The Governance of Health Services in Small Countries: what are the lessons for Wales?

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Acknowledgements

Although this paper is largely in the form of an evidence-review using data gathered from the published literature it has also been verified and commented upon by a group of experts who are representative of the different health systems that have been examined. As such, thanks are due to Pauline Barnett, Allan Krasnik, Mats Brommels, Derek Feeley, Judith Smith, Tim O’Sullivan and Sean Conroy for their input to the work. We would also like to thank Jan Williams of NLIAH and colleagues in the Welsh Assembly Government who offered helpful comments on an earlier draft of this paper. The full report on which this paper is based can be accessed on the websites of HSMC (http://www.hsmc.bham.ac.uk) and NLIAH (http://www.wales.nhs.uk/sites3/home.cfm?OrgID=484).

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Introduction

In 2004 the Welsh Assembly Government (WAG) published *Making the Connections* which emphasised the role of collaboration and co-operation in bringing about improvements in public service delivery. Given the key characteristics of Wales as a small country with an absence of large metropolitan areas, but quite specific values and attitudes towards public services, the mechanisms of competition and choice which England is pursuing as drivers of reform were viewed as inappropriate. The vision of this document is clear in its intention to deliver world class public service for the people of Wales through a process of collaboration. The Government’s strategy for the NHS, *Designed for Life* (2005), similarly rejected a consumer model of reform in favour of a citizen model, and highlighted the need for the NHS to work with local government in delivering world class services.

The review of local public service delivery in Wales led by Sir Jeremy Beecham, *Beyond Boundaries* (2006a), reviewed progress in implementing the citizen model, and noted that much remained to be done to make a reality of partnership working. In a wide ranging report, the Beecham review argued for a transformation of public service delivery based on four critical success factors: citizen engagement, delivery, partnership and challenge. Moreover the review suggests that Wales should learn from other small countries to become a benchmark for delivering flexible, citizen-centred local services.

“...Wales should aspire to be an example of excellence in small country governance. Many of the issues facing small countries are the same as those in larger countries, but some are crucially different. Most obviously, small scale allows intimacy and focus which should yield highly joined-up government...Becoming an exemplar depends on rigorous consistency in applying the citizen model across all the agencies of government. In a small country, this calls for a new form of leadership: the WAG leading not through bureaucracy, but through engagement – example, persuasion and constructive challenge to achieve results for citizens” (paragraphs 7.6-7.7).

The WAG response to the Beecham report, *Delivering Beyond Boundaries* (2006b), supports the findings of the Beecham report and states Wales should ‘aim to be an international exemplar of how small countries deliver public services’ (p. 2). In order to become an exemplar of small country governance there are a number of lessons which NHS Wales must incorporate in applying the four critical success factors. Other small countries have experience of applying some of these success factors and may be useful in providing key lessons which may be applicable in the Welsh context.

Research Objectives

The National Leadership and Innovation Agency for Healthcare (NLIAH) commissioned the Health Services Management Centre at the University of Birmingham to undertake a desk-based review of health service governance in small countries, and produce a report identifying learning for Wales. In terms of the small countries which Wales could look to for lessons, we have defined small as those countries with populations of fewer than 10 million people. Of those countries meeting this criterion, we have focused on countries which are encountering similar challenges to those of Wales. The countries are:
Scotland - *Beyond Boundaries* notes the importance of learning from other UK countries. Scotland is the most relevant of these countries for the purpose of this review, having made more significant progress in terms of change than Northern Ireland. Scotland also has an integrated approach to the organization of NHS services through its Health Boards, since the dissolution of Trusts in 2004.

New Zealand – A similar size and scale to Wales, along with a tax funded national health system, New Zealand has also strongly allied its health services with concepts of integration and collaboration after experimenting with market-based approaches in the late 1980s and early 1990s. Furthermore, it has interesting governance arrangements with a proportion of elected members on its District Health Boards who are chosen by their population during local elections.

Scandinavian countries – Norway, Sweden, Finland and Denmark are all similar sizes and face similar challenges as Wales in terms of rurality. Like New Zealand though, a number of the Scandinavian countries have governance arrangements relevant to Wales. These countries have similarities with each other in terms of governance, but also contain key differences at a more micro-level.

Republic of Ireland – A similar size and scale to Wales but has traditionally had quite different forms of funding and governance arrangements.

