Value for Money and Policy Review of the Economic Cost and Charges Associated with Private and Semi-Private Treatment Services in Public Hospitals

Department of Health and Children

Final Report
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EXECUTIVE SUMMARY

This Value for Money and Policy Review (VFM&PR) of the Economic Cost and Charges Associated with Private and Semi-Private Treatment Services in Public Hospitals was initiated by the Department of Health and Children in June 2009 and was conducted under the auspices of the Government’s Value for Money & Policy Review Initiative 2009-2011. The Review was overseen by an independently chaired National Steering Group comprised of senior representatives from the Department of Health and Children, the Department of Finance, and the Health Service Executive (HSE).

The purpose of the Review was twofold:

(i) to establish whether the current per diem charging methodology employed to reimburse public hospitals for the provision of private and semi-private acute treatment services adequately compensates the hospitals for the treatment supplied and provides appropriate incentives to drive efficiency; and

(ii) to investigate problems encountered by the HSE in achieving private patient income collection targets and the HSE’s plan to tackle issues related to these difficulties.

Recommendations are provided for both elements of the Review.

Although hospital reimbursement methodology and income collection are inextricably linked, these are separate issues and different methodologies are required to investigate them. For this reason, reimbursement is investigated in Part 2 of the report, with an examination of income collection in Part 3.

The publication of this Report follows that of the Steering Group Interim Report in February 2010. The Interim Report proposed a revised methodology for establishing the average cost of private and semi-private beddays, outlined a number of options for the level of inpatient charge for 2010 and identified the potential implications of increases.
HOSPITAL REIMBURSEMENT

Per Diem Charging

Under the per diem charging system which currently reimburses public hospitals for private treatment, patients are liable for a daily charge for each day that they are treated privately by their consultant and accommodated in a designated private or semi-private bed. The charge rates are determined in the context of an examination of the different costs of treating patients in three categories of hospital. Hospital Casemix data is used to calculate an average cost per bedday for each category of hospital based on the hospitals within that category. This cost then informs the Department’s calculation for the charge rates.

While the application of the per diem charging system has the advantage of being relatively straightforward to calculate, it has a number of significant disadvantages:

- The charge does not directly relate to the diagnosis of the patient or the cost of the treatment provided;
- It provides an incentive to increase the length of stay of patients;
- It incentivises shifting of outpatient services to the inpatient hospital setting;
- It results in insurers making the complaint that the public system is too expensive for less complex procedures where more than the cost of treatment is charged; and
- It also incentivises the insurers to have complex clients treated in the public system where they are charged by the day and not in relation to the cost of resources consumed, as would be the case in private hospitals.

Investigations by the Steering Group discovered that although charges have been increased significantly in recent years, the full economic cost of treatment is not being recovered in some instances. Following an examination of the per diem system and the approaches used in other countries as well as an analysis of the findings of the Review consultation process, it was concluded that the problem did not relate to the level of the charge. Instead, the difficulties related to the per diem charging methodology which fails to differentiate the charge in line with the treatment provided to the patient. In order to address this, the Steering Group found that it is necessary to change from the per diem system to another approach that results in charges that more closely relate to the value of the resources consumed.
**Case-Based Charging Using Diagnosis Related Groups**

A review of charging systems used in other countries found per case (also referred to as case-based) systems using Diagnosis Related Groups (DRGs) to be the most commonly used prospective reimbursement system internationally. DRGs are a classification which groups hospital case types that are clinically similar and are expected to have a similar hospital resource use. With a case-based DRG charging system, the cost of each DRG is established by calculating the average cost of resources used and this informs the charges to be applied. Hospitals would then receive a fixed, pre-established payment for each case or patient episode according to the DRG of the patient. This means that the hospital would be paid for each case as opposed to each service provided or number of days the patient is in the facility.

The implementation of a case-based system using DRGs would result in patient charges more closely relating to the value of the resources consumed in their treatment. Countries that previously introduced case-based systems have seen the following additional benefits arise:

- The fixed level of payment provides a degree of predictability which allows for better forecasting of future income streams which in turn facilitates better planning;
- Cost efficiency is incentivised because the fixed payments encourage hospitals to eliminate unnecessary services, to reduce lengths of stay and to develop a competitive advantage in areas in which they are high performers;
- It incentivises hospitals to move towards treating particular conditions on a day case or outpatient basis as opposed to an inpatient basis; and
- It also provides a clear basis for discussion between clinicians and hospital management in terms of strategy formulation, prioritisation and performance and resource management.

A financial implications analysis undertaken as part of the review forecasted that while a switch to a per case system would not lead to a major increase in revenues for the health system, it would also not be a major drain on the finances of the health insurers.

**Key Findings on Hospital Reimbursement**

The Steering Group’s key findings in relation to hospital reimbursement are:
The current per diem reimbursement system is not the optimal solution for the reimbursement of public hospitals for private patient treatment. Of the alternative reimbursement approaches, a per case system using DRGs is the most advantageous solution;

As the shift to a per case approach represents a significant change for the public health system, a pilot per case system using DRGs is required to generate real time data on the implications of the switch;

A Steering Group should be established to oversee the pilot case-based system, make recommendations regarding its further roll out and consider whether transitional arrangements are required ahead of full implementation;

Appropriate action is required to ensure that negative incentives associated with per case reimbursement systems are avoided;

The implementation of a per case reimbursement system cannot be carried out immediately. For the interim period, a new method of establishing the average daily cost per bedday is required to inform the per diem charges to apply (as set out in the Interim Report of the Steering Group, published in February, 2010 and reproduced in this Report);

A review of the hospital categorisation system which applies to public hospitals should be carried out as this issue has not been examined for some time; and

As the current bed designation system has been place for a considerable period, it would seem appropriate to review how it has operated and consider whether there is potential for improvement.

PRIVATE PATIENT INCOME COLLECTION

The current processes for collecting private patient fees from private health insurers (PHIs) have resulted in an unacceptably high level of debtor days/months with a considerable amount of fees outstanding. As of December 2009, the average debtor months for HSE hospitals was 5.7 months with €92.5 million outstanding. A further €82.6 million was due to voluntary hospitals at that time. There is considerable scope to improve the efficiency of private patient income collection. In this regard, the Minister for Health and Children identified a target of €75 million for improved collection of private income in public hospitals in 2010. However, the latest data suggests that this target may not be achieved.
The main issues associated with the collection of income from PHIs as identified in the Report are: (i) outmoded administrative systems; (ii) a lack of proactive management; (iii) the absence of a contractual agreement or Service Level Agreement between the HSE and the PHIs; and (iv) delays in sign-off of claims forms by consultants.

**Key Findings on Income Collection**

The Steering Group’s key findings in relation to income collection are:

- The implementation of a technology solution to address the problems with the current paper-based approach is essential;
- Appropriate budgetary incentives and penalties relating to income collection are required;
- The calculation of the Appropriation-in-Aid figure in the HSE’s vote should take into account improvements in income collection which are achievable as well as historical performance relating to income collection;
- It is essential that discussions on the relationship between the HSE and Voluntary Hospitals and the PHIs are concluded as a matter of urgency and result in improved terms for the HSE in relation to income collection;
- Significant improvements in income collection would accrue by decoupling the hospitals’ element of the bill from that of the private consultant; and
- The pilot project which allows sign-off of private patient claims by an appropriate secondary consultant should be rolled out to all hospitals for the period prior to the implementation of decoupling.

**STEERING GROUP RECOMMENDATIONS**

A full list of the Steering Groups recommendations is set out below.

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<th>Recommendation 1:</th>
<th>The Department of Health and Children and the Health Service Executive should adopt a policy of charging private and semi-private patients in public hospitals on the basis of a per case system using diagnosis related groups (DRGs).</th>
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<td>Recommendation 2:</td>
<td>The HSE should establish a pilot per case system using DRGs to run parallel to the current system during 2011 with the aim of generating data on the implications of switching to the new system without affecting revenue.</td>
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Recommendation 3: The Department of Health and Children should establish a Steering Group consisting of representatives from the key stakeholders by January 2011 to:

(i) Draw up a project plan and oversee development of the pilot case-based system using DRGs;
(ii) Communicate the reasons for changing the reimbursement system and the implications of it to stakeholders;
(iii) Consider options regarding the incorporation of a capital, depreciation and superannuation charge;
(iv) Consider the level of price differential between private and semi-private beds;
(v) Examine the experience of relevant benchmark countries in implementing similar systems;
(vi) Provide advice regarding the necessity of a transitional arrangement prior to full implementation; and
(vii) Compile a report in 2012 for the consideration of the Department of Health and Children incorporating an evaluation of the results of the pilot and providing recommendations regarding further implementation in 2013.

Recommendation 4: The HSE should develop a new electronic billing system, appropriate for a case-based charging system using DRGs, to be implemented in public hospitals nationally.

Recommendation 5: The Department of Health and Children and the HSE should ensure that appropriate safeguards are put in place to avoid the negative incentives that can be associated with a per case reimbursement system.

Recommendation 6: The Department of Health and Children should immediately change the method of calculating the average cost of a bedday to the eight step approach described in Chapter 10 of this Report.

Recommendation 7: Prior to the implementation of a case-based approach, day-case charges should continue to be increased by the same percentage as inpatient charges.

Recommendation 8: The Department of Health and Children should carry out a review of the system of hospital categorisation in 2011 to consider, among other matters:
(i) Whether the Department of Health and Children should retain ownership of the categorisation process;

(ii) The establishment of categories which more accurately reflect the different strata of acute hospitals;

(iii) The determination of transparent criteria relating to membership of each category; and

(iv) The implementation of a system of regular reviews to ensure that hospitals remain in the appropriate category.

Recommendation 9: The Department of Health and Children should carry out a review of the bed designation system in 2011.

Recommendation 10: The HSE should ensure that the best use of technology is applied in hospital income collection administrative processes in the context of their overall ICT strategy and in particular, by delivering on the following measures:

(i) The rollout of appropriate ICT systems as soon as possible in the ten biggest private income generating hospitals. If successful, consideration should be given to rolling the system out to further hospitals where economically viable;

(ii) The adoption of lower-level IT solutions in smaller hospitals;

(iii) The implementation of appropriate data structures and transfer mechanisms; and

(iv) The agreement and implementation of an optimum frequency of transfer of both claims and payments between hospitals and private health insurers.

Recommendation 11: The HSE should establish a standard administrative process for private patient income collection, based on best practice, and ensure that it is implemented in all hospitals in 2011.

Recommendation 12: The HSE should ensure that the collection of private inpatient income is a priority for the proposed Centralised Billing Project.

Recommendation 13: The HSE should implement a performance monitoring and reporting system in 2011, which highlights hospital private patient income collection performance.
Recommendation 14: The HSE should apply appropriate budgetary incentives and penalties for non-achievement by hospitals of agreed quarterly targets for private patient income collection from 2011.

Recommendation 15: Achievement of targets in relation to the collection of private income should be incorporated as a key deliverable in the annual business plans of all relevant hospital personnel from 2011, starting with the hospital manager.

Recommendation 16: Staff responsible for income collection should receive appropriate training and development on an on-going basis.

Recommendation 17: Building on the approach adopted in 2010, the estimate for the Appropriation-in-Aid figure in the HSE’s Vote should provide a reliable quantification of further income collection improvements which are achievable through the attainment of target reduction in debtor days.

Recommendation 18: The HSE should ensure that the negotiations with the private health insurers are concluded as a matter of urgency and result in improved terms in relation to recovery of charges.

Recommendation 19: Following the successful conclusion of negotiations with the private health insurance companies, the HSE should arrange for the hospitals to decouple the submission of invoices for private accommodation charges and other non-consultant fees from invoices in relation to consultants’ private fees.

Recommendation 20: Starting in 2011, hospitals should only submit the invoices in relation to consultants’ private fees if all necessary forms are fully signed-off within 30 days. Furthermore, where there is no private inpatient accommodation charge due to the hospital, the consultant’s private income claim should be either de-prioritised or subject to a handling fee.

Recommendation 21: The pilot project which allows sign-off of private patient claims by an appropriate secondary consultant should be rolled out in all hospitals during 2011. Hospitals should not process claims on behalf of primary consultants when the claim has had to be signed-off by the secondary consultant.
PART 1 – INTRODUCTION & METHODOLOGY

CHAPTER 1
INTRODUCTION

This Report sets out the findings and recommendations of the Value for Money and Policy Review of the Economic Cost and Charges Associated with Private and Semi-Private Treatment Services in Public Hospitals.

The Review was conducted under the auspices of the Government’s Value for Money & Policy Review Initiative 2009-2011 and was overseen by a National Steering Group. The Review Steering Group was comprised of senior representatives from the Department of Health and Children, the Department of Finance, and the HSE and was independently chaired. A list of the members of the Steering Group is set out at Appendix 1.

PURPOSE OF THE REVIEW AND TERMS OF REFERENCE

The purpose of the Review was twofold – (i) to establish whether the current per diem charging methodology employed to reimburse public hospitals for the provision of private and semi-private acute treatment services adequately compensates hospitals for the treatment supplied and provides appropriate incentives to drive efficiency; and (ii) to investigate problems encountered by hospitals and the HSE in achieving private patient income collection targets and the HSE’s plan to tackle issues related to these difficulties. Recommendations based on the analysis are provided as to the most appropriate reimbursement methodology for the future and means of addressing issues related to income collection. This translates to the following Terms of Reference:

(a) Assess the economic cost of providing services to private and semi-private patients in public hospitals (Chapter 11);

(b) Compare the economic cost with the current charge (Chapter 11);

(c) Examine the processes in place to collect fees in respect of private and semi-private patients in public hospitals (Chapters 12 – 15);

(d) Make recommendations on the costing of, and charging for, private and semi-private patients in public hospitals (Analysis set out in Chapters 3 – 9 with Recommendations in Chapters 10 and 11) and on the collection of fees for same,
having regard to consultations on the matter (Analysis set out in Chapters 12 – 14 with Recommendations in Chapter 15);

(e) Specify performance indicators to measure the implementation of the recommendations\(^1\).

The Review of Hospital Reimbursement reflects the fact that, following significant increases in the per diem charge for private accommodation in recent years, more precise information and charging mechanisms are required in moving closer to full economic charging for private and semi-private treatment in public hospitals. An analysis of Income Collection was also required in order to address the significant problem of delays between the discharge of private patients and the recoupment of fees from the private health insurance companies.

**STRUCTURE OF REPORT**

Although hospital reimbursement methodology and income collection are inextricably linked, they are separate issues and different methodologies are required to investigate them. For this reason, hospital reimbursement is investigated in Part 2 of the report and income collection is examined in Part 3.

**SCOPE OF THE REVIEW**

The scope of this Review is confined to the reimbursement methodologies associated with private and semi-private treatment services in public acute hospitals and the collection of fees for same. Recommendations for the wider health service were made in the report of the Expert Group on Resource Allocation and Financing in the Health Sector (Department of Health and Children, 2010) published in July 2010.

\(^1\) This Term of Reference is satisfied through the adoption of timelines for implementation of recommendations where appropriate.
CHAPTER 2
REVIEW METHODOLOGY

INTRODUCTION
The purpose of this chapter is to outline the methodology used to investigate hospital reimbursement and income collection in the Review. The research methods used, in addition to the process of reviewing the literature, are outlined below. The methods are in line with those set out in the Government’s Value for Money and Policy Review Initiative Guidance Manual (Department of Finance, 2007) and were informed by efforts to fulfil the Terms of Reference as set out in Chapter 1.

Questionnaire
The Steering Group decided that a consultation process should be undertaken with the aim of eliciting the views of interested parties on the main issues in relation to the Review. It was anticipated that this process would provide data relating to whether or not the respondents viewed the current reimbursement system to be the most appropriate and if not, what they regarded as the most suitable approach. It was also expected to provide data on the views held in relation to the income collection processes used by hospitals to collect private patient income.

A self-completion questionnaire was chosen as the appropriate instrument to obtain the views of the stakeholders. A series of semi-structured interviews was contemplated as an alternative approach, but the questionnaire was chosen because it gave a larger number of interested parties the opportunity to participate and facilitated quicker collection of the data.

In line with best practice, the questionnaire was piloted prior to circulation to ensure that the instructions, questions and layout were clear and that no major topics had been omitted. A number of changes were made as a result of this process. The questionnaire was then retested, and, as there were no further concerns, deemed suitable for wider circulation.

Due to the complex nature of the subject being examined, the questionnaire was designed and targeted at those with a detailed knowledge of the issues being examined as opposed to the general population. A number of key stakeholders were identified
during an initial stakeholder analysis and this list was supplemented by suggestions made by the VFM Review National Steering Group. A total of 45 stakeholders were written to, enclosing a copy of the questionnaire inviting them to make a submission within the six week consultation period. The deadline for submissions was 4 September 2009 and reminder letters were sent at the end of August 2009. In order to ensure that all interested parties were given the opportunity to participate in the process, a call for submissions advertisement was also placed on the Department of Health and Children website. Respondents had the option of downloading the form and returning it by post, by email or by completing it online.

Analysis of the Responses

The questionnaire element of the consultation document was split into five distinct areas as follows:

A. Respondent Information;
B. Methodological Issues in Establishing the Cost of Treatment Services for Private and Semi-Private Patients in Public Hospitals;
C. Policy Issues related to the Charging for Private and Semi-Private Treatment Services in Public Hospitals;
D. Collection of Fees from the Private Health Insurance Companies; and
E. Other Issues.

All responses were analysed in a systematic manner. The closed questions (i.e. Yes/No/Don’t Know type) were pre-coded during the development of the questionnaire and the responses were analysed using Keypoint software and Excel. A statistical analysis of those questions is shown graphically in the charts in Chapter 13 and Appendix 2.

In order to construct an analytical framework that could account for the qualitative data, all the open-ended questions were analysed through an iterative process. Each response was analysed, with themes being coded and grouped. This process was carried out a number of times to refine the ideas, views, concepts and theories within the responses to each question. The main themes were then drawn together in the report of the analysis in Chapter 6 for the hospital reimbursement aspect and Chapter 13 for the income collection element.
Implications Analysis

It had been anticipated that following completion of the literature review and consultation process analysis, a theory would emerge as to the most appropriate approach for reimbursing public hospitals for private patients. A per case system using Diagnosis Related Groups (DRGs) proved to be the approach identified as most suitable. However, this theory then had to be tested to assess the implications and practical feasibility of its implementation and confirm whether it could justifiably be identified as the preferred option.

The first step in this process was to find a country with a similar health system to Ireland that had also made a shift from a per diem system to a per case approach using DRGs. Israel was identified as one such country and its experiences are outlined in Chapter 7. The focus of the examination is on the effect of the change in reimbursement system on the volume of activity, length of stay, quality of care and hospital income.

The next methodological step was to investigate the financial implications of introducing a case-based system for the Irish health system. It was decided to examine Hospital Inpatient Enquiry System (HIPE) data for 2008 (the most up-to-date full year data available) and Casemix cost data, with the aim of extrapolating what the revenue implications for the public health system would have been in that year had a case-based approach using DRGs been implemented as opposed to a full cost per diem system.

The outcomes from the per diem and the per case calculations were compared so that an estimate of the financial impact of implementation of a case-based system could be made. An explanation of the calculations used to generate these estimates can be found in Chapter 8.

Case Study

The Steering Group deemed it important to provide an example of a hospital that has made progress on addressing the issues relating to income collection. For this reason, a case study was undertaken with the aim of giving an overview of a hospital that could be regarded as delivering best practice in income collection within the Irish health system. The purpose of this study is to show how changes in the systems and
administrative approaches within individual hospitals can result in significant and tangible improvements in income collection. The case study is set out in Chapter 14.

**Examination of the HSE Action Plan on Income Collection**
An action plan to address the income collection issues was developed by HSE financial staff with an in-depth knowledge of the issues being addressed and submitted to the Department in December 2009 and updated in July 2010. An examination of the action plan was undertaken and the key elements are set out in Chapter 15.
PART 2 – HOSPITAL REIMBURSEMENT

CHAPTER 3
BACKGROUND TO HOSPITAL REIMBURSEMENT IN THE IRISH HOSPITAL SYSTEM

PUBLIC/PRIVATE MIX
The mix between public and private provision of healthcare can be seen throughout the Irish health system. This mix is particularly evident in the delivery of acute inpatient hospital care, where two patients, one public and one private, can be accommodated in the same public hospital and be treated by the same medical consultant (O’Reilly and Wiley, 2007). The difference between the two patients, in this scenario, is the charge which applies for treatment of the private patient, but which does not apply to the public patient.

On admittance to hospital, patients must make a clear choice between fully private and fully public status, in respect of consultant and accommodation. While legislation dictates that public patients shall not be charged for treatment in public hospitals other than relatively modest statutory charges, charges for the treatment of private patients in public hospitals are provided for under Section 55 of the Health Act 1970. This Section states that a patient who chooses to receive services as a private patient forgoes his or her entitlement to be treated as a public patient and therefore is liable for charges.

In order to control the level of private activity in publicly-funded hospitals and to help ensure equitable access for public patients to services in these facilities, a system of bed designation is operated in public hospitals. This system, formally implemented under the Health Services (In-Patient) Regulations 1991, designates approximately 20% of the total beds in acute hospitals as “private”. The remainder of the beds are designated as “public” or “non-designated”. Non-designated beds are open to both public and private patients and are comprised of intensive care and other specialist beds.

The regulations permit a patient admitted as an emergency admission to elect to be treated privately by a consultant and to be accommodated in a public bed if no private bed is available or until such a bed is available. No private bed charge applies for such periods of accommodation in a public bed, or a non-designated bed, and so no private
patient revenue accrues to the public hospital in these cases. The regulations also stipulate that private patients being admitted on an elective basis shall not be accommodated in a designated public bed, so again, no charge applies. The level of private activity in public hospitals is further controlled by a clause in contracts of consultants with private practice rights which specifies a maximum proportion of an individual consultant’s workload that can be private.

COSTING ACUTE INPATIENT HOSPITAL TREATMENT
The cost of private treatment in public hospitals is currently calculated on an annual basis by the HSE. Hospitals are grouped into three categories which are based on hospital status (for example, whether the hospital is designated as a teaching hospital) and the level of complexity among the patients which they treat. Category 1 is comprised of HSE regional hospitals, voluntary and joint board teaching hospitals, Category 2 is HSE county hospitals and voluntary non-teaching hospitals, and Category 3 is made up of HSE district hospitals. Casemix data are used to establish an average inpatient cost per bedday for each category of hospital, based on the hospitals within that category. Casemix is defined by the Department of Health and Children (Department of Health and Children, 2005, pg. 4) as being “the effective monitoring and comparison, for management purposes, of activity and costs between hospitals”.

ACUTE HOSPITAL CHARGES
Charges for private and semi-private accommodation in public hospitals are reviewed on an annual basis by the Department of Health and Children and their determination is made by the Minister through regulations. The level of charge applicable to private inpatients does not vary from hospital to hospital. Instead the charge is set in accordance with the category of hospital the service is provided in, whether private or semi-private accommodation is being used and the length of the stay. Private accommodation is usually an individual room while semi-private rooms have more than one bed but are generally smaller than public wards. This approach to charging is referred to as per diem charging. The different rates applied to the three categories of hospitals are primarily intended to reflect the fact that there are varying levels of costs between major tertiary and teaching hospitals and general hospitals.

Historically, private and semi-private accommodation in public hospitals has been subsidised by the Exchequer. However, since the publication of the White Paper on
Private Health Insurance in 1999 (Department of Health and Children, 1999), Government policy has been to move towards charging the full economic cost for the use of such facilities, while being sensitive to the need for continuing stability in the private health insurance market. This policy has seen significant increases in private charges in recent years. For instance, the charge for a private bed in a Category 1 hospital has increased from €274.52 per day in 2002 to €910 per day in 2009. The charges for both private and semi-private accommodation for the last five years are set out below. Although the charges are referred to as “accommodation” charges, they are in fact the hospitals’ overall charge for treatment services provided.

**Table 1: Private Accommodation/Treatment Charges and Annual Percentage Change**

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<th>Hospital Category</th>
<th>2005</th>
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<td>1 HSE Regional Hospitals, Voluntary &amp; Joint Board</td>
<td>€501</td>
<td>€551</td>
<td>€689</td>
<td>€758</td>
<td>€910</td>
<td>€910</td>
</tr>
<tr>
<td>Teaching Hospitals</td>
<td>(+10%)</td>
<td>(+25%)</td>
<td>(+10%)</td>
<td>(+20%)</td>
<td>(No change)</td>
<td>(No change)</td>
</tr>
<tr>
<td>2 HSE County Hospitals, Voluntary Non-Teaching</td>
<td>€418</td>
<td>€460</td>
<td>€460</td>
<td>€506</td>
<td>€607</td>
<td>€607</td>
</tr>
<tr>
<td>Hospitals</td>
<td>(+10%)</td>
<td>(No change)</td>
<td>(+10%)</td>
<td>(+20%)</td>
<td>(No change)</td>
<td>(No change)</td>
</tr>
<tr>
<td>3 HSE District Hospitals</td>
<td>€179</td>
<td>€197</td>
<td>€197</td>
<td>€217</td>
<td>€260</td>
<td>€260</td>
</tr>
<tr>
<td></td>
<td>(+10%)</td>
<td>(No change)</td>
<td>(+10%)</td>
<td>(+20%)</td>
<td>(No change)</td>
<td>(No change)</td>
</tr>
</tbody>
</table>
| **Source:** Department of Health and Children (Various Years)**

**Table 2: Semi-Private Accommodation/Treatment Charges and Annual Percentage Change**

<table>
<thead>
<tr>
<th>Hospital Category</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 HSE Regional Hospitals, Voluntary &amp; Joint Board</td>
<td>€393</td>
<td>€432</td>
<td>€540</td>
<td>€594</td>
<td>€713</td>
<td>€713</td>
</tr>
<tr>
<td>Teaching Hospitals</td>
<td>(+10%)</td>
<td>(+25%)</td>
<td>(+10%)</td>
<td>(+20%)</td>
<td>(No change)</td>
<td>(No change)</td>
</tr>
<tr>
<td>2 HSE County Hospitals, Voluntary Non-Teaching</td>
<td>€336</td>
<td>€370</td>
<td>€370</td>
<td>€407</td>
<td>€488</td>
<td>€488</td>
</tr>
<tr>
<td>Hospitals</td>
<td>(+10%)</td>
<td>(No change)</td>
<td>(+10%)</td>
<td>(+20%)</td>
<td>(No change)</td>
<td>(No change)</td>
</tr>
<tr>
<td>3 HSE District Hospitals</td>
<td>€153</td>
<td>€168</td>
<td>€168</td>
<td>€185</td>
<td>€222</td>
<td>€222</td>
</tr>
<tr>
<td></td>
<td>(+10%)</td>
<td>(No change)</td>
<td>(+10%)</td>
<td>(+20%)</td>
<td>(No change)</td>
<td>(No change)</td>
</tr>
</tbody>
</table>
| **Source:** Department of Health and Children (Various Years)**


In addition to the charges set out above, private and semi-private patients must also pay the charge equivalent to the statutory inpatient charge which currently stands at €75 in respect of each day spent in hospital. The maximum payment in respect of this charge in any twelve consecutive months is €750 per patient. Day case charges are set out in Table 3 below.

