Northern Ireland Assembly

Research and Library Service Briefing Note

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Costs and efficiencies: supporting evidence

1. Introduction

This paper provides a brief overview regarding several issues that arose in relation to the Budget where the HSSPS Committee requested further information. These are considered particularly in relation to Northern Ireland and include:

- Current levels and cost of obesity;
- Reducing unnecessary hospitalisation;
- Cost savings from patient reminder systems using mobile phone text messaging;
- Reducing health costs in the pharmaceutical sector;
- Alternatives to agency staff; and
- DHSSPS bid concerning pay award of £250 for staff earning under 21K.

2. Obesity in Northern Ireland

Obesity is a significant public health issue and causes around 450 deaths each year in Northern Ireland.[1] Prevention is typically addressed through better strategies aimed at

[1] NI Assembly Committee for Health, Social Services and Public Safety (Oct 09) *Inquiry into Obesity*. Available online at www.niassembly.gov.uk/health/2007mandate/reports/report10_09_10R_.htm

diet and nutrition and increased physical activity. Nevertheless, approximately 25% of the adult population are considered obese (i.e. having a body mass index great than 30), and this is a similar level to the rest of the UK.[2] Worryingly, the number of people becoming obese across the entire population is on the increase. Evidence indicates that this group can expect to live nine years less than they should, and are at greater risk of coronary heart disease, cancer and diabetes.[3] In addition, more children and teenagers are becoming obese, thereby amassing an array of health problems for later life. It has been estimated that obesity results in 260,000 working days lost each year and costs the economy approximately £500 million.[4]

A number of policy initiatives have been taken forward in relation to tackling obesity including the Ministerial Group on Public Health of the Fit Futures Taskforce which examined options for preventing obesity in children and young people. This was followed by two publications: 'Fit Futures' Report (DHSSPS 2006) and a draft 'Fit Futures Implementation Plan' (DHSSPS 2007). However, shortly after publication of the draft Implementation Plan, the Department altered its approach stating that it recognised the need to develop a whole population approach to tackling obesity, rather than solely focusing on children and young people. More recently (2010) the Health Minister launched a public consultation on "A Fitter Future for All – An Obesity Prevention Framework for Northern Ireland" which takes an integrated, holistic life-course approach to tackling the issue.

Targets for reducing the rise in obesity have been set under DHSSPS Priorities for Action' and the 'Programme for Government' Public Service Agreement (PSA) number 8 which states: "By 2011, halt the rise in obesity".[5] According to DHSSPS Resource Accounts 2009/10, an annual survey will measure the obesity target against two proxy indicators – for children (baseline 9.5%) and adults (baseline 24%) commencing in April 2010, with first results due in July 2011.[6]

3. Reducing hospitalisation

A key driver in helping to reduce hospital costs is to enable patients to remain at home for longer. Self management also enables patients to play a more active part in their condition and can help to reduce hospital admissions and re-admissions. In England, potential savings up to £3.2 billion have been identified, which are linked to more

[2] National Obesity Observatory (2009) International Comparison of Obesity Prevalence. Available online at: http://www.noo.org.uk/uploads/doc799_2_International_Comparisons_Obesity_Prevalence2.pdf page 4
[3] Investing for Health Fit Futures Focus on Food, Activity and Young People. Available online at http://www.setrust.hscni.net/hdev/strategy/ucht%20services/Fit%20Futures%20-%20Executive%20Summary.pdf page 6
[4] DHSSPS A Fitter Future for All- Obesity Prevention Framework for Northern Ireland 2011-2021. http://www.bps.org.uk/_publicationfiles/consultation-responses/Obesity%20Prevention%20Framework%20(NI)%20-%20consultation%20paper.pdf page 28
[5] For further information see http://www.dhsspsni.gov.uk/microsoft_word_-_priorities_for_action_2010-11.pdf
[6] DHSSPS Resource Accounts Year ending march 2009-10 www.dhsspsni.gov.uk/dra_2009_10.pdf

effective use of resources such as a reduction in length of stay, reducing pre-operative bed days and structured individualised discharge planning.[7]