A number of themes provided a focus for the review, including:

- Relationships between national and local health care organisations;
- Public and patient involvement in healthcare organisations and decision making;
- Mechanisms to achieve change and performance improvement (i.e. financial incentives, national change programmes, locally developed change projects, performance management systems etc);
- Arrangements for working together across organisational boundaries; and
- Initiatives to achieve whole system coherence and coordination in the context of competing priorities.

At the outset, it is important to emphasise the limitations of a review such as this. In drawing on the published literature on health system governance in the above countries, this report is based on existing studies, supplemented by the views of experts in these countries whom we consulted during the course of the review (see our full report for more detail on the methods used). As our report shows, the published literature contains a wealth of descriptive material, and we have drawn on this material in preparing the country profiles. The literature also includes analysis of the perceived strengths and weaknesses of governance arrangements, and the rationale behind reforms to these arrangements, and again we have used this work to describe the dynamics of each system.
The major gap in the literature is work that relates different forms of governance to health system performance and outcomes (see our full report for more detail on this). We have sought to fill this gap by drawing on the advice of experts in these countries on the effectiveness of current governance arrangements. In so doing, we would stress that in offering an account of what is and is not working well in each system, and how well each system is performing, we are reliant primarily on expert judgement.

For this reason we have supplemented the views of experts by analysis of data on performance published by the OECD. These data are displayed in Table 2 and they illustrate the performance of each system using key indicators relating to population health outcomes, efficiency, quality of care and expenditure. A commentary on the data is provided in our full report. In relation to some areas of performance of relevance to Wales, such as patient safety and waiting times, no data exist, and it is therefore not possible to make cross national comparisons.

The findings that follow should be read with these limitations in mind.

**Summary findings**

In this section we summarise the main findings of our review, and identify a number of issues that are relevant to the governance of health services in Wales.

**New Zealand**

In many respects New Zealand is the country most similar to Wales in terms of its size and the distribution of the population between urban and rural areas. Since 1999, the health service in New Zealand has been organised through 21 district health boards (DHBs). These boards comprise a mix of locally elected and nationally appointed members. DHBs integrate the funding and provision of public health care, and they contract with social enterprise and third sector organisations for the provision of some services. The funding of DHBs comes from the Ministry of Health which holds boards to account for their performance.

Learning points for Wales from New Zealand are:

- for a country of a similar size to Wales, New Zealand has fewer statutory organisations involved in health care than Wales (21 compared with 36)
- in New Zealand, a proportion of DHB members are elected by local people, thereby ensuring direct community involvement in governance
- New Zealand has put in place a rules based performance management system in which the Ministry of Health uses an escalating series of interventions when there are concerns about DHB performance
- the Minister of Health has a direct relationship with each DHB chair and this relationship lies at the heart of accountability and performance management

The governance of health services in New Zealand is perceived to be working well for the most part. Issues of debate include:
• the small size of some DHBs and the associated challenge of ensuring the clinical and financial viability of their services. This is being addressed through the development of local collaboration and service networks

• potential conflicts of interest for DHB members in relation to accountability to the local community on the one hand and the Minister on the other. This has been resolved through the leadership of DHB chairs

• the size and functions of the Ministry of Health vis a vis DHBs. The new Director General has instituted a review that is expected to lead to are structuring in the near future, with the Ministry reducing its involvement in operational issues

**Scotland**

The governance of health services in Scotland is similar in some respects to the position in New Zealand. Following recent changes, the NHS in Scotland is organised through 14 health boards. These boards comprise a mix of non-executive lay members appointed by Ministers after open competition, and non-executive stakeholder members e.g. from local authorities. Health boards in Scotland are integrated organisations responsible for both the funding and provision of health care. The Scottish Executive Health Department holds health boards to account for their performance.

Learning points for Wales from Scotland are:

• for a country of a similar size to Wales, Scotland has fewer statutory organisations involved in health care than Wales (14 compared with 36)

• one of the main reasons why Scotland has fewer organisations is that the purchaser/provider split has been abandoned, thereby enabling services to be run by integrated health boards

• in Scotland there are two main levels of governance – national and local – and these levels are supplemented by three regional planning groups covering the west of Scotland, south east and Tayside, and the north of Scotland

• managed clinical networks have been established to plan and coordinate the provision of specialised services (such as cancer services) across board areas

• Scotland has a well developed performance management system based on local delivery plans agreed between health boards and the Health Department and annual accountability reviews that are held in public

• Community Health Partnerships (CHPs) have been established in all Boards to facilitate collaboration between the NHS and local authorities

The governance of health services in Scotland continues to evolve post devolution. Issues of debate include:
• whether there should be a move to elect all or some health board members, as in New Zealand

• the role of regional planning groups and the extent to which these may need to be developed further

• the role of CHPs in shifting the balance of care from hospitals to communities and to securing shared outcomes with local government

• the role of independent scrutiny of health boards’ plans for service change.

