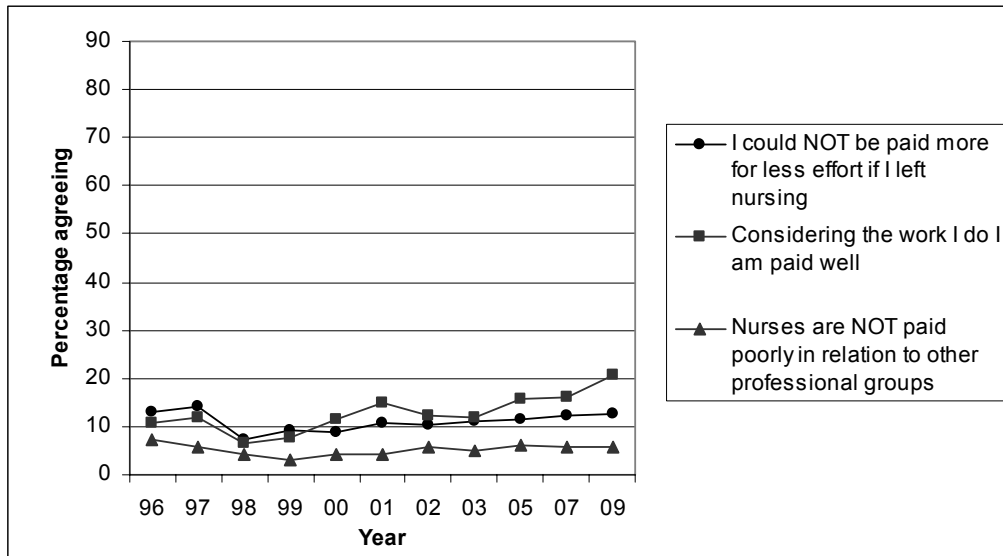
48. Some sense of the longer term view of nurse respondents on pay and career progression issues in the NHS can be seen in Figure 7. Between 2005 and 2007, a time period when there was considerable concern about redundancies and financial deficits in NHS organisations, nurses’ views of their career prospects fell dramatically. This had reversed somewhat by 2009, with a more positive overall response, but one that remained below the level recorded in 2005.

Figure 7. NHS nurses views about career progression, 1996-2009, UK



Source: Ball and Pike/Employment Research/RCN, 2009.

49. UK nurses’ expressed views about their pay have historically been very negative. Figure 8 presents NHS nurses’ views of pay since 1996, and shows there has been very little change in pay satisfaction over the last decade. There is some suggestion that the “bedding down” of Agenda for Change may have contributed to improvements in satisfaction; between the 2007 and 2009 survey there was some increase in the percentage of nurses who agreed with the statement that “considering the work I do, I am paid well”. There was, however, very little change in views on the other two pay attitude items, with only small percentages of respondents agreeing that they “could not be paid more for less effort if they left nursing” or that nurses are not paid poorly in relation to other professional groups.

Figure 8. Annual responses to survey on nurses' attitudes to pay, 1996-2009, UK

Source: Ball and Pike/ Employment Research/RCN, 2009.

50. The implementation of Agenda for Change for NHS nurses and other staff was also paralleled by new contracts for NHS hospital senior doctors and for general practitioners, which led to significant pay increases for these groups (see, e.g., National Audit Office, 2007; National Audit Office, 2008). There is some evidence to suggest that differential treatment, in terms of pay rises, led to reduced inter-disciplinary team commitment and satisfaction for nurses who worked with doctors in primary care settings (see, e.g., Campbell *et al.*, 2008).

51. In summary, the UK has a centralised, national approach to pay determination for NHS nurses. This may have benefits of relative transparency; can support lateral career moves between organisations while maintaining a national career structure; and can reduce significantly local management time and costs in running a reward system for staff. However, it may also have constraints related to a lack of responsiveness to local labour market variations, and limitation on the scope for individual organisations to be innovative in their reward strategy. Developing, negotiating, agreeing, and implementing a new national pay system was also a time-consuming effort.

52. The UK nurses survey data reported in this section is unusual because it is available over such a long time period. As such it can enable tracking of changes in attitudes and career intentions over a period of more than 20 years. This can be helpful to policy makers because it also allows assessment of variable impact on different groups within the nursing profession, and can highlight what might be regarded as national “pressure points”, where there are identifiable groups of categories of nurses who may feel less or more equitably treated, and which can lead to variations in levels of pay-related satisfaction (Buchan and Evans, 2007; NAO, 2009).

53. The results reported here have demonstrated that there was some positive change, overall, for UK nursing labour markets after implementation of Agenda for Change in 2006, but that the process of implementation itself raised expectations that were not fully met for all NHS nurses. There were also clear signs of differential impact and experiences, with some categories of nurse being less satisfied with the process of implementation. The clear message is that the potential benefits of a new pay system in a national service can only be maximised by effective communication, adequate funding and consistent management.

New Zealand

Background

54. The health sector in New Zealand is primarily based on public sector provision in the acute sector, and mixed of provision in the primary care sector, including GP and non-governmental organisations (NGOs); funding is mainly from government (approximately 80% in 2008). District Health Boards (DHBs) are the local organisation responsible for employment of public sector staff, and nurses are heavily unionised, represented nationally by the New Zealand Nurses Organisation (NZNO).

55. In New Zealand, the 1990s were characterised by extensive health system and labour market reform. In this context of radical market reform, and enabled by new labour laws, public sector nurses' pay bargaining was shifted from a national focus to local employer level. From 2000 onwards, this was followed by a shift from local to regional pay determination, with pay bargaining being consolidated into four regional "multi-employer collective agreements" (MECA). Finally, in the mid 2000s, union pressure led to a return to national-level pay determination for nurses. The New Zealand case is, therefore, one in which the focus of pay determination in the last 20 years shifted from national to local level, before returning to national level (Buchan and North, 2009).