In terms of identifying inefficiencies in Northern Ireland, an audit of 'Unscheduled Care' conducted during 2007/08 showed that 42% of unscheduled admissions did not require an acute hospital bed on the post-admission day, and of the 58% of patients who were appropriately placed, a proportion of these could have had a reduced length of stay.[8]

3.1 Case Study

Although there remains a lack of published or comparable data concerning savings from patients receiving care at home compared to the hospital within Northern Ireland, one case study, dated 2008 is briefly provided below.[9]

- Acute home healthcare services were delivered by an independent provider to 275 patients at home in the former Northern and Western Health and Social Service Board areas between January and December 2006. Care and treatment was delivered by specialist nursing staff for Multiple Sclerosis, oncology, haematology and Crohn's disease patients. Treatment procedures such as blood product transfusions, administration of IV antibiotics and intravenous chemotherapy were available. Without treatment, patients would have been admitted to wards or required to make multiple trips to outpatient departments.
- Although not a direct like with like, comparison costs associated for care were aggregated for each patient. It is noted that this in itself may not accurately reflect the care received when compared to treatment in the hospital environment.
- Based on the study findings, mean costs per month showed that average costs of home care are approximately one fifth those of in-hospital care; a significant outcome, as shown below.

	Mean cost per month	**95% confidence interval**
Home healthcare	£390	£365 - £416
In-Hospital	£1,928	£1,792 - £2,065

- Another aspect of the study evaluated patients satisfaction on 66 patients selected at random who had been treated within the timeframe. Overall very high levels of satisfaction and positive responses were reported concerning the quality of care from nursing staff, including the level of choice given to patients and the information they received about their care.

[7] The Nuffield Trust briefing (October 2010) NHS Resources and Reform: Response to the White Paper Equity and Excellence: Liberating the NHS and the 2010 Spending Review. www.nuffieldtrust.org.uk/members/download.aspx?f=/ecomm/files/NHS_resources_and_reform_Oct2010.pdf

[8] Health and Social Care Board and Public Health Agency Joint Commissioning Plan (2010-2011) Available online at www.hscboard.hscni.net/publications/October%202010%20-%20Commissioning%20Plan%202010-2011%20PDF%20974KB.pdf page 158.

[9] NI Economic Health Group (NIHEG) 2008. Home healthcare: An Economic Choice for the Health Service pages 9-16

4. Telephone patient reminder systems

Northern Ireland has the highest 'non attendance' rates for clinical appointments in the UK.[10] Data from DHSSPS shows that patients missed a total of 172,877 appointments during 2009/10, resulting in a 'did not attend' (DNA) rate of 10.3.[11] The substantial financial cost associated with missed appointments is a huge source of inefficiency. Inevitably, this also adds pressure to waiting lists, prolonging waiting times for all patients, impacting on health outcomes and increasing operational costs. The main reasons cited for patients not attending outpatient appointments are: forgetting their appointments and confusion over the date, time and location.

In the UK, missed appointments are said to cost the NHS more than £600 million per year.[12] With the average missed hospital appointment costing around £100 per patient,[13] one possible way to mitigate a proportion of missed appointments is through the use of patient reminder systems via SMS (Short Message Service) text messaging.

Uses and Benefits of SMS in Healthcare Delivery published in 2005, showed that the rate of success in trials in England and the United States was consistently positive with DNAs rates reduced by between 14% and 50%.[14] Such systems are low cost and have been positively piloted in several NHS trusts in England. For example, Sheffield Teaching Hospital installed an appointment reminder solution called 'Remind+'. The installed software allows text messages to be sent from a PC to bulk or individual telephone numbers. The system was trialled over an initial six week period in 19 specialities which represented 20% of total outpatient appointments. The reduction in DNA rate generated by the trial (averaging 20%), equated to a projected £460,000 annual saving for those departments that had been trialled. In addition, the system had paid for itself within 5 weeks.[15]

Likewise, GPs have adopted similar systems not just for general doctor appointment reminders but for screening and immunisation for specific patient groups. An example of this includes the 'PatientPal' used in England.[16] Implementation involved a one-off set up cost for the software. Reports show that the system reduced the number of DNAs and had paid for itself well within the first year of use.