Table 3: Day-Case Charges and Annual Percentage Change

<table>
<thead>
<tr>
<th>Hospital Category</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 HSE Regional Hospitals, Voluntary &amp; Joint Board Teaching Hospitals</td>
<td>€361</td>
<td>€397 (+10%)</td>
<td>€496 (+25%)</td>
<td>€546 (+10%)</td>
<td>€655 (+20%)</td>
<td>€655 (No change)</td>
</tr>
<tr>
<td>2 HSE County Hospitals Voluntary Non-Teaching Hospitals</td>
<td>€299 (+10%)</td>
<td>€329 (No change)</td>
<td>€329 (No change)</td>
<td>€362 (+10%)</td>
<td>€434 (+20%)</td>
<td>€434 (No change)</td>
</tr>
<tr>
<td>3 HSE District Hospitals</td>
<td>€133 (+10%)</td>
<td>€146 (No change)</td>
<td>€146 (No change)</td>
<td>€161 (+10%)</td>
<td>€193 (+20%)</td>
<td>€193 (No change)</td>
</tr>
</tbody>
</table>

Source: Department of Health and Children (Various Years)

Comparing the Cost with the Charge

Based on information provided by the HSE (Health Service Executive, 2009 a), the average cost per bedday in Category 1 hospitals was €1,018 in 2009. When the statutory charge is included, private and semi-private patients accommodated in private or semi-private beds in Category 1 hospitals were charged at a rate of €985 and €788 respectively per day in 2009. This represents an average of 97% and 77% of the average cost as calculated using the current methodology. The average cost per bedday in Category 2 hospitals was €913. Private and semi-private patients accommodated in private or semi-private beds in Category 2 hospitals are charged at a rate of €682 and €563 respectively per day representing 75% and 62% of the average cost. Private and semi-private patients accommodated in private or semi-private beds in Category 3 hospitals are charged at a rate of €335 and €297 respectively per day, again including the statutory charge. Costing data are not currently collected under Casemix for Category 3 hospitals.

It is important to remember that although the charge applied is constant, the cost of providing private and semi-private treatment varies from hospital to hospital. This
means that the percentage of the actual average economic cost covered by the charge will be different for each hospital. The cost will also vary from patient to patient in line with the complexity of the diagnosis and the treatment that is provided. This means that in some cases with a low level of complexity such as uncomplicated cataract surgery, the daily charge may be higher than the cost of resources consumed. However, in more complex cases such as a hip replacement, the charge that applies is only a fraction of the cost of treatment.

An important issue relating to the setting of charges is that the payers (usually private health insurers) will consider the charges not just relative to the costs incurred by public hospitals but also based upon prices available from other providers such as private hospitals. While public hospitals are not currently recovering their full costs, the PHIs suggest they could still be more expensive than private sector hospitals in some instances due to relative levels of efficiencies, average lengths of stay and the different charging mechanisms that apply. Conversely, public hospitals claim that for complex procedures it is cheaper for the insurers to pay for these treatments on a per diem rate in the public hospital than for a procedure based cost in a private hospital. The incentive for insurers to route expensive and complex procedures through the public hospitals will be examined in this context. It should be noted however that a thorough comparison of charges between private and public sector hospitals cannot be carried out because data on prices of treatment in private sector hospitals are not currently collected in Ireland.

ALTERNATIVES TO THE PER DIEM APPROACH
There are a number of possible alternatives to the average per diem approach currently in use in healthcare systems throughout the world. While many of these approaches are useful for various aspects of the health services such as primary and community care or outpatient services, the focus of this Review is on methods that can be used to reimburse hospitals for acute patient care. As well as an examination of the per diem approach, other methods discussed include charging on a per case basis using Casemix group (also known as Diagnosis Related Group or DRG) and charging based on individual patient level costings.

DAY CASE CHARGES
The HSE National Service Plan for 2010 (HSE, 2010 b) identifies the continued shift from care on an inpatient basis to a day-case basis as being a key deliverable for 2010.
This policy has been in place for a number of years and has seen a considerable increase in the proportion of care delivered on a day-basis. For this reason, recommendations will also be made in relation to day case charges.
CHAPTER 4
LITERATURE REVIEW

INTRODUCTION
The purpose of this chapter is to provide an overview and evaluation of the most relevant published work in relation to costing and charging for acute inpatient hospital services. These topics are usually examined in papers relating to hospital reimbursement and payment methodologies. The main policies and approaches suggested in the literature and key trends from other countries are explored. Best international practice emerges from the literature and the feasibility of implementing this approach in the Irish system is tested later in this Report. In line with the research aims, the scope of this Review is confined to reimbursement methods utilised for acute hospital inpatients as opposed to those used, for example, for general practitioner, community or outpatient services.

What is Hospital Reimbursement?
There are several definitions of hospital reimbursement in the literature with Casto and Layman (2006, pg. 4) being representative. They define reimbursement as “the healthcare term that refers to compensation or repayment for healthcare services”. The term “provider payment method” is also used interchangeably with hospital reimbursement in the literature, with Cashin et al (2005, pg. 1) defining this as being “the mechanism to transfer funds from the purchaser of healthcare services to the providers”. Effectively, the issue being examined is the way in which hospitals are paid for the treatments that they provide to their patients. The terms reimbursement, payment and charging are used interchangeably in this Review.

Why look at Hospital Reimbursement?
During the last five decades, expenditure on healthcare has increased significantly. For example, between the mid-1960s and the turn of the century, the proportion of gross domestic product (GDP) in the United States that is comprised of healthcare grew from 6% to over 13% (Whetsell, 1999) and then increased to 16% by 2007 (Organisation for Economic Co-operation and Development, 2009). While healthcare represents a smaller proportion of overall GDP in other OECD countries, the increases have still been significant in recent years. On average, health expenditure accounted for 6.9% of OECD countries GDP in 1990 and this rose to 9% in 2007. In the same time period,
Ireland’s spending on healthcare as a percentage of GDP increased from 6.1% in 1990 to 7.6% in 2007 (Organisation for Economic Co-operation and Development, 2009). When measured as a percentage of gross national income (GNI), Irish healthcare spending again increased significantly in the last two decades – from 6.7% in 1990 to 8.9% in 2007 (Department of Health and Children, 2010a). This compares with the OECD average for spending on healthcare as a percentage of GNI of 7.6% in 1990 and 9.4% in 2007 (Department of Health and Children, 2010a). While Ireland is below the OECD average in both GDP and GNI terms, these percentages are likely to continue to increase as the population ages. The rapid increase in spending has led to a focus on whether changes to the hospital reimbursement methodologies being used can help to provide incentives to change behaviour aimed at both lowering costs and improving quality (Langenbrunner & Wiley, 2002).

PricewaterhouseCoopers’ Health Research Institute (2008) highlighted the importance of hospital payment systems when it stated that health systems cannot truly be deemed to be high performing without having high performing payment systems. Countries throughout the world have been paying an increasing amount of attention towards the methodologies they employ to reimburse hospitals for the treatment and services provided to patients. There are many reasons for this, with key among them being the desire to limit the amount of spending on health and achieve value for money, enhance efficiency and improve quality and outcomes. The only way to achieve these goals is by influencing provider behaviour. A powerful tool to do this is the reimbursement methodology implemented in the health system.

**Difference between Healthcare Reimbursement and Other Products**

William Cleverley in Casto and Layman (2006) describes reimbursement for healthcare as being different to that for other products and services for four key reasons - the complexities involved in calculating the charge; the entity that pays for the service; the different charges which apply to different payers for the same services; and the fact that the Government is usually the largest payer and defines the rules for payment.

The first characteristic that sets healthcare reimbursement apart from other products and services is the difficulties associated with calculating the cost of the service provided and the charge which should apply. The calculation of the cost of the services provided is reliant on sound allocation of costs and accurate coding of patients. This is
recognised throughout the literature as being difficult to achieve. Langenbrunner, Cashin and O’Dougherty (2009) suggest that costing individual cases is difficult because costs are grouped together, usually by department. This difficulty is compounded because while clinical departments clearly have costs associated with their outputs (i.e. the patients), administrative departments and ancillary departments, such as laboratories, also contribute to the overall cost.

The second factor that differentiates healthcare payment from other products is the entity that pays the bill. While the end user usually pays for most products and services, this is not the case with healthcare in most instances. Instead, it is generally a third party such as an insurance company or the Government that reimburses the hospital. This is an important point, because evidence suggests that when individuals do not have to pay for healthcare cost directly, many patients increase their consumption to higher levels as they see the services as being free or at a low cost (Liebowitz, 1994). Barr (2004) states that third party payer problems can also lead to increased supply from the providers because the supply is not constrained by the patient’s ability to pay. Harford (2006 pg. 126) identified a further moral hazard associated with a third party payer when he commented that “if you compensate people when bad things happen, they may get careless”. Basically, this means that if an individual knows that he is insured, he may chose not to partake in a healthy lifestyle because he knows he would not have to pay the bill should medical treatment be required in the future.

The third key difference identified by Cleverly is the different levels of charge that can apply for the same service depending on agreements with different third party payers. While this is an issue in the US, and may be an issue in private hospitals in Ireland, it does not currently arise in Irish public hospitals.

The fourth difference is the role of Government. As well as being the largest payer in the healthcare market, it is also the entity that specifies the rules for payment for both itself and the private purchasers. Irish Government policy on charging for private beds in public hospitals is set out in the White Paper on Private Health Insurance (Department of Health and Children, 1999). This document states that charges should equate to the full economic cost of the care provided. However, as will be discussed later in this Report, the full cost is not currently being recouped.
Options for Charging Methodologies

Docteur and Oxley (2003) identify four hospital finance systems which appear regularly in the literature on funding for healthcare - (i) Bedday or Per Diem Payments; (ii) Patient Level Charging or Fee for Service; (iii) Payments Per Case; and (iv) Block or Global Grants/Budgets. With block grants, hospitals receive a fixed budget each year to cover all of the services provided by them. While block grants are used to fund the public element of work carried out by acute hospitals in Ireland, this method is clearly not appropriate to reimburse them for private inpatient treatment and therefore is not considered in this Review. A number of other payment systems such as Capitation and Adjusted Capitation payments are identified by Docteur and Oxley. However, these approaches are more suited to the funding of primary and community based healthcare. For this reason, they are also outside the scope of this Review and will not be examined.

The three key attributes that define provider payment methods as identified by Wouters, Bennett & Leighton (1998) will be used to investigate the payment methodologies suitable for use in charging private patients in public hospitals. These attributes are the unit of payment; whether the method is prospective or retrospective; and the level of financial risk that falls on the provider and the payer respectively.

Wouters et al. state that payment methods can set prices for an aggregated or disaggregated unit of payment. An aggregated unit is a fixed payment for all services required by one person during a year. An example of such a payment system is a capitation based system where physicians receive a specified amount in return for providing care to a patient for a specific period of time (Kirch, 2008). A disaggregated unit of payment system sees patients charged for separate items of care such as for drugs, consultations and diagnostic work. A patient level charging approach is an example of a disaggregated system. In many countries, payment systems which include a mix between aggregated and disaggregated payment systems apply. A per case payment system based on Diagnosis Related Groups (DRGs) is an example of such a mixed system. Both patient level charging and case-based charging using DRGs will be explained and examined in detail below.

Payment systems can be either retrospective or prospective. With retrospective payment systems, the payer learns of the costs of the treatment after the patient has received the services and the costs are incurred (Casto and Layman, 2006). Prospective
payment systems ensure that the level of reimbursement for healthcare services is established prior to treatment being administered (Jacobs & Rapoport, 2004). In the last two decades, many countries have moved away from retrospective payment systems to prospective systems due to the benefits which can accrue in terms of efficiency and patient outcomes. More detail on these benefits can be found below in the section on “Advantages and Disadvantages of Case-based DRG Charging Systems”. Cashin et al. (2005) also looks at retrospectivity and prospectivity in terms of when the payment is actually made. However, for the purposes of this Review, the focus will be on when the level of payment is set, as opposed to when money changes hands.

The allocation of financial risk is the third of Wouters’ payment method attributes. The different options in terms of reimbursement/payment method each allocate the financial risk differently between the hospital and the payer. The hospital or healthcare provider is at risk when they carry the financial consequences of the cost of treatment being higher than anticipated. Meanwhile, the payer is at risk if they face the additional cost of higher than expected treatment costs. Different levels of cost are commonplace in healthcare. Costs fluctuate from patient to patient, even when they have the same condition, due to many factors such as unexpected complexity, a requirement for a greater amount of diagnostic work or differing levels of hospital efficiency. However, the hospital can gain from the cost of service being lower than anticipated due to efficiency gains or service delivery to otherwise healthier patients.

Each of the three main charging methodologies which would be applicable to private patients in public hospitals will be explained and examined in terms of these attributes as well as the main incentives which arise for each below. The advantages and disadvantages of the approaches will also be briefly outlined.

**PER DIEM CHARGING**

Per diem charging in hospitals involves a charge being established and applied for each day that a patient remains in a hospital. This approach was described by Kongstvedt (2001, pg. 199) as “a single charge for a day in the hospital regardless of any actual charges or costs incurred”. The approach, also referred to in the literature as bedday payments, is mainly used in countries with publicly funded healthcare systems that incorporate a mixture of public and private providers (Docteur & Oxley, 2003). The unit of payment with this approach is an aggregate per day charge which is usually
based on a historical average cost of a bedday in the hospital. The charge can be set at a national, hospital or department/ward level. Charging systems based on average per diem costs are, in the main, recognised as being less than optimal with Drummond et al (2005, pg. 71) referring to this approach as being the “least precise” of the possible methodologies.

While per diem payment systems are categorised as prospective by Cashin et al. (2005) and Casto & Layman (2006), it could be argued that this classification is inappropriate. Although the level of daily charge is known ahead of when the patient enters the hospital and therefore a certain level or prospectivity does apply, the length of stay is not known in advance and therefore the overall charge to be applied will vary from case to case. The payer does not have a high level of certainty around the final charge and as such, this method must be seen to encompass a significant element of retrospectivity.

Wouters et al state that the burden of risk is high for the payer and low for the hospital with a per diem system. Again however, some caution should be applied to this. An alternative interpretation could view a significant degree of risk sharing with per diem charges. This is because, while all of the risk regarding length of hospital stay lies with the purchaser of the service, risk associated with the complexity and the dramatically different levels of cost of the treatment lies with the provider. For instance, in the scenario where the per diem charge is €900 and the patient length of stay is four days (total charge of €3,600) but the cost of treating the patient totals €5,000, there is clearly significant risk relating to complexity on the side of the hospital.

As stated elsewhere in this Review, the reimbursement methodology employed for private patients in Irish public hospitals is an average per diem charge. The main benefits of the Irish per diem system as identified by the Value for Money Steering Group are its relative simplicity and straightforwardness. When compared to other systems, such as patient level costing or case-based costing, the per diem rate is easy and quick to calculate and implement because it is based on historical annual hospital costs divided by the total number of beddays.

However, Cashin et al identified a number of disadvantages associated with this type of system. It provides a significant incentive to increase the length of stay of patients because the hospitals are paid on the basis of the number of days the patient occupies a
bed. This perverse incentive can be exacerbated because there can be a further financial incentive to retain patients for longer because they are at their most expensive in the early part of their stay and less so in the final days of a stay. It also incentivises the shifting of outpatient and community services to the inpatient hospital setting. The Steering Group also identified the issue of per diem payments potentially incentivising payers (the insurers) to have complex clients treated in the public system as being a disadvantage. This incentive arises because patients are charged by the day and not in relation to the cost of resources consumed as would be the case in the private sector.

PATIENT LEVEL CHARGING

Patient level charging (PLC), or fee-for-service as it is also referred to in the literature, involves individual bills being calculated for each patient which itemise every aspect of care and allocate a charge for each element (Docteur & Oxley, 2003). It would effectively mean that two patients who enter hospital with the same illness and stay for the same length of time could face different levels of charge. This is because, for instance, one patient may require more diagnostic work or different types of treatment due to the specificities associated with that individual and the cost for each of the elements of service are added together to arrive at the final charge. This approach receives some support in the literature, with Drummond et al (2005) noting that it is the most accurate of the options in terms of establishing the cost. It would allow a highly accurate charge for any given individual patient to be calculated as opposed to other methodologies which rely on averages. This is because the unit of payment is disaggregated per unit of service, with separate fees for the different service items provided (Wouters et al, 1998).

As the payment rate is determined retrospectively, the burden of risk is low for the hospital but high for the payer. The risk for the payer is exacerbated by the main incentive that arises under patient level charging. Due to the way in which the hospital is reimbursed, there is a significant incentive for the provider to increase the number of services provided, even if not a clinical necessity, in order to drive up the charges which can be applied (Wouters et al, 1998).

The Teamwork Report (Teamwork Management Services, 2006 a), which examined ways to promote performance related services and obtain “best value” from available resources, identified a number of positive aspects to patient level charging (PLC)
systems. For instance, the approach would overcome the problem of risk selection among potential patients. Risk selection involves the cherry picking of patients with straightforward conditions who are unlikely to experience complications and therefore additional costs. There is no incentive to cherry pick with a patient level charging system as the more treatment that the patient requires, the more that the provider can charge. PLC also gives an incentive to provide the highest quality of care possible as all the costs will be included in the charge. However, this incentive also increases the likelihood of care being provided that does not contribute to improved outcomes for the patient. Compared to some of the alternative methodologies, PLC also benefits from being easy to understand as well as providing a high degree of transparency. This transparency arises because it allows charges to be directly attributable to the services provided and associated costs of individual patients, i.e. it would be possible to achieve economic charging not just in respect of the total quantum of private activity but at the level of individual patients.

However, Ginsberg et al (1991) and the World Health Organisation (2007) set out a number of arguments against the implementation of PLC systems. The key disadvantage of PLC is the financial incentive which arises for the hospitals, and possibly for clinicians, to supply care that is either unnecessary or of little or no marginal benefit relative to the additional costs incurred. Supplier induced demand can be a significant issue with patient level charging because of the information asymmetry between the doctor and patient. Supplier induced demand is defined by the World Bank (Unknown) as “a phenomenon whereby a healthcare provider, usually a physician, influences the level of a person’s demand for healthcare services”. Although the provider may be suggesting that a patient requires a certain treatment, the patient is unlikely to be in a position to conclusively say whether this is the case or not. Efficiency is further negatively affected as PLC provides an incentive to keep lengths of stay high in the absence of appropriate protocols. The application of a PLC system would also require a significant investment in internal accounting systems and administration in each hospital due to the requirement to measure, cost and record each service item provided for the patient.

CASE-BASED CHARGING USING DIAGNOSIS RELATED GROUPS
An initial review of the literature has identified variants of case-based systems which use Diagnosis Related Groups (DRGs) as being the most commonly used prospective
system internationally. Case-based reimbursement is also referred to as per case reimbursement. Cashin (2005, pg. viii) defines DRGs as “a classification of hospital case types into groups that are clinically similar and are expected to have similar hospital resource use. The groupings are based on diagnoses, and may also be based on procedures, age, sex and the presence of complications or co-morbidities”. A similar definition by the World Health Organisation (2007, pg. 3) states that “DRGs are designed as a means of classifying hospital patients from the medical standpoint and at the same time in terms of resource use”. The prospective nature of the charges means that there is a moderate level of financial risk on the side of both the hospital and insurer. Examples of countries that have adopted this approach include the United States (1983); Australia (1992); Germany (2003) and the UK (2002). The last two decades has seen most European countries introduce DRGs or a similar type of system for hospital grouping (Schreyogg, Stargardt, Tiemann and Busse, 2006). La Forgia and Couttolenc (2008, pg. 160) suggest that this system has become increasingly popular because “it is not only useful as a payment mechanism but also for determining resource allocation, managing care, promoting quality assurance and monitoring performance”.

How Case-based DRG Payment Systems Work

With case-based DRG payment systems, providers receive a fixed, pre-established payment for each case or patient episode according to the DRG of the patient (Casto and Layman, 2006). This means that the hospital would be paid for each case as opposed to each service provided or number of days the patient is in the facility. Therefore, the unit of payment is per case or per episode of treatment (Wouters et al, 1998). For instance, all patients who require a liver transplant within a particular age range would receive the same bill, regardless of the length of stay or differences with any of the other variables. The level of charge is determined by the historical resource needs of the average patient for a given set of conditions or diseases. The uniformity of the charge for each DRG helps to overcome the incentive for supplier induced demand as the provider does not receive any extra payment for additional work undertaken.

Patients who are similar in terms of clinical profiles and required resources are grouped together into DRG categories. Therefore, patients classified to the same group would have similar diagnoses and treatments, consumption of resources and lengths of stay. Each DRG has a weight, relative to one another, with higher weights associated with groups in which patients require more resources for care and treatment. Higher resource
consumption is related to higher intensity of services due to the severity of illness or the types of services needed for care and treatment, such as expensive equipment or medications. The higher weights therefore translate to higher charges, with these set at a national level (Casto and Layman, 2006). The case-based approach commonly reimburses hospitals at a level that is the average cost in an average hospital to treat any given DRG. The payment will be above the cost of treatment in some cases but under the cost in others. This helps to create incentives to improve hospital efficiency as they attempt to avoid making a loss on patients (Cashin, 2005).

**Advantages and Disadvantages of Case-based DRG Charging Systems**

The literature identifies a number of advantages of a case-based charging system. Transparency, predictability and cost efficiency are seen by William Kirch (2008) as being key advantages associated with case-based DRG systems. He notes that transparency, hospital financing and resource use is improved through the introduction of case-based systems using DRGs because of the application of a fixed payment per DRG based admission. This fixed level of payment provides a degree of predictability which, in turn, allows for better forecasting of future income streams which itself facilitates better planning. Cost efficiency is incentivised because the fixed payments encourage hospitals “to eliminate unnecessary services, to reduce lengths of stay and to develop a competitive advantage in areas in which they are high performers” (Kirch 2008, pg. 264). Efficiencies could be further driven through the introduction of normative DRG pricing where prices are set “according to what they ought to be rather than reflecting current practice” (Teamwork Management Services, 2009 b, pg. 39). Kirch also believes that the approach provides a clear basis for discussion between clinicians and hospital management in terms of strategy formulation, prioritisation and performance and resource management. Docteur and Oxley identify a number of other positive characteristics. They identify per case payments as a way to incentivise hospitals to increase the supply of treatment where there is demand and available capacity. Per case payments can also provide an incentive to move towards treating particular conditions on a day case or outpatient basis as opposed to an inpatient basis (PricewaterhouseCooper, 2008). A further advantage of a case-based approach using DRGs is that it would be suitable for day-cases as well as inpatients. Overall, it could be argued that the key benefit of the methodology is the incentive it provides to drive efficiencies and reduce the cost of treating patients.
Although the benefits of case-based DRG charging systems make a compelling argument for its implementation, a number of potential weaknesses associated with DRG charging systems can also be found in the literature. Kirch warns that if the charge rates are set too low relative to costs, it may lead to hospitals increasing the number of admissions in order to generate more cases and therefore more revenue. It could also have the effect of slowing the adoption of new technologies of care that add to costs as hospitals attempt to keep the overall cost of treatment low. This occurs even though the use of new technology may reduce costs in the long run. The incentive for hospitals to be more efficient could potentially lead to patients being discharged too early, which produces either more costs in other healthcare settings or re-admission of patients. This is just one example of how quality of care may be negatively affected by incentives created by case-based payment systems and highlights why appropriate safeguards must be put in place to ensure that patient outcome remains the key focus of healthcare providers (Kahn et al, 1990). Experiences in other countries suggest that upcoding (whereby patients are classified in higher DRGs to receive a higher reimbursement) and other coding errors can be significant issues (Steinbusch, Oostenbrink, Zuurbier & Schaepkens, 2006). This highlights the importance of appropriate auditing to ensure that coding is accurate and patients are classified in the appropriate DRG. The issues outlined above can have a significant impact on the success or otherwise of any implementation of a case-based DRG reimbursement system. For this reason, they would have to be examined on an issue-by-issue basis in an implementation plan.

IMPLEMENTATION OF A CASE-BASED DRG PAYMENT SYSTEM
Langenbrunner, Cashin and O’Dougherty (2009, pg. 125) identify a six step process for the development of a case-based hospital payment system based on “international evidence and experience related to design and implementation”. The six steps are as follows:

1. Define the case grouping criteria;
2. Complete cost-accounting analysis;
3. Calculate the case group weights;
4. Calculate the base rate/price;
5. Design an information and billing system; and
6. Refine the case grouping.
While a detailed examination of this process is beyond the scope of this Review, a brief overview of the steps as suggested by Langenbrunner et al is provided below. The current approach in Ireland will be mapped onto the suggested approach to see how many of the steps have already been satisfied in the Irish system. The current position of the Irish system in relation to the approach has been informed by discussions with the Casemix Unit in the HSE. As will become evident, the Irish health system already has in place much of what is required to implement a case-based reimbursement system using DRGs through the Hospital Inpatient Enquiry System (HIPE) and Casemix. HIPE is a computerised system which collects detailed demographic, clinical and administrative data on hospital discharges and deaths from acute hospitals in Ireland (Economic and Social Research Institute, Unknown). Casemix is defined as “the effective monitoring and comparison, for management purposes, of activity and costs between hospitals” (Department of Health and Children, 2005, pg. 4). It is currently used in Ireland to make positive or negative adjustments to hospitals’ budgets depending on their efficiency relative to other similar hospitals (Langenbrunner & Wiley, 2002). Casemix categorises and quantifies the mix of cases within hospitals by classifying patients into categories called Diagnosis Related Groups or DRGs. This process allows the activity and cost levels of different hospitals to be compared and the differences in efficiency measured. Following an analysis of this comparative data, a percentage of each hospital’s budget is adjusted based on their Casemix performance on an annual basis. This budget neutral exercise sees funding transferred from less efficient hospitals to the more efficient ones. It is suggested here that the HIPE and Casemix systems currently operational in Ireland have already put in place much of what is required to roll out a case-based charging system for private patients in public hospitals.

**Step 1 – Define the Case Grouping Criteria**

As mentioned previously, a case-based hospital payment system requires the identification of case groups that have similar characteristics and resource requirements. This allows different reimbursement rates to be set for each case group. There are three possible approaches to grouping cases. The least complex method involves reimbursing hospitals the average cost per case for all the cases in the hospital. Grouping cases by department is a more accurate method than the average cost per hospital but the most sophisticated approach involves grouping cases by diagnosis. Ireland currently groups cases by DRG under the Casemix system. The Irish system uses the internationally
recognised Australian National Diagnosis Group classification for this purpose. This system groups cases into 665 DRGs for inpatients and 332 DRGs for daycases.

**Step 2 - Complete the Cost-Accounting Analysis**

In order to determine the unit cost per case, a cost accounting process must be used in tandem with expert clinical opinion in order to assign each diagnosis code to a case group. In addition to the clinical department costs, the direct and indirect cost from ancillary and administrative departments must be allocated to the clinical departments. The total cost of each individual case within each of the clinical departments can then be calculated by “multiplying the cost per department bedday by the length of stay for each individual case” (Langenbrunner, Cashin and O’Dougherty, 2009, pg. 150). In Ireland, the Casemix system costs at speciality level as opposed to the individual patient. This process uses cost data from the audited accounts of the 39 participating hospitals. The data are broken down across 13 cost centres such as theatre, nursing and laboratories and are then apportioned to each of the specialities in the hospital. The costs are then allocated to the DRGs which gives an average cost per case (Department of Health and Children, 2005).

**Step 3 – Calculate the Case Group Weights**

Case group weights must be calculated in order to differentiate between cases with different levels of resource intensity. Schneider (2007, pg. 12) states that “case group weights reflect the average cost per case in a given case group relative to the global average cost per case”. Cashin et al (2005) indicates that case group weights should be calculated based on the average cost per case in each case group. The case group cost should then be divided by the global average cost per case to establish the relative weights. The Irish system currently utilises a version of the Australian weighting system, amended slightly for the peculiarities of the Irish health service.