56. In the 1990s, there had been growing concerns about nurse labour market conditions in New Zealand. There was a reported decline in the proportion of nurses working full time compared to part time; and a rise in the proportion working "casually" rather than in permanent employment (New Zealand Health Information Service, 1997). A Ministry of Health taskforce reported that the working conditions of nurses were limiting the potential of nursing and concluded that nurses' income had dropped in real terms, compounding the existing gender income gap affecting a predominantly female workforce (Ministry of Health, 1998). The Health Workforce Advisory Committee (2002) identified relatively low remuneration, inflexible hours, physical demands, increased patient acuity, and high workload as reasons for reduced numbers of New Zealand-trained RNs being active in the labour market.

57. The New Zealand Department of Labour reported that the number of new nursing graduates had fallen strongly in the late 1990s, and that more New Zealand-trained nurses were leaving the country soon after qualification, for better paid jobs in Australia and elsewhere (Department of Labour, 2005, para. 4.4.2). The report also highlighted "occupational detachment" (nurses who voluntarily "leave" the occupation) as a key issue for nursing in New Zealand, with the percentage of registered nurses and midwives remaining active in the profession in the first three years after initial registration having declined to 60% in 1998, from 81% in 1990 (Department of Labour, 2005, para. 4.4.1).

Pay Intervention

58. The drive for a new approach to pay determination for public sector nurses was stimulated by the labour market difficulties reported above, and also came from the nurses' union, the New Zealand Nurses Organisation (NZNO).

59. The union had four main, inter-related objectives, to:

- Achieve consistent national approach to pay bargaining
- Use pay equity arguments for pay uplift
- Use recruitment and retention arguments for pay uplift
- Link pay to a related focus on staffing and workload issues (NZNO, 2003).

60. The NZNO objective was to create an environment for national-level pay bargaining and to overcome piecemeal localised bargaining. They also had to overcome what some regarded as “protectionist” interests within the nursing workforce (e.g., groups in high-cost urban areas where pay rates were, at the time, relatively higher). The NZNO had to ensure the pay rise was sufficient so that no group felt they had lost out. The aim was to secure a “pay jolt” of significant magnitude to enable a levelling up of pay rates to a national standard (Buchan and North, 2009).

61. The election of a Labour government in 1999 had created a more favourable set of conditions for a new approach to nurses’ pay determination, including the prospect of central funding. The MECA was agreed between the employers (i.e., all 21 DHBs) and the NZNO in early 2005, giving an average pay increase of 7%, with backdating of the main provisions to July 1st 2004 (Buchan and North, 2009).

62. The MECA marked a significant stage in New Zealand nurses’ pay determination. One of the employer representative negotiators at the time highlighted the MECA as “good for nursing and very good for the DHB sector ... People will always remember the time when nurses pay got to where it ought to be” (O’Connor, 2005). The chief executive of the NZNO heralded the MECA as a “ground-breaking achievement” (Annals, 2005).

63. The MECA covered a range of issues including pay rates, hours of work, leave entitlement, and so on. While much of the content of the agreement could be characterized as a “normal” pay bargaining contract, there were two issues that differentiated it from the norm. First, the contract set out a complex, agreed transition timetable to bring together pay rates previously negotiated separately at regional and DHB levels. The second significant and unusual aspect of the MECA was that it included an agreement to establish a safe staffing commission to assess the impact and implications of low staffing levels and nursing workload, including a commitment to a “programme of regular monitoring of staffing levels and skill mix” (Safe Staffing/Health Workplaces Committee of Inquiry, 2006).

Indicators of Impact of Pay Increases on Nurses’ Labour Market

64. The Department of Labour, in a report on the nursing labour market in 2005, noted that the MECA “will be phased in by July 2006. The new pay rates for registered nurses will range from \$40,000 (grade step 1/new graduate nurse) to \$54,000 (grade step 5). This compares with a pay scale of around \$33,917 to around \$45,000 previously. Senior nurses’ pay rates will range from \$57,330 to \$80,000, compared with \$54,600 to \$74,766 previously” (Department of Labour, 2005, para. 4.6.1).

65. What has been the impact of the MECA on the New Zealand nursing labour market? The limited availability of data constrains a full assessment. Other factors such as funding, demographic change, new employment policies (e.g., paid parental leave and increased paid holiday were also introduced), economic conditions, unemployment rates and so on, may also have had an impact on indicators such as employment rates, turnover and vacancy rates. It should be noted, for example, that the general labour market situation improved in New Zealand across the time period of the implementation of the MECA. The Department of Labour in New Zealand noted at the time: “It is positive news for employers that skill shortages eased to some extent in 2006 following a significant deepening of shortages between 2003 and 2005. However, shortages remain severe and widespread. The predicted continuation of a tight labour market with low levels of unemployment means that skill shortages will remain a major issue in the New Zealand economy” (Department of Labour, 2007a, p.2).

66. There are, however, data sources that enable some assessment of labour market change over the period that the MECA was implemented. Analysis of staffing data from the public sector health system, held by District Health Boards New Zealand (DHBNZ), showed relatively rapid growth in nurses employed in the years 2003-04 to 2004-05. However, across the period, there was stronger growth in allied

health professionals and in doctors (although these latter two groups are smaller in size). Growth in employment of nursing personnel is in any case, partly a function of funding availability, assuming that there are additional nurses available to be employed. An increase in pay may stimulate increased supply of nursing hours in the sector where the pay has been increased, but there must be funding to pay for these extra hours; in addition, there may be a negative impact in sectors where the pay increase has not been implemented (Buchan and North, 2009). It would also be necessary, therefore, to assess whether or not there had been a change in nursing employment in non-DHB sectors – those not directly covered by the MECA.

67. The Statistics NZ censuses of 2001 and 2006, are a source of data on employment change across the period and give a rudimentary “before and after” timing for the MECA. This provides additional information on nursing numbers in sectors other than the public sector DHBs. Table 1 sets out the data.⁴ This census data covers a range of employers, and it is noticeable that employment of nurses dropped in two categories that are not in DHB employment – Plunket nurses⁵ and occupational health.