The Nordic Countries

The Nordic countries contain a family of health systems which share a commitment to provide comprehensive health services to all through tax funding. Unlike in the United Kingdom, the governance of health services in these countries has traditionally been decentralised with local authorities playing a major role in both the funding and the provision of services. This has included levying taxes to finance public services, including health care.

As a consequence, the role of central government has been more limited than in the United Kingdom, with county councils and municipal councils being the main bodies involved in health services’ governance. Recent reforms in some of the Nordic countries have changed the balance of responsibilities between different levels of governance with a tendency to greater centralisation in both Norway and Denmark.

Finland

Finland is the most decentralised of the Nordic countries. The governance of health services is the responsibility of municipal councils, of which there are 448 serving a population of around five million. Municipal councils are also responsible for social care and other public services. In view of their small size, municipal councils are required to work together in federations to plan and provide hospital services (there are 20 of these). At the national level, the Ministry of Social Affairs and Health steers the development of health services.

Sweden

The governance of health services in Sweden is shared between county councils and municipal councils. Twenty one county councils are responsible for the funding and provision of hospital services and primary care, and 290 municipal councils are responsible for funding and provision of most other public services, for a population of nine million. Municipal councils’ responsibilities include social care and community care for older people, the latter being transferred to them from the county councils in 1992. At the national level, the Ministry of Health and Social Affairs and the National Board of Health and Welfare steer the development of health services.
Denmark

As in Sweden, the governance of health services is shared between county councils and municipal councils. Reforms implemented in 2007 have reduced the number of county councils from 14 to five and the number of municipal councils from 275 to 98, for a population of five million. County councils are responsible for the provision of hospital services and for reimbursing GPs and other family practitioners. Municipal councils are responsible for social care, community health services and public health. Under the recent reforms, county councils have lost the power to raise resources through taxation and are now funded via central government and contributions from municipalities. Municipal councils retain the power to levy taxes. The Ministry of Interior and Health and the National Board of Health steer the development of health services, and are increasingly involved in the planning of hospital services.

Norway

As in Sweden and Denmark, the governance of health services in Norway was traditionally shared between county councils (responsible for hospital services) and municipal councils (responsible for primary care, community health services and social care). Reforms implemented in 2002 had the effect of centralising the governance of hospital services. Five regional health enterprises oversee public hospitals and act as holding companies for these hospitals that are now organised through 35 health enterprises. Hospital services and ambulatory care visits are funded by central government and other services are funded by the municipal councils, of which there are 431 for a population of 4.5 million. The Ministry of Health and Care Services is directly involved, through the regional health enterprises, in the planning of hospital services, and steers the development of other services.

Learning points from the Nordic countries

- the large number of statutory organisations involved in health care in these countries and the emphasis on local accountability through the electoral process, particularly in the case of municipal councils and their ability to raise taxes in all four countries
- the increasing importance of the regional role, as seen in county councils in Sweden and Denmark, regional health enterprises in Norway, and federations of municipal councils in Finland, especially in relation to the planning and provision of hospital services
- the much more limited role of central government in the case of health services, certainly compared with the United Kingdom, albeit that this is changing in Denmark and Norway following recent reforms that have had a centralising effect
- the emphasis on the ‘steering’ role of Ministries of Health and National Boards of Health in these systems, with the focus on influencing the provision of care through expert guidance rather than performance management. This includes developing national guidelines setting out standards and
recommended models of care for major disease areas and medical conditions in association with professional associations

• the approach taken in Sweden to improving the quality of care through the National Board of Health and Welfare, and the development of quality registers and leadership by the medical profession, enabling Sweden to achieve high levels of performance in many areas

• the importance of social consensus on the place of public services, including health services, and role that social consensus plays in ensuring broadly consistent approaches to the funding and provision of these services in systems of decentralised governance

• other than in Finland, where municipal councils have responsibility for the full range of health services and other public services, the challenge of ensuring effective co-ordination of hospital services and other health services, and of medical care and social care

• related to this last point, the need for all of these systems to reorient to meet the increasing burden of chronic diseases. Finland appears to be best positioned to do this because of the priority given to the development of primary care and health centres over a number of years

The governance of health services in the Nordic countries continues to evolve as politicians review the balance between national and local responsibilities.