**Step 4 - Calculate the Base Rate/Price**

The next step involves calculating the base rate. Langenbrunner (2009) defines the base rate as the overall average cost per hospital case. In order to calculate the price per case, the base rate is multiplied by the case group weight. It is essential that the rate is set based on the actual costs and is not unduly influenced by any of the stakeholders. In Ireland, base rates are calculated on an annual basis during the Casemix process. This base rate includes all variable costs associated with patient treatment, though some costs
such as fixed assets, capital projects and the cost of retail outlets are excluded to ensure consistency in the models. It is vital that the most accurate costing data available is used for this purpose. The HSE Prospective Funding Project Group review of costs at the patient level which is currently ongoing, with further studies also planned, may be of assistance in this regard.

**Step 5 - Design an Information and Billing System**

A sophisticated hospital information system is required in order for hospitals to record information about each case treated and determine the appropriate payment rate. This requirement is satisfied in Ireland by the HIPE (Hospital Inpatient Enquiry) system which provides detailed and comprehensive data on patients. A billing system is also required in order to document the billing and payment process. Although Irish hospitals currently have a billing system in place, both the HSE and the health insurers recognise that it is not satisfactory. It is a paper-based system established for issuing bills related to the much simpler to administer per diem system and therefore would not be suitable for dealing with any move to case-based billing. The design and implementation of a more appropriate billing system would be a prerequisite to any shift to a case-based reimbursement system in Ireland.

**Step 6 – Refine the Case Grouping**

Langenbrunner et al emphasise the need to compensate hospitals at an adequate level for legitimate cost differences between cases in order to overcome adverse incentives such as cherry picking less complex patients or reducing inputs to patients. Langenbrunner adds that case-based systems are never truly perfected. They require regular revision and refinement of case groups and case group weights so that changes on the ground can be reflected in the reimbursement levels received by the hospitals. This ongoing refinement would be facilitated in Ireland by the annual Casemix calculations and the patient level costing programme mentioned at Step 4.
CHAPTER 5
METHODOLOGY UTILISED IN PREVIOUS YEARS TO ESTABLISH THE ECONOMIC COST AND CHARGES PER BEDDAY

In order to make recommendations on the future methodology for reimbursing hospitals, it is first necessary to understand how the cost and charges are currently established. The description of the processes below has been informed by explanatory notes and presentations from Casemix Unit in the HSE and Finance Unit in the Department of Health and Children. Discussions were also held with representatives of both units.

In recent years, the estimate of an “economic cost” of a private patient in a public hospital has been calculated using an average cost per bedday for each hospital category based upon costs in the hospitals in that category. The cost per inpatient bedday is a full cost containing all costs in relation to the treatment of inpatients adjusted for a number of items which are excluded from the calculation. In calculating the cost, the Department predominantly relies on cost and activity information sourced from the National Casemix System.

CASEMIX – A BRIEF INTRODUCTION

As the clinical workload varies significantly from hospital to hospital, a methodology is required to classify patients into categories or groups which have similar patterns of resource use and clinical attributes to allow comparisons of hospital efficiency to be made (Department of Health and Children, 2005). Casemix is a methodology used in health systems throughout the world to do just that. Casemix is described by the Department of Health in Queensland, Australia, as “a system which groups patients into clinically meaningful and resource homogenous groups to describe the output of a hospital” (Queensland Health, 1991 pg. 1). It categorises each hospital’s caseload into discrete groups which then allows the comparison of activity and costs between different hospitals (Department of Health and Children, 2005). Diagnosis Related Groups are the most frequently utilised Casemix classification system (Queensland Health, 1991).

In Ireland, the Casemix Budget Models currently form part of the annual funding process for 39 of the largest hospitals in the country. These hospitals account for over
90% of national activity and the number of hospitals participating in the system has been gradually increasing in recent years. The primary purpose of Casemix in Ireland is to redistribute public funding between hospitals based on their relative efficiencies. The “matching” of costs with activity is the underlying principal governing Casemix. Therefore, the thorough reviewing and audit of both costing and activity data are essential components of the Casemix system and help to provide a relatively high degree of reliability.

The starting point in the Casemix Costing process is the Annual Financial Statements (AFS) of the hospital. This helps to ensure that the costs to be used by the hospital are subject to audit, in most cases by the Comptroller & Auditor General. The inpatient and daycase activity data are recorded on the national hospital information collection system called HIPE (Hospital Inpatient Enquiry). Every patient collected on this system is coded and classified into DRGs based on their diagnosis and the procedures carried out while they are in the hospital. The beddays relating to these cases are used in the calculation of the costs per bedday.

A Costing Instruction Manual (Health Service Executive, 2009 c) has been produced by the HSE to assist hospitals in the completion of the costing returns for use in the Casemix Model. The purpose of this manual is to ensure that the costing returns are prepared on a consistent basis from year-to-year and from hospital to hospital. The manual sets out the rules for preparing the costing returns in relation to cost apportionments and allocations. All costing returns are reviewed in detail by the Casemix Unit and the returns of a number of hospitals are audited each year. The Casemix Unit maintains and updates the reporting system used by the hospitals in their submissions to the HSE as part of the Casemix process.

**HOW THE COST IS CALCULATED**

The cost per inpatient bedday for each hospital is calculated from the costing data used within the Casemix system. The cost is calculated using an average cost per bedday for each hospital category based on the hospitals in that category. The cost per inpatient bedday, which is the starting point for calculating the economic cost, contains all costs relating to the treatment of inpatients. This includes: (i) all pay costs such as medical (consultant and non-consultant hospital doctors), nursing, paramedical, administration, support services, catering and portering; (ii) all non-pay costs such as medicines, blood,
medical & surgical supplies, radiology, laboratory supplies etc; and (iii) costs of
diagnostics, medical services, theatres, laboratories, wards and overhead allocations as
appropriate (Health Service Executive, 2009 d).

However, the following costs are excluded from the cost per bedday:

- Superannuation;
- Non Capital expenditure on Capital items;
- Bad Debts;
- Retail Outlets Costs;
- Exceptional Costs;
- Costs not related to a hospital’s patients;
- Other Unique Issues as agreed with the Casemix Unit; and
- Outpatient Costs.

The cost per bedday as calculated for the Casemix Budget Models is then adjusted by:
(i) excluding consultants’ pay as they are paid separately by the insurer; (ii) adding a
5% cost of capital charge because the cost per bedday does not have a capital cost or
depreciation charge; and (iii) increasing the cost per bedday by an annualised health
inflator to synchronise the cost per bedday with the relevant charge. This issue arises
because the data on which charges are based has a two year time lag. For instance,
2007 cost data was increased by 20% to arrive at the 2009 hospital charge (Health
Service Executive, 2009 e).

**HOW THE LEVEL OF CHARGE IS SET**

To date, the level of charge has been set in the context of the Budgetary process. The
HSE provides a spreadsheet to the Department on an annual basis outlining the relevant
Casemix data. Data on the cost per bedday of Category 1 and 2 hospitals are broken
down by individual hospital. It also identifies the current level of charge per bedday,
the charge as a percentage of economic cost, the number of private beddays, the level of
subsidy which applied as well as other information. The private and semi-private
charges for each category, which are daily rates, are then set after taking into account
the cost per bedday within each category as calculated above. A separate process was
not undertaken for day-case charges. Instead, day-case charges have been adjusted in
line with inpatient charges, i.e. day-case charges would be increased by the same
percentage as inpatient charges. (Department of Health and Children, 2009 a).
Key considerations in setting the level of charge have been: (i) to bring the charge closer to the economic cost; (ii) to generate revenue; and (iii) to have regard to wider policy considerations related to such matters as inflation within the economy and stability within the private health insurance market. After the Budget each year, the Department informs the HSE of the charges to apply in the following year.
CHAPTER 6
FINDINGS OF THE CONSULTATION PROCESS ON HOSPITAL REIMBURSEMENT

As outlined in Chapter 2, a consultation process to collect the views of stakeholders was a key element of this study. In total, 20 responses to the questionnaire were received. Of these, thirteen were returned by email while six utilised the online form and one responded by post. A list of the respondents is enclosed at Appendix 3. Each submission was acknowledged with a letter or email. While the decision to utilise an “expert” consultation approach may have limited the number of submissions received, the quality of the responses received indicates that there was a good understanding of the issues among the respondents. Responses were received from senior representatives of the HSE, hospitals, private health insurance companies, health association groups, universities and others such as a health technology company and a service user.

SUMMARY
A summary of the main conclusions drawn from the analysis of respondents’ submissions relating to costing and charging is provided below and a more detailed thematic analysis is set out at Appendix 2. It should be highlighted that these are the views held by the respondents and may not necessarily be factually accurate.

The approach taken to the analysis involved a systematic review of the data, with the aim of identifying key themes which emerged from the responses. An analysis of responses relating to income collection is set out in Part 3 (Chapter 13) of this report. A copy of the consultation document/questionnaire is available from the Closed Public Consultation section of the Department of Health and Children website.

Costing
Calculation of the Cost
There is overwhelming dissatisfaction with the current methodology for establishing costs for private and semi-private treatment in public hospitals, mainly due to the unsuitability of the approach and its lack of transparency. It was seen as taking no account of the taxpayers’ entitlement to a public bed in a public hospital under their tax/PRSI contributions. The methodology is regarded as crude and does not recognise the different levels of costs associated with different treatments or provide an incentive
to initiate efficiencies. However, one benefit of the current methodology is its simplicity.

Inclusion and Exclusion of Costs
In relation to the possible inclusion of costs not currently found in the costing calculation, most respondents felt that all costs properly recorded under generally accepted accounting principles should be included. Costs specifically proposed for inclusion were Depreciation, Bad Debts, Superannuation, Administration Costs and Exceptional Items. The majority felt that capital costs should be reflected in an annual depreciation charge in revenue costs as per generally accepted accounting principles. Respondents who indicated that no other costs should be included, stated that the only costs which should be levied on private patients are for those services he/she would not receive as a public patient.

When asked whether some costs should be excluded, the respondents were evenly split. Of those who responded “No” to this question, their argument was that full costs should be recognised and that no real costs should be excluded. Those who answered “Yes” identified non-direct medical costs, disease management costs, A & E costs, Intensive Care Unit costs and costs associated with inefficiency and high levels of administration as being costs which should no longer be included.

Charging
Charging/Reimbursement Method
Overall, the current per diem charging method was seen by respondents as being significantly flawed and an inappropriate method for recouping the cost of treatment. The most popular alternative was Patient Level Charging (PLC), chosen by almost half of respondents. The respondents echoed many of the advantages and disadvantages to be found in the literature. For instance, PLC was seen as having advantages such as being the most accurate methodology in terms of establishing a cost as well as allowing charges to be set at the patient level as opposed to using averages. It was also seen as allowing much better vision on the cost drivers which would allow benchmarking to be undertaken as well as helping to improve transparency. However, the method was seen as having a number of significant weaknesses. For instance, respondents highlighted the possibility that costs could be driven up due to the inherent incentives associated with it, such as that to provide more services. The approach would require patient level
costing information over a sustained period of time in order to discover a reasonable algorithm for the charges. It was also seen as requiring a major investment in information technology and administration.

The second most popular charging method was charging by Casemix group (or case-based charging using DRGs as it is also referred to in this report). The arguments provided in favour of this approach also tied in with the advantages as outlined in the literature such as improved transparency, predictability and cost efficiency. The method was seen as aligning the charging methodology with that used in the private sector and also benefitting from not requiring a major investment in designing new systems from scratch due to the already existing infrastructure. Incorporating complexity into the price calculation was seen as helping to narrow the differential between public and private hospitals prices. This was identified as being of assistance in overcoming the incentive for insurers to avail of the current lower prices for complex treatment in public hospitals and the lower prices for routine treatment in private hospitals. Disadvantages associated with the approach identified by respondents included its inability to capture the multiplicity and complexity of illnesses related to an ageing population and also the lack of flexibility to cope with rapid changes in technology and treatments.

**Hospital Categorisation**

The current hospital categorisation system was seen as being an inappropriate basis on which to set charges. It was felt that the current approach does not reflect the actual cost of treatment and facilitates the same charge being levied regardless of the complexity of the episode or the costs of private beds in individual hospitals. It also fails to reward high-performing hospitals or help to track or drive efficiencies. The process of assigning hospitals to a category was seen as a weakness along with the fact that the assignment to categories has not been reviewed in many years. It is clear that, if the current categorisation system is to be continued, respondents want a transparent mechanism which allows hospitals to move between categories.

**Bed Designation**

An overwhelming majority of respondents expressed dissatisfaction with the bed designation system. The system is perceived as being inappropriate and out of date. A review of current bed designation was suggested as “it is anomalous that private patients
in non-designated and public beds are not liable for the daily charge yet they receive private treatment from the consultant”.

**Charging the Full Economic Cost**

The main implications of charging the full economic cost were stated as increased costs for insurers, increases in premiums, reduction in the numbers of people with private health insurance (especially young, fit and healthy members) and increased pressure on public hospitals, especially for the more expensive procedures. Insurers may try to direct a greater proportion of simpler elective treatments to private hospitals as the public hospitals will become even less competitive for such procedures. Ultimately, if charging the full economic cost increased charges significantly, it could lower the incentives for insurers to remain in the market. Public hospitals may also suffer a reduction in revenues from this (private) source and a worsening of public waiting lists.

**Value for Money for the Taxpayer**

In relation to whether the current charges represent VFM for the taxpayer, the majority of respondents answered “No”. The main reason cited was the element of subsidy perceived as inherent in the current charge as the service user has already paid for the service through their taxation.

**Recommendation of the Special Group on Public Service Numbers and Expenditure Programmes on Charges**

The majority of respondents did not agree with the 20% increase in charges recommended in the Report of the Special Group on Public Service Numbers and Expenditure Programmes. It was seen as being purely a method of raising extra funds and not based on an examination of extra value being provided or extra costs being generated which would justify such an increase. It was suggested that it would be more appropriate to have an accurate assessment of the economic cost undertaken before pushing through bed charge increases.
CHAPTER 7
INTRODUCING A CASE-BASED APPROACH – THE EXPERIENCE OF ISRAEL

INTRODUCTION
The literature review and the consultation process have identified a number of advantages associated with case-based reimbursement systems that use DRGs and, in theory, it seems to be the most appropriate approach for charging for private patients in Irish public hospitals. However, it is important to examine the possible implications of moving to such an approach so that any recommendation to change the reimbursement system is properly informed. In order to do this, attempts were made to find a country that had already made such a transition. Shmueli, Intrator and Israeli (2002) set out the experience of Israel in their paper entitled “The effects of introducing prospective payments to general hospitals on length of stay, quality of care and hospitals’ income”. The use of Israel as an example is particularly appropriate because of its similarities with Ireland. Israel has a relatively similar population size, also has an advanced health system and most importantly, had previously used a per diem approach (Rosen, 2003). This chapter aims to briefly summarise the key findings of Shmueli et al.

A prospective case-based reimbursement system using DRGs was introduced in Israeli hospitals in 1990. Initially, the payment system was used only for 15 selected procedures and Shmueli’s paper examined “the first-year effect of the change on volume of activity, length of stay, quality of care and hospitals’ real income” (2002, pg. 981). The study focused on five of the selected procedures: Cholecystectomy, hysterectomy, hip replacement, operations on lens/cataract and heart surgeries within the four largest general hospitals. The paragraphs below outline the main effects of the change in reimbursement system on activity, length of stay, quality and hospital income.

VOLUME OF ACTIVITY
The volume of activity was measured using admission data. The introduction of the new reimbursement system had a different effect on admissions for each of the five procedures. The researchers found that the number of admissions for cholecystectomy and hysterectomy remained constant, cataract admissions dropped by 12%, hip replacements increased by 43% and heart surgeries increased by 55%. The possible

2 Cholecystectomy is the surgical removal of the gallbladder (Medical Dictionary Online, unknown)
reasons for these changes in volume are examined in the hospital income paragraph below.

QUALITY OF CARE
The authors used the 60 day post discharge readmission rate and the 365 day post discharge mortality data to measure the change in the quality of care. The new reimbursement system did not lead to a significant change in the quality of care by these measures. However, there was a slight increase in the 60 day readmission rate. Shmueli’s paper recommends further research to clarify whether this increase in the readmission rate was an indicator of lower quality of care.

LENGTH OF STAY
Regression analysis was used to measure the effect of the introduction of the new reimbursement system on the length of stay (LOS). The introduction of the new system led to a drop in mean and median LOS for all procedures examined. In fact, the decrease in LOS for heart surgeries, hip replacements and cataracts was more than three times the annual average reduction in LOS over the previous 15 years. However, the reduction in LOS was not uniform, with smaller reductions seen for hysterectomies.

HOSPITAL INCOME
Hospital income was affected by changes to their revenue per case and revenue per day. The effect was different for each of the five treatments examined. For example, in the case of cataract surgery, the hospitals’ revenue per day was reduced by 44% and revenue per case was down by 55%. Even when the 18% length of stay reduction is taken into account, the previous per diem rate was twice the per day charge post introduction of the new approach. However, at the other end of the scale, hospitals saw a 126% increase in revenues for heart surgeries and this encouraged a 55% increase in the number of such surgeries undertaken. In the case of hip replacements, while revenues per case dropped by 3%, the number of cases increased by 43%. Although revenues per case for hysterectomies and cholecystectomies dropped by 22% and 25% respectively, the number of cases remained constant.

WHAT CAN WE LEARN FROM THE ISRAELI EXPERIENCE?
Following the introduction of the per case system in Israel, efficiencies were incentivised which led to tangible changes in hospital behaviour. By changing the way
hospitals were reimbursed, average lengths of stay were reduced without a significant deterioration in quality and outcomes. The volume of patients seen during the year in question varied for each of the treatments. The incentives inherent in the per case system led to a significant reduction in the number of inpatient cataract operations. However, the incentives also brought about a large increase in the number of heart surgeries. The shifting of less complex treatments such as cataract surgeries to, for instance outpatient settings, is a considerable benefit associated with the reimbursement system. While the implementation of the scheme led to a reduction in the per day and per case income, this was compensated for by the increases in the number of cases.

Although these findings would support the roll out of a case-based system, it must be considered that while the authors accept that other changes in the environment may have had an impact on the study outcomes, they do not quantify this impact. For instance, technology improvements may have assisted the shift of cataracts from inpatient to daypatient. A further limitation is the fact that the paper only examines the effect of the change after one year and a limited number of cases. In spite of these weaknesses, the credibility of the research is supported by findings of longer term studies in other countries. For instance, in an examination of the US Medicare system, Rogers and Rubenstein (1990) found comparable implications in relation to quality of care. In a separate study of the impact of a case-based system in the US, Ellis and McGuire (1996) found that the introduction of the new system led to shorter lengths of stay and an increase in the volume of admissions, as was found in Israel. The findings are further supported by the fact that the implications found were broadly similar to the characteristics of a case-based approach given by Cashin (2005) and Docteur & Oxley (2003).

When all of the factors are taken into account, the experience of Israel would further support the implementation of a prospective case-based reimbursement system in Ireland.
CHAPTER 8
ESTIMATE OF FINANCIAL IMPLICATIONS OF MOVING TO A CASE-BASED SYSTEM USING DIAGNOSIS RELATED GROUPS

While the literature review provided a considerable amount of evidence that a case-based approach using DRGs is, in theory, the most suitable method of reimbursing Irish public hospitals for the treatment of private patients, it is important that consideration is given to the practical implications of changing the system. As seen in Chapter 7, it is possible to look at what has happened in other countries in terms of quality, lengths of stay and financial impact, but it is difficult to predict exactly what would happen in relation to such issues if the approach was taken in Irish hospitals. However, one important issue that can be modelled is the financial implications in terms of revenue to the public system from private beds.

In order to ascertain the financial implications for both the health service and the private health insurers, information was used from 2008, the most recent year in which a full set of HIPE data was available. The purpose of the exercise was to model the revenue that would have been raised if a case-based approach using DRGs had been used and compare this with an estimate of what the existing per diem system would have raised had the full chargeable amount been charged. Due to data protection constraints, the workings have not been included in the Appendices.

ESTIMATE OF 2008 REVENUE HAD A CASE-BASED APPROACH USING DRGs BEEN IMPLEMENTED

As this was the first time that such a calculation had been carried out, a new methodology had to be established. Discussions were held with statisticians from the Information Unit of the Department of Health and Children who advised as to the most appropriate approach. The key aim of the exercise was to get an accurate estimate of the revenue which would accrue to the health system if a case-based approach was taken that would be comparable with the estimate of revenue from the per diem system. For comparability purposes, policy issues, such as not being able to charge for particular days of a private patients’ stay spent in Intensive Care Unit (ICU) beds and public beds, had to be considered. Following several iterations and discussions with the Casemix Unit of the HSE, it was agreed that the approach set out below would be taken. The
Information Unit then carried out the necessary calculations, as they have access to the raw HIPE data, appropriate statistical packages and hold the relevant expertise.

The following is a summary of how the calculation was made. The approach taken involved an analysis of tens of thousands of individual cases and was a complex task involving many steps. For the purpose of brevity, many of the stages of the calculation are excluded in the summary below. However, a more detailed, step by step explanation of the calculation, can be found at Appendix 4. The assumptions on which the estimate is made are also provided in that appendix.

The method relies on hospital activity data from the 2008 HIPE file and costing information from the 2008 Annual Financial Statements of the hospitals. Hospitals not currently within the Casemix system were excluded from the calculation and only data relating to inpatients was included.

The calculation involved looking at how many individual inpatient cases occurred under each diagnosis related group and splitting these into private cases and public cases. Only private cases were included in the estimate. The cost per DRG was established by using a specially calculated national level base price which excluded the cost of consultants’ pay. This was excluded because it is paid for separately by the private health insurance companies. Each cost per DRG then had to be adjusted to exclude the cost of stays in Intensive Care Unit (ICU) beds because these costs are not chargeable under Government policy. A weighting algorithm was then used to: (i) allow semi-private beds to be charged at a 20% discount against private beds; (ii) while keeping the total cost for private discharges unchanged and (iii) to allow for the rule of thumb that of private beds in the system, one-third is private and two-thirds are semi-private. Each case was then examined in order to calculate the chargeable cost per case and per bed/day for both private and semi-private discharges. This is the number of days each case is coded as being in a private bed. The exclusion of days where private patients are located in public beds is required because charges cannot be applied in such a scenario under current policy. A total chargeable cost per DRG could then be established. From that, a national total of what is chargeable for private and semi-private cases was found by adding all of the separate DRG costs.
By using the national average base price, the income that would have been generated in 2008 using a case-based approach is estimated to be approximately €297 million.

**ESTIMATE OF 2008 CHARGEABLE AMOUNT USING THE PER DIEM SYSTEM**

An estimate of the revenues that would have accrued in 2008 under the per diem system, had the full average cost been charged, was calculated in order to facilitate a like-for-like comparison. The methodology applied to calculate this involved obtaining the average inpatient cost per bedday for 2008 from the Casemix Circular Cx1-2010 (Health Service Executive, 2010 a). The hospitals were then grouped into the appropriate category and an average for both categories was then found. This figure was then used as the per diem chargeable amount for the private patients, with a 20% discount applied for semi-private patients. The appropriate charge was then multiplied by the appropriate number of beddays obtained from HIPE. For instance, the Category 1 private charge was multiplied by the number of HIPE coded Category 1 chargeable private beddays and the Category 1 semi-private charge was multiplied by the number of HIPE coded Category 1 semi-private chargeable beddays. The same calculation was made for Category 2 beddays and costs.

By using this approach, it is estimated that approximately €292 million would have been raised in 2008 had the full average cost of a private bedday been charged and a 20% discount applied to semi-private beds.

**COMPARISON BETWEEN REVENUES FROM CASE-BASED AND PER DIEM APPROACHES**

The process above estimates that €292 million would have been generated if a full cost per diem reimbursement system had been in place in 2008 and €297 million would have generated if a per case system was operational. This means that the difference between the two systems is an additional €5 million or 1.7% under the per case system. The key reason for the difference between the figures is the use of more accurate average costs with the case-based system. These figures suggest that while a switch to a per case system will not lead to a major increase in revenues for the health system, it should also not be a major drain on the finances of the health insurers.
It should be noted that although the methodology employed above does provide a reasonable estimate of the expected effect on health system revenues, it does not take into account issues such as the expected efficiency gains which may arise with the implementation of a case-based system. It also does not take into account the possible implications at individual hospital level. While the methodology is considered to give the “best estimate” possible of the difference between the two systems, it is still only an estimate. Due to the potentially significant impact of any move to a case-based system on the revenues of the health system as a whole, individual hospitals and the private health insurers, it would seem prudent to conduct further studies of the implications of the switch prior to full roll out. While the methodology outlined has been used for the purpose of calculating the estimates, the methods should not be seen as prescriptive for any future roll out or studies should an alternative method be found and deemed more appropriate.
CHAPTER 9
LESSONS FROM THE LITERATURE REVIEW, CONSULTATION PROCESS AND FINANCIAL IMPLICATIONS ANALYSIS

The purpose of this chapter is to summarise and discuss some of the key findings from previous chapters in order to reiterate and reinforce the evidence base on which the recommendations are made.

THE CASE FOR CHANGE

One of the most striking findings of the consultation process analysis was the near universal dissatisfaction with the current reimbursement system for private and semi-private patients in public hospitals. Stakeholders on all sides, from the private health insurers on the payer side, to hospitals and HSE on the provider side were united with service users and health associations in their view that the approach to both costing and charging for private treatment was inappropriate. The need for change in the reimbursement system was also recognised by the VFM Review National Steering Group. During discussions at the Steering Group meetings, it was accepted by all parties that while the methodology used in previous years to calculate the cost of treatment in a public hospital was broadly reasonable, it could and should be made more robust. The need to change the way the charges are applied was also recognised.

Perhaps the strongest arguments for changing the reimbursement system are the weaknesses that were identified with the approach in both the literature review and the consultation process. The consultation process analysis supported the findings of the literature review in viewing the per diem charge as failing to establish an accurate charge in respect of the value of the resources consumed. The approach applies the same daily charge to, for example, a hip replacement patient and an appendectomy patient in spite of the fact that the former has used resources costing many multiples of the latter. This undifferentiated charging mechanism helps to create a financial incentive to the payer to have complex and therefore expensive treatments carried out in public hospitals at a financial loss to the provider. Meanwhile, the insurers make the complaint that the public system is too expensive for less complex procedures where more than the cost of treatment is charged. In their view, such a system is clearly illogical and should be changed to a method that differentiates charges in line with the cost of treatment. The consultation process also supported the literature review in
identifying the incentive to extend lengths of stay as being a major problem which arises with per diem systems. Reducing lengths of stay is a key aim of the Department and the HSE (Health Service Executive, 2010b), and as the per diem system provides an incentive that runs counter to this, it is a matter that needs to be tackled. Other weaknesses such as the lack of transparency and the unbalanced sharing of risk associated with the method further bolster the argument that a change to the reimbursement system is required.

WHAT IS THE BEST OPTION?

While the weaknesses associated with the per diem reimbursement approach highlight the need to change it, the question then arises as to which approach should be implemented in its place. The literature review identified two main alternatives to per diem charging that would be suitable for charging private patients in public hospitals – patient level charging and case-based charging using DRGs. The literature review discovered that the case-based approach is now the most widely used reimbursement methodology among modern health systems internationally. However, the majority of consultation process respondents identified patient level charging as their preferred option.

While the benefits of PLC such as the ability to establish charges that truly relate to the services provided to individual patients are attractive and make a good case for its implementation, this must be balanced against the disadvantages that are also associated with the approach. The possibility of upward pressure on costs and provision of additional care which may not provide any benefits relative to the costs are significant weaknesses with the approach. The absence of any incentives to shorten lengths of stay also lessens the likelihood of any improvements in efficiency. Further weaknesses are the lack of prospectivity and sharing of the burden of risk which is very high on the side of the payer and very low on the side of the provider. When these problems are added to the significant investment in additional information technology, accounting and administration systems that would be required to roll out the approach across the country’s hospitals, the argument in favour of PLC is significantly diminished.