Table 1. Employment change, selected nurse occupational groups, 2001 and 2006, New Zealand

NZSCO Code	NZSCO Title	Census 2001 (headcount)	Census 2006 (headcount)	Employment Growth
22311	Principal Nurse	444	1 455	227.7%
22312	Registered Nurse	25 272	27 639	9.4%
22313	Psychiatric Nurse	1 323	1 731	30.8%
22314	Plunket Nurse	501	495	-1.2%
22315	Public Health & District Nurse	1 077	1 326	23.1%
22316	Occupational Health Nurse	213	192	-9.9%
22317	Midwife	2 121	2 313	9.1%

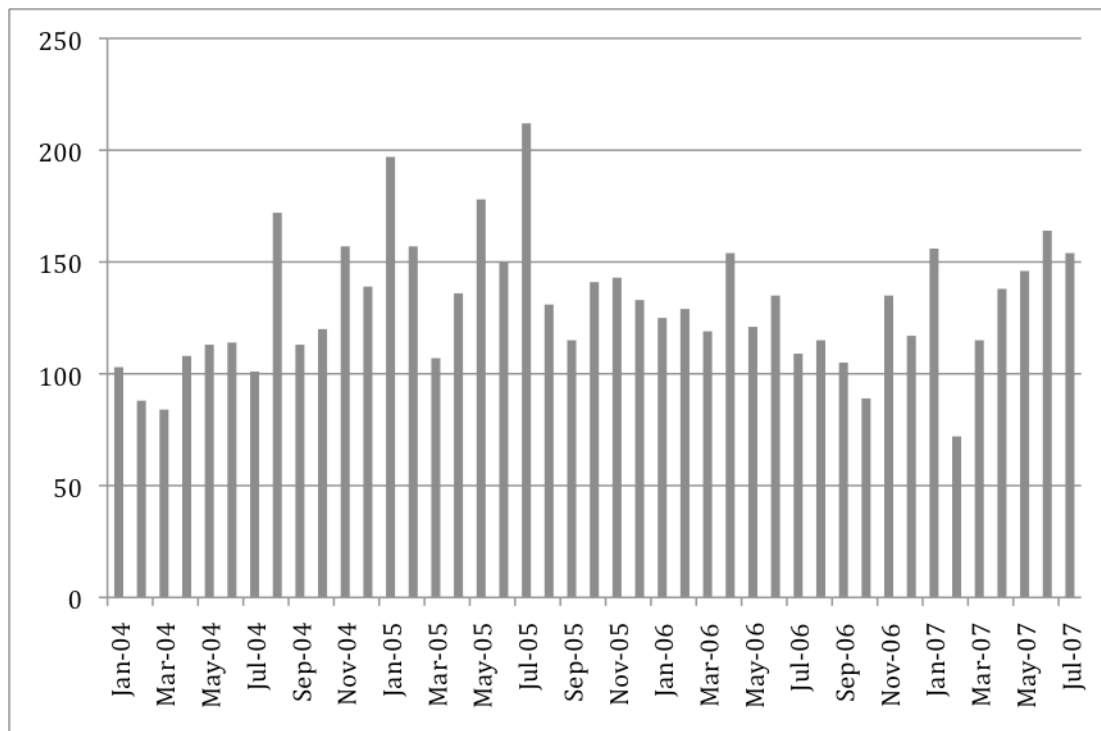
Source: Statistics New Zealand, Census 2001 and 2006/Buchan and North 2009.

68. Vacancy data collated by the Department of Labour across the period give some indication of the relative “tightness” of the labour market. In general, the higher the reported level of vacancies, the more likely it is that employers are experiencing difficulty in recruiting staff to fill vacancies. The monthly reported number of vacancies for registered nurses for the period from January 2004 to July 2007, showed a variable increase in vacancy rates up to the period late 2004 to mid 2005, followed by a variable decline in the reported numbers in the in the period up to late 2006 (Fig. 9), indicating there may have been less difficulty in recruiting. This was the period during which the MECA was being implemented.

⁴ Some caution is required in interpreting this data as the allocation of staff in the occupation classification system changed between the two censuses.

⁵ Plunket nurses are a type of primary care nurse employed by an NGO.

Figure 9. Monthly number of reported vacancies for registered nurses, January 2004 to July 2007, New Zealand

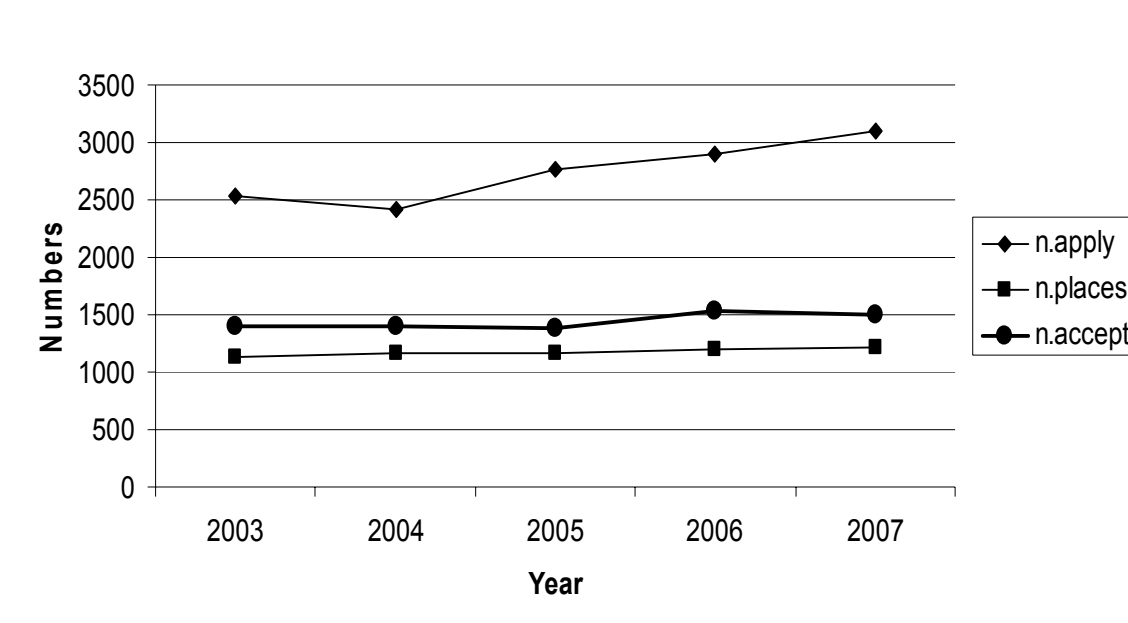


Source: Department of Labour, 2007a, full dataset.