Issues of debate include:

• in all countries, the part played by local politicians in health services governance is perceived to have both strengths and weaknesses. The main strength is responsiveness to the population. The principal weaknesses are the difficulty of implementing changes that involve unpopular decisions, especially in those systems where the councils running hospitals have close proximity to the population. There is also a risk that in small communities politicians will become too closely involved in operational issues

• political decentralization also results in variations in care, notwithstanding the existence of a social consensus on the place of public services (see above). The existence of these variations is one of the factors behind changes to governance arrangements in countries like Denmark where there has been a significant reduction in the number of county councils and municipal councils

• in all countries decentralization creates the capacity for innovation, as seen in Sweden in the different approaches taken by the county councils to reform and health service improvement. The challenge then is to find effective ways of identifying and spreading best practice, whether through National Boards of Health, local government associations, or professional networks

• in Finland, the small size of the municipal councils and the challenge of ensuring that they have the resources and capabilities needed to discharge their
responsibilities is under review. Options include the possibility that municipal councils should cover a minimum population of 20,000, and that the federations that plan and provide hospital services should be reduced in number from 20 to 10 or even five.

- in Sweden, the role of county councils and the regional level of government is under review. A commission recently recommended that the number of counties should be reduced from 21 to 9 or even six, building on the experience of two parts of the country (Skane and Vastra Gotaland) where a stronger regional role is already in place. If implemented, this reform will further strengthen the strategic role of county council politicians in planning and coordinating hospitals and specialist services (as already evident in regions like Skane).

- in Denmark, there is a continuing challenge of defining responsibilities at different levels of governance, and of ensuring effective coordination between county councils and municipal councils. Following the recent reforms, county councils are required to develop joint health plans with municipal councils in their areas, but it is too early to assess whether this will result in closer partnership working and greater integration of health and social care services.

- Norway faces similar challenges to Denmark. One of the advantages enjoyed by Norway, in comparison with Denmark and Sweden, is that municipal councils are responsible for social care, primary care and community health services. As in Finland, this facilitates closer integration of these services, although unlike in Finland hospital services are run by separate bodies. Despite this, the need to achieve stronger coordination of health care and other public services is recognised to be a high priority.

The ‘variations on a theme’ represented by the Nordic countries is a reminder both of the choices available in the design or reform of health systems, and of the constant oscillation of responsibilities between different levels of governance.

Republic of Ireland

The governance of health services in Ireland is different from that of the other countries included in this review in a number of respects. Ireland has a mixed public/private system of funding involving a significant role for private medical insurance. The organisation of services used to be the responsibility of the Minister of Health and Children and eight regional health boards serving a population of around four million.

Following a reform programme announced in 2003, the Health Service Executive (HSE) has been created and its role is to run health and social services on behalf of the Department of Health and Children. The HSE works through four regional offices and 32 local health offices. The establishment of the HSE has had the effect of introducing a greater element of central control into the management of health and social services.

Learning points for Wales from Ireland are:
• like Denmark and Norway, Ireland’s reforms are a further example of the tendency to centralise the governance of health services

• the establishment of the HSE is a practical example of an ‘arm’s length’ agency model of governance

• coordination between the HSE and local authorities occurs through regional health forums

It is important to emphasise that the reforms taking place in Ireland are at an early stage of implementation and those interviewed during the course of this review cautioned about drawing premature conclusions.

**Conclusions**

The governance of health services cannot be considered in isolation from the historical and cultural context in which governance arrangements have evolved. It follows that models of governance cannot easily be transferred between countries because history and culture will have a major impact on the extent to which arrangements that ‘work’ in one system can be applied or adapted in other systems. Not only this, but also in no country is the governance of health services an entirely settled matter. In all of the countries we have reviewed, reforms to governance are either being implemented or are under consideration, suggesting that dissatisfaction with the status quo and the search for improvements in health services’ governance are universal concerns.