The implementation of a case-based system would provide incentives for hospitals to drive efficiencies by only reimbursing the average cost for patients in any given DRG. Hospitals would be incentivised to become more efficient because inefficient hospitals
that expend more resources on a patient than the average cost by, for instance, having longer lengths of stay or treating patients as an inpatient when they could have been treated as a daypatient, would make a financial loss on that individual. They would therefore be incentivised to avoid making losses on treating future patients by taking measures to reduce their costs. Such measures could include, among others, avoiding delayed discharges or moving to more day case procedures. This is an example of how a case-based approach would help to change hospital behaviour and bring it more in line with current Department of Health and Children and HSE health policy. Other benefits such as improved transparency and predictability further reinforce the argument for a case-based approach. The implementation of a case-based approach for private patients could also help to provide lessons that could be of benefit to any future roll out to the wider health system. While there can be disadvantages associated with implementation of the approach such as upcoding and patients being discharged too early, measures can be taken to minimise these.

Overall, the advantages of implementing a case-based approach using DRGs greatly outweigh the disadvantages. On balance, the approach is also superior to continuing with the per diem system or changing to a patient level charging system.

FEASIBILITY OF IMPLEMENTING A CASE-BASED REIMBURSEMENT SYSTEM USING DRGs

While in theory there is a strong case for implementing a case-based approach, the feasibility of such a change must be considered. The evidence provided of structures already in place such as the HIPE and Casemix systems as well as the findings of the financial implications analysis as set out in Chapter 7, suggest that the implementation of a case-based approach is both logical and feasible.

The level of expenditure on systems and change management required in implementing a case-based system in Ireland would be significantly reduced because much of the required infrastructure is already in place. Considerable investment has been made in the HIPE and Casemix systems in the last decade and it could be argued that the data these systems produce are currently significantly under-utilised. Much of the data that would be required are already available from these systems. What is suggested in this Report is that the data should be used in a different way and for a different purpose. The fact that both systems are already in use in the hospitals with clinicians,
management and administrators already familiar with them and the processes involved, is a significant plus which should make the transition to a case-based system less arduous.

As seen in the financial modelling, the implementation of a case-based approach will not bring about a significant change in the revenue received by hospitals and conversely, paid by the insurers, than would be the case if the full costs were charged under the per diem system. However, it is expected that more revenue could be generated through the incentivising of efficiencies which would reduce length of stay and increase the number of cases treated, though the extent of this increase would be limited by factors such as the cap on private treatment in the consultants’ contract. The case-based system would also match the charges that are being applied more closely with the costs associated with providing individual patients’ care and reduce the incentive for health insurers to route complex patients through the public system. It would also have the effect of making the public system more competitive with private hospitals for less complicated procedures.

The findings of this Review will be applied to the development of a set of recommendations, for both the medium and short term, in the following chapters.
CHAPTER 10
MEDIUM TERM RECOMMENDATIONS FOR HOSPITAL REIMBURSEMENT

MOVING TO A CASE-BASED APPROACH

The Steering Group believes that the evidence of the benefits associated with a case-based approach using DRGs provided throughout this report and particularly from Kirch (2008), Docteur and Oxley (2003) and Langenbrunner et al (2009) in the literature review, justifies moving to such an approach for reimbursing hospitals. While a detailed implementation plan is beyond the scope of this Review, the recommendations and time-lines as set out below aim to provide an outline of the steps to be taken in moving to a case-based approach.

Steering Group Finding

The current per diem reimbursement system is not the optimal solution for the reimbursement of public hospitals for private patient treatment. Of the alternative reimbursement approaches, a per case system using DRGs is the most advantageous solution.

Recommendation 1: The Department of Health and Children and the Health Service Executive should adopt a policy of charging private and semi-private patients in public hospitals on the basis of a per case system using diagnosis related groups (DRGs).

As seen in the financial modelling chapter of this Review, applying a case-based system does not lead to a significant variation in the revenues generated than that which arises in a full cost per diem system. This modelling looked at 2008 data and extrapolated the revenue implications for both a full cost per diem and case-based systems. While this is a sound approach for establishing an estimate of the effects, it does not provide a reliable enough basis on which to be fully confident of the fiscal effects of such a significant change in the way hospitals charge for their services. For this reason, it is recommended that a pilot programme should be put in place for 2011 which would fully investigate and identify the financial implications for both the health system and private health insurers without actually affecting revenues for any party. The pilot programme would consist of a new system that would run in parallel to the current system, with DRG charge data generated at the patient case level. This would allow comparisons to
be made at regular intervals between the revenues generated from the per diem and case-based approaches at the case, DRG, hospital and system levels. If necessary, changes could be made to the case-based system to overcome any problems highlighted by the pilot. The pilot would also allow time for organisational learning among the various stakeholders as well as helping them to prepare for the full roll out of the approach by taking steps to adapt their internal management processes without facing any financial risk.

**Steering Group Finding**

As the change to a per case approach represents a significant change for the public health system, a pilot per case system using DRGs is required to generate real time data on the implications of the switch.

| Recommendation 2: | The HSE should establish a pilot per case system using DRGs to run parallel to the current system during 2011 with the aim of generating data on the implications of switching to the new system without affecting revenue. |

A Steering Group led by the Department of Health and Children and comprised of appropriate representatives of the key stakeholders should be established to oversee the development of the pilot system. This Group would be responsible for overseeing communication with the hospitals and health insurers to ensure that the reasons for the change and implications of it are explained, with the aim of ensuring that the stakeholders are brought along with the process. This Group would also be responsible for evaluating the results of the pilot project and for making recommendations for changes to the system in a report to the Department of Health and Children prior to further roll out. The Group should also consider the lessons from the process that could be of benefit to future examinations of resource allocation and reimbursement systems for the wider health system.

Following the pilot project, a judgement, informed by the Steering Group report, should be made by the Department of Health and Children regarding further implementation. Langenbrunner et al (2009, pg. 193) suggest that an incremental approach should be taken for roll out at this point so that financial risks are gradually shifted, “allowing (hospitals) time to adapt to the new incentives, and provide the opportunity to establish information systems…”. The transition approaches suggested are: (i) incremental
inclusion of hospitals; (ii) incremental inclusion of costs reimbursed by the system; (iii) incremental inclusion of types of cases; and (iv) incremental adoption of a system-wide base rate moving from facility-specific rates. Although Langenbrunner suggests a transitional implementation, the advanced position in the Irish system in terms of the infrastructure in place and familiarity with the concepts among the stakeholders may mean that such a process is not required. This is something to be decided upon following completion of the pilot.

**Steering Group Finding**

A Steering Group is required to oversee the pilot case-based system, make recommendations regarding its further roll out and consider whether transitional arrangements are required ahead of full implementation.

<table>
<thead>
<tr>
<th>Recommendation 3: The Department of Health and Children should establish a Steering Group consisting of representatives from the key stakeholders by January 2011 to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Draw up a project plan and oversee development of the pilot case-based system using DRGs;</td>
</tr>
<tr>
<td>(ii) Communicate the reasons for changing the reimbursement system and the implications of it to stakeholders;</td>
</tr>
<tr>
<td>(iii) Consider options regarding the incorporation of a capital, depreciation and superannuation charge;</td>
</tr>
<tr>
<td>(iv) Consider the level of price differential between private and semi-private beds;</td>
</tr>
<tr>
<td>(v) Examine the experience of relevant benchmark countries in implementing similar systems;</td>
</tr>
<tr>
<td>(vi) Provide advice regarding the necessity of a transitional arrangement prior to full implementation; and</td>
</tr>
<tr>
<td>(vii) Compile a report in 2012 for the consideration of the Department of Health and Children incorporating an evaluation of the results of the pilot and providing recommendations regarding further implementation in 2013.</td>
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</tbody>
</table>

**Steering Group Finding**

The current billing system operational in public hospitals is paper-based, out-dated and would not be capable of billing for a case-based charging system. For this reason, a new billing system is required prior to the roll out.
Recommendation 4: The HSE should develop a new electronic billing system, appropriate for a case-based charging system using DRGs, to be implemented in public hospitals nationally.

As well as positive incentives, the implementation of a case-based system does have the potential to create adverse incentives such as reducing quality of care and reducing patient length of stay below what is appropriate. These negative outcomes can arise because hospitals are paid according to discharges. This means that the sooner the hospital discharges a patient, the earlier they get paid and the sooner another patient can be brought into the system. While this is a positive in terms of increasing efficiency, it can result in adverse outcomes if the patients are discharged too early. Repeat admission after discharge can be a particular issue, especially if hospitals were to be paid for such re-admissions. Upcoding, also referred to as gaming, is another potentially problematic issue. Upcoding arises when a provider categorises a case as being a higher-paying DRG than the treatment that was actually provided. While this does not affect patient outcomes, it has the potential to add significantly to the cost of the system.

It is essential that appropriate steps are taken to avoid such incentives prior to the introduction of the case-based system. Langenbrunner identifies four key measures that could be taken to address the negative incentives:

- Minimum lengths of stay;
- Measures for the purchaser to monitor and control the volume of admissions such as rationing for elective procedures;
- Medical audit or other review processes. This is already in place in Ireland through the Casemix system and involves examining a number of cases for coding accuracy and medical necessity; and
- Reduction or denial of reimbursement for hospital readmissions. The implementation of such a measure would probably require contracts/Service Level Agreements to be drawn up between the purchaser and provider. Progress is already underway on this matter and the HSE High Level Group on Private Health Insurance is currently developing a draft national service level agreement.
The implementation of such safeguards in the Irish system would include regular monitoring and reporting of average length of stay, level of repeat admission and numbers of cases per DRG for all DRGs. These indicators should be incorporated as part of the HSE’s performance management system.

**Steering Group Finding**

Appropriate action is required to ensure that negative incentives associated with per case reimbursement systems are avoided.

**Recommendation 5:** The Department of Health and Children and the HSE should ensure that appropriate safeguards are put in place to avoid the negative incentives that can be associated with a per case reimbursement system.

**THE NEED FOR A STAGED APPROACH**

As the full implementation of the case-based system would not be possible prior to 2013 at the earliest, a bridging mechanism had to be found for 2010 - 2012 and subsequent years should delays occur. Detailed proposals and recommendations for the period before full roll out of a case-based approach are outlined in Chapter 11.
CHAPTER 11
RECOMMENDATIONS ON THE PROPOSED METHODOLOGY FOR 2010 AND SUBSEQUENT YEARS PRIOR TO IMPLEMENTATION OF A CASE-BASED APPROACH

INTRODUCTION
It became apparent to the VFM Review National Steering Group at a relatively early stage in the development of this Review that, although a fundamental change in the way hospitals are reimbursed for private patients is required, it would not be possible to carry out the necessary design, planning and organisation for implementation in the short term. For this reason, the following interim approach should be used until the switch to a case-based system can be made. This approach was previously outlined in the Steering Group’s Interim Report and has thus far influenced the Budgetary Estimates Process for 2010 and 2011 within the Department of Health and Children and has been forwarded by the Secretary General of that Department to the Oireachtas Public Accounts Committee and the Joint Oireachtas Committee on Health and Children. Calculations made using data available in 2009 outlining the full year implications of the changes for 2010 are included for illustrative purposes.

While the interim costing methodology proposed is considered to be an improvement on the approach taken in previous years in that it is closer to the average cost, it is recognised that it does not take sufficient account of the variation between different categories of patient. However, the model is deemed to provide a more accurate overall reflection of the costs that are borne by hospitals in providing treatment for patients than allowed for under the current methodology. It is important to note that as in previous years, some of the cost calculations are estimates rather than actual amounts, though it is considered that the revised calculations proposed to generate the estimates of cost components are more robust than those used in previous years. It must also be noted that the new method continues to generate an average cost and therefore not a true economic cost of treatment at the level of the individual patient. Because of the weaknesses associated with the approach, the methodology recommended is expected to only apply for a relatively short time before the transition to a case-based system that provides a differentiated assessment of the economic cost of treatment.
The proposed approach continues to use Casemix data as the core basis in establishing the average cost per bedday which will inform a per diem charge. However, it is suggested that the current methodology as outlined in Chapter 5 be adapted to allow the inclusion of some previously excluded cost components as well as changes to the way other components are calculated. Some of these amendments to the methodology represent policy changes and these are clearly outlined. All changes were informed by the arguments put forward in the consultation process as well as discussions at the VFM Review National Steering Group. As the approach was designed for practical application in the Estimates Process, the recommendation and text below is of a more operational nature than the preceding chapter which focused on high level policy recommendations.

**Steering Group Finding**

The implementation of a per case reimbursement system cannot be implemented immediately. For the interim period, a new method of establishing the average daily cost per bedday is required to inform the per diem charges to apply.

**Recommendation 6:** The Department of Health and Children should immediately change the method of calculating the average cost of a bedday to the eight step approach described below.

**EXPLANATION OF THE REVISED METHODOLOGY FOR CALCULATING THE AVERAGE COST PER BEDDAY**

The following text outlines the revised costing methodology by breaking the process into steps. The effects of the changes on the costing for 2010 are also provided. The revised calculation has been used to establish the average cost for 2010 in Appendix 5 and the financial implications of each change are given below. The workings for each element of the table are also attached in Appendix 5.

**Step 1  Average Cost per Bedday in Casemix Hospitals**

The cost and activity data produced by the Casemix Unit in the HSE remains the starting point in the revised methodology to establish the overall average cost (as set out in Chapter 5). The method of calculating the starting average cost per bedday in the base year (2008 in this case) remains the same as previous years. This process provides
the cost per bedday for each of the hospitals in the Casemix Budget Model (37 hospitals participated in Casemix in 2008 with 2 additional hospitals participating in 2009).

The first significant change from the process used in previous years is the use of a weighted average cost as opposed to an arithmetic average cost. When calculating the average cost, the costs from each of the hospitals are weighted in accordance with the number of beddays in the individual hospitals. The impact of using a weighted average instead of an arithmetic average is a reduction of €24 per bedday in a Category 1 hospital and a reduction of €31 in a Category 2 hospital.

A further change is the inclusion of all hospitals currently covered by the Casemix system. This led to the inclusion of the paediatric and maternity hospitals in the calculation of the average cost for the first time. The impact on the average cost of including all Casemix hospitals is an additional €28 per bedday in Category 1 hospitals and a reduction of €4 in Category 2 hospitals.

Step 2  Exclusion of Consultants’ Pay

The consultants’ pay cost per bedday continues to be subtracted from the actual cost per bedday figure. The rationale for this deduction is that the consultants are paid separately by the private health insurance companies for private and semi-private treatment. This reduces the weighted average cost by €44 in Category 1 hospitals and €42 in Category 2 hospitals. It represents no change to the process used in previous years.

Step 3  Addition of Casemix Exclusion Items

While it is logical to exclude Exceptional Costs and Unique Issues and Superannuation for the purposes of Casemix in order to compare hospitals’ efficiency on a like-for-like basis, it is considered that they are costs which must be met by the hospitals in delivering inpatient care and therefore should be included in the calculation of the economic cost. The addition of Exceptional Costs is a policy shift from previous years. Exceptional Costs and Unique Issues are expenses associated with the treatment of individual patients which are significantly over and above the norm. One example of such a cost would be a haemophiliac patient who requires an exceptionally high quantity of expensive blood products. The following approach is proposed.
For Exceptional Costs and Unique Issues, the inpatient portion of the cost is divided by
the overall number of inpatient beddays. This gives an average cost per bedday which
is then added back to the calculation. The impact of including Exceptional Costs and
Unique Issues is €4 per bedday in both Category 1 and Category 2 hospitals.

The other items excluded under Casemix remain excluded. Retail outlet costs; costs not
related to a hospital’s patients; and outpatient costs are excluded because they do not
directly relate to inpatient treatment. Bad debts are excluded as it was deemed
inappropriate to include this cost which is recognised as being particularly high due to
difficulties associated with the charge recovery processes. Non-capital expenditure on
capital items and fixed assets and superannuation are not added back into the Casemix
calculation as they are dealt with separately in the overall calculation at Step 5 –
Superannuation and Step 6 - Capital Depreciation Charge.

Step 4 Infl ate to 2010 Level
The sub-total figure at this point is the cost per bedday, excluding medical pay, plus
certain Casemix exemptions for 2008. This figure must now be inflated to 2010 levels.
It is considered that the previous method of inflating (this involved adding 20% to the
cost to bring, for instance, the 2007 cost to 2009 levels) was less than optimal. For the
new approach, it was proposed that the calculation of the inflator be split into two
portions – pay costs and non-pay costs. Pay costs are weighted at 70% of overall costs
and non-pay costs are weighted at 30% as this is the breakdown which applied in the
health sector in 2009.

For 2009, pay inflation is estimated to have been 1%. This figure was derived from
data provided by the HSE which estimated the total hospitals pay, excluding
superannuation, less the consultants’ contract payment. The sub-index of the Consumer
Price Index Health Inflation measure which most closely relates to hospital costs was
used to represent the non-pay element of inflation for 2009. The sub-index included is
Medical Products, Appliances and Equipment which incorporates pharmaceutical
products; prescribed drugs; other medical products; and therapeutic appliances and
equipment. The benefit of using the sub-index over the standard health inflation figure
is that it excludes non-relevant cost factors such as out-patient services, doctors fees,
alternative and complementary medicine and dental services among others. More
importantly, the approach does not factor in the inflation of hospital charges and
therefore overcomes the problem of self-perpetuation of increasing charges. For the 12 months to October 2009, Medical Products, Appliances and Equipment inflation stood at -2.1%. This figure was used as the non-pay element of inflator for 2009. The application of these approaches for pay and non-pay suggested a +0.07% inflator for 2009.

For 2010, pay inflation was estimated to be 0%. In the absence of a more hospital specific estimate of inflation for 2010, the Department of Finance estimate for the overall Consumer Price Index (-0.75%) was used for the non-pay inflation element. This gives an overall inflator for 2010 of -0.23%.

The application of the inflator leads to a €1 reduction in the average cost per bedday in both Category 1 and Category 2 hospitals.

**Step 5 Superannuation**

The process to this point has utilised the Casemix data to arrive at an estimate of the cost. However, it is now proposed to include a number of other items which should be included in the cost calculation which are not incorporated in the Casemix Budget Model. The first such item is Superannuation. The inclusion of superannuation is a significant policy shift from that of previous years.

Superannuation is a considerable expense associated with the provision of treatment in public hospitals. For this reason, it is appropriate to include some measure to at least partially represent pension costs. The approach taken involves, firstly, obtaining the proportion of overall pay costs which relate to inpatient treatment, less consultants’ pay from Casemix data. Following consultations with the Pensions Unit of the Department of Finance and the Pensions Policy Unit of the Department of Health and Children, it is proposed that 13.1% be used as the measure to account for pension costs. This figure is derived from the Comptroller and Auditor General’s Special Report on Public Sector Pensions (Comptroller and Auditor General, 2009 a) which indicated that the cost on average of a health workers’ pension is 16.1% of pensionable pay. This is then adjusted by adding 2% for death in service benefit and reducing by 5% for the employees’ contribution. The application of this charge results in an increase in the cost per bedday of €75 in Category 1 hospitals and €72 in Category 2 hospitals.
Step 6 Addition of Capital Depreciation Charge

It is proposed that a capital depreciation charge should be incorporated into the model to replace the former approach of adding a flat 5% to the average cost. The Steering Group considered using a smoothed average capital cost to this end. However, the Group decided against this approach given the significant change in new build prices following the financial crisis and the low likelihood of prices returning to these levels in the period during which the revised costing model will apply. The Group’s preferred approach was to use a cost per bedday charge based on new build capital cost estimates included in the 2007 HSE Acute Hospital Bed Capacity Review prepared by PA Consulting Group (PA Consulting, 2007) as calculated by the Capital Programme Unit of the Department of Health and Children. The PA report indicates that the estimated costs were defined by HSE Estates and Finance Directorates. Separate costs are given for major teaching hospitals and major regional hospitals. The costs are said to apply equally to overnight beds, day beds and critical care beds.

As no two acute hospital developments are ever the same, certain assumptions would have been made in arriving at the estimates. The Department’s Hospital Planning Office (HPO) previously developed cost per bed estimates which were said to assume that the developments were on “green-field” sites with normal ground conditions, ample space for normal development and surface level car parking, reasonable access to nearby services and unhindered site access. The HPO concluded that acute hospitals also vary significantly in cost per bed depending on the mix of specialities and teaching requirements and pointed out that inner city locations can also add dramatically to the construction costs. Similar assumptions were presumably taken into account by the HSE in determining the level of average costs included in the Bed Capacity Review Report.

The Steering Group considered including land costs to the capital calculation based on the purchase price of the land, market value, or opportunity cost. However, the Group decided against including the purchase price because it is very rare for land to have to be acquired for hospital developments. It was also deemed inappropriate to apply an opportunity or market cost because the health system is uninterested in the potential yield from the land if put to other commercial uses.
Worksheet 4 of Appendix 5 sets out the method applied to update the report’s estimated 2007 average costs to the 2009 equivalent and from these revised costs to derive the average infrastructural cost per private bed per day. The following assumptions have been made:

- An average split of the overall costs associated with each acute capital project of 70% for building and 30% for equipping. While this will vary from project to project, it is considered by HSE Estates to represent a reasonable rule of thumb average;
- An average reduction in building costs of 20% since 2007. This has been verified by HSE Estates, based on recent tenders;
- Fees account on average for 10% of building costs. VAT on fees has increased from 21% to 21.5% since 2007;
- Beds available for use 360 days per year. Costs for 5 day wards will therefore be proportionately higher than those estimated; and
- 90% occupancy rate.

It is proposed that an appropriate period of depreciation of assets should be applied. Following investigations, it was decided that a depreciation period of 40 years should be applied for a hospital building. This was confirmed by the Department’s Professional Accountant as representing a reasonable average period to apply in the case of hospital buildings. In relation to equipment, a depreciation period of 7 years should apply. While the relevant period for equipment will vary considerably, depending on the type, technology dependence, usage etc., the Department’s Professional Accountant again confirmed that 7 years is a reasonable average.

This approach provides a depreciation cost per bedday for Major Teaching and Major Regional Hospitals which is added to the Category 1 hospitals. The charge for the Teaching Hospitals was applied to the hospitals identified as such in a list provided by the Acute Hospitals Division in the Department. The Regional Hospitals depreciation charge was applied to the other hospitals.

The impact of adding a capital depreciation charge is the most significant of the changes proposed in this Report, representing an increase in the cost per bedday of €140 in a

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The calculations were made prior to the Budget 2010 decision to revert to a VAT rate of 21%. This would be reflected in the calculations for future years.
Category 1 hospital and €86 in a Category 2 hospital. The marginal increase in cost using the new approach as opposed to the old approach (addition of 5%) is an extra €96 in Category 1 hospitals and €49 in Category 2 hospitals.

Step 7 Addition of Cost of Clinical Indemnity Scheme

The Clinical Indemnity Scheme (CIS) is a further cost which must be met by the HSE but was previously not included in the cost calculation. The inclusion of the CIS is a policy change. The CIS was established in 2002, in order to rationalise pre-existing medical indemnity arrangements by transferring to the State, via the HSE, hospitals and other health agencies, responsibility for managing clinical negligence claims and associated risks. Under the scheme, which is managed by the State Claims Agency (the name used by the National Treasury Management Agency (NTMA) when carrying out its claims and risk management functions), the State assumes full responsibility for the indemnification and management of all clinical negligence claims (National Treasury Management Agency, Unknown).

The HSE paid €60 million in 2009 in relation to the CIS. The NTMA was contacted to ascertain the proportion of this amount which related to public acute hospitals for the last two years. The average percentage relating to public acute hospitals over the two years (approximately 93%) was used as the figure for 2009. The proportion of this amount relating to inpatients was then estimated. That figure was then divided by the number of inpatient beddays for 2009 as set out in the HSE National Service Plan 2009 (Health Service Executive, 2009 f) in order to arrive at the cost per inpatient bedday. The HSE National Service Plan 2009 target for beddays was used on the advice of Acute Hospitals Division of the Department of Health and Children. The impact of including the cost of the Clinical Indemnity Scheme is €12 per bedday in both Category 1 and Category 2 hospitals.

Step 8 Total Average Cost Per Bedday

The total average cost per bedday, is found at this point by adding the Superannuation, Depreciation and Clinical Indemnity Scheme costs to the Casemix sub-total. The model estimates the weighted average cost of a bedday as being €1,122 in a Category 1 hospital and €911 in a Category 2 hospital.
MAIN POLICY CHANGES ASSOCIATED WITH THE NEW COSTING METHODOLOGY

In summary, the shift to the new costing methodology requires a number of policy changes as outlined below:

- The total average cost should be weighted in accordance with the number of beddays in each hospital. This is carried out in order to avoid a small hospital with high costs skewing the overall average cost;

- All hospitals under the Casemix system should be included. This brings the paediatric and maternity hospitals as well as some other smaller hospitals into the calculation for the first time;

- Exceptional Items and Unique Issues should be included in the calculation. Exceptional Items and Unique Issues are costs such as highly expensive treatments which are provided to a small number of patients and are excluded from Casemix in order to ensure a like for like comparison between hospitals. However, these are real costs which must be met by the hospital and therefore should be factored into the cost calculation;

- The latest Casemix data available relates to activity in 2008 and therefore the costs must be inflated to arrive at 2010 levels. The methodology for calculating the inflator should be changed from that used in previous years in order to take into account an estimate of pay and non-pay inflation;

- Superannuation should be included in the calculation. Following discussions with the Department of Finance and the Pensions Policy Unit of the Department of Health and Children, a charge of 13.1% of pensionable pay has been applied. This is a major policy shift;

- A capital depreciation charge should be included in the new calculation, to replace the old capital charge. The new method, developed by the Capital Programme Unit of the Department, calculates a cost per bedday charge based on new build capital cost estimates included in the 2007 HSE Acute Hospital Bed Capacity Review, prepared by PA Consulting Group. The 2007 cost is adjusted to reflect the new environment in the construction sector and changed level of VAT; and

- The costs associated with the Clinical Indemnity Scheme should be incorporated into the calculation of the cost for the first time.

Table 4 below outlines the recommended changes and the impact on the cost in Category 1 and 2 hospitals for 2010.
Table 4: Recommended Policy Changes Associated with the New Costing Methodology and Impact on Cost

<table>
<thead>
<tr>
<th>Recommended Change</th>
<th>Impact on Cost per Bedday in Category 1 Hospitals</th>
<th>Impact on Cost per Bedday in Category 2 Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighting in Accordance with Number of Beddays</td>
<td>- €24 per bedday</td>
<td>- €31 per bedday</td>
</tr>
<tr>
<td>Inclusion of all hospitals in the Casemix system</td>
<td>+ €28 per bedday</td>
<td>- €4 per bedday</td>
</tr>
<tr>
<td>Inclusion of Exceptional Items and Unique Issues</td>
<td>+ €4 per bedday</td>
<td>+ €4 per bedday</td>
</tr>
<tr>
<td>Application of Revised Inflator</td>
<td>- €1 per bedday</td>
<td>- €1 per bedday</td>
</tr>
<tr>
<td>Inclusion of Superannuation</td>
<td>+ €75 per bedday</td>
<td>+ €72 per bedday</td>
</tr>
<tr>
<td>Application of Revised Capital Depreciation Charge</td>
<td>+ €140 per bedday</td>
<td>+ €86 per bedday</td>
</tr>
<tr>
<td>Inclusion of the Cost of the Clinical Indemnity Scheme</td>
<td>+ €12 per bedday</td>
<td>+ €12 per bedday</td>
</tr>
</tbody>
</table>

**OPTIONS FOR SETTING CHARGES**

While specifying the appropriate level of charges is beyond the scope of this Review, there are a number of possible options which could be taken in reviewing the appropriate level of charge to apply. Some of these options are outlined in the attached tables at Appendix 6 and are described below.