69. The Department of Labour in New Zealand also collated data from a ‘Survey of Employers who have Recently Advertised’ (SERA). This provides information on whether or not employers are able to fill their advertised vacancies, and of the number of suitable candidates who apply. As such, it can be another indicator of the tightness of a labour market. The “fill rate” data for registered nurses (the % of advertised vacant posts calculated as having been filled) showed that only 30% of vacancies were filled in 2005, but this had increased to 54% in 2006, and 48% in 2007 (Department of Labour, 2007b).

70. Another source is to examine trends in applications to enter nurse education. Buchan and North (2009) requested data on trends in applications, acceptances, and places from all 16 schools of nursing in New Zealand and 11 provided data across the time period requested for analysis.

71. The data from those 11 schools are shown in Figure 10. These trends indicate that places available and acceptances (primarily a function of funding allocation) were fairly constant across the time period, but numbers applying (an indicator of change in relative career attraction) showed an upward trend from 2004-05, the time of the MECA, after a dip in 2003-04.

Figure 10. Trends in Applications to Schools of Nursing, 2003-2007, New Zealand

Source: Buchan and North, 2009, based on data supplied by schools.

72. In summary, using available data over the period has highlighted some key changes that occurred during and after the period of the so-called “pay jolt” from late 2004 to 2007. There was growth in levels of DHB employment of nurses; overall growth in nurse employment nationally (higher than the average for all occupations across 2003-07), but a decline in employment of nurses in some non-government sectors not impacted by the MECA pay award (e.g., Plunket nurses, occupational health); a drop in vacancy rates over the period from mid July 2005 to 2006; a reported reduction in vacancies for registered nurses from 2004 to 2006; and an increase in numbers of applicants for pre-registration nurse education across 2004-07.

Finland

Background

73. The Finnish health system provides universal coverage of a comprehensive range of publicly funded health services paid for mostly out of general taxation and relies mainly on public provision of care. About three quarters of health spending is funded by public sources (Vuorenski *et al.*, 2008). The Finnish Ministry of Social Affairs and Health is responsible for the provision of healthcare services, administered by over 300 Finnish municipalities.

74. In the years leading up to the new contract for nurses, Finland’s healthcare system saw some significant reforms that included steps taken to stimulate the availability, skills and motivation of staff with the intention of reducing staff shortages. The SOMERA Commission, set up in 2000 to assess future challenges to the healthcare system, produced projections of the staff required in municipal health and social services, including a baseline projection that assumed that staff requirements would rise by about 15% between 2000 and 2030. In response, the “National Project on Safeguarding the Future of Health Care Services” proposed measures to stimulate the availability, skills and motivation of staff, which included improving management training; reviewing the division of labour between physicians and nurses; and increasing enrolment in medical schools from 550 to 600 per year.

75. Municipalities – the local employers – play a major role in the determination of the pay of nurses in the Finnish health sector. In 2011 there were 336 municipalities. The municipality-based pay system was also reformed prior to the new collective agreement in 2007, creating room for local flexibility in the pay of individual nurses and doctors.

76. The changes to the pay system created three components on which to base pay: “a job-related component (depending on the demands of the job, the skills required and local circumstances); a person-based component (depending on personal competence and performance); and a goal-sharing plan (paid for achievements to job goals for individuals, set in advance)” (Simoens *et al.*, 2005). Individual nurses could now earn more through negotiation and as a result of performance. However, salary contracts were still based primarily on collective bargaining agreements involving tripartite negotiations between municipalities (as employers), trade unions and the government. The resulting agreements were generally signed for a period of about two years and set minimum job-based and person-based pay consisting of task-specific basic salary in accordance with the collective agreement plus annual supplements such as bonuses and overtime compensation. As such, these agreements set the national basic pay framework, outside of which there is scope for municipality and individual flexibility.

77. Most Finnish nurses are represented by Finland’s two major nurses’ unions: Tehy and SuPer. Tehy, the Union of Health and Social Care Professionals, is the biggest trade union for health practitioners in Finland. It has 138,000 members including nurses and other healthcare practitioners. SuPer, the Finnish Union of Practical Nurses, has 76,000 members, all of whom are nurses.

Pay Intervention

78. Despite the reforms in the healthcare sector, there was reported dissatisfaction with the nursing salaries in Finland (Flinkman *et al.*, 2008), which came to a head in late 2007. This resulted in negotiations for a new collective agreement. Tehy rejected the municipal employers’ pay increase offer of 12%, instead demanding a 24% increase in pay over the period of the contract to compensate for what they deemed to be a discrepancy in the fairness of pay equity – physicians received a higher salary increase of 16.6% after a strike in the early part of the decade. Tehy threatened the mass resignation of 13,000 nurses in November 2007 if negotiations failed. Negotiations were concluded on November 18, 2007 when Tehy signed a new two-year collective agreement on nurses’ pay with the Commission for Local Authority Employers.

79. Conditions of the agreement for Tehy members included a number of pay increases amounting to a significant rise in pay over the duration of the contract (Tehy reported this rise as approximately 22-28%, while the Local Government Employers estimate it to be 16-18%). The majority of the increase occurred during the first year. The pay changes were comprised of increases in the basic salary and a bonus.

80. Of the total pay raise, increases in basic salary included the following:

- Raise in monthly wages of 200 € for manager positions, 100 € for supervisor positions, and 75 € for “demanding nursing positions” on January 1st 2008
- 4% increase in salaries and personal bonuses on February 1st 2008
- 0.5% increase in salaries on May 1st 2009
- 1.3% increase in salaries for certain, educated employee groups with female majority, whose salary levels were at too low a level in comparison to their demanding jobs, on January 1st 2010
- Monthly increase of 60 € for manager positions, 40 € for supervisory positions, and 30 € for demanding nursing positions, also on January 1st 2010.