The value of this review for the NHS in Wales is therefore most likely to be in holding up a mirror that can be used to compare current arrangements with possible alternatives, and in providing ammunition for debate and discussion of options for change. At one level, this may lead to the conclusion that the challenges facing the NHS in Wales are wicked problems that other countries are grappling with and that do not admit of simple solutions (the challenge of achieving effective coordination of health services and other public services comes to mind as an example). At another level, the review may serve a purpose in pointing to specific governance practices adopted in other countries that may be worth adapting in Wales (the approach taken in New Zealand of ensuring accountability through board chairs having a direct link with the Minister of Health is an illustration).

We also hope the review will raise questions – to which we do not claim to have the answers – about the architecture of health services governance in Wales. By this we mean:

• does Wales have too many statutory organisations in relation to its size and scale (as seems to be the case from the perspective of New Zealand and Scotland) does it have too few (as viewed from the Nordic countries), or is the number ‘just right’, as Goldilocks might have said?
• does it make sense to maintain a separation between NHS Trusts and Local Health Boards when, following the abandonment of market based reforms, both Scotland and New Zealand have created integrated health boards?

• does the role of regions need to be strengthened in Wales in view of a trend in this direction in a number of the Nordic countries? If so, how should regions be defined and what capabilities do they need? and

• does the composition of NHS boards need to be reviewed to ensure effective arrangements for engaging the public in health service governance?

In raising these questions, we would wish to emphasise that the focus of this report – the governance of health services – is only one element to be considered by those seeking to bring about improvements in the performance of health services. Equally important are levels of funding, the mechanisms that are used to improve performance, public and patient involvement, and factors such as leadership capability and the engagement of clinicians. All of these factors, many of which are discussed in this report, need to be considered as Wales seeks to become an exemplar of small country governance.
### Table 1: Summary of country characteristics

<table>
<thead>
<tr>
<th>New Zealand</th>
<th>Scotland</th>
<th>Finland</th>
<th>Norway</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The New Zealand healthcare system is a tax-based system.</td>
<td>• The Scottish health care system is a tax-based system.</td>
<td>• The Finnish health care system is a tax-based system funded by a national state subsidy and municipalities having the right to levy proportional income taxes.</td>
<td>• The Norwegian health care system is funded primarily from taxes and transfers from central government. The municipalities and counties also have the right to levy taxes.</td>
</tr>
<tr>
<td>• Overall responsibility for the health and disability system rests with the Minister of Health, working through the Ministry of Health.</td>
<td>• The Minister for Health and Community Care has overall responsibility for the NHS in Scotland, with the Scottish Executive Health Department accountable to the minister.</td>
<td>• The Ministry of Social Affairs and Health steers and guides health and social care at the national level</td>
<td>• Overall responsibility for health care rests at the national level with the Ministry of Health and Care Services and this serves as the political decision-making body.</td>
</tr>
<tr>
<td>• District Health Boards (DHBs) are the local tiers of the New Zealand healthcare system and comprise a mixture of locally elected members and centrally appointed members.</td>
<td>• Scotland has abolished NHS Trusts and now has 14 Area Health Boards which draw up Local Delivery Plans for their area and establish Community Health Partnerships responsible as Committees of the Health Board for planning and operating primary care functions.</td>
<td>• The main decision-making powers lie with the municipalities who are elected for four-year terms and by law have main responsibility for arranging services such as education, social and health services.</td>
<td>• The hospital reforms of 2002 took away county ownership of hospitals and Regional Health Enterprises are now responsible for secondary care and effectively act as holding companies for regional hospitals. Thus county politicians have little influence on the health care system.</td>