**Option 1 – Charge the Average (Economic) Cost.**

This option involves charging the average costs as calculated in the costing model and would have the greatest revenue generation effect. While the charge for the private beds would be the average cost as calculated, the semi-private beds would be charged at a lower rate deemed suitable. In the example attached at Appendix 6 (worksheet 3), an illustrative 20% discount on the private bed cost is applied to semi-private beds. An evidence base on which to make a decision on the differential between private and semi-private charges was sought. However, it proved difficult to get reliable information on what happens in other jurisdictions or in the private sector. In previous years, the difference between private and semi-private charges ranged from 20-24%. After consideration, the VFM National Steering Group is of the view that the method of
applying the differential might be revisited in future, while maintaining a difference between the two charges.

While this approach does generate a significant increase in the level of revenue to the system, it also brings about very large percentage increases in the rate of charges. For instance, charging the current estimate of the average cost would bring about increases ranging from a 15% increase in the charge for a Category 1 private bed to a 38% increase in the charge for a Category 2 private bed. It is estimated that this approach would generate an additional €50.8m approximately if implemented in 2010.

Option 2 – Increase by a Set Percentage to a Maximum of the Average Cost
The approach used in setting charges in previous years was to choose a percentage increase which would apply to both Category 1 and 2, private and semi-private. For example, the charges in 2009 were increased by 20%. The maximum increase which might be considered in 2010 using this approach is 15% as any higher than this would lead to the charge for a Category 1 private bed day exceeding the average cost. It should be noted that the Report of the Special Group on Public Service Numbers and Expenditure (Department of Finance, 2009) recommended a 20% increase in the level of charges. The implications of various levels of increase for 2010 are set out at Appendix 6 (worksheet 4). For example, a 10% increase in charges would generate an additional €25.5m in 2010.

Option 3 – Reduce the Level of Subsidy
The difference between the average cost and the per diem maintenance charge plus the statutory inpatient charge is effectively a subsidy to the private patient. Another option which could be considered is to reduce the level of subsidy to a particular percentage. For instance, in the tables attached the subsidy has been reduced to 10% for a private bed. A further 20% discount is applied for a semi-private bed. The effect of this approach on revenue generation would be an additional €20m in 2010 (see Appendix 6 – worksheet 5).

Option 4 – Maintain Current Rates of Charge
A further option is to maintain the current level of charge. While not accruing additional revenue through the imposition of higher charges, the system may still accumulate more funds through improved fee collection processes which are currently
being formulated by the HSE. This approach would not involve further movement
towards Government policy on economic charging and would, therefore, rely on other
policy considerations for its justification.

**Steering Group Finding**

Increases in the charges for day-patients should continue to be linked to the increases in
inpatient charges for the period prior to implementation of the case-based
reimbursement system.

| Recommendation 7: Prior to the implementation of a case-based approach, day-case charges should continue to be increased by the same percentage as inpatient charges. |

**FORECAST OF REVENUES THAT WILL ACCRUE**

Accurate forecasts of revenues which will accrue from maintenance charges are
essential to allow the Department carry out budget planning and provide a sound basis
on which to make decisions. Due to the possibility that different levels of increases will
be applied to the different categories and levels of accommodation (i.e. private versus
semi-private), it was not possible to simply add a particular percentage to the revenues
which were generated in the previous year and an alternative method had to be found.

The methods outlined at Appendix 6 were used to establish the forecasts of revenues for
each of the options for charges (as provided in the paragraphs above). This involved
firstly estimating the percentage of private patient beddays that are chargeable. In order
to be classified as a chargeable bedday, a private patient must be accommodated in a
private bed. 2008 data was used as the basis for this estimate. The figure for the total
number of private and semi-private beds and the number of chargeable private and
semi-private beddays in 2008 was obtained from HIPE data provided by the Casemix
Unit. This data suggests that 52% of private patient beddays are chargeable. In his
Annual Report of 2008 (2009 b), the Comptroller and Auditor General stated that in the
hospitals he reviewed, 50% of privately treated inpatients were not charged for their
maintenance.

The breakdown of these beddays between private and semi-private, Category 1 and
Category 2 was then found by using the HIPE 2008 data and the application of a rule of
thumb that of private beds in the system, one-third are private and two-thirds semi-
private. This process led to estimates that 26% of chargeable beddays were Category 1 private beddays, 52% were Category 1 semi-private beddays, 8% were Category 2 private beddays and 15% were Category 2 semi-private beddays.

The next stage involved estimating the number of chargeable beddays for 2009. The figure for the overall number of beddays (both public and private) for 2009 is set out in the HSE National Service Plan 2009 (Health Service Executive, 2009 f). The guideline that 20% of all beds are private beds was then applied. Of this number, 52% were estimated to be chargeable as this was the figure previously found for 2008. This figure was then further broken down into private and semi-private, Category 1 and Category 2, in line with the proportions found in 2008. The number of beddays for each category can then be multiplied by the proposed charge to provide a forecast of the revenues which would arise from particular levels of charge.

In the absence of better information available at the time of calculation, Acute Hospitals Division in the Department recommended using the 2009 bedday data as a proxy for the 2010 bedday numbers for calculating the 2010 revenue projections. The estimates of the income which would accrue as a result of the various options for increasing charges are set out in the worksheets at Appendix 6.

**ESTIMATE OF THE EFFECT OF THE PROPOSED CHARGE ON PRIVATE HEALTH INSURANCE PREMIA**

The Department has used an estimate of a 2% - 2.5% increase in premia per 10% increase in charge in projections undertaken in recent years. However, the private health insurance companies have suggested in correspondence to the Department that an increase of 10% would result in an increase in premia of up to 3.3%.

The Private Health Insurance Unit of the Department has advised that a 10% increase in private bed charges would, based on its estimates, lead to a 2.1% increase in private health insurance premia.

Table 5 below identifies the projected knock-on effect on premia and on the Consumer Price Index (CPI) of various levels of increase in maintenance charge using a 2.1% premia increase per 10% charge increase estimate. The CPI estimates were calculated following discussions with the Central Statistics Office.
Table 5: Effect of Increases in Maintenance Charges on Premia and Consumer Price Index

<table>
<thead>
<tr>
<th>Increase in Maintenance Charges</th>
<th>Projected Knock-on Effect on Premia</th>
<th>Projected Knock-on Effect on CPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>2.1%</td>
<td>0.0480</td>
</tr>
<tr>
<td>20%</td>
<td>4.2%</td>
<td>0.0959</td>
</tr>
<tr>
<td>30%</td>
<td>6.3%</td>
<td>0.1439</td>
</tr>
<tr>
<td>40%</td>
<td>8.4%</td>
<td>0.1919</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office

**ISSUES FOR CONSIDERATION WHEN SETTING CHARGES**

Consideration should be given to the following matters when decisions are being taken on the level of charges to apply until the transition to a case-based system:

**Increases in Charges in Recent Years**

As previously mentioned in this Review, there have been substantial increases in maintenance charges in recent years. The overall percentage increase in the period between 2004 and 2009 was 127%.

**Effect of Increasing Charges on Private Health Insurance Membership and the Consumer Price Index**

In an environment where after tax income is reduced for a significant proportion of the population, unemployment is rising and the number of people taking out health insurance has begun to fall somewhat, the impact of further increases on the number of people participating in the health insurance market must be considered. Any increase in maintenance charges and the subsequent knock-on impact on premia may lead to further reductions in the numbers of people availing of private health insurance.

Increases in insurance premia will also have the effect of increasing the CPI as outlined in Table 5 above.
Possible Impact on the Mix of Cases in Public Hospitals

Evidence suggests that the current charging regime results in some care episodes being at either a significant positive or negative variance when compared with the charges in private hospitals. One of the key reasons for this is that public hospitals charge on the basis of duration of stay rather than complexity. While public hospitals have continued to use the per diem charges, the largest private health insurer has stated in discussions with the Department of Health and Children that the majority of reimbursements it makes to private hospitals are on the basis of a fixed price per procedure.

Increases in the charges may lead to a situation where the health insurers put in place incentives which encourage patients requiring less complex treatment to choose private hospitals for simpler procedures which are priced below the daily charge in a public hospital. This would result in a skewing of the mix of patients treated in public hospitals towards a higher average complexity which would then have the knock-on effect of pushing up the average cost of private patients in these hospitals.

OTHER NEAR TERM ISSUES

A number of other policy issues were raised in the consultation process which, while important, have not been dealt with in the recommendations in this chapter or Chapter 10. The main outstanding issues are addressed below and where appropriate, recommendations are made regarding further examination.

Charging the Full Economic Cost

The argument that only the marginal cost of private care over and above the cost of a public bed should be charged was raised frequently in the consultation process. However, it is not intended to examine this subject in depth in this Report as it has been Government policy to charge the full economic cost of private treatment for over a decade at this point and currently there is no intention to change this policy.

Hospital Categorisation

Respondents to the consultation process from across the groupings were united in their dissatisfaction with the current method of categorising hospitals and the arguments put forward made a strong case for a review of the way hospitals are categorised for the purpose of private patient charging. A review of the system is of even greater importance given the on-going reconfiguration of hospitals throughout the country.
**Steering Group Finding**

A review of the hospital categorisation system which applies to public hospitals should be carried out as this issue has not been examined in some time.

**Recommendation 8:** The Department of Health and Children should carry out a review of the system of hospital categorisation in 2011 to consider, among other matters:

(i) Whether the Department of Health and Children should retain ownership of the categorisation process;

(ii) The establishment of categories which more accurately reflect the different strata of acute hospitals;

(iii) The determination of transparent criteria relating to membership of each category; and

(iv) The implementation of a system of regular reviews to ensure that hospitals remain in the appropriate category.

**Bed Designation**

The bed designation system is another area where the consultation process uncovered a high level of dissatisfaction. It was also highlighted as an issue in the Comptroller and Auditor General’s Annual Report for 2008 (Comptroller and Auditor General, 2009 b). While there does appear to be a mismatch between approximately 50% of the population holding private health insurance and only 20% of the beds in public hospitals being private, it must be stressed that the key role of public hospitals is to provide services to public patients and also that there is a significant supply of private beds in private hospitals.

The HSE has asked the Department of Health and Children to consider introducing a degree of flexibility to the private bed designation of individual hospitals throughout the public hospital system, notwithstanding that it is Government policy not to increase the overall number or percentage of private beds. The HSE has also suggested that given the changed nature of day bed accommodation since the designation of beds occurred in 1991, a new system of charges for side room procedures should be introduced for public hospitals. Side room procedures are day procedures where a bed may not be occupied due to improvements in medical technology and expertise. The HSE has indicated that the introduction of such charges could result in significant income flows.
**Steering Group Finding**

As the current bed designation system has been in place for a considerable period, it would seem appropriate to review how it has operated and consider whether there is potential for improvement. However, it is essential that any changes arising from a review would be underpinned by sufficient protection for public patients to ensure that they are in no way disadvantaged by adjustments to the system. Adapting the bed designation system and introducing charges for side room procedures would require legislative amendments.

**Recommendation 9:** The Department of Health and Children should carry out a review of the bed designation system in 2011.
PART 3 – INCOME COLLECTION

CHAPTER 12 – BACKGROUND TO COLLECTION OF PRIVATE PATIENT INCOME

INTRODUCTION
Part 2 of this Report examined the current system of hospital reimbursement and set out proposals for improving reimbursement systems for the future. However, regardless of any changes in calculating charges for private patients in public hospitals, the income arising from these charges must be collected in an efficient way to ensure that private fees make the appropriate contribution to the financing of the hospitals. While the HSE and voluntary hospitals recoup a significant amount of revenue from private health insurance companies in return for private and semi-private treatment services provided to patients with private health insurance cover, lengthy delays often occur between the discharge of patients and the receipt of payment from the health insurance companies. This has led to an unacceptably high level of debtor days/months with a considerable amount in fees outstanding.

Part 3 of the report seeks to: (i) outline the current processes used by hospitals for the collection of fees; (ii) detail the issues within the system in collecting the fees in a timely manner; (iii) summarise the findings of the consultation process on this matter; (iv) describe the processes used in a hospital which could be described as an example of best practice within the Irish health service; and (v) examine the HSE’s plans to tackle the issues and make appropriate recommendations. In doing so it addresses the following terms of reference for the Review:

- Examine the processes in place to collect fees in respect of private and semi-private patients in public hospitals (Terms of Reference (c)); and
- Make recommendations on the costing of, and charging for, private and semi-private patients in public hospitals and on the collection of fees for same, having regard to consultations on the matter (Terms of Reference (d));

BACKGROUND
As described in Part 2 of this Report, patients who opt to be treated privately by their consultant and occupy private or semi-private accommodation in Irish public hospitals are liable for the per diem accommodation charge and the charge equivalent to the statutory inpatient charge. In addition to these, such patients are also liable for other
charges such as MRI charges and their medical consultant’s fees, the latter of which is paid directly to the consultant clinician. Most, though not all, patients who occupy private or semi-private accommodation are holders of private health insurance and therefore it is insurance companies in most cases that reimburse the health system for the treatment provided. Procedures in relation to the processing and treatment of public and private patients are set out in a guidance document issued by the HSE in September 2009 (Health Service Executive, 2009 g).

The HSE operates its accounting systems on an income and expenditure basis for its monthly and annual financial statements. This means that for hospital charges, as soon as an invoice is raised, the income associated with this invoice is credited to the benefit of the individual hospital’s budget. When the cash is collected, the money is lodged to the bank and reflected as appropriations-in-aid receipts in the corporate returns for vote accounting purposes. This means that the local hospital budget is only affected by non collection of hospital charges if it is necessary to write off these invoices at some future point in time and the cash is not collected. While performance regarding income collection has formed part of the management objectives within hospitals, the absence of direct financial consequences has been identified as a weakness. This is currently being addressed by the HSE with the imposition of income budget penalties at local hospital level for non collection of hospital debts.

**Government Policy**

It is important that this Report is read in the context of Government policy in relation to public hospitals. As stated by the Secretary General of the Department of Health and Children at the Dáil Public Accounts Committee meeting of October, 2009, “all persons ordinarily resident in Ireland have full eligibility for hospital services and (that) although Irish public hospitals treat private patients, the core purpose of the public system is to provide services for public patients. Government policy has been to ensure there is equitable access for public patients and, accordingly, that the proportion of private activity is appropriately controlled”. The Secretary General went on to say that “Care is needed to ensure that a perceived need to generate income does not operate to the detriment of service provision to public patients. The primary objective must be to avoid an excessive ratio of private practice within public hospitals and, subject to that being achieved, to recover whatever income is due in respect of that level of private practice”. (Department of Health and Children, 2009 b)
All recommendations made in this report take account of these fundamental principles.

**Current Process for Submitting Claims to Private Health Insurers**
Every public hospital in the health service which provides private accommodation and treatment has an administrative process in place to facilitate the claiming of private accommodation charges and private clinical fees from the private health insurance providers. The claims process currently used in most hospitals to recoup fees from private health insurers is almost entirely paper-based and as a result is resource-intensive.

Staff from several units in the hospitals have responsibility for aspects of the claims process. For instance, admissions staff are responsible for the collection of patient information and completion of private insurance forms including obtaining the patient’s signature. Ward staff are responsible for the collection of data on treatments administered during the stay and consultants are responsible for approving the claim.

Key staff with overall responsibility for the collation and submission of claims are located in the Finance Departments of the hospitals. Once a patient is discharged, staff responsible for the processing of claims identify and collate the documentation required and attempt to arrange for sign-off by the primary consultant clinician prior to submission to the private insurer. Private health insurers require sign-off by the primary consultant to be included as part of the submission by a hospital of a claim for payment of the maintenance charge due. On average, each claim consists of 8 documents. The information contained in the claims include detail on the treatment provided, the length of stay in the hospital (specifying how long in a designated private bed), diagnostic work as well as the primary consultant clinician’s fees and the fee of any other consultants who treated the patient. The key outputs from the process are completed claim forms, signed by the primary consultant and the patient, together with the relevant invoices.

Fig. 1 below illustrates the typical claims process currently used by hospitals from the point at which a patient is discharged from hospital until the claim is paid.
In addition to the collection of its own charges, the hospital also bears the administrative cost of processing claims for fees that accrue to the consultant clinician. In some cases, the claims are processed even when no maintenance charge is payable to the hospital, because the patient was not accommodated in a designated private bed.

While payments from private health insurers represent an important revenue stream for the HSE and form part of hospitals’ agreed gross budgets, the administration of the
process outlined above represents a significant overhead. The HSE estimates that the pay costs related to the processing of such claims is approximately €180,000 per annum in a typical hospital. This estimate is based on 4.5 whole time equivalents working in the finance area but does not include other resources involved in the process such as medical secretaries and ward clerks.

Why look at Income Collection?
The claims process as outlined above has resulted in significant delays in the claiming of fees from private health insurers. Tables 6 and 7 below show the extent of the problem faced by hospitals and the HSE in terms of the amounts outstanding and the debtor months. A breakdown for some of the larger HSE and voluntary hospitals is also provided.

Table 6 - Debt Outstanding for Larger HSE Hospitals at 31 December 2009

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Due at Year End 2009</th>
<th>Income of the Year 2009</th>
<th>Debtors 2009 Months</th>
<th>Due at Year End 2008</th>
<th>Income of the Year 2008</th>
<th>Debtors 2008 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterford Regional</td>
<td>8.5</td>
<td>14.1</td>
<td>7.2</td>
<td>12.3</td>
<td>13.2</td>
<td>11.1</td>
</tr>
<tr>
<td>Sligo General</td>
<td>3.9</td>
<td>8.9</td>
<td>5.2</td>
<td>5.7</td>
<td>7.6</td>
<td>9.0</td>
</tr>
<tr>
<td>Cork University</td>
<td>13.0</td>
<td>36.5</td>
<td>4.2</td>
<td>9.4</td>
<td>26.3</td>
<td>4.3</td>
</tr>
<tr>
<td>UCH Galway</td>
<td>13.1</td>
<td>23.7</td>
<td>6.6</td>
<td>11.9</td>
<td>21.8</td>
<td>6.5</td>
</tr>
<tr>
<td>Limerick Regional</td>
<td>11.4</td>
<td>22.8</td>
<td>6.0</td>
<td>8.9</td>
<td>18.2</td>
<td>5.8</td>
</tr>
<tr>
<td>Our Lady of Lourdes Drogheda</td>
<td>6.7</td>
<td>13.1</td>
<td>6.1</td>
<td>8.4</td>
<td>13.9</td>
<td>7.2</td>
</tr>
</tbody>
</table>

All HSE Hospitals                  | 92.5                 | 195.2                   | 5.7                 | 89.8                 | 170.8                   | 6.3                 |

Source: Health Service Executive

Table 7 - Debt Outstanding for Larger Voluntary Hospitals at 31 December 2009

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Due at Year End 2009</th>
<th>Income of the Year 2009</th>
<th>Debtors 2009 Months</th>
<th>Due at Year End 2008</th>
<th>Income of the Year 2008</th>
<th>Debtors 2008 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mater Misericordiae</td>
<td>12.0</td>
<td>10.6</td>
<td>13.6</td>
<td>8.7</td>
<td>8.8</td>
<td>11.8</td>
</tr>
<tr>
<td>AMNCH - Tallaght</td>
<td>13.8</td>
<td>28.3</td>
<td>5.8</td>
<td>15.5</td>
<td>23.8</td>
<td>7.8</td>
</tr>
<tr>
<td>Beaumont</td>
<td>11.4</td>
<td>19.6</td>
<td>6.9</td>
<td>10.1</td>
<td>15.8</td>
<td>7.7</td>
</tr>
<tr>
<td>St James' s</td>
<td>7.2</td>
<td>26.5</td>
<td>3.2</td>
<td>13.6</td>
<td>22.2</td>
<td>7.3</td>
</tr>
<tr>
<td>South Infirmary</td>
<td>3.8</td>
<td>12.9</td>
<td>3.5</td>
<td>3.5</td>
<td>10.3</td>
<td>4.1</td>
</tr>
<tr>
<td>Holles Street</td>
<td>4.5</td>
<td>12.5</td>
<td>4.3</td>
<td>3.2</td>
<td>10.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Mercy Hospital</td>
<td>6.5</td>
<td>16.0</td>
<td>4.9</td>
<td>4.1</td>
<td>13.2</td>
<td>3.7</td>
</tr>
</tbody>
</table>

All Voluntary Hospitals                  | 82.6                 | 190.6                   | 5.2                 | 70.4                 | 153.5                   | 5.5                 |

Source: Health Service Executive

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4 The HSE completed a review of the categorisation of Income during 2009 which resulted in adjustments to the debt outstanding by private insurers at the end of 2008.
5 In 2009 Cork University encompasses the Maternity services previously provided by the Erinville and St. Finbarr’s Hospitals and the prior year figures are restated.
The “Income of the Year” columns in the above tables refer to the amount billed and includes fees for private treatment of individuals without private health insurance. While the amount due at year end 2009 is higher than that for 2008, given the overall increase in income in 2009, the HSE contends that overall collection performance did improve year on year even though debtor days performance at individual hospital level did deteriorate in some instances.

While the debtor days/months figures appear high by any measure, a comparison of performance between public and private hospitals gives another reason to believe that there are problems with the processes in the public hospitals. The Department of Health and Children understands that private hospitals work on a much lower level of debtor days, as low as 25-30 days in some cases. This compares very favourably with the public hospitals which in some instances have debtor days that are many multiples of this.

The delays in compiling and submitting claims and the associated build up of outstanding income related to the chargeable costs for private patients as outlined above have a number of negative implications for the Exchequer. These include:

- The introduction of a subsidy by the State of private insurers as the Exchequer meets the funding gap at hospitals caused by outstanding claims until invoices are issued and payment is made;
- The opportunity cost of State funds used to finance the delay in income collection; and
- The time value of money impact – the financial cost to hospitals as a result of delayed access to income.

The delays also have negative implications for the private health insurers because they cannot manage their cashflow effectively if invoices are not issued on a timely basis.

Given the current budgetary pressures on the hospital sector, the imperative for efficient income collection has become more important than ever. In this regard, the Minister for Health and Children identified a target of €75m for improved collection of private income in public hospitals in 2010. Achievement of this target provides another reason for examining weaknesses in the process. Indications from the HSE’s on-going
monitoring of debt outstanding suggest that the difficulties in relation to income collection are continuing in 2010.

**What Causes the Difficulties in Collecting Income?**

In seeking to understand what is causing the delays in submitting claims and achieving payment of private treatment charges from the insurers, the Steering Group examined work carried out on the issue in recent years. Documents considered by the Group included HSE submissions to the Department of Health and Children on the matter, Comptroller and Auditor General Reports, an independent report by SouthWestern Consulting and relevant statements by the Minister for Health and Children and the Secretary General of her Department.

**Comptroller and Auditor General Report on Delayed Claims to Private Health Insurers**

The Comptroller and Auditor General (C&AG) investigated the matter in a report for presentation to the Houses of the Oireachtas in 2004 (Comptroller and Auditor General, 2004). This report referred to an audit of “Delayed Claims to Private Health Insurers” in North Eastern Health Board hospitals in respect of the year 2003. The audit found extremely high percentages of hospital claims, in some instances as high as 98%, being delayed due to being unsigned by hospital consultants. In his response to the C&AG inquiry, the CEO of the HSE stated that the absence of any obligation under the consultants contract to sign insurance forms was a complicating factor in addressing this issue. In addition to the consultant signature issue, the CEO also identified a number of other factors contributing to the delays. He attributed some of the delays to significant weaknesses in the administrative processes and increases in administrative workload due to increases in hospital activity. The CEO also cited a number of other factors specific to the northeast such as a reorganisation of services which was occurring at that time and legal issues which impacted on the participation of certain consultants in the collection process.

**Comptroller and Auditor General Annual Report 2008**

The C&AG examined income collection in a broader context across the HSE in a chapter entitled “Management of Private Patient Income” in his 2008 Annual Report (Comptroller and Auditor General, 2009 b). This chapter investigated wider issues relating to the extent of private treatment and the level of cost recovery in treating private patients in public hospitals, though most relevant to income collection was his
analysis of the timeliness of debt recovery. A number of issues related to the recoupment of claims were identified by the C&AG. The requirement of private health insurers that all claims be signed off by the primary consultant clinician was again recognised as a major contributory factor in the delays. The Accounting Officer of the HSE stated that the level of delay caused by this factor varied from hospital to hospital “depending on the willingness of individual consultants to sign-off their own claims forms promptly” (Comptroller and Auditor General, 2009, pg. 373). Hospital administrative systems were criticised for being unable to capture information in a way that aids efficient completion of the claims and the fact that the process is entirely paper-based was given as a further cause of the delays.

The C&AG also referred to broader policy issues which have a bearing on the quantum of private patient income. The first such issue was bed designation. As discussed in Part 2 of this Report, the bed designation system in public hospitals does not allow for private treatment charges to be applied by hospitals when the patient is accommodated in a bed that is not designated as private, even though the patient is paying their consultant a private fee. In his response on this matter, the Department of Health and Children’s Accounting Officer stated that in line with the Health Strategy 2001, the Minister had not considered it appropriate to increase the number of public hospital beds designated for the use of private patients. The Accounting Officer of the HSE stated that he would welcome “a review of the bed designation arrangements, regardless of whether the overall number of private patient beds was altered or not” (Comptroller and Auditor General, 2009, pg. 369).

The C&AG concluded that the implementation of the new Type A consultant contract (also referred to as the Category A contract) is likely to impact on the amount of potential private income recoverable, though his report also concluded that it was difficult to quantify such financial effect. Consultants holding Type A contracts work entirely in the public health system and therefore do not have any private practice. Patients under the care of Type A consultants are public and therefore no private accommodation or treatment costs arise. The HSE stated to the C&AG that it believed that “the fact that patients treated by Category (Type) A consultants will now be considered to be public patients is likely to lead to a loss of patient income” (Comptroller and Auditor General, 2009, pg 370). However, in his response on this matter, the Department’s Accounting Officer stated that the reason for the introduction
of the Type A contract was to improve access for public patients to consultant services. The Department did not accept that income would be materially affected by the introduction of the contract because private beds in public hospitals would have to remain unoccupied by private patients for a significant part of the year for losses to occur.

**SouthWestern Consulting Review of the Health Service Executive Claims Management Process 2010**

SouthWestern Consulting (2010) undertook a detailed examination of the claims processes of three hospitals on behalf of the HSE in during 2010 and found there to be a high level of debt outstanding. The three hospitals examined were Waterford Regional Hospital, Our Lady of Lourdes Hospital Drogheda and St James’s Hospital. The dependence on the primary consultant signature was once again highlighted as being among the main reasons for delays in the process. SouthWestern’s finding that the use of manual processes and the absence of appropriate technology were problematic was also consistent with the C&AG Reports. The paper-based system was described as being costly and inefficient and leading to duplication of work. The consultants also noted weaknesses in resource allocation and performance management and suggested that delays are caused by “process inefficiencies and lack of controls” (SouthWestern Consulting, 2010, pg. 13). The relationship between hospitals and the private insurers was also highlighted as an area where improvements, in some instances, could be made.