81. The pay raise also included a bonus as well as general increases that applied not only to social care and healthcare personnel, but also to all municipal employees. Articles 5 and 6 in the agreement (valid until December 2011) provided for additional payments that were not to be paid to all nurses. Article 5 enabled payment for results; individual municipalities were able to create goals or measures and if those were reached, the municipality would receive an increase of 0.7% paid as local arrangement fee, starting from September 1, 2010. Article 6 made provision for a local arrangement fee of 2% to be paid in municipalities where the total number of employees in social care and healthcare had remained unchanged or decreased since 2006. If the total amount of employees increased by no more than 1,300 per year, a fee of 1% was to be paid. Table 2 summarises the average pay of nurses in Finland and pay changes across the period 2005 to 2010.

Table 2. Normal pay (normal hours, not including extra hours' pay), 2005-10, Finland

Year	Nurses		Municipal sector in total	
	Average €/month	Change %	Average €/month	Change %
2005	2 360		2 308	
2006	2 416	2.4	2 370	2.7
2007	2 456	1.7	2 498	5.4
2008	2 688	9.4	2 632	5.4
2009	2 793	3.9	2 720	3.3
2010	2 855	2.2	2 778	2.1
2005-2010		21.0		20.3

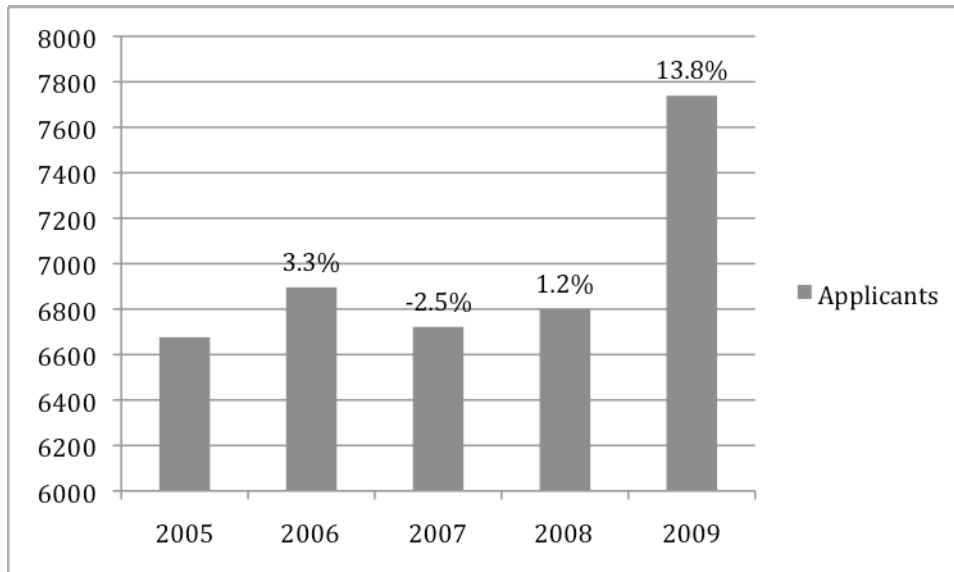
Source: Statistics Finland, 2010, Municipal Salaries, through Local Government Employers.

82. As a result of the collective agreement in 2008, nurses' wages surpassed the average municipal wage. Over the period 2005-10, the normal pay of nurses exceeded slightly the pay increase for all municipal workers (21.0% versus 20.3%).

Indicators of Impact of Pay Increases on Nurses' Labour Market

83. Prior to the collective agreement, the number of applications to Finnish nursing programmes had been static, at between 6,676 and 6,896 from 2005 to 2008 (Fig. 11). In the time period after the 9.4% increase in pay in 2008, applications to programmes increased by nearly 14% in 2009, suggesting that the collective agreement may have been successful in increasing the attractiveness of nursing education programmes to external applicants. This is one indicator of the relative attractiveness of nurse education to potential new applicants, and as such is more helpful as a broad labour market indicator than the number of places being funded, which may be more of a construct of internal decisions and funding allocation.

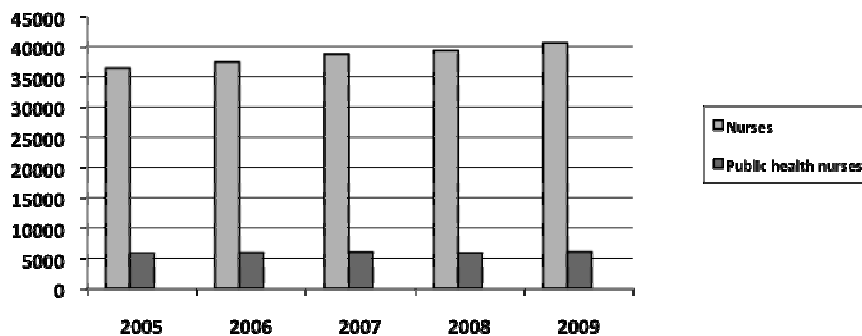
Figure 11. Applicants to Nursing Education Programmes, 2005-2009, Finland



Source: Ministry of Education and Culture, 2010.

84. The number of nurses employed in municipal and social care in Finland also increased between 2005 and 2009 with an average annual increase of 2.9% in municipal health and social care during this period (Fig. 12). There has been growth in the number of nurses, public health nurses and midwives; in total it is estimated that about 95% of working nurses are employed by municipal health and social care.

Figure 12. Numbers of nurses employed in municipal and social care, 2005-2009, Finland



Source: Kuntien sosiaali- ja terveyspalvelujen henkilöstö, 2008.

85. In summary, the nursing wage agreement in Finland covering the period to the end of 2010 was accompanied by an increase in both the number of nurses employed as well as the number of applications to nursing education programmes. A new agreement in 2011 will mean that all municipality employees, including nurses, will receive a 1.2% pay rise plus an additional amount of approximately 0.8% to be negotiated locally.