In terms of pricing 'iRemind' is another such system whose pricing structure for SMS services can be tailored to large or small practices and is shown as follows:[17]

[11] DHSSPS (2010) Northern Ireland Hospital Statistics; Outpatient activity 2009-10. Available online at: www.dhsspsni.gov.uk/outpatient_activity_2009_10__revised_.pdf page 30.
[12] The Telegraph (12 August 2009) *Missed hospital appointments 'costing NHS £600m'* Available online at : http://www.telegraph.co.uk/health/healthnews/6015915/Missed-hospital-appointments-costing-NHS-600m.html
[13]
[14] Rifat A Atun et al. (2005), *Uses and benefits of SMS in Healthcare Delivery.* Imperial College London, Centre for Health Management. Available online at: http://www3.imperial.ac.uk/portal/pls/portallive/docs/1/5375912.PDF
[15] Further information is available online at www.telephoneticsvip.co.uk/nhs-case-studies/56-sheffield-teaching-hospitals
[16] Patient SMS Messaging System Website: http://patientpal.co.uk/
[17] iRemind website:www.iremind.co.uk/iremind_pricing.htm

- Low usage: £25/month including 250 SMS
- Medium usage: £100/month including 2,000 SMS
- Heavy usage: £500/month including 15,000 SMS

Another study in Scotland demonstrated cost savings from SMS appointment reminders that were sent to 433 patients at a very minimal cost of £28.15. The DNA rate dropped from 23.9% in the control group to 10.4% in the SMS group who received reminders 24hrs before their appointments.[18] Not only did this make more effective use of clinic time, but was more time and cost-effective than posting letters or telephone reminders.

> *The cost of sending the SMS reminders was small compared with the increase in patient revenue and associated benefits generated as a result of improved attendance.*[19]

To date, no quantitative study has been undertaken in Northern Ireland to measure the cost effectiveness of short messaging service (SMS) for patients in terms of appointment keeping, and it is not known how widely such systems are in use. However a report by the Northern Ireland Audit Office (NIAO, 2007) estimates that there is scope for substantial savings if DNAs are reduced:

> *Outpatients who fail to turn up for appointments for one reason or another represent an annual opportunity cost to the health service of £11.6 million. While this figure is indicative to illustrate the scale of the problem, it nevertheless suggests that each one per cent decrease in the level of missed appointments might generate an annual efficiency gain of over £1* million.[20]

5. Reducing health costs in the pharmaceutical sector

It has been reported that Northern Ireland spends more on medicines (including sleeping tablets, anti-depressants and obesity drugs) than anywhere else in the UK.[21] Figures show that £400 million is spent on medicines per year.[22] On average, this equates to £224 per person, which is £60 more than the cost per head in England.

Evidence would also indicate that Northern Ireland spends more on 'high cost' pharmaceutical drugs. One of the factors reported for the high costs pertaining to Northern Ireland relates to the treatment of conditions associated with 'the Troubles' and the costs associated with those particular drugs.

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[18] Foley J, O'Neill M., *Use of mobile telephone short message service (SMS) as a reminder: the effect on patient attendance*, European Archives of Paediatric Dentistry, Jan 2009
[19] SR Downer et. al., *SMS text messaging improves outpatient attendance, Australian Health Review* , Aug 2006
[20] Northern Ireland Audit Office, *Outpatients: Missed Appointments and Cancelled Clinics*, April 2007, available at http://www.niauditoffice.gov.uk/pubs/CANCELLEDCLINICS/FullReport.pdf
[21] BBC News Northern Ireland (2 Dec 2010) http://www.bbc.co.uk/news/uk-northern-ireland-11901537
[22] Ibid

Switching from branded products to generic or "no frills" medicines not only presents good value for money but is estimated to generate huge savings.[23] Although branded products are more expensive, research demonstrates that generic drugs are suitable for the majority of patients and are equally effective. One simple example is the increased use of statins which are used to control cholesterol.