**Summation of Issues Identified in Previous Reports**

As seen above, similar issues have arisen in the various examinations of the collection process undertaken in recent years. The findings of the reports are also in line with the HSE submissions to the Department of Health and Children relating to the issue. Therefore, the main issues identified in previous analyses of the collection of income by hospitals are:

- Outmoded administration systems;
- Delays in sign-off by consultants;
- The relationship between hospitals and private health insurers;
- The bed designation system; and
- The Type A consultant contract.
CHAPTER 13
FINDINGS OF CONSULTATION PROCESS ON INCOME COLLECTION

As outlined in Chapters 2 and 6, a consultation process to collect the views of stakeholders was an important element of this study. This chapter sets out the main findings from Section D of the consultation process questionnaire which related to the collection of fees from the private health insurers. In this part of the questionnaire respondents were asked to give views as to whether barriers exist which inhibit timely recoupment of fees for treatment on either the hospitals/HSE side or the private insurer side. They were also asked to suggest measures that could be taken to improve the process if such barriers exist. While many of the views offered by respondents concurred with previous examinations of the matter in other reports, a number of additional arguments were also put forward. Similarly to Chapter 6, it should be noted that views expressed are those held by the respondents and may not necessarily be factually accurate.

SECTION D – COLLECTION OF FEES FROM THE PRIVATE HEALTH INSURANCE COMPANIES

Questions D1 & D2 – In your view, are there barriers which inhibit the prompt recoupment of charges for private and semi-private treatment in public hospitals on the side of the hospitals/HSE?

As is evident in Fig. 2 below, of the 15 respondents to this question, 87% (n = 13) stated that there are barriers on the side of the hospitals/HSE which hamper the prompt recoupment of fees with 13% (n = 2) stating that there are none.

![Fig. 2. In your view, are there barriers which inhibit the prompt recoupment of charges for private and semi-private treatment in public hospitals on the side of the hospitals/HSE?](image)

There was a general acceptance among respondents that the time taken by public hospitals to submit claims to private health insurers was unacceptably high. Some
respondents pointed to the fact that private hospitals submit claims in approximately 30 days while their counterparts in the public system frequently take many months to carry out the same process.

The requirement for, and delays associated with, consultants signing off on medical information was the most regularly cited barrier to submitting claims in a timely manner. Processes used to obtain consultant signatures on claim forms and the low level of importance attached to the billing process by some consultants were identified as problematic. Linked to this, respondents also identified the lack of an onus or penalty on consultants to complete forms in a timely manner and more specifically, the absence of contractual rights to compel them to do this promptly as being major problems. The following comment is representative of the sentiment of several submissions: “Consultants must sign-off the medical information before insurers will accept the hospital accommodation charges. Some consultants take an inordinate time to do so, and hospitals have no effective contractual rights to oblige them to do this promptly.” However, as a counterbalance to this, one respondent noted that consultants themselves also encounter difficulties in having forms completed in a timely manner. In particular, it was suggested that consultants experience resistance from some public hospital management who believe that staff should not assist with the promotion of private practice.

The absence of proactive management of the income collection system and the outmoded administrative procedures and processes used in public hospitals were also criticised by respondents. It was suggested that hospital management fail to attach an appropriate level of importance to the collection of fees and this filters through to the actual amounts collected. The paper-based nature of the system was described as being “labour-intensive”, “time-consuming” as well as making it “difficult to set performance targets and identify blockages”. Other systems type issues identified included the poor tracking system for hospital charts and the lack of an Electronic Data Interchange system with the private health insurers.

The current practice whereby those responsible for coding tend to be junior members of staff who progress to other positions in the hospitals as they develop expertise was also criticised. It was seen as reinforcing the view that the process was a low priority for
hospital management and has a detrimental effect on the quality and accuracy of the coding.

Questions D3 & D4 - Are there measures that could be taken by the hospitals/HSE to speed up the recoupment of fees for private and semi-private treatment in public hospitals from the private health insurance companies?

Fifteen replies were received to the question about whether measures could be taken by hospitals or the HSE to address barriers to effective income collection; 87% (n = 13) answered “Yes” while 13% (n = 2) chose the “Don’t Know” option (see Fig. 3 below).

Those respondents that answered “Yes” offered a number of measures which they suggested could be taken by the hospitals and/or the HSE to address the barriers to more effective income collection.

In relation to difficulties in obtaining consultant sign-off, one suggestion offered by a number of respondents was that the problem could be alleviated by implementing specific regulations or coming to an agreement with clinical consultants regarding acceptable timescales for the completion of forms. In the event that forms are not completed within the agreed timeframe following the introduction of such an agreement, the consultant and/or hospital would forego payment. The introduction of such a penalty was seen as being beneficial in focusing the attentions of both consultants and the hospital administrators on the income collection process. An alternative proposal to address the consultant signature problem was to separate or “decouple” the hospital accommodation element of the bill from that of the consultant
invoice and medical information. This would end the practice of collating hospital and consultants’ invoices for payment of claims and would mean that hospitals could submit their invoices without a consultant signature thereby speeding up the recovery of their accommodation fees. The point was also made that private hospitals have the same requirement for consultant sign-off yet they manage to submit the forms in a timely manner.

A number of respondents were of the view that administration inefficiencies could be overcome through the introduction of an information technology solution to assist the process. One respondent commented in this regard that “It has been definitively shown that adopting a technology-driven, workflow solution drives consistent improvement in collection performance while lowering the overhead requirement”. Electronic Data Interchange (EDI) was also highlighted as a solution to some of the administrative inefficiencies, with some respondents advocating its introduction as a matter of urgency.

It was recommended that improving deficiencies in the proactive management of their collection processes should become a key deliverable for the finance staff in the hospitals. The provision of appropriate training for management and administration staff was viewed as having potential to overcome some of the problems with the process. It was also suggested that the quality of coding would benefit from the retention of staff within the coding function of the hospital as opposed to being transferred out of the area when they become more experienced. The introduction of service level agreements between the hospitals and private health insurers was also recommended.

**Questions D5 & D6 – In your view, are there barriers which inhibit the prompt recoupment of charges for private and semi-private treatment in public hospitals on the side of the health insurance companies?**

Of the fifteen replies that were received to this question; 60% (n = 9) answered ‘Yes’ while 27% (n = 4) answered ‘No’, and 13% (n = 2) chose the ‘Don’t Know’ option (see Fig. 4 below).
While the majority of the fifteen respondents answered “Yes” to this question, the reasons given varied. It is noteworthy that the issues raised were similar to the barriers identified on the side of the hospitals/HSE:

A number of respondents highlighted the absence of a definitive contract or service level agreement between public hospitals and health insurers as being a barrier to prompt recoupment of charges. This was seen as resulting in vague processes pertaining to submission and assessment of claims. The following comment was made in this regard: “In the private system, each private healthcare provider has a stringent contract with the insurer that is mutually agreed detailing the level of charges applicable for each service provided. The limits of cover and the rules applied in assessing an individual insurance claim are well defined. As a result, the private provider can apply these rules to claims prior to issuing to insurers to ensure low levels of pended/returned/rejected claims (which account for a disproportionate amount of overhead for both insurers and providers).” The lack of arbitration in the process was also seen as being problematic.

Respondents also pointed to payments being delayed due to an unacceptably high level of queries on claim forms, primarily arising from consultant clinical decisions and circumstances surrounding excessive lengths of stay. This was seen as leading to an excessive level of “pending” claims. Other delays such as the time taken by insurers to confirm the date the patient was first insured and ensure that there was no break in insurance cover were also seen as problematic. It was also stated that while some health insurers claim as little as 2% of all claims are rejected annually, experience suggest it is well in excess of 3%.
Other barriers identified in response to this question included:

- The insistence by insurers that hospitals collate accommodation charges with consultant invoices and medical information; and
- Delays in the introduction of Electronic Data Interchange.

Of the respondents who answered “No”, some pointed out that payment timeframes of just 30 days can be achieved as long as the required information is provided and forms are submitted within a certain number of days of discharge. One insurer pointed out that it “typically pays 98% of bills within two days of receipt”.

Questions D7 & D8 - Are there measures which could be taken by health insurance companies to speed up the recoupment of fees for private and semi-private treatment in public hospitals from private health insurance companies?

As evident in Fig. 5 below, of the 14 respondents to this question, 72% (n = 10) said there were measures which could be taken by the health insurance companies to speed up the recoupment of fees with 21% (n = 2) stating there are not, and 7% choosing the ‘Don’t Know’ option.

![Fig. 5. Are there measures which could be taken by Health Insurance Companies to speed up the recoupment of fees for private and semi-private treatment in public hospitals from private health insurance companies?](image)

It was suggested that the commitment among insurers to move in the direction of electronic submission of claims should be built upon. For instance, the introduction of Electronic Data Interchange (EDI) was seen as an essential step in improving the process by respondents who answered “Yes”. As an additional point to this, one respondent recommended that “Should EDI be established, it should be done in a manner that would apply to each of the three main health insurance providers rather than having separate systems unique to each health insurer.” The introduction of an
electronic claims system that eradicates the current paper-based system and facilitates real time submission of claims following patient discharge was also recommended.

The need for formal contractual arrangements or a service level agreement was put forward by a number of respondents. This was seen as necessary in order to provide more clarity on the rules for recoupment of fees among all parties. Agreement from the insurers regarding the decoupling of hospital claims from consultant claims was again suggested as a solution to barriers preventing a more speedy process.

It was also suggested that the insurers’ processes would be assisted through the introduction of a methodology to validate the date that individuals are first insured in cases where a person switches between insurers.

Of those that answered “No” to this question, the point was made that insurers pay promptly on receipt of an invoice. However, they cannot speed up the processing of claims if they don’t receive the bill.

**SUMMARY**

It is clear from the analysis above that the majority of respondents believe that there are barriers to more efficient and effective income collection on both the provider and payer sides. While issues previously identified such as difficulties in obtaining consultant signatures and outmoded administrative systems were again highlighted, attention was also drawn to other issues such as the relationship between the HSE and the PHIs, and lack of a contractual agreement between them as well as weaknesses in terms of proactive management. In addition to identifying the barriers, respondents also offered a number of suggestions as to how the problems can be overcome. These suggestions helped to inform the Steering Group recommendations within this Report.
CHAPTER 14
ST JAMES’S HOSPITAL INCOME COLLECTION PROCESS – A CASE STUDY

As seen in Tables 6 and 7 of Chapter 12, there is a significant variation in income collection performance among the various hospitals. While the differences in the amounts outstanding are influenced by the level of private activity in the hospitals, the dramatically differing debtor days numbers are more difficult to explain. The Steering Group deemed it necessary to undertake a closer analysis of the processes used in a better performing hospital so that lessons could be learned that could be transferred to other hospitals.

An analysis of the debtor days data identifies St James’s Hospital (SJH) as the best performing hospital in terms of income collection. SJH was also frequently cited by officials in the Department of Health and Children and the HSE as being the hospital which has made the most progress in addressing problems with their income collection process and as being an example of best practice in the Irish setting. On the basis of this information, SJH was selected by the Steering Group to be the subject for a case study analysis of their processes.

The information in this chapter draws on work undertaken by SouthWestern Consulting in their report on income collection processes (2010) as well as information provided by the HSE and St. James’s Hospital.

PRIVATE PATIENT INCOME COLLECTION IN ST JAMES’S HOSPITAL

SJH was established by the Minister for Health by order under the Health Corporate Bodies Act 1961. It is an acute teaching hospital with 753 inpatient beds (not including long stay beds), 84 day beds and is the largest academic teaching hospital in the country. A total of 99 inpatient beds and 11 day beds are designated as private.

SJH has led the way in progressing the private health insurance claims process following the introduction in 2007 of a pilot system which facilitates electronic submission of claim forms to private health insurers. In 2006 the hospital’s management recognised that there was a growing problem with the income collection processes being used at that time. Bad debts and aged debt were rising and there was
agreement among both management and the consultants that steps had to be taken to address the issue. Following an analysis of the problem, the options generated to address the issues were to either add significantly to the numbers of staff working on claims processing or make a more fundamental shift in the way the process was undertaken. It was decided that increasing the staff complement was not the appropriate course of action and instead, an in-depth process study of workflow and technology associated with the claims operation would be carried out. This study identified a number of action points required to improve performance, mainly revolving around changes to the existing process and implementation of an information technology solution to computerise the operation.

Following the decision that an IT solution was required, SJH undertook an analysis of systems available. Claimsure, a system developed by a private software company was selected as being most appropriate. The computerisation of the income collection process began in 2007 with the system in place by the final quarter of that year. Roll out of the system took approximately six months. Implementation of this system has resulted in a significant improvement in cash flow for the hospital from private insurance claims. The process is described below with the impact assessed in terms of efficiency, effectiveness and performance measurement. The achievements of the system and the views of the private health insurers are also outlined.

**Description of the SJH Income Collection Process**

The documents required for submission to the PHIs in order for payment to be made are the same for SJH’s system as any other hospital. The required documents are:

a) Patient Claim Form (often referred to as “side 1”) – completed and signed by patient;

b) Clinical Claim Form (often referred to as “side 2”) – completed and signed by consultant. More than one of these forms may be necessary in the event of care transfer from consultant to consultant;

c) Hospital Invoice;

d) Primary Consultant Invoice;

e) Secondary Consultant Invoices – Radiologist, Lab, Anaesthetist, and other minor consultations; and

f) Supporting Clinical Documentation – generally a length of stay letter from the primary consultant is required when the claim value is over €10k.
The process previously in place in SJH involved hard copies of this paperwork being moved from office to office during collation of the claim prior to submission to the insurers. The movement of the files is shown graphically below in Fig. 6.

**Fig. 6 – Movement of Files with the Old Claims Process**

![Diagram showing the movement of files with the old claims process](image)

This was problematic for three key reasons (i) it was time consuming; (ii) if paperwork went missing it was difficult to replicate; and (iii) storage of the claims forms was expensive.

The new system implemented by St James’s is focused on delivering a more efficient and effective process which avoids the generation of paper where possible. Fig. 7 below shows how the requirement for hard copies of the documents to be circulated has been minimised. The diagram also shows the level of visibility to the various stakeholders during the claims process.

**Fig. 7 – Diagram showing Minimisation of Requirement for Hard Copies of Claims**

![Diagram showing the minimisation of hard copies](image)
The following text describes the main steps in the new process used by SJH to recover PHI claims.

**Admission of Private Patients to the Hospital**

The Admissions Department is responsible for the first step in the claims process – the entering of patient details into the Patient Administration System. Once admitted, the Clainsure system automatically generates a new patient episode with appropriate reference numbers. A signature for the private health insurance claim forms is also obtained from the patient through the use of an electronic signature device at the point of admission. The PHI Assessment Team then takes control of the process and confirms membership of a private health insurance scheme through the insurer’s website or by phone. The Assessment Team also obtains a patient signature if it was not possible to get this on admission. The patient claim form is then scanned and is automatically attached to the patient episode in Clainsure. A photocopy of the original claim form is taken and this, along with notification that the patient will be using private health insurance, is forwarded to the admitting consultant for their records.

**Submission of Claim Forms to the Private Health Insurers**

The completed patient claim form is then referred to the PHI Claims Processing Team. Each member of this team is responsible for the management of a particular clinical speciality and the consultants operating within that speciality. Tasks undertaken by team members include claim collation, generation and formatting of reports, the obtaining of Clinical Claim Form information and relevant signature as well as actual submission to the PHIs.

Following receipt of the patient claim form, its content is reviewed in order to ascertain what information is required for submission to the PHIs. The Clainsure system assists in this process through the use of a checklist. The Clinical Claim Form is then scanned and automatically attached to the patient episode in the system. Reports are then generated outlining the required information and these are forwarded to the relevant department requesting same. If this information is not received, the process waits a week at which time the system generates a further report which acts as a reminder for the consultant. While much of the paperwork relevant to claims is currently submitted from units of the hospital in hard copy, documentation can also be received from consultant systems in electronic form, either through integration with the billing system
or the attaching of electronic documentation to the claim. SJH is currently working with the software supplier on a revised integration approach which would further align the process with best practice. On completion of the integration exercise, most invoice information will be generated electronically, with an associated significant reduction in the requirement for paper scanning. Similarly to patients, consultants can provide signatures using an electronic signature device and can even do so remotely because the system is web-based. Critically, consultants can legally sign multiple claims with one signature, once they have confirmed that they have reviewed same.

When all information is confirmed as being received, Claimsure changes the claim’s status to “ready for submission” and the accommodation invoice is printed. The process results in an invoice being generated on patient discharge which incorporates all bed charges, government levy charges and MRI technical fees where applicable. The invoices are then approved by a member of the billing department.

The invoice is then scanned into Claimsure with the original invoice attached to the claim form. The claim is allocated a batch number and is submitted directly to the PHI. The actual structure of the submissions differs from insurer to insurer so as to be compatible with their systems. The claims information is then transferred to the insurers electronically on a daily basis via an encrypted secure File Transfer Protocol (FTP). This allows for the uploading of collated claims to a secure site for automated download by the insurers. A FTP is used because email is not considered to be sufficiently secure to support the transfer of the type of sensitive information frequently held in claims. While the system does incorporate email functionality, this is for alerts as opposed to actual submission of claims.

Receiving Payment
Payments are received from the PHIs in cheque form. The payments are accompanied by hard copy remittance advice as well as a list of pended, returned and rejected claims. Claims are classified as pended when the PHI has a query which delays further processing. Rejected claims are claims that the insurer refuses to pay. Claims are marked as returned when the insurer returns the claim because, for instance, the forms were incomplete or further medical information is required. While payments are currently issued to the hospital twice a month, SJH have indicated that there is scope for the frequency of the transfer of payments to be increased in the future.
The remittance document is reviewed by the Claims Team who confirm the payment and remittance values. Payments are then receipted on the patient record, updated in Claimsure and lodged to accounts. Pended, returned and rejected claims are then identified as such and enter the Claims Queries Process.

Claims Queries Process
At this point, outstanding claims are grouped into three categories – pended, rejected and returned. Each claim is investigated by the Claims Team and appropriate follow-up action is taken. A separate query report is produced for claims where no response is received from the insurer. This report is run on a fortnightly basis and is then sent to the PHI for attention.

The claims process as it now stands can be seen graphically in Fig. 8 below.

**Fig. 8 – St. James’s Hospital Claims Process**

[Diagram of St. James’s Hospital Claims Process]

**IMPACT OF THE ST JAMES’S APPROACH TO INCOME COLLECTION**
Having described the process used by SJH, it is now necessary to examine the impact that the changes made have had on income collection performance in terms of efficiency, effectiveness and performance measurement. The reaction of the PHIs will also be provided.
Efficiency

The HSE advises that implementation of the new system has brought about considerable improvements in terms of efficiency. For instance, the introduction of the system facilitated a reduction in the number of Whole Time Equivalents (WTE) from six under the old system, to three people with the new system. This was achieved through the elimination of time consuming manual tasks such as data entry, printing, postage, filing and re-submission.

Each WTE has also become far more productive with the new approach. Under the old system, each staff member collected approximately €3.5m per annum. However, the three staff currently operating the system each now collect between €8m and €9m a year. Efficiency improvements have also led to a reduction in the cost of every claim processed. SJH estimate that the total cost per claim now stands at €10, based on the total cost per annum divided by the total number of claims. This represents a major decrease over the old system which had an average cost per claim of approximately €20.

The system also resulted in an unexpected efficiency gain through the improved utilisation of designated beds. This improvement was made possible because the electronic claims system automated much of the processing involved in income collection and provided real time financial information allowing management to focus more attention on the way beds are managed. The improvement in performance can be seen graphically below in Fig. 9.

Fig. 9 – Cash Collected per Designated Bed in St James’s Hospital 2006 -2009

While the increase in cash collected is impressive, it should be noted that the amount received would have been inflated by the annual increases in the level of charge which applied.
Effectiveness
While the efficiency of any system is important, it also must be effective in achieving the desired outcomes. The availability of real-time information with full electronic traceability and retrieval has facilitated a new focus on the effectiveness of the constituent stages of the process.

The HSE has informed the Department of Health and Children that the new system has brought about a major improvement in terms of time taken for consultant sign-off. The average length of time taken in SJH has fallen from 60 to 90 days under the old system to approximately 30 days now. This is considerably better than the performance of other hospitals. This development has helped to achieve a major reduction in debtor days. Debtor days have reduced from approximately 120 days under the old system to approximately 90 with the new approach.

The amount of cash collected has also significantly increased following introduction of the system as seen in Fig. 10 below. Again, it should be noted that part of the increase in cash collected relates to increases in the per diem charge.

Fig. 10 – Amount of Cash Collected in St James’s Hospital 2006 – 2009

Source: St James’s Hospital Finance Unit

The new system has also assisted in reducing the level of claims rejected and queried by private insurers as it ensures that all required documentation is included in the claim prior to submission to the insurer. In addition, the streamlining and automation of the process has resulted in better data compliance, improved records retention, improved document management processes and reductions in the storage space required.
Performance Measurement

Performance measurement of the claims process has been improved as a result of the implementation of the new system. Many performance indicators are now reported on in real time, a facility which is not available in many other hospitals. Examples of these performance indicators are debtor days, claims not signed by consultant, claims submitted but not paid, claims rejected, claims pended, claims short paid, high to low value claims by consultant and claims by specialty. Prior to implementation of the system in SJH, the collation of much of this data took so long to compile that it was out of date before it was in a usable form. Accurate timely management information providing a clear picture of performance is now available for hospital management which has clear benefits in terms of decision making.

Reaction of the Private Health Insurers to the System

The reaction of the PHIs to the introduction of the new system has been positive with the VHI indicating their support for the roll out of the system to other hospitals. The insurer has informed the HSE that a reduction in debtor days as a result of the implementation of a system such as the SJH pilot is a win-win for both the hospitals and the insurers. As well as the obvious cash flow benefits for the hospitals, the insurers benefit in the following ways:

- It would allow them to get a clearer picture of their liabilities;
- It would facilitate a reduction in the cost of processing the claims. The current cost to VHI of processing a claim would be reduced by 25% due to the smoother, quicker process which would be allowed by a computerised system;
- It would facilitate the VHI’s plan to link all the participants in the process (Client – Hospital – Insurer) electronically; and
- It would bring the Irish system into line with most other developed countries with regard to computerised billing.

The other PHI companies have also been supportive of the system.

CONCLUSIONS

The case study above provides an example for other hospitals as to how difficulties related to income collection can be overcome at the hospital level through a combination of proactive management action and implementation of an electronic processing system. While the implementation of the electronic claims management
system was a crucial element in tackling the problems in St James’s, it is recognised by the Steering Group that the system on its own could not have achieved the improvements seen. The clinical directorate model which exists in St James’s, leadership by top management, an effective change management programme including a renewed focus on increasing staff recognition of the importance of income collection, as well as adjustments to the collection processes and procedures were all likely to have been of importance in achieving the improvements. While the improvement in performance is impressive, the Steering Group is of the view that there is scope for even greater improvements through further automation and focus on achieving consultant sign-off.
CHAPTER 15
RECOMMENDATIONS REGARDING INCOME COLLECTION

At the request of the Department of Health and Children, the HSE submitted a plan in December 2009 setting out a number of interrelated actions aimed at addressing the issues with private patient income collection. An update to this plan was submitted to the Department in July 2010. The following chapter is structured so as to (i) specify the issue and identify the HSE’s solution as set out in the action plan; (ii) summarise the progress made to date (where the action has been in place for a reasonable amount of time and data is available); and (iii) set out the Steering Group’s finding and recommendation on addressing the matter.

1. OUTMODED ADMINISTRATIVE SYSTEMS

Electronic Submission of Claims
The HSE has put forward a business case for the implementation of a system to facilitate the electronic processing of claims in ten public hospitals. This proposal is currently under consideration by the Department of Health and Children and in line with ICT approval requirements, is likely to be submitted to the Department of Finance (CMOD) shortly. HSE management anticipates that the rolling out of such a system would bring about improvements in performance similar to that experienced in St James’s Hospital. They also believe that the system would facilitate the standardisation of the processing of private insurance claims across all acute hospital sites. If the system is rolled out and is proven to be successful, the HSE envisages the approach being implemented in further hospitals in the future. A recent agreement between the HSE and the private health insurers to allow the electronic exchange of data will facilitate the implementation of such an electronic claims processing system. The HSE also intends to introduce lower level IT solutions such as the scanning of claims forms in smaller hospitals.

Centralised Billing
The Department of Health and Children and the Department of Finance have approved in principle a separate programme to centralise the entire HSE billing system. This is not confined to private charges and will cover all collection of outstanding income by the HSE. The objectives of the centralised system are to streamline the billing process and bring about a greater focus on the collection of all outstanding debts. It is expected
that a contract for the operation of the system will be signed in the last quarter of 2010 and the centralised unit will be ready to commence processing of all HSE bills in the second half of 2011.

Steering Group Finding
The implementation of a technology solution to address the problems with the current paper-based approach is essential. A standardised approach to income collection, based on best practice, would also help to bring about improvements in collection performance and reduce the large differences in the level of debtor days among the various hospitals. The Group also sees successful delivery of the Centralised Billing project as an ideal opportunity to bring an even greater focus on addressing the private patient income collection problem.

<table>
<thead>
<tr>
<th>Recommendation 10: The HSE should ensure that the best use of technology is applied in hospital income collection administrative processes in the context of their overall ICT strategy and in particular, by delivering on the following measures:</th>
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<tr>
<td>(i) The rollout of appropriate ICT systems as soon as possible in the ten biggest private income generating hospitals. If successful, consideration should be given to rolling the system out to further hospitals where economically viable;</td>
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<tr>
<td>(ii) The adoption of lower-level IT solutions in smaller hospitals;</td>
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<tr>
<td>(iii) The implementation of appropriate data structures and transfer mechanisms; and</td>
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<tr>
<td>(iv) The agreement and implementation of an optimum frequency of transfer of both claims and payments between hospitals and private health insurers.</td>
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| Recommendation 11: The HSE should establish a standard administrative process for private patient income collection, based on best practice, and ensure that it is implemented in all hospitals in 2011. |

| Recommendation 12: The HSE should ensure that the collection of private inpatient income is a priority for the proposed Centralised Billing Project. |
2. REQUIREMENT FOR MORE PROACTIVE MANAGEMENT

Instructions to Hospital Management

HSE senior management has in recent months reiterated its message to hospital management regarding the level of urgency associated with addressing the problems with outstanding private insurance claims and all other outstanding debt. In order to bring a renewed focus on the issue, the HSE has set clear targets in relation to debtor days which hospital managers have been instructed to achieve. Hospital managers have been set an initial target of a maximum of 60 debtor days and have been informed that budget sanctions which equate to the level of non-compliance will apply to hospitals that fail to achieve this target in 2010. Income targets for all hospitals in 2010 are also now based upon a reduced number of debtor days and this has been implemented through the budgeting process.

The HSE has advised that this instruction has led to the following actions at the hospital level:

- An emphasis is being placed on following up private insurance claims which have been submitted but not yet settled. Any outstanding queries in relation to such claims are to be addressed as a matter of urgency;
- Any backlogs of outstanding claims that are awaiting submission to the PHIs are being dealt with as a priority;
- Concentration of effort in cash collection will be on high-value low-volume claims in each of the hospitals as opposed to the current procedure in some hospitals whereby claims are processed sequentially regardless of value; and
- Clinical Directors are also being asked to assist as necessary in addressing difficulties that may arise at individual consultant level.

The application of this approach in the fourth quarter of 2009 resulted in significant improvements in performance. An additional €30.8m (approx.) of claims were submitted between 23 October and 16 December and the level of cash actually received in the final quarter was approximately €22.3m higher than the average for the previous three quarters.