Czech Republic

Background

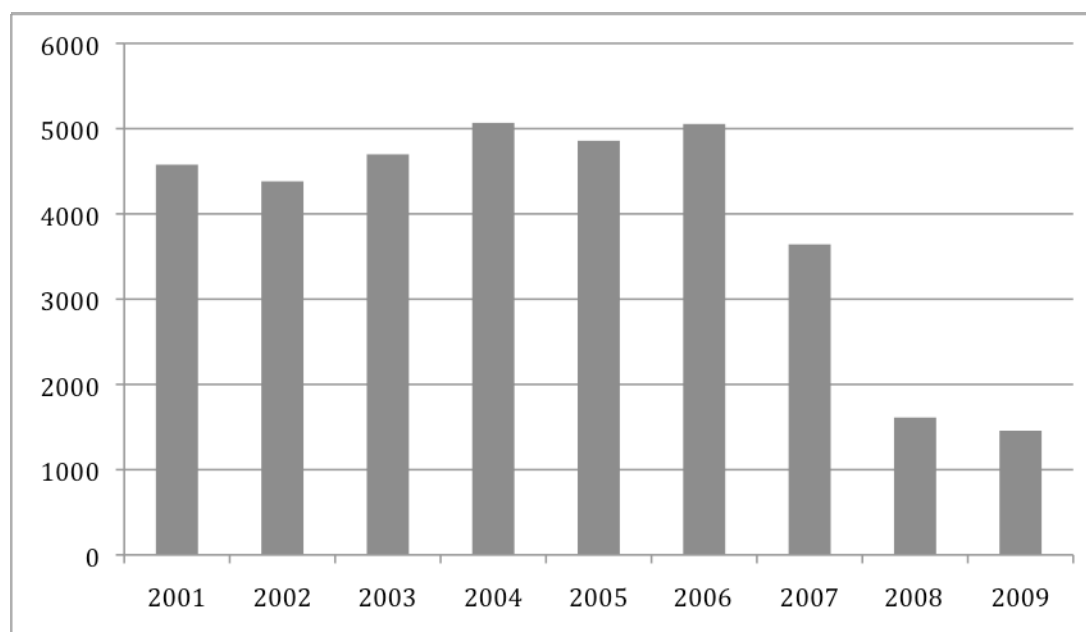
86. The Czech Republic's healthcare system is based on compulsory social health insurance, with quasi-public, self-governing insurance funds which pay for and purchase health care (Bryndová *et al.*, 2009). The Ministry of Health sets policy and supervises the system. The Ministry of Education, Youth and Sports is responsible for nurse education and develops curricula in collaboration with the Ministry of Health.

87. At the end of 2009, there was a total of 201 248 full-time equivalent professional healthcare staff, including 79 608 nurses (both nurses for general care and specialist nurses) (IHIS of the Czech Republic, 2010). In the Czech Republic the nursing team consists of nurses responsible for general care, healthcare assistants and specialist nurses (e.g., in critical care). As noted earlier, the nurse-to-population ratio is notably higher in the Czech Republic than in all neighbouring countries (see Figure 1).

88. In 2009, the government of the Czech Republic implemented salary increases for nurses in an attempt to halt a reported growing shortage of nurses responsible for general care.

89. One of the reasons for the shortage was that the Czech Republic had changed its nurse education system in order to be able to comply with European Union requirements (the Czech Republic acceded into the EU in 2004); EU Directive 36/2005 was implemented, which resulted in nurses responsible for general care in the Czech Republic being educated to diploma or baccalaureate level. The last group of nursing students was admitted to the previous system in 2004, and the number of nurses entering the workforce from this "old" system of training then declined sharply by 2007, and the overall number of nurses entering the workforce in 2008 and 2009 was much smaller than before, since there were no longer any graduates of the previous system entering the workforce. A large percentage of healthcare assistants now choose to continue to study nursing or related fields at universities or other institutions of higher education, but their participation in the workforce can be expected in 2012 at the earliest.

90. Data collated by OECD highlights the marked reduction in new graduates in the period 2007-09 (Fig. 13).

Figure 13. Annual number of graduate nurses, 2001-2009, Czech Republic

Source: OECD, 2010a.

91. The second significant reason for the shortage was uncovered in an analysis of the workforce. This confirmed that remuneration levels for nurses responsible for general care in the Czech Republic were low and were deterring people from entering the profession (as highlighted in Figures 2 and 3). The salary was lower than the average salary in the Czech Republic, which it was felt did not reflect the complexity and responsibilities of working in the profession.

Pay Intervention

92. To address this, in the summer of 2009 the Czech Republic government decided to increase the salaries of nurses and midwives working in the public sector. The increase was divided into three steps, and the salaries were supposed to increase by 15% (approximately 100 Euro per month) in overall terms between June 1st and July 1st 2009.

93. Survey research indicated that the pay rises were not provided to all nurses. According to an unpublished survey conducted by the Czech Nurses' Association in Autumn 2009, and repeated in 2010 (also not published), about half of respondents reported that their salaries were not increased at this time. These nurses were mainly employed by healthcare facilities independent of the Czech Republic Ministry of Health, such as facilities managed by the local authorities, private facilities, and GP practices or specialists. The other half of respondents reported an increase in their salary. These nurses were working mostly in large university hospitals or other facilities owned by the state, and had therefore received the pay increase.

94. In addition to the salary increase, other "stabilisation measures" to address the shortage were implemented in 2009; for example, improvement in working conditions, setting up day-care with flexible hours for employees' children, subsidising the costs of additional specialisation education, and changing and improving conditions for continuous professional development.

Indicators of Impact of Pay Increases on Nurses' Labour Market

95. Data on labour market changes at the time provides indications of relative improvements in the number of entrants to nursing, in staffing numbers, and in a reduction in vacancies. Table 3 shows an increase in the number of entrants to nursing studies in the Czech Republic across the period 2007-09.

Table 3. Number of entrants to nursing study programmes, 2007-09, Czech Republic

Year	Bachelor of Nursing Programme at Universities	General Nurse Programme at Institutions of Higher Education/Colleges	Total
2007	1 261	859	2 120
2008	1 361	1 010	2 371
2009	1 511	1 053	2 564

Source: Data compiled by the Institute of Health Information and Statistics (IHIS) of the Czech Republic for this report. Some data can be found in IHIS, 2010. Data refers to number of first enrolled for the bachelor study programme "Nursing" (including midwives) at universities and entrants for the field of study "General nurse" at institutions of higher education/colleges as of end of year.