Demonstrable savings:

- In 2008, the NHS Primary Care Trust in Norfolk (serving a population of 730,000) saved £7.8m by encouraging GPs to prescribe cost-effective drugs instead of similar, more costly branded alternatives.[24]
- Portsmouth Hospitals NHS Trust saved £640,000 by holding a 'reverse' online pharmaceutical supplies auction. 26 pharmaceutical suppliers submitted a total of 185 tender bids outlining their best prices for generic drugs. At the conclusion of the auction, the Trust and the successful suppliers agreed the lowest mutually acceptable price.[25]

Projected savings:

- In Europe, the Spanish Government imposed price cuts in 2010 on branded prescription drugs by around 23% in order to reduce expenditure. Although it is too early to know exact savings, according to projections, savings in this areas alone are estimated to amount to £1.3 billion euros.[26] Dramatic savings have also been planned in France through recent pharmaceutical reforms.[27]
- By 2013, the Association of the British Pharmaceutical Industry (ABPI) estimates that in the UK, the NHS will save up to £2.7bn by prescribing generic rather than patented drugs. This is largely due to these drugs coming 'off patent' and being readily available.[28]
- In Northern Ireland, the HSC Board and PHA in their Commissioning Plan for 2010/2011have identified rather more modest savings of £7million through various prescribing initiatives.[29] The joint Commissioning Plan has also reiterated its commitment to the Priorities for Action target in relation to generic drugs:

> *The Health and Social Care Board should ensure the level of dispensing of generic drugs increases to at least 64% by March 2011.*

[23] House of Commons Committee of Public Accounts: 2nd Report of Session 2007/8 "Department of Health: Prescribing in Primary Care" Available online at www.publications.parliament.uk/pa/cm200708/cmselect/cmpubacc/173/173.pdf page 5
[24] National Audit Office (2008) Prescribing costs in primary care. Available online at: https://www.norfolk.nhs.uk/nhs-norfolk-saves-78m-choosing-cost-effective-drugs
[25] Further details available from UK Procure Website: www.ukprocure.com/news/news-19.html
[26] The Pharma Letter available online at www.thepharmaletter.com/file/95032/spain-announces-big-drug-price-cuts-aiming-for-16-billion-savings.html
[27] Sermet, C. (2010) Ongoing Pharmaceutical reforms in France: Implications for key stakeholders. Applied health Economics and Health Policy. 8 (1) 4-24
[28] Houses of Parliament Post Note (Oct2010) Drug Pricing. Available online at www.parliament.uk/documents/post/postpn_364_Drug_Pricing.pdf
[29] HSC Board and PHA commissioning Plan 2010/2011 Available online: www.hscboard.hscni.net/publications/October%202010%20-%20Commissioning%20Plan%202010-2011%20PDF%20974KB.pdf page 117

6. Alternatives to Agency Staff

This section relates to the supply of NHS staff in England. A review of agency costs over recent years in the NHS showed a marked increase in spending by 57% to £1.9 billion from 2007/08 to 2008/09. The increase affected all staff groups, including administrative and clerical, scientific, therapeutic, technical, medical and dental staff.[30]

The issue of making better use of healthcare employees rather than using agency staff has been reported on by the Audit Commission in June 2010. It collected data on ward staffing from 69 hospitals covering 1,656 wards and found, among other variations connected with numbers and grade mix, a great variation in the use of temporary nursing staff from 1 per cent to 28 per cent of total nursing staff costs in the hospitals studied.[31] The report noted the two main types of temporary nursing staff used, (i) bank staff – nurses employed by the Trust to a nurse bank and used to cover absences or peaks in workload; and (ii) agency-supplied nurses. The latter are significantly more expensive than permanently employed nurses or bank nurses. The report noted that it was clear that some hospitals were able to run with low levels of agency staff and some with low levels of agency or bank staff.[32]

A third option of temporary staff is now available to the NHS and that is 'NHS Professionals', the national NHS-run agency that supplies temporary staff to the NHS and is cheaper than using external agencies. More than 80 NHS Trusts use NHS Professionals' Managed Flexible Worker Service to replace an in-house bank and reduce the use of external agencies. The staff provided include nurses, doctors and other healthcare staff. Unlike agencies who charge commission, NHS Professionals have a "*transparent management fee plus a small transaction charge for every shift filled*".[33]