However, the HSE has informed the Department of Health and Children that the initiative stalled in 2010 due to the industrial relations dispute in the health sector. The result of this setback was that the income collection in this area reverted to pre-October
2009 collection levels. The HSE has stated that performance should again improve in the last quarter of 2010 as the initiative has been reactivated. It is anticipated that the reactivated initiative will have a renewed impetus due to the assignment of a Regional Director of Operations (RDO) from the HSE as project lead. The RDO will work with the Finance Directorate to continue the income collection performance that was realised in the last quarter of 2009.

A further example of the focus being placed on income collection at HSE corporate level is the inclusion of debt collection as a standing item on the agenda for the HSE Audit Committee. This will provide an additional layer of monitoring of the performance of individual hospitals in the management of their patient debt.

**Steering Group Finding**

It is essential the HSE establish appropriate budgetary incentives and penalties, within the parameters of permitted levels of private activity having regard to the public/private mix. Specifically, the HSE should set quarterly hospital level targets for income collection based on benchmarked collection timeframes and the potential income that can be reasonably estimated from the appropriate usage of private and semi-private beds in the hospitals. Hospital performance should be measured against these targets with underperformance dealt with by applying reductions to hospital budgets as appropriate.

The Steering Group is satisfied that it is reasonable to require such targets to form part of the performance framework for hospital managers having regard to improvements already achieved by certain hospitals and the additional levers for managers which will be available if the Steering Group’s other recommendations are implemented. Income collection performance would also benefit through improving accountability within the hospitals. This should be achieved by clearly identifying those responsible for income collection at hospital management level and incorporating the issue as a deliverable in the annual plans of these individuals. Appropriate training and development of staff working on the collection process is also recognised as being essential.

**Recommendation 13**: The HSE should implement a performance monitoring and reporting system in 2011, which highlights hospital private patient income collection performance.
Recommendation 14: The HSE should apply appropriate budgetary incentives and penalties for non-achievement by hospitals of agreed quarterly targets for private patient income collection from 2011.

Recommendation 15: Achievement of targets in relation to the collection of private income should be incorporated as a key deliverable in the annual business plans of all relevant hospital personnel from 2011, starting with the hospital manager.

Recommendation 16: Staff responsible for income collection should receive appropriate training and development on an on-going basis.

Steering Group Finding
The current method of calculating the Appropriation-in-Aid figure in the HSE’s vote, which is based on historical performance relating to income collection, is unsatisfactory. Instead, in line with the enhanced target set in 2010, the Appropriation-in-Aid figure should also take into account improvements in income collection which are achievable.

Recommendation 17: Building upon the approach adopted in 2010, the estimate for the Appropriation-in-Aid figure in the HSE’s Vote should provide a reliable quantification of further income collection improvements which are achievable through the attainment of target reduction in debtor days.

3. RELATIONSHIP BETWEEN THE PUBLIC HEALTH SYSTEM AND THE PRIVATE HEALTH INSURERS
A high level working group with representatives from the HSE and the Voluntary Hospitals is currently engaged in negotiations with the Private Health Insurers (PHIs) regarding improvements in the working relationship between the hospitals and the PHIs and achieving a reduction of debtor days. Issues being examined by the group include:

- Administration of the private insurance claims process and streamlining transaction processing and data exchange;
- Electronic billing and payment methods;
- Implications of new Consultants contract;
- Level of outstanding debt;
- Existing consultant sign-off requirement;
• Separation or “decoupling” of hospital inpatient charges from the private fees of the medical consultants; and
• Cash advances.

The ultimate focus of the high level group is the formulation of a national service level agreement with the private insurers. The purpose of such an agreement is to streamline existing business practices and ensure payment of hospital accommodation bills within 30 days in accordance with normal business terms and conditions. A draft national service level agreement has been submitted to the main private insurers and this draft is currently under discussion with the high level group.

A further issue being examined is the possible introduction of agreed cash advances. The agreement of cash advances would involve an annual payment on account, amounting to 95% of the previous year’s payment, which would be agreed with the PHIs in advance and which would be paid to the HSE by way of an agreed schedule over the current year. Audit of particular cases could be undertaken by the PHIs at an agreed statistical level with appropriate positive or negative cash adjustments made to individual hospitals as required. The HSE suggest that implementation of this approach would eliminate the cash collection problem as well as reduce debtor days. It estimates that the financial benefit would result in a once-off benefit of €116 million to the public hospital system. It is also estimates that the reduction in the administrative overhead in the HSE and voluntary hospitals would result in a minimum saving of 200 whole time equivalent posts in the public health system.

**Steering Group Finding**

Further discussions will be required in relation to the measures aimed at improving the relationship between the public health system and the PHI companies. It is important that this is progressed urgently and, depending on the level of agreement reached, if necessary, that alternative options for securing the necessary streamlining are considered. The outcome of the discussions should inform consideration of the necessity for policy or legislative changes to secure more prompt recovery of charges.

**Recommendation 18:** The HSE should ensure that the negotiations with the private health insurers are concluded as a matter of urgency and result in improved terms in relation to recovery of charges.
4. DELAYS IN SIGN-OFF BY CONSULTANTS

Sign-off by Secondary Consultant Pilot

In advance of completion of the negotiations being undertaken through the high level group as outlined above, the HSE has secured agreement with the major insurance providers for sign-off of claims by a secondary consultant clinician in six pilot sites for cases where the primary consultant has failed for whatever reason to sign-off in a timely manner. This pilot has now been successfully extended to a total of twelve of the biggest public hospitals and contributed to the improved performance in 2009.

Other HSE Proposals Related to Consultant Sign-off

The HSE has advised that it is considering a number of other options aimed at providing incentives for consultants to sign their claim forms on a timely basis. These options include:

- Decoupling hospital inpatient charges from the private fees of the medical consultants. This action is being considered on the basis that it is the view of the HSE that inpatient charges are a statutory charge determined by the Minister and are due for payment within 30 days of discharge in accordance with normal business terms. As referred to above, this issue has been tabled in discussions with PHI companies; and

- Linked to the issue of decoupling is the proposal that the HSE would only continue to process private fee bills on behalf of the consultants provided that agreement is reached with the private insurers that private inpatient charges are paid within 30 days of discharge.

Steering Group Finding

The issue of delays in consultant sign-off on claim forms clearly remains a key barrier to more effective income collection. Significant improvements would accrue by decoupling the hospitals’ element of the bill from that of the private consultant and this should be a key deliverable from the HSE’s negotiations with the private health insurers. In practice, decoupling would only speed up the process if the requirement for consultant sign-off currently insisted upon by PHIs was removed. Again, the outcome of the discussions should inform consideration of the necessity for policy or legislative changes to secure more prompt recovery of charges. The application of penalties for consultants should they not sign-off on forms within an agreed timeframe is also seen as appropriate. As an interim measure, it is considered appropriate that the existing pilot
project whereby secondary consultants sign-off on claims when it is not possible to get the primary consultant’s signature be implemented in all hospitals.

**Recommendation 19:** Following the successful conclusion of negotiations with the private health insurance companies, the HSE should arrange for the hospitals to decouple the submission of invoices for private accommodation charges and other non-consultant fees from invoices in relation to consultants’ private fees.

**Recommendation 20:** Starting in 2011, hospitals should only submit the invoices in relation to consultants’ private fees if all necessary forms are fully signed-off within 30 days. Furthermore, where there is no private inpatient accommodation charge due to the hospital, the consultant’s private income claim should be either de-prioritised or subject to a handling fee.

**Recommendation 21:** The pilot project which allows sign-off of private patient claims by an appropriate secondary consultant should be rolled out in all hospitals during 2011. Hospitals should not process claims on behalf of primary consultants when the claim has had to be signed-off by the secondary consultant.
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## GLOSSARY OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviations</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>AFS</td>
<td>Annual Financial Statement</td>
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<tr>
<td>ALOS</td>
<td>Average Length of Stay</td>
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<tr>
<td>CMOD</td>
<td>Centre for Management and Organisation Development</td>
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<tr>
<td>CIS</td>
<td>Clinical Indemnity Scheme</td>
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<tr>
<td>C&amp;AG</td>
<td>Comptroller and Auditor General</td>
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<td>DRG</td>
<td>Diagnosis Related Group</td>
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<tr>
<td>DoHC</td>
<td>Department of Health and Children</td>
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<tr>
<td>EDI</td>
<td>Electronic Data Interchange</td>
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<tr>
<td>FTP</td>
<td>File Transfer Protocol</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GNP</td>
<td>Gross National Product</td>
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<tr>
<td>HIPE</td>
<td>Hospital In-Patient Enquiry System</td>
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<tr>
<td>HPO</td>
<td>Hospital Planning Office</td>
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<tr>
<td>HSE</td>
<td>Health Service Executive</td>
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<tr>
<td>ICU</td>
<td>Intensive Care Unit</td>
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<tr>
<td>LOS</td>
<td>Length of Stay</td>
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<tr>
<td>NTMA</td>
<td>National Treasury Management Agency</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-Operation and Development</td>
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<tr>
<td>PHI(s)</td>
<td>Private Health Insurer(s)</td>
</tr>
<tr>
<td>PLC</td>
<td>Patient Level Charging</td>
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<tr>
<td>RDO</td>
<td>Regional Director of Operations</td>
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<tr>
<td>SJH</td>
<td>St. James’s Hospital</td>
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<tr>
<td>VFM</td>
<td>Value for Money</td>
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<tr>
<td>VFM&amp;PR</td>
<td>Value for Money and Policy Review</td>
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<tr>
<td>VHI</td>
<td>Voluntary Health Insurance</td>
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<tr>
<td>WTE</td>
<td>Whole Time Equivalent</td>
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APPENDIX 1
STEERING GROUP MEMBERSHIP

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
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<tbody>
<tr>
<td>Mr. Tom Ferris, Economist</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Mr. Jim Breslin, Assistant Secretary, Finance, Performance Evaluation, Information &amp; Research, Department of Health and Children</td>
<td>SG Member</td>
</tr>
<tr>
<td>Ms. Tracey Conroy, Principal Officer, Performance Evaluation Unit, Department of Health and Children</td>
<td>SG Member</td>
</tr>
<tr>
<td>Mr. Tony Flynn, Assistant Principal Officer, Performance Evaluation Unit, Department of Health and Children</td>
<td>SG Member</td>
</tr>
<tr>
<td>Mr. Dermot Smyth, Assistant Secretary, Resource Allocation Review Unit/Eligibility Review Team/Public Private Policy Issues and Health Insurance, Department of Health and Children</td>
<td>SG Member</td>
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<td>SG Member</td>
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<tr>
<td>Mr. Fergal Goodman, Principal Officer, Acute Hospitals Division, Department of Health and Children</td>
<td>SG Member</td>
</tr>
<tr>
<td>Mr. David Smith, Principal Officer, Finance Unit, Department of Health and Children</td>
<td>SG Member</td>
</tr>
<tr>
<td>Ms. Patricia Purtill, Principal Officer, Sectoral Policy Unit, Department of Finance*</td>
<td>SG Member</td>
</tr>
<tr>
<td>Ms. Siobhán O’Higgins, Administrative Officer, Sectoral Policy Unit, Department of Finance*</td>
<td>SG Member</td>
</tr>
<tr>
<td>Mr. Cormac Gilhooly, Principal Officer, Central Expenditure Evaluation Unit, Department of Finance</td>
<td>SG Member</td>
</tr>
<tr>
<td>Mr. Eoin Dormer, Assistant Principal Officer, Central Expenditure Evaluation Unit, Department of Finance</td>
<td>Report Co-author</td>
</tr>
<tr>
<td>Mr. Brian Donovan, Head of National Casemix Programme, Health Service Executive</td>
<td>SG Member</td>
</tr>
<tr>
<td>Ms. Yvonne O’Neill, Assistant National Director, Value for Money Directorate, Health Service Executive</td>
<td>SG Member</td>
</tr>
<tr>
<td>Ms. Fionnuala Duffy, Assistant National Director, National Hospitals Office, Health Service Executive</td>
<td>SG Member</td>
</tr>
<tr>
<td>Mr. Robert Deegan, Performance Evaluation Unit, Department of Health and Children</td>
<td>Lead Reviewer</td>
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</table>

*Ms Purtill was replaced on the Group by Mr Tom Heffernan, Principal Officer in the Department of Finance in January 2010. Ms Siobhán O’Higgins was replaced by Ms Breda Rafter, Assistant Principal Officer in the Department of Finance, also in January 2010.

Acknowledgements: The Steering Group wishes to acknowledge the assistance in relation to the financial implications analysis provided by Mr Hugh Magee and Ms Lorna Collins of the Information Unit, Department of Health and Children. The Group would also like to acknowledge the support on the consultation process provided by Dr Sinéad Hanafin and Ms Anne-Marie Brooks of the Research Unit, Department of Health and Children. Thanks are also due to Mr Stephen Weir, Dr Michael Mulreany and Mr Nathy Walsh of the Institute of Public Administration.
APPENDIX 2
DETAILS ANALYSIS OF HOSPITAL REIMBURSEMENT ELEMENT OF THE CONSULTATION PROCESS

SECTION A – RESPONDENT INFORMATION
This asked respondents for their name, whether they were responding on behalf of an organisation and if so, the name of the organisation and their role in it. 19 of the 20 responses were from organisations (2 from the HSE, 5 from private health insurance companies, 5 from health associations/groups, 3 from universities, 2 from hospitals and 2 others) and 1 was from a private individual/service user (categorised as other). The full list of respondents is at Appendix 1.

SECTION B – METHODOLOGICAL ISSUES IN ESTABLISHING THE COST OF TREATMENT SERVICES FOR PRIVATE AND SEMI-PRIVATE PATIENTS IN PUBLIC HOSPITALS
Questions B1 & B2 - How satisfied are you that the current method of establishing private and semi-private patient treatment costs in public hospitals is appropriate?
Respondents were asked to state how satisfied they are with the current method of establishing the cost of private treatment in public hospitals. As is evident in Fig. 11 below, of the 18 respondents to this question, the vast majority (n=17) expressed dissatisfaction with the current methodology, with 44% (n = 8) indicating that they are dissatisfied while 50% (n = 9) were very dissatisfied. One respondent claimed that they were neither satisfied nor dissatisfied, while no respondents stated that they were satisfied or very satisfied.

Fig. 11. How satisfied are you that the current method of establishing private and semi-private treatment costs in public hospitals is appropriate?

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6 n = number of respondents
The most commonly given reason for dissatisfaction with the current approach was that it does not take account of the taxpayers’ entitlement to a public bed in a public hospital under their tax/PRSI contributions. The argument put forward by these respondents was that private patients are entitled to a public bed and therefore the cost of this should be subtracted from the cost of a private bed and the charge based on the difference. This would bring about a situation where only the marginal cost of a private bed such as the additional cost of having an individual room or extra nursing costs would be charged for. The Private Health Insurance companies held particularly strong views on this matter. The regularity with which this issue was raised across the Health Insurers, Service User and University groups, both in this question and in others indicates that the matter is seen by some as a major problem.

A number of respondents raised concerns about the use of Casemix data in establishing the cost. Problems with the accuracy and timing of Casemix coding was seen as an issue but the main concern was that the model “does not fairly represent all costs associated with the operation of a hospital and currently does not include the full cost of Accident and Emergency and Outpatient Departments”. This is something that will be examined in greater detail in later questions. Other criticisms of average per diem costing included issues with the accuracy of the approach and its lack of transparency. The method was seen by some as being deficient in terms of transparency, which leads to a situation where observers cannot make a judgement as to whether value for money for taxpayers is being achieved. The average per diem costing methodology was described as being a “crude approach” that does not provide accurate data at a patient level and fails to take into account the enormous variation in costs from patient to patient.

It was suggested that basing the cost of a private patient on an average of all patients (i.e. both public and private) is inappropriate. The argument was made that this methodology fails to take into account the differences between public and private patients in terms of, for example, treatment profiles and demographic and socio economic status. It was proposed that an alternative approach be taken whereby the direct costs associated with the delivery of private treatment should be solely allocated and itemised to the cost calculation for private patients.
While the comments overall were negative towards average per diem costing, two respondents remarked that the current methodology benefits from being simple to administer and understand. Germany was identified as being a country that operates a well-developed costing system that could be described as best practice and from which Ireland could learn.

Questions B3 & B4 - In your view, should capital costs be reflected in calculating the economic cost?

Of the seventeen responses to this question, the majority (59%, n=10) answered Yes capital costs should be reckoned in the calculation, 29% (n=5) answered No it shouldn’t and 12% (n=2) chose Don’t Know (see Fig. 12 below).

Many of those in favour of including capital costs proposed that the public system should align its treatment of these costs with their private sector counterparts. This would involve capital costs being reflected in an annual depreciation charge in revenue costs as per generally accepted accounting principles. It was recommended that depreciation should become the norm in accounting in Irish hospitals and should be an element of the overall patient level cost or DRG price.

The “Yes” respondents offered a variety of suggestions as to how capital costs could be incorporated. These suggestions included: (i) depreciating buildings over a 20-year timeframe and equipment over 5-10 years; (ii) an additional increase of 10% on the bedday charge to cover capital; and (c) linking capital items to the procedures/tests they are used for and applying a depreciation charge based on this. Another suggestion was to distinguish between capital costs that are directly related to patient care and therefore
recurring, such as medical equipment and non-recurring items such as a major building project.

Those answering “No” or “Don’t Know” were not required to give reasons. With the benefit of hindsight, this was a weakness in the questionnaire which unfortunately was not picked up in the pilot process. It is noteworthy that the majority of the “No” answers were from Private Health Insurers (PHIs) while “Yes” respondents came from across the other groups.

Question B5 & B6 - Are there other costs which should be included in the calculation?

The consultation paper outlined the various costs which are currently included in, and excluded from, the cost calculation and respondents were invited to state whether other cost components should be included. Seventeen replies were received to this question; 59% of respondents (n = 10) said Yes, that other costs should be included while 29% (n = 5) responded that No other costs should be included in the calculation. 12% (n = 2) chose the “Don’t Know” response to this question (see Fig. 13). There was a clear divide between respondents, with the majority of the “No” answers coming from Private Health Insurers while the hospitals/HSE respondents indicated that additional costs should be included.

A number of respondents stated that all costs properly recorded under generally accepted accounting principles should be included in the cost calculation. Examples of costs recommended for inclusion were:

- Depreciation;
- Bad debts;
- Superannuation;
- Admin costs associated with processing private patient payments;
- Costs associated with technological advances;
- Financing costs;
- Accommodation costs; and
- Exceptional Items.

“Moving to patient level costing” was offered as a solution that would ensure that all costs associated with patients are taken into account. The use of a barcode/bracelet system to identify, track and record all care pathways costs in real-time was suggested as a way to facilitate the collection of the required data for this to happen.

Of those respondents who indicated that no other costs should be included, the most common response was that only costs over and above what private patients are entitled to as a public patient should be levied. One respondent’s comment was representative of many when he stated that “the focus should be on tackling the overheads in the HSE, DoHC and other government agencies rather than imposing further costs on private insurers…” It was also pointed out that increases in charges for private treatment in public hospitals has led to a situation where in some instances the public hospitals are more expensive than private hospitals. The argument was put forward that the inclusion of any additional costs would lead to a bigger gap between the cost of public and private hospitals.

**Question B7 & B8 - Are there other costs which should be excluded from the calculation?** Fifteen respondents answered the question as to whether other costs should be excluded from the cost calculation. The respondents were evenly split with 40% (n = 6) answering “Yes” and 40% (n = 6) answering “No”. 20% (n = 3) chose the “Don’t Know” option (see Fig. 14). Again there was a split between the Private Health Insurers and the hospitals/HSE, with the Insurers tending to answer “Yes” and the providers answering “No”.

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Of the respondents who indicated that some costs should be excluded, the most frequently cited answer was that only the cost of additional services over and above what public patients are entitled under the Health Acts should be charged. Examples of specific costs identified as requiring exclusion included:

- Information Technology;
- Infrastructure;
- Administration;
- Non-direct medical costs;
- Disease management costs;
- Training costs;
- Community pharmacy costs;
- Accident and Emergency costs;
- Intensive Care Unit costs;
- Radiology and Pathology costs;
- Costs associated with inefficiency and high levels of administration; and
- Ancillary services which are fully self-financing (i.e. no subsidisation) e.g. canteen.

The point was also made that all costs relating to clinical error, medication error and poor management decisions should be excluded and that the current methodology does not provide a financial incentive to wash these costs from the current cost structure.

Of those who responded “No”, the general thrust of the respondents’ argument was that full costs should be recognised and that no real costs should be excluded. However, one “No” respondent added the proviso that “higher costs in the HSE due to inefficiency
and high levels of administration and management costs should not be included in the charge.”

SECTION C – POLICY ISSUES RELATED TO THE CHARGING FOR PRIVATE AND SEMI-PRIVATE TREATMENT SERVICES IN PUBLIC HOSPITALS

The consultation document outlined some of the issues relating to charging such as the Report of the Special Group on Public Service Numbers and Expenditure Programmes (McCarthy Report) (2009) recommendation and bed designation, showed the list of charges per hospital category, mentioned some possible alternatives to the current charging model and sought views on these topics. A summary of the responses follows.

Question C1 & C2 - In your view is the current categorisation of hospitals an appropriate basis for applying charges?

The level of charge applied to private and semi-private patients depends on the category of hospital that the service is provided in. The three categories of hospital are: (i) HSE Regional Hospitals, Voluntary & Joint Board Teaching Hospitals; (ii) HSE County Hospitals & Voluntary Non-Teaching Hospitals; and (iii) HSE District Hospitals.

Seventeen respondents answered the question as to whether this is an appropriate basis on which to apply charges. A sizable majority (76%, n = 13) of respondents answered “No”, with 12% (n = 2) answering “Yes” and 12% (n = 2) answering “Don’t Know” (see Fig. 15). It is notable that there was dissatisfaction with the current categorisation system across the different groups of respondents, with Private Health Insurance Companies, Health Association Groups, Universities, Hospitals and the HSE all voicing concerns.

![Fig. 15. In your view, is the current categorisation of hospitals an appropriate basis for applying charges?](image-url)
Respondents who answered “No” to this question highlighted a number of weaknesses with the approach. Key among these weaknesses was that the current approach does not reflect the actual cost of treatment. This problem was explained by one respondent who stated that the current approach “facilitates the same charge being levied regardless of the complexity of the episode”. Another offered the view that “charges should relate to the costs of private beds in individual hospitals. Without this, patients are being undercharged in some hospitals and overcharged in others”.

Another frequently cited problem with the current approach is that it does not reward high-performing hospitals nor help to track or drive efficiencies. The issue here was that the current categorisation system fails to “incentivise or reflect the opportunity for each hospital to drive down the cost of treatment due to greater specialisation or efficiencies”.

The actual process of assigning hospitals into one of the three categories was also identified as being a weakness. Respondents suggested that the categories are out of date and the assignment of particular hospitals into categories requires examination. The example of hospitals that were previously Category 2 but have since developed regional or teaching status was given as an example of this. The need for a transparent mechanism which allows hospitals to change category on an objective basis was seen by some respondents as a requirement in order to tackle this issue.

Other examples given by respondents of perceived weaknesses associated with the current charging system were that it does not accommodate a move to the use of more side room procedures and can lead to situations where patients can be charged higher rates for the same treatments and outcomes in a Category 1 hospital than a Category 2 hospital.

However, there was support for the current system from some quarters. The thrust of the argument given in favour of the retention of the current approach was that it is reasonable to apply charges based on the type of hospital with reference to private or semi-private, inpatient or day case treatment. The current system was also seen as having the benefit of simplicity, though the need to ensure that the accommodation and
treatments provided by hospitals within each category are broadly homogenous was stressed.

**Question C3 & C4 - What approach would you MOST favour in terms of charging?**
The consultation questionnaire described briefly some approaches to charging (listed in Fig. 16 below). The respondents were asked to choose the approach they **most** favour and give reasons why. Fifteen respondents answered this question. 47% (n=7) chose Patient Level Charging, while 20% (n=3) chose Charging by Casemix Group and 20% (n=3) chose Other (* see below). 13% (n=2) chose Continue with Current Regime.

* The three “Other” options identified by respondents included Per Diem on a competitive basis, a Social Health Insurance system and Universal Patient Insurance.

![Fig. 16. What approach would you MOST favour in terms of charging?](image)

The key advantages and disadvantages identified in the submissions for each of the various options are summarised as follows:

**Continue with the Current Regime (i.e. average per diem)**

**Pro:**
The main benefits outlined by those who favoured continuing with the average per diem approach were that the current system should be continued because of its administrative simplicity and that changing the system would only add further to costs and overheads.

**Con:**
A common theme among responses highlighting the negative aspects of per diem charging was that it incentivises unnecessary stays. The following quote reflects the views of many - “A per diem charging regime, while administratively relatively simple
and efficient, is a disincentive to achieving the most economic treatment because it may encourage increased ALOS (average length of stay)”. The accuracy of the charge and extent to which the cost of treatment is recovered was also seen as an issue – “in some cases the per diem rate recovers more than the cost, while in other more complex cases it recovers only a small fraction of the cost”. One respondent pointed out that if per diem bed charges continue to increase at the rate seen in recent years, the current system will result in an even larger positive or negative variance with the private sector than is currently the case. It will also continue to incentivise insurers to encourage their clients to use the public system for complex expensive treatments and private hospitals for cheaper treatments where they are priced accordingly.

Charging by Casemix Group (referred to elsewhere in this Report as charging by case using DRGs)

Pro:
Charging by Casemix group was identified as an approach which would overcome the problem which arises under the current per diem charging system of elective public hospital care episodes being at a significant positive or negative variance to the cost in private sector hospitals. The application of per case pricing would reduce the charge for less complex services and increase the charge for more complex services in the public system and align it with the pricing systems utilised in the private sector. Incorporating complexity into the calculation for treatment prices in public hospitals was seen as helping to overcome the incentive for insurers to avail of the lower prices available for complex treatment in public hospitals and the lower prices for routine treatment in private hospitals, as the price differential between public and private should narrow.

The fee levels charged would be more sensitive than the current regime and more closely reflect the costs associated with a particular treatment. Therefore, incentives to inefficiencies such as long lengths of stay which arise in the current system would be significantly reduced.

Respondents pointed out that a key benefit of charging by Casemix group is that it would not require the building of a system from scratch. Casemix methodology is well established in Ireland and the DRGs already being used in the hospital system for funding provide a good measure of complexity. The further rolling out of the system for private patient charging was seen as being administratively feasible. A further
noteworthy benefit of using DRGs as the basis for charging identified by the respondents is the sharing of risk between the provider (hospitals) and the funder (mainly the insurance companies).

While charging by Casemix group was not the most popular response given, a number of respondents who preferred other approaches (usually Patient Level Charging) also recognised that there are significant benefits associated with charging in this way.

Con:
However, a number of concerns were voiced about the roll out of a case-based system using DRGs. It was commented that case-based models are unable to capture the multiplicity and complexity of illnesses related to an ageing population. Also, the lack of flexibility to cope with rapid changes in technology and treatments was seen as being an issue.

**Patient Level Charging (PLC)**

Pro:
PLC was seen by some respondents as a method which would bring about a charge that best relates to the level of care and treatment that was provided – “the charges would relate directly to the services provided, including all costs” as one respondent commented. It would allow clinicians and managers to “drill down” to per-patient costs which would help to provide scope to achieve “better efficiencies and the elimination of ineffective practices”. It would also improve transparency on cost drivers which would allow analysis and comparisons to be carried out across patients, procedures, consultants and both public and private hospitals. The combination of this with patient outcome analysis was seen by one respondent as helping to achieve improvements in “patient outcomes leading to long term savings”. Other benefits given include the facilitation of a better understanding of economic and financial drivers and the provision of detailed costing data which can be used to benchmark services at a service and subservice level and across hospitals.