96. Table 4 provides some evidence of overall staffing growth between 2008 and 2009, for nurses. This growth is particularly striking as the numbers had been flat over the previous few years. Also, given that the number of graduates had decreased sharply in 2007-09, this increase may be explained by some nurses returning to work and by increased retention.

Table 4. Total number of practising nurses, 2004-2009, Czech Republic

Year	Practising Nurses
2004	82 743
2005	82 835
2006	82 668
2007	82 667
2008	82 765
2009	84 514

Source: Data compiled by the Institute of Health Information and Statistics (IHIS) of the Czech Republic for this report. Some data can be found in IHIS, 2010. Data relates to: headcounts as of end of year; and nurses working in healthcare establishments. Those working in social care sector are not included (this made up about 8,000 nurses in 2009). Possible double-counting of nurses working in more than one healthcare establishment. Data include all nurses, that is, including general and specialized nurses.

97. Reported vacancy rates for general nurses peaked in September 2008 (see Table 5) and then reduced across the period until September 2010, from 1 002 down to 394.

Table 5. Number of vacancies for nursing profession, 2008-2010, Czech Republic

Date	General, non-specialised nurses
April 30 th 2008	809
September 30 th 2008	1 002
April 30 th 2009	703
September 30 th 2009	725
April 30 th 2010	563
September 30 th 2010	394

Source: Data compiled by the Institute of Health Information and Statistics (IHIS) of the Czech Republic for this report. Some data can be found in IHIS, 2010. Data refer to number of vacancies registered by employment offices as of 30th April or 30th September in each year. Only general non-specialised nurses are included (specialised nurses for children, psychiatric nurses and nurses in intensive care are not included).

98. While the pay increase may be one explanation for the reduction in vacancies, this significant reduction will have been influenced by other factors; for example, the impact of the economic crisis, which brought nurses who might have moved to other sectors that were hard hit by the crisis back to the healthcare sector, and discouraged other nurses from leaving the nursing profession because of a lack of opportunities in other areas of the economy.

99. At the time of writing this report, there are additional pressures on pay determination in the health sector in the Czech Republic. In Winter 2010-11, a protest by physicians culminated in the request for a large salary increase. The physicians threatened to leave healthcare facilities in the Czech Republic and migrate to other EU countries if this was not forthcoming. If this threat had been carried out it may have reduced hospital capacity with the related potential loss of nursing jobs and consequent unemployment for nurses.

100. By the end of February 2011, the demands of physicians had been partially met, threats to migrate had not been carried through, and hospitals had not been closed. Healthcare reforms are currently being developed that include a reduction in the number of acute care beds. There are also plans to improve the competence of nurses and potentially further increase their salaries. There is also likely to be further debate about the need for more nurses to work in the primary, community and long-term care sectors.

101. In summary, the improvement in pay and conditions of Czech nurses working for government hospitals in 2009 occurred at the same time as reductions in vacancies, an increase in overall staffing numbers and an increase in intakes to nurse training. While it is likely that the two issues are connected, causality cannot be demonstrated with available data sets, and broader economic changes may also have been a factor in these changes.

CONCLUSIONS

102. This final section of the report gives consideration to key findings from the four case studies before concluding with a broader assessment of issues related to nurses' pay and labour markets.

103. In the introduction and in the case studies of the impact of pay on nurses' labour markets, it was emphasised that the case studies relied on different data sets, and that there was therefore little scope for detailed cross-country comparison. However, the case studies have highlighted that a range of possible indicators can be used to assess the impact of nurses' pay changes, including data on relative earnings, data on staffing numbers, applicants to nurse training, changes in vacancy rates, and also survey based data on nurses' attitudes and career intentions.

104. In all four countries, there was a sense that the pay increases described in the case studies were not routine. They were linked to an overhaul of the pay system, and/or were responses to what were regarded as urgent contemporaneous policy challenges. This raises an additional question in relation to assessment of impact: if the pay increase is "one-off" and atypical, is its impact likely to be only short term or will it have longer term influences? As noted earlier, analysis of the history of NHS nurses' pay determination in the UK (Buchan 1992) identified that there were a series of "one-off" policy responses every few years to boost nurses' pay, interspersed with a number of years when nurses' pay levels lagged behind general increases. This highlights that atypical higher pay rises may, in some cases, be needed to "catch up" earnings growth elsewhere in the economy rather than move nurses' pay ahead – they may be remedial rather than innovative or strategic. In these circumstances their impact on labour market behaviour may be more muted.

105. Another factor that has to be considered in any assessment of impact of a pay increase is the timing of agreement and implementation. Some changes in pay, such as the new system implemented in the UK, can take several years to complete. Others, such as in Finland and New Zealand, may have some planned phasing of implementation once developed. This can complicate assessment as it may be difficult to determine the "start" date for implementation, and planned or delayed implementation can also have an impact on nurses' labour market behaviour. For example, there is some evidence from UK surveys (e.g., Ball and Pike, 2006; Ball and Pike, 2009) that nurses may have delayed making career decisions and job moves while they awaited the results of the implementation of the new pay system.

106. It is also clear that the approach to pay determination of nurses in OECD countries has varied, and this may in part be one explanation for the relatively different levels of pay highlighted earlier in this report. As discussed in the case study section, there have also been drivers for change in nurses' pay in the case study countries, and some evidence of impact. Table 6 summarises these points.

Table 6. Implementation date, drivers for change and indicators of impact, four OECD case study countries

Country	Date	Drivers for change	Key indicators of impact	Impact (short term)
Czech Republic	2009	Concern about nurses pay competitiveness; EU accession required raising of professional training standards	Entrants to training; staffing levels; vacancy rates	Increased entrants to training; increased staffing numbers; reduced vacancies
Finland	Agreed late 2007, implemented 2008	Pay comparisons; concern about recruitment levels	Application rates to training; staffing levels	Increased applications; increased staffing
New Zealand	Fully implemented by 2006, with backdating to 2004	Shift from regional to national pay determination; concern about pay equity, staff shortages	Employment levels; vacancies/job advertisements; applications to nurse training	Increased applications to training; reduced vacancies; increase in staffing in public sector
UK	Negotiated and then piloted over a period of years; fully implemented by 2006	New pay system needed for pay equity, and to support and reward career progression. Justified on grounds that it would lead to improved productivity/quality	Application rates to nurse education; national surveys of nurses careers and attitudes	Increased applications to training; increase in generally low satisfaction levels with pay (variable across grades/specialties)

Source: OECD-country case studies (UK, New Zealand, Finland, Czech Republic).