In June 2010, Audit Scotland reported on the use of locum doctors to cover planned and unplanned gaps in substantive posts in Scottish hospitals. Two types of locum were in use, (i) internal locums – already employed by an NHS Board in Scotland and carrying out locum shifts in addition to their substantive post, and (ii) more expensive locum doctors from agencies who may come from another UK country or from outside the UK.[34] Audit Scotland found that NHS Boards in Scotland spent approximately £47 million on locum doctors in 2008/09 (4.3% of overall medical staff expenditure) and that some Boards could save around £6 million a year by reducing their expenditure on locums to the national average. Audit Scotland recommended measures to NHS Boards including that they should:

[30] Flexible workforce: strategic planning to reduce costs and improve quality, NHS Employers, Briefing 72, November 2010, Background
[31] Making the most of NHS frontline staff, Audit Commission, June 2010, page 7
[32] Making the most of NHS frontline staff, Audit Commission, June 2010, page 8
[33] Managed Flexible Worker System, NHS Professionals, www.nhsprofessionals.nhs.uk
[34] Using locum doctors in hospitals, Audit Scotland, June 2010, Summary, paragraphs 2-4

- Collect and hold electronically information relating to locum doctor use – grade and specialty; internal or agency locum; time of shift and duration; and reason for locum use;
- Develop strategies to reduce expenditure on and minimise demand for locums; and
- Ensure a corporate policy exists setting out when locum doctors can be used and procedures for procuring locums.

In November 2010, NHS Employers[35] published its *Flexible Workforce* briefing as part of a national strategy for temporary staffing within the NHS. The briefing highlights that a range of options for using different parts of the flexible workforce in a planned way will be needed to meet the immediate and long term challenges faced. It also notes that in some circumstances agency staff may be the best choice for patient safety in areas of high specialty where there may be skill shortages, however "*on average the cost and quality of temporary staff can be generally mapped on a scale where substantive and bank staff provide greater cost efficiencies and safety while agency staff represent greater spend and greater potential for reduced service quality*".[36] The briefing presents a checklist and flowchart to enable healthcare organisations to understand and manage the use of a temporary workforce. This is included at Appendix 1.

7. £250 pay award for staff earning under £21K

Northern Ireland Executive Pay Policy[37] means that enforcement of pay growth limits is devolved to the NI Executive within the overarching parameters set by HM Treasury in its annual pay guidance circulars. The HM Treasury Pay Guidance for 2010-2011 was published in December 2009 and outlined an increase range for Staff in Post of 0-2 per cent. However, on 22nd June 2010 the Chancellor announced a two year pay freeze for public sector workers as part of his Emergency Budget, but those earning under £21,000 would receive a flat pay rise,

> "*Today, because we have had to ask for a two year freeze, I extend the protection to cover the 1.7 million public servants who earn less than £21,000. Together they make up 28 per cent of the public sector workforce. They will each receive a flat pay rise worth £250 in both these years, so that those on the very lowest salaries will get a proportionately larger rise*".[38]

It is expected that the pay freeze will apply to most public sector staff groups from 2011-12. Many local staff groups are contractually tied to UK nationally determined pay settlements or have clear contractual entitlements to progression/performance pay. A

[35] A part of the NHS Confederation working on behalf of the NHS
[36] Flexible workforce: strategic planning to reduce costs and improve quality, NHS Employers, Briefing 72, November 2010, Finding the right mix
[37] On 24th May 2007 the NI Executive endorsed the principle of adherence to the UK Government's public sector pay policy
[38] Budget 2010: Full Text of George Osborne's Statement, The Telegraph online, http://www.telegraph.co.uk/finance/financetopics/budget/7846849/Budget-2010-Full-text-of-George-Osbornes-statement.html

blanket pay freeze cannot be implemented without addressing these contractual arrangements.[39]

The written evidence from the DHSSPS to the NHS Pay Review Body (November 2010) stated that the Minister had written to the NHS Pay Review Body on 2nd October 2010 confirming that[40]:

- The two year pay freeze will apply in the years 2011/12 and 2012/13 to Health and Social Care staff groups governed by the NHS Pay Review Body; and
- The Minister recognised that there will be an increase of at least £250 for HSC staff earning £21,000 or less subject to the Review Body process in the usual way.