Clinical capture at the point of care would be helpful in rolling out PLC. This, in tandem with PLC, would allow the following knock-on system benefits:

- It would encourage clinical ownership of operational information;
- Provide crucial information for allocation of future resources; and
- Aid the recoupment of costs for all procedures that are being carried out with the use of hospital resources (including side room procedures).

**Con:**
A number of respondents highlighted the possibility that costs could be driven up by PLC as it presents an incentive to provide more services. In order to overcome this, the importance of charges being set against relevant care pathways, standards of care and outcomes was stressed. This would require patient level costing information over a sustained period in order to discover a reasonable algorithm for the charges. It was suggested that any patient level costing study should last for a period of at least six months in order to gather the necessary data. In order to mitigate the adverse effect of the model on insurers, “pricing should be differentiated between hospitals such that the insurer covers the charge only up to the limit of the lowest price available”. This was seen by one respondent as a method to drive efficiencies across the system.

Concerns about the quality and appropriateness of care provided were also raised by respondents as an important consideration. In order to ensure quality remains the highest priority, it was suggested that relevant safeguards be put in place to ensure that services provided meet appropriate standards and that the “reimbursement be forfeited or discounted in the event of patient readmission for the same condition or complication to the original service provided”.

Several respondents pointed out that a significant drawback associated with PLC would be the level of investment in information technology and administration that would be required to implement it.

**Other Systems Identified**

**Pro:**
The respondents who chose “Other” supplied little detail in the “Reasons” section.

**Con:** None stated.

**Question C5 - If your preference is for an approach different to the current per diem mechanism, please briefly outline how you would see that approach working in practice.**
As a follow-up question, the respondents were asked to briefly outline how they would see their chosen approach working in practice. Of the thirteen respondents who chose an option other than the Current Regime, only seven outlined how they would see their chosen option working. The following text provides brief summaries of examples of how respondents suggested **Patient Level Charging (PLC)** and **Charging by Casemix Group** could work.

**Patient Level Charging (PLC) – how it would work**

A patient will typically utilise the following services during a hospital stay – accommodation, theatre, diagnostics, laboratory and pharmacy. For each service a unit cost can be applied to the activity drivers within the service. Different costing approaches can be used for each service varying from standard costing to complex costing. Standard costing can be applied to those services where there is low variability of outputs. This would be suitable for accommodation, diagnostics, and laboratory. For example, diagnostics can be split into sub-services such as x-ray, CT, MRI, ultrasound etc. Direct diagnostic costs can be assigned to each sub-service based on the drivers. For example labour costs can be assigned based on average time per sub-service, service costs can be assigned based on capital equipment per sub-service. Standard costing is suitable where there is low margin of change in the unit costs, e.g. the cost per ultrasound doesn’t vary widely.

Where there can be significant variations in unit costs, complex costing is more appropriate. This is particularly relevant for theatre and pharmacy where the cost per patient undergoing the same procedure can vary widely, e.g. hip replacement can vary depending on the type of prosthesis used. For these services, gathering the information on a patient basis is critical. Indirect costs/overheads can be applied using simple or standard charges. For instance, depreciation should be categorised by asset group and allocated amongst the services or subservices. The key drivers, e.g. patient/time, are then used for allocation by patient purposes.

For each patient, the charges are accumulated for the services provided and a total patient cost is determined. Thereafter, analysis of services used and charges applied are crucial so that hospitals can be compared fairly and efficiencies based on best practice applied.
Charging by Casemix Group – how it would work

The core data to charge on the basis of casemix groupings is currently available in most hospitals. Essentially, individual diagnostic groups would be costed using the Casemix model and applied to appropriate patient cohorts. The extra resources required to operate it would be justified by the fact that costs and charges would more accurately dovetail and incentives to inefficiencies in the current system would be significantly reduced. Using DRGs, one price would be paid for each DRG; all patients will fall into one and only one DRG; the funder knows the price paid irrespective of length of stay; and the hospital knows that if they can be efficient and discharge patients earlier than the average length of stay for that DRG, they will make a gain.

Question C6. Please identify the main implications of charging the full economic cost of private and semi-private patient treatment in public hospitals for:

(a) You/your organisation/your members/users of the health system?
(b) The private health insurance market?
(c) The private healthcare market?
(d) The wider healthcare system?

The key implications raised include increased costs for insurers, increases in premia, a reduction in the numbers of people with private health insurance and increased pressure on public hospitals, especially for the more expensive procedures. The following is a more detailed summary of the responses, grouped accordingly.

(a) Implications - You/your organisation/your members/users of the health system?
As this question related to each individual respondent, there were no unifying themes. Instead of outlining all the responses, the key themes are included in the analysis of relevant questions below.

(b) Implications - The private health insurance market?
The most frequently cited implication of charging the full economic cost was that the higher costs for private insurers would lead to higher health insurance premiums. The knock-on effect of higher premiums would probably be a reduction in the proportion of the population with private health insurance. It was pointed out that this could lead to increased demands on public hospitals from patients who previously would have had private elective treatment in a private hospital. It was also stated that increasing the
charges would increase the incentive for private insurers to look for lower costs and a wider range of treatment in the private sector.

In terms of the health insurance companies themselves, increases in charges would directly increase their costs leading to reduced profitability. Ultimately, it could lower the incentives for insurers to remain in the market. Some respondents indicated that the private health insurance industry would be likely to resist the implementation of any increases in charges.

(c) Implications - The private healthcare market?
A point made by some respondents under this heading was that increases in charges will drive more patients out of the private beds in public hospitals and into private hospitals. Insurers may try to influence a greater proportion of patients with simpler elective treatments to use private hospitals, which may result in no net increase in revenues to public hospitals from higher private bed charges and possibly even a reduction in revenues from this source. The possibility was raised that insurers may change their policies so that only a portion of the hospital charge would be covered, with shortfalls having to be paid by patients.

(d) Implications - The wider healthcare system?
Some respondents repeated the point about a reduction in the number of people in the private health insurance market. However, an additional important point was made about the profile of the “leavers”. It was stated that the people most likely to drop their health insurance are the young, fit and healthy people and this would have a significantly negative impact on the viability of the entire health insurance market.

It was pointed out that any drop in health insurance membership would exacerbate the problem of waiting lists in the public system. It may also result in the public hospital system having to purchase services from the private sector as is currently the case with the National Treatment Purchase Fund (NTPF). However, it was stated that whether the economic cost is charged or not, the public system will continue to act as a safety net for the private system, both clinically and financially by taking on both the sickest and most expensive patients.
Question C7 & C8 - In your view, do the current levels of charge represent value for money for the taxpayer?

Eighteen respondents provided an answer to this question. A significant majority, 72% (n=13) of respondents answered “No”, they do not believe the charges represent value for money for the taxpayer. 11% (n=2) answered “Yes” and 17% (n=3) “Don’t Know” (see Fig. 17).

The main reasons given by those who responded “No” were in relation to the element of subsidy perceived as inherent in the current charge. One respondent commented that “As long as there is a cost subsidy for private patients in public hospitals there is an incentive to use public facilities for their clients for which they pay less than full economic cost”.

One respondent stated that it is in the public interest for the private sector to provide the maximum level of services to private patients as this maximises the availability of public facilities for public patients. It was stated that “Better VFM could be achieved by greater consideration of capacity in the private sector by the public sector, e.g. using private sector linear accelerators or hospital beds rather than increasing capacity in the public sector.”

Some issues were raised about the definition of VFM and costs, such as:

- It’s a larger issue than just the charge. VFM in healthcare is based on transparency, prompt access to diagnostics and treatment, quality of care, evidence based clinical practice, efficiencies in administration and other non frontline services;
- The current charge does not include all appropriate costs;
- The current method of allocation of costs is ineffective in improving patient outcomes, in driving efficiencies and cost savings; and
- The current system is administratively inefficient and is based on the faulty premise that it is fair or acceptable to treat patients as first or second class citizens.

One respondent stated that since the charges are reflective of the costs within the system, the prime issues are (a) the necessity of the cost, (b) the level (quantum) of the cost and (c) the efficiency of the cost. He went on to suggest in relation to (a), increased emphasis should be placed on national screening, health prevention e.g. chronic disease management programmes and vaccination programmes. Regarding (b), cost containment and reduction are essential ingredients. Under (c), the HSE should implement programmes such as care pathways, agreed lengths of stay, agreed discharge dates, effective bed management, and “24 x 7” diagnostic services to ensure efficiency and economy of care.

Two “Don’t Know” respondents made the point that an assertion as to whether VFM is being achieved is fundamentally flawed in the absence of detailed patient level costing information.

Of the “Yes” respondents, one stated the opposite to many of the “No” respondents by indicating that the public system is being subsidised by the private. It was commented that “The private health insured members are subsidising the public system without getting a better quality of service”.

**Question C9 & C10 - Do you agree with the recommendation of the Special Group on Public Service Numbers and Expenditure Programmes (McCarthy Report) to increase the charge for private facilities in public hospitals by 20% to reflect economic costs?**

Eighteen responses to this question were received. A significant majority, 61% (n=11) of respondents answered “No”, with 22% (n=4) answering “Yes” and 17% (n=3) choosing “Don’t Know” (see Fig. 18).
Those who responded “No” gave a variety of reasons in support of their view. A number pointed out that the recommendation is made purely as a method of raising extra funds and is not based on an examination of extra value being provided or extra costs being generated which would justify such an increase. Furthermore, one respondent pointed out that “it is not clear that a 20% increase will reflect the FULL economic cost”.

Some respondents re-iterated that the main problem is not the level of charge, but the entire methodology of charging that is flawed and should be changed. It was commented that: “We could not implement a 20% increase without first knowing the basis for the recommendation. It would be more appropriate to have an accurate assessment of the economic cost undertaken before pushing through bed charge increases.”

The argument that any increase in charges would lead to increased insurance premia, and subsequently, lower levels of private health insurance take-up was also again raised in response to this question. It was pointed out that the current economic environment should be a consideration ahead of any increases in charges. It was suggested that during the current period of deflation and high unemployment, any increase should be at a realistic level as it would have a knock-on effect on inflation and wage demands.

The “Yes” respondents commented that the increase would be a step in the right direction to end the subsidisation of private beds and that provided there is no change to healthcare policy and legislation, charges for private facilities in public hospitals could
be increased by 20% to reflect the economic cost. However, it was pointed out that the 20% increase should be applied only if the designated beds and claims processes are addressed immediately, with the economic charge following later. If this is not done, the cash will not flow and the recommendations will serve to fuel bad debts.

The “Don’t know” respondents commented that it is difficult to find the basis for a 20% increase in charges as opposed to some other level of increase. It was suggested that the implications of any increase in pressure on the public waiting lists, public services and the private insurance market should be considered prior to any charge increases being applied.

Question C11 & C12 - How satisfied are you with the current system of bed designation which operates in public hospitals?

Seventeen responses were received to this question. The vast majority (n=14) of respondents answered were either Very Dissatisfied (47%, n=8) or Dissatisfied (35%, n=6), with just one Satisfied (6%, n=1) and the remaining two being Neither Satisfied or Dissatisfied (12%, n=2) (see Fig. 19).

The key concerns raised in relation to bed designation were around the appropriateness of the system and how out of date it is perceived as being.

Several respondents stated that the bed designation system has not been updated in many years and the lack of a clear mechanism for doing so is a major problem. Inappropriate bed occupancy (e.g. patients who should be in nursing homes) and infection control are now major issues for hospitals but were not when the bed
designations were last examined. This sentiment is reflected in the statement from one respondent that “The Bed Designation was set in 1991 and is not reflective of changing requirements – (e.g. infection control requirements, move from inpatient to day case setting, move from day case to outpatient setting, etc) without any clear and responsive avenue of addressing the anomalies caused by these changing requirements”. A number of respondents commented that this has led to private insurers exploiting the fact that designations have not been updated and often refusing to pay for a private patient’s accommodation in a single or semi-private room on the technicality that the particular bed was not specifically designated since the last update. This was seen, in effect, as an additional subsidy to the health insurers.

The current bed designation system was also seen as being ineffective because individuals with private health cover cannot access beds, “especially private beds as they appear to be continually used for isolation and other purposes” as one respondent commented.

It was pointed out that almost all hospitals have far higher levels of private activity than permitted and there is significant variation in the percentage of private/semi-private beds designated in various public hospitals. A review of current bed designation was suggested.

Two suggestions aimed at improving the situation were offered by a respondent as follows:

- A ceiling on the percentage of private patients rather than a designation of actual beds would give the hospitals more flexibility. However, the rule whereby the first available bed is given to the most urgent patient irrespective of the status of the bed should not be changed; and
- Better co-ordination of patients between the public and private sectors would lead to a fairer allocation of beds to public patients. For instance, private patients could be transferred to private hospitals when no designated private beds are available.

Finally, it was pointed out that private patients who elect to be treated privately should be charged all appropriate costs whether in designated beds or not and that “it is
anomalous that private patients in non-designated and public beds are not liable for the daily charge yet they receive private treatment from the consultant”.

**Question C13 - Are there other issues which you believe need to be taken into consideration in relation to setting the level of charges? Please be specific in your answer.**

The main issues raised by the respondents (not covered elsewhere by other questions) who answered this question were as follows:

- Costs should relate to service and quality. One respondent went on to say “(Private Health Insurance) Members feel there is very little difference between being a public or private patient in public hospitals.”;
- The starting point for charging should be the full economic cost in each public hospital. The average cost should be increased by a premium for private or semi-private accommodation to give the prescribed charge;
- A separate costing of day care should take place to determine true day care costs as opposed to taking a percentage of the per diem rate. Arguably there should be no premium for private day care as there are usually no special facilities for private patients in day services units;
- Regulations governing private patients and Type A consultant contracts is a barrier; and
- Market considerations are now much more relevant. Market considerations would include the prices charged and the pricing structure used by private hospitals, the economic situation of falling employment, after-tax incomes and prices.

Some respondents made general points regarding the status of public patients. For instance, that a statutory right to hospital care must remain in place and that public policy regarding access for public patients needs to be adhered to. A further point was made that all private patients in public hospitals are potentially public patients also.

One respondent warned “… against the consequences of following the American model of healthcare where total healthcare expenditure accounts for over 15% of GDP. The

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7Consultants holding a Type A contract are fulltime to the public service and do not engage in privately remunerated professional medical practice. (Department of Health and Children, 2007).
statutory right to hospital care in Ireland must remain in place or, as in the US, those not
covered by private health insurance could be left bankrupt by healthcare charges. While
we may believe that we are following the European model of healthcare, it is important
to remember that in European countries the majority of hospitals and health insurance
companies are run on a voluntary not-for-profit basis.”
APPENDIX 3
LIST OF RESPONDENTS TO THE CONSULTATION PROCESS

<table>
<thead>
<tr>
<th>Title</th>
<th>First Name</th>
<th>Surname</th>
<th>Role</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE</td>
<td>Mr</td>
<td>Liam Woods</td>
<td>Director of Finance</td>
<td>HSE</td>
</tr>
<tr>
<td>Mr</td>
<td>Alan</td>
<td>Moran</td>
<td>Chair</td>
<td>HSE Private Insurers Working Group</td>
</tr>
<tr>
<td>Hospitals</td>
<td>Mr</td>
<td>Brian</td>
<td>Director of Finance</td>
<td>St. James’s Hospital</td>
</tr>
<tr>
<td>Mr</td>
<td>Anthony</td>
<td>Baynes</td>
<td>Finance Manager</td>
<td>Galway University Hospitals</td>
</tr>
<tr>
<td>Health Associations Groups</td>
<td>Mr</td>
<td>Stephen</td>
<td>Chairman</td>
<td>Irish Patients Association</td>
</tr>
<tr>
<td>Mr</td>
<td>Liam</td>
<td>Sloyan</td>
<td>Chief Executive</td>
<td>Health Insurance Authority</td>
</tr>
<tr>
<td>Mr</td>
<td>George</td>
<td>McNeice</td>
<td>Chief Executive</td>
<td>Irish Medical Organisation</td>
</tr>
<tr>
<td>Mr</td>
<td>Torlach</td>
<td>Denihan</td>
<td>Director</td>
<td>Independent Hospital Association of Ireland</td>
</tr>
<tr>
<td>Mr</td>
<td>Finbarr</td>
<td>Fitzpatrick</td>
<td>Secretary General</td>
<td>Irish Hospital Consultants Association</td>
</tr>
<tr>
<td>Private Health Insurance Companies</td>
<td>Mr</td>
<td>Brian</td>
<td>Head of Provider Affairs</td>
<td>Hibernian Aviva Health</td>
</tr>
<tr>
<td>Mr</td>
<td>Jimmy</td>
<td>Tolan</td>
<td>Chief Executive</td>
<td>VHI Healthcare</td>
</tr>
<tr>
<td>Mr</td>
<td>John</td>
<td>Connelly</td>
<td></td>
<td>ESB Staff Medical Provident Fund</td>
</tr>
<tr>
<td>Mr</td>
<td>John</td>
<td>Fahy</td>
<td>Secretary</td>
<td>St Pauls Garda Medical Aid</td>
</tr>
<tr>
<td>Ms</td>
<td>Hilda B</td>
<td>Bleakley</td>
<td>Hon. Secretary</td>
<td>The Goulding Voluntary Medical Scheme</td>
</tr>
<tr>
<td>Universities</td>
<td>Dr</td>
<td>Joseph</td>
<td>Faculty Administrator, Faculty of Health Sciences.</td>
<td>Trinity College Dublin</td>
</tr>
<tr>
<td>Mr</td>
<td>Tommy</td>
<td>Foy</td>
<td>HR Director</td>
<td>University of Limerick</td>
</tr>
<tr>
<td>Mr</td>
<td>Anthony</td>
<td>Staines</td>
<td>Chair of Health Systems Research</td>
<td>Dublin City University</td>
</tr>
<tr>
<td>Other</td>
<td>Mr</td>
<td>Andrew</td>
<td>CEO</td>
<td>Slainte Technologies</td>
</tr>
<tr>
<td>Mr</td>
<td>Seamus</td>
<td>Healy</td>
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<td>Service User</td>
</tr>
<tr>
<td>Ms</td>
<td>Joanne</td>
<td>Vance</td>
<td>Women's Health Worker</td>
<td>National Women's Council of Ireland</td>
</tr>
</tbody>
</table>

A submission was also received from the Beacon Medical Group following publication of the Interim Report of the Value for Money & Policy Review in February 2010.
APPENDIX 4
PROCESS DOCUMENT FOR THE ESTIMATE OF REVENUE GENERATED USING A PER CASE SYSTEM

- The HIPE data is based on the 2008 file and the costing information is from the Annual Financial Statements of the hospitals for 2008.
- The Casemix budget models were re-run, but the consultant pay costs were removed from the medical pay bucket and base prices. CMU calculation file was then recalculated and used for the VFM analysis.
- The Hospital Inpatient Enquiry dataset that was used in the Casemix budget model was isolated; the same conditions were applied to this as was applied to the Casemix model. Examples of these conditions are the hospitals to be included, daycase definition and DRG allocation and designation. Only inpatients were included in the analysis.
- The Casemix Unit (CMU) calculation file and the HIPE file were then merged and a CMU for each case was calculated based on the length of stay (LOS).
- Based on the stage of analysis (i.e. whether it’s by DRG, Group by DRG or Hospital by DRG) the data was accumulated to the appropriate level. For this document the data is for the National level so it was accumulated by DRG.
- The HIPE file was examined in order to separate records into public or private on discharge. The data was then aggregated to DRG level.
- The HIPE file was then used to calculate the LOS for DRG by discharge status (public/private). Lengths of stay were calculated for ICU, Private Beds, the average length of stay and total Beddays. This LOS data was then applied to the aggregated file.
- Using the HIPE file, the CMUs and Casemix Index (CMI) were calculated at DRG level, identifying public and private discharges. This data was then applied to the previous file in order to achieve a dataset that contains DRG level information, split by public and private for discharges, CMU, CMI, lengths of stay variables, Average Length of Stay (ALOS), Beddays, ICU Beddays and Private Beddays.
- The base prices that were calculated by the re-run budget model were then used to compute the total cost (= base price*CMU) and the cost per case (= base price*CMI) for each DRG and patient status.
• At this point ICU beddays were removed from the total beddays, and the average length of stay was recalculated and the Cost per Bedday was computed.

• The database then included the following variables DRG, DRG description, public/private status, discharges, CMU, CMI, base price, Total Cost, Cost per Case, Beddays, ALOS, Cost per Bedday, Discharges with Private Beddays coded, and Private Beddays.

• From this, separate Public and Private worksheets were generated.

• The data was then separated into records with private status on discharge, as this exercise are only interested in costing the private patients.

• ICU costs were removed at this point, by using the budget model to estimate what the ICU cost per DRG would be. Only 25% of these costs were included as it was assumed that 25% of costs are private costs.

• The Private ICU cost per case by DRG was then generated. This was applied to the Private dataset. The private discharges were multiplied by the ICU cost per case by DRG, to get a total private ICU cost for each of the DRGs.

• ICU costs were removed from the total costs and the Cost per Bedday and the Cost per Case were recalculated.

• The next stage of the analysis involved splitting the data into Private and Semi-Private Costs. In HIPE it is not possible to identify whether a patient is classed as Private and Semi-Private or what days were spent in Private and Semi-Private Beds. Using the rule of thumb that of private beds in the system, one-third is private and two-thirds are semi-private, the cases and beddays were split based on this assumption.

• A weighting algorithm was developed to allow the semi-private beds to be charged at 20% discount of the private beds; while keeping the total cost for total private discharges unchanged.

  o Cost = \( \frac{1}{3} \) (Beddays) (Private Cost) + \( \frac{2}{3} \) (Beddays) (Semi-Private Cost)

• Once the data has been split, a cross multiplication calculation was undertaken to generate a Chargeable Cost per Case and per Bedday; for both Private and Semi-Private Discharges. The hypothesis being that if we know that total cases gives us a certain Cost per Case, then we can estimate a Cost per Case based on the Discharges with Private Beddays coded; similarly for bedday calculations.

• Private Chargeable Cost per Case =
(Private Cost per Case * Discharges with Private Beddays coded)

Private Discharges;

- Once an estimate for the Private Chargeable Cost per Case was generated, a total chargeable cost per DRG could be calculated. Ultimately a National Total of what is chargeable for Private and Semi-Private Costs could then be calculated.

Assumptions:

A number of assumptions were employed in this analysis:

1. The private length of stay and ICU beddays are being accurately coded by the hospitals.
2. The rule of thumb regarding the split between private and semi-private beds is accurate, ie, one-third is private and two-thirds are semi-private.
3. That it is appropriate to apply this rule of thumb to cases to calculate Casemix cost per cases for private and semi-private discharges.
4. The 20% discount of the private bed cost applied to semi-private beds is appropriate.
5. The ICU costs from the Casemix budget model are robust enough for this analysis.
6. That 25% of the costs of ICU are attributed to private patients.
7. That by removing the consultant pay cost from the budget model it gives us a more accurate result.
8. Apart from the ICU and Consultant Pay costs no other inclusions/exclusions have been dealt with.

Terminology and Calculations

- **N** – Discharges –Sum of all records.
- **CMU** – Casemix Units - The CMU is an expression of the resource usage of a particular DRG relative to other DRGs.
  - There are 5 CMU variables in the payout scale for Same Days, One Days, MultiLow, Inlier and MultiHigh values; they are calculated during the Casemix Budget models; they are used in the Casemix unit’s algorithm. (See CMU tables for explanation of calculations).
  - 1. Multi low- is the rate paid for cases whose length of stay is less than the low boundary point.
2. Same Day- is the rate paid for cases which have been explicitly assigned as designated same day cases by the AR-DRG allocation.

3. One Day- is the rate paid for a single nights stay.

4. Inlier- is the rate paid if the length of stay falls with the low and high boundary points.

5. MultiHigh- is the rate paid if the length of stay falls outside of the high boundary point; they receive this rate for every day they stay above the high boundary point. At this point patients have passed the high cost critical phase of their care, compared to the national average.

- **CMI** – Casemix Index - represents a measurement of the Resource Usage of a typical hospital patient. E.g. Group ‘A’ has a CMI of 1 whilst Group ‘B’ has a CMI of 2. We say that the typical patient treated in Group ‘B’ consumes twice the resources of a typical patient in Group ‘A’.
  - CMI = CMU / discharges.

- **Groups** - Group 1 are the Dublin teaching hospitals plus CUH and UCHG, group 3 is maternity, group 4 is Paediatrics and group 2 is the rest of the general hospitals.

- **Casemix Costs** - The cost centres included in the Casemix model are Allied Health; CCU; Emergency; ICU; Imaging; Medical Pay (excl Consultant Costs); Nursing Pathology; Pharmacy; Theatre – Operating Procedure; Theatre – Non-Operating Procedure; Blood; Prosthesis;

- **Base Price** - The average cost per Casemix unit in a hospital when account has been taken of the resource usage of the hospitals workload and the hospitals associated costs.

- **Total Costs** – CMU * Base Price

- **Casemix Cost per Case** – Total Costs / Discharges

- **Beddays** – The sum of all lengths of stay

- **ALOS** – Average length of stay – Beddays / Discharges

- **Bedday Cost per DRG** – Total Costs /Beddays

- **Discharges Private LOS coded** – The number of private discharges where there was an actual private length of stay has been coded.

- **Chargeable calculations** –
  - Private Chargeable Cost per Case =
    \[
    \text{(Private Cost per Case} \times \text{Discharges with Private Beddays coded)} / \text{Private Discharges;}
    \]
- **ICU Bedday** - The sum of all private ICU lengths of stay coded.
- **Private Beddays** - The sum of all private lengths of stay coded.
- **Public/Private** – Public or Private Discharges refers to the patient’s status on discharge and not on the bed occupied.

**DRG Clinical Complexity Levels**: - In DRG allocation for inpatients the following clinical complexity can be defined as follows:

- **+/-CC** = With/Without Complication or Co-morbidity
- **S** = Severe
- **C** = Catastrophic
- **CCC** = Catastrophic complication or co-morbidity
- **SCC** = Severe complication or co-morbidity
- **CSCC** = (Either) Catastrophic or Severe complication or co-morbidity

**DRG Severity Levels** - There are four levels of severity that are used in DRG allocation:

- **A** = Multiple Major problems or catastrophic problems
- **B** = Major Problems
- **C** = other problems
- **D** = without problems
- **Z** = Indicates no split, i.e. it is a stand alone DRG and its severity level is not related to other DRGs.

**The algorithm for the private semi-private split is**

```c
/*Total Cost =
Fraction*BD*(Private) + (1-fraction)*BD*(Semi Private)
= 1/3 w (x) + 2/3w(y)
```

\[
w=total \text{ beddays}; \ x= Private \text{ Cost}; \ y=Semi-Private \text{ cost};
\]

```c
Fraction= 1/3 - private bedday split
1-fraction= semi-private bedday split 2/3

Semi Private= Private - 20 \% discount
y= x-0.2x = 0.8x

wghtfctr= (1 /(&fraction. +((1-&fraction.)*&discount.)))
\]
```

```c
x= wghtfctr(TotCost/w) \quad y= &discount.x
```

In this actual case 1/3 w (x)+2/3w( 0.8x) = TotCost

```c
0.333333wx+0.533332wx=TotCost
```

\[
x= 1.154(TotCost/w) \quad y= 0.8x
\]

```c
Private Value = x * 1/3w \quad Semi-Private Value = y*2/3w
```

139
For cost per case replace BD with total cases.
APPENDIX 5
REVISED METHODOLOGY FOR CALCULATING THE AVERAGE COST PER BEDDAY
## Worksheet 1: Average Costing Model

<table>
<thead>
<tr>
<th>HOSPITAL</th>
<th>CASEMIX COST PER BEDDAY 2008</th>
<th>CONSULT