</tr>
<tr>
<td>• DHBs hold the budget for primary and secondary health services and community support services and must either provide services themselves or purchase from non-government organisations.</td>
<td>• There is a strong emphasis on collaboration between health boards, Local Authority partners, voluntary bodies, employers and trade unions</td>
<td>• For administrative purposes, Finland is divided into six provinces, each headed by a State Provincial Office led by a governor and 20 hospital districts</td>
<td>• Municipalities are responsible for primary and community care and are governed by locally elected councils.</td>
</tr>
<tr>
<td>• New Zealand has a strong rhetoric of community control and downwards accountability, but this is mirrored by the accountability of DHBs to Ministers.</td>
<td>• The Scottish system is often described as being aligned with the structures of medicine and characterised by professionalism.</td>
<td>• Hospital districts are federations of municipalities and they provide specialised medical care and coordinate public specialised care within their areas.</td>
<td>• Norway has long been a highly decentralised health care system but the hospital reforms of 2002 have led to increased centralization of hospital services.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Municipalities retain a considerable amount of freedom to organise the health services they control, with no direct 'command and control' line from national government.</td>
</tr>
<tr>
<td><strong>Sweden</strong></td>
<td><strong>Denmark</strong></td>
<td><strong>Republic of Ireland</strong></td>
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</table>
| • The Swedish health care system is funded through taxation, with both the county councils and municipalities having the right to levy proportional income taxes.  
• Overall responsibility for the health sector rests at the national level with the Ministry of Health and Social Affairs.  
• The National Board of Health and Welfare is a semi-independent public authority which has a supervisory function over the county councils.  
• The counties play a dominant role in the provision of health care services in Sweden, with responsibility for purchasing and providing services.  
• Municipalities are run by locally elected councils responsible for social care and community services for older people | • The main sources of finance in the Danish health care system are state and municipal taxes, although there are some out-of-pocket payments for some health goods and services.  
• Responsibility for preparing legislation and providing overall guidelines for the health sector lies with the Ministry of Interior and Health.  
• Denmark is currently undergoing a fundamental reform programme, which reduced the number of county councils which are responsible for hospitals and most psychiatric services, as well as for reimbursing GPs, pharmacists and dentists  
• Danish Municipalities are purchasers and providers of social care and are governed by locally elected councils, and their numbers have also been reduced  
• Denmark has a long tradition of public welfare provision and decentralised welfare administration but recent reforms have resulted in increased centralisation | • Ireland has a two-tiered health system; a guaranteed public health care system exists, but a private health care system operates in parallel. Free healthcare is provided under the General Medical Services scheme for those who earn below a certain income, and for all those over seventy irrespective of income. For those not entitled to free healthcare there is an upper capitation limit on incurred medical costs and a number of companies offer private medical insurance.  
• The Irish health system is currently in the process of undergoing a major health service reform programme (announced in 2002) and has entered into a period of large-scale organisational change. This has resulted in the establishment of The Health Service Executive, which is the agency directly responsible and accountable for the management of the health system, under the aegis of the Department of Health and Children.  
• Primary care and hospital services are administered through four administrative Regional Health Offices, which are responsible for planning, commissioning and funding all non-acute services within their areas and supporting a population health focus.  
• Local Health Offices and Health Centres provide the entry point for the population to community health and personal social services.  
• All health care and personal social services are accountable centrally to the HSE. |
**Table 2: Summary of key statistics**