107. Three of the countries – the UK, Finland and the Czech Republic – report a national level focus on nurses' pay determination (in the dominant public/government-funded sector in each country). In New Zealand, pay bargaining between unions and representatives of employers at national level was part of the new model, having shifted from a local/regional focus. In the UK, unions are recognised and represent all nurses in the NHS; and pay rate recommendations are made by an independent pay review body. In the Czech Republic, there is a national focus for determining the pay rates for nurses working in government hospitals. In Finland, local (municipal) employers play a major role in pay determination. Nonetheless, while there is scope for some local variation in pay, this flexibility is exercised within a national framework.

108. The case studies have also highlighted a range of identified drivers for the implementation of a pay rise for nurses. One factor in some cases has been pay equity. Nursing is a predominantly female profession and there can be a gender dimension to pay determination and pay equality. This was the case in the UK, where one rationale for introducing a new pay system was policy concern that equal pay legislation could reveal that nurses were underpaid in comparison to male-dominated occupations. It was also a factor highlighted in the drive for a new pay award in New Zealand.

109. Labour market concerns, linked to geographic or specialty shortages, have been the most common driver. In all four case study countries there were national debates, threatened strikes and/or media coverage about the negative consequences of nurse staff shortages, and of future prospects for recruitment to the profession. Accession to the EU, and concern about broader based competitiveness in a free, EU-wide labour market was also a factor in the Czech Republic.

110. Structural changes in the pay systems in the UK, Finland and New Zealand were also factors in creating expectations of pay rises, accompanied in the UK and Finland by a shift towards some degree of local pay flexibility while retaining a national framework.

111. In the UK the new NHS pay system was also justified on the grounds that it would “realise” additional benefits related to reduced staff turnover and improvements in organisational productivity and in the quality of care being provided. The limited independent evaluation of the implementation of the new NHS pay system has so far found little evidence of productivity and quality improvements (Buchan and Evans, 2007; National Audit Office, 2009).

112. Beyond the four case study countries, it is clear that different OECD countries have employed different methods of determining nurses’ pay. This reflects different health system configurations, different methods of funding health, different labour markets, and variations in the status of nurses in the broader economy and in society. Different nurses’ pay determination models exist in other OECD countries, as highlighted in Table 7. For example, in Australia, which has a federal government structure, the primary focus of pay determination for nurses working in the public sector is at State level, with pay negotiations between unions and employers. In the US, pay determination is primarily at the level of the organisation. In the minority of hospitals where nurses have a recognised trade union (about one in five) (see Spetz et al., 2011), this is based on negotiations with trade unions; in others the management will set pay rates based on assessment of labour market conditions and organisational priorities.

Table 7. Examples of varying approaches to hospital nurses’ remuneration, selected OECD countries

Country	Current approach to nurses’ pay determination
Australia	In the public sector, based on State-level bargaining between union and employer representatives
Czech Republic	National pay determination for government hospital nurses
Finland	Co-ordinated municipal-level pay determination within a national framework
New Zealand	Shifted from local/regional to national-level bargaining between unions and employer representatives
Japan	Decentralised system; pay linked to assessment of nursing contribution
United Kingdom	National level independent pay review body makes recommendations on national pay rates for NHS nurses; takes evidence from national unions, government and employers; some local flexibility within national framework
United States	Local (hospital level or equivalent) pay determination - some collective bargaining in hospitals which recognise trade unions (a minority) but mainly employer determined

Source: Adapted and developed from Nakata and Buchan, 2011 and from case studies.

113. An additional current feature of nurses’ pay determination in several OECD countries is that health labour markets and funding have been impacted by the recent global economic crisis. Many countries with publicly funded health systems are looking to contain costs and improve productivity. Health care is labour intensive, and nurses are often the majority part of the direct care giving workforce, so it is not surprising that in the last two years there have been examples of pay restraint being imposed by governments. Examples include Iceland (Friðfinnsdóttir and Jónsson, 2010), Ireland and Hungary, where there was a pay cut, and the UK, where there is currently a pay “freeze” for public sector staff.

114. It is also the case that productivity/performance improvement is now more clearly on the agenda of health sector policy makers in many OECD countries. Linking nurses’ pay, or pay increases, to some productivity and performance measures is likely to be of greater interest to policy makers over the next few years, in response to fiscal constraints.

115. This overview of recent data on nurses’ employment and pay has highlighted that there are radically different methods of determining nurses’ pay in different countries. Across the OECD the

approaches vary from local to national pay determination, and from heavily unionised bargaining environments to non-union situations.

116. It is also important not to lose sight of the individual. For nurses themselves the main issue is not how nurses' pay is determined, but what they receive as a result of that determination process. If a new pay system or pay increase is implemented with the promise of a pay rise, and it does not deliver this rise to an individual nurse, she or he is unlikely to be positive about the change, even if a dispassionate overall analysis suggests that the new system is "better" for overall patient care or labour market responsiveness of "most" nurses. If the size of the workforce is tens or hundreds of thousands, as in most OECD countries, even a relatively small proportion of dissatisfied nurses can translate into a significant numerical vocal minority.

117. This review has highlighted that external changes in labour market conditions, funding availability and other factors may contribute to nurses' satisfaction levels with a new pay system, or may constrain attempts to analyse its impact through the assessment of staffing indicators. Even so, nurses are one of the largest groups in the health workforce, and are likely to be a major focus for cost efficiency scrutiny in the next few years. How nurses are paid, as well as how much they are paid, is an issue worthy of more detailed examination, given the policy imperative for improved productivity in health care. It is surprising how little research has so far focused on this issue. While the same policy drivers exist in most OECD countries, the nurses' pay systems are very different. More detailed comparative research on approaches to pay determination and composition of pay systems, could be illuminating for policy makers looking to improve the productivity of this critical part of the health workforce.

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