The written evidence outlined the number of staff in the above category – the £21,000 equates to full time earnings and to pay point 15 or lower in the 2010/11 Agenda for Change pay scales. There are currently 31,432 employees with full time earnings of £21,000 or less as follows[41]:

▪ Administrative and Clerical staff	9,450
▪ Estates	420
▪ Support Services	6,730
▪ Unqualified Nurses and Healthcare Assistants	4,700
▪ Social Services	8,113
▪ Professional and technical	1,520
▪ Ambulance	500

The NHS Staff Side evidence to the NHS Pay Review Body (NHSPRB), supported pay increases for low paid staff in the NHS but requested that the NHS Pay Review Body consider the impact of awarding an increase only to staff earning less than £21,000 on recruitment and retention over the longer term. It highlighted to the NHSPRB that pay progression within Agenda for Change was a contractual entitlement. Staff Side called on the NHSPRB to benchmark the main NHS labour market indicators before the implementation of the pay freeze for staff earning more than £21,000 in order to assess the impact on both sides of the threshold.[42]

[39] Writtten Evidence from the DHSSPS to the NHS Pay Review Body, 25 November 2010, paragraph 2 www.dhsspsni.gov.uk/northern_ireland_evidence_for_the_nhsprb_minus_affordability_section_25_november_2010_19948.pdf
[40] Writtten Evidence from the DHSSPS to the NHS Pay Review Body, 25 November 2010, paragraphs 19,20 www.dhsspsni.gov.uk/northern_ireland_evidence_for_the_nhsprb_minus_affordability_section_25_november_2010_19948.pdf
[41] Writtten Evidence from the DHSSPS to the NHS Pay Review Body, 25 November 2010, paragraph 28 www.dhsspsni.gov.uk/northern_ireland_evidence_for_the_nhsprb_minus_affordability_section_25_november_2010_19948.pdf
[42] Staff Side Evidence to the NHS Pay Review Body 2011/12, November 2010, as taken from the website of the Chartered Society of Physiotherapy, www.csp.org.uk/uploads/documents/nhs_staff_side_evidence_prb_2011_12.pdf

Appendix 1 – Flexible workforce checklist and flowchart[43]

Stage 1: Knowing your organisation's flexible workforce requirements

- ☐ **Understand your activity levels**
  Identify and map annual demand and activity. Identify establishment levels.
  Use the ESR reporting functionality.
- ☐ **Examine work patterns**
  Review staff work patterns and preferences.
  Examine annual leave patterns. Review contractual working hours.
- ☐ **Review recruitment reasons and processes**
  Identify reasons for temporary staffing requests.
  Review internal governance procedures for requests.
- ☐ **Analyse spending**
  Meaningfully identify and record temporary staffing spend.
  Include input from senior and local managers. Feed results into management information.
- ☐ **Use technology**
  Use technology to assist with collecting data. Implement staff bank and e-rostering solutions.

Stage 2: Strategic options for managing the temporary workforce

- ☐ **Reduce underlying reasons for temporary staff use**
  Review recruitment processes, reducing time to hire and turnover.
  Improve staff health and well-being. Link workforce planning with demand planning.
- ☐ **Maximise use of substantive staff**
  Plan for flexible use of substantive staff. Work towards developing optimal temporary staffing ratio.
- ☐ **Use bank staff/pools to manage changes in activity**
  Create a staff bank or consider using an external provider.
  Utilise newly-qualified staff without substantive positions. Consider sharing pools regionally.
- ☐ **Improve procurement**
  Implement robust approval procedures. Use framework agreements.
  Work with regional procurement hubs.
- ☐ **Control costs**
  Amend sign-off procedures to include senior managers. Centralise agency procurement.
  Improve agency invoice sign-off checks.
- ☐ **Change cultures**
  Embed principles through employee engagement and participation. Ensure training and support is offered.

Stage 3: Evaluate

- ☐ **Benchmark and review**
  Collect metrics on an ongoing basis. Inform reports to the board.
  Compare with other organisations where possible.

[43] Extracted from - Flexible workforce: strategic planning to reduce costs and improve quality, NHS Employers, Briefing 72, November 2010, Figure 3