<table>
<thead>
<tr>
<th></th>
<th>New Zealand</th>
<th>Scotland</th>
<th>Finland</th>
<th>Denmark</th>
<th>Sweden</th>
<th>Norway</th>
<th>Republic of Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population (thousands of people)</strong></td>
<td>4 061</td>
<td>5 117</td>
<td>5 228</td>
<td>5 401</td>
<td>8 994</td>
<td>4 592</td>
<td>4 044</td>
</tr>
<tr>
<td><strong>Male life expectancy at birth</strong></td>
<td>77.0</td>
<td>74.2</td>
<td>75.3</td>
<td>75.2</td>
<td>78.4</td>
<td>77.5</td>
<td>75.0</td>
</tr>
<tr>
<td><strong>Female life expectancy at birth</strong></td>
<td>81.3</td>
<td>79.2</td>
<td>82.3</td>
<td>79.9</td>
<td>82.7</td>
<td>82.3</td>
<td>81.0</td>
</tr>
<tr>
<td><strong>Infant mortality (deaths per 1000 live births)</strong></td>
<td>n/a</td>
<td>5.3§</td>
<td>3.1</td>
<td>4.4</td>
<td>3.1</td>
<td>3.4</td>
<td>5.1</td>
</tr>
<tr>
<td><strong>Average length of stay – acute care (days)</strong></td>
<td>n/a</td>
<td>6.1</td>
<td>4.8</td>
<td>3.6</td>
<td>n/a</td>
<td>5.4</td>
<td>6.5</td>
</tr>
<tr>
<td><strong>Breast cancer mortality (per 100,000 women)</strong></td>
<td>27.0</td>
<td>20.7</td>
<td>19.5</td>
<td>33.4</td>
<td>20.0</td>
<td>21.3</td>
<td>31.1</td>
</tr>
<tr>
<td><strong>Breast cancer five-year survival rate %</strong></td>
<td>71.0</td>
<td>77.0</td>
<td>76.2</td>
<td>68.0</td>
<td>75.3</td>
<td>72.1</td>
<td>65.0</td>
</tr>
<tr>
<td><strong>Mammography screening rate %</strong></td>
<td>63.0</td>
<td>76.3</td>
<td>87.7</td>
<td>n/a</td>
<td>84.0</td>
<td>98.0</td>
<td>79.5</td>
</tr>
<tr>
<td><strong>Cervical cancer 5 year survival %</strong></td>
<td>69.3</td>
<td>61.8</td>
<td>63.8</td>
<td>63.0</td>
<td>66.0</td>
<td>68.3</td>
<td>60.0</td>
</tr>
<tr>
<td><strong>Cervical cancer mortality (per 100,000 women)</strong></td>
<td>3.0</td>
<td>2.7</td>
<td>1.2</td>
<td>3.8</td>
<td>2.2</td>
<td>3.1</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Cervical cancer screening rates %</strong></td>
<td>77.0</td>
<td>78.0</td>
<td>71.8</td>
<td>45.2</td>
<td>72.0</td>
<td>72.5</td>
<td>70.1</td>
</tr>
<tr>
<td><strong>Colorectal cancer 5 year survival %</strong></td>
<td>53.0</td>
<td>49.7</td>
<td>43.1</td>
<td>32.0</td>
<td>45.9</td>
<td>43.1</td>
<td>41.0</td>
</tr>
<tr>
<td><strong>Colon cancer mortality rate (per 100,000 population)</strong></td>
<td>27.0</td>
<td>20.7</td>
<td>19.5</td>
<td>33.4</td>
<td>20.0</td>
<td>21.3</td>
<td>31.1</td>
</tr>
<tr>
<td><strong>Coverage of MMR vaccination age 2 %</strong></td>
<td>n/a</td>
<td>92.1</td>
<td>96.6</td>
<td>96</td>
<td>94.5</td>
<td>86</td>
<td>83</td>
</tr>
<tr>
<td><strong>In-hospital mortality rate within 30 days of hospital admission for acute myocardial infection %</strong></td>
<td>10.9</td>
<td>15.4</td>
<td>18</td>
<td>6.5</td>
<td>11.5</td>
<td>9</td>
<td>11.3</td>
</tr>
<tr>
<td><strong>In-hospital mortality rate for stroke %</strong></td>
<td>32.3</td>
<td>19.4</td>
<td>24</td>
<td>25.4</td>
<td>6.4</td>
<td>22</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Femur fractures operated within 48 hours, age 65+ %</strong></td>
<td>n/a</td>
<td>n/a</td>
<td>86</td>
<td>68.1</td>
<td>93.5</td>
<td>93</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Influenza vaccination for adults over 65 %</strong></td>
<td>62</td>
<td>77.8</td>
<td>46</td>
<td>52</td>
<td>54</td>
<td>44</td>
<td>62.2</td>
</tr>
<tr>
<td><strong>Smoking rate %</strong></td>
<td>25</td>
<td>25</td>
<td>22.2</td>
<td>28</td>
<td>17.8</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td><strong>% of total surgical procedures performed as day cases</strong></td>
<td>35.2</td>
<td>65.6</td>
<td>38.2</td>
<td>52.0</td>
<td>n/a</td>
<td>n/a</td>
<td>29.5</td>
</tr>
<tr>
<td><strong>Total expenditure on health per capita (million US$ exchange rate)</strong></td>
<td>1618</td>
<td>2923§</td>
<td>2301</td>
<td>3529</td>
<td>3155</td>
<td>4938</td>
<td>2813</td>
</tr>
<tr>
<td><strong>Total expenditure on health (% GDP)</strong></td>
<td>8.0</td>
<td>7.9§</td>
<td>7.4</td>
<td>8.9</td>
<td>9.3</td>
<td>10.1</td>
<td>7.2</td>
</tr>
</tbody>
</table>

All data taken from OECD Health data statistics (2006) unless indicated otherwise. §Quality data taken from (Kelley & Hurst, 2006). Scottish data personal communication from Feeley (more information available on request) except those marked § which are UK data.

* Life expectancy data 2004 taken from OECD Health data statistics (2006) except Scotland which is from General Register Office for Scotland and Republic of Ireland from World Health Organization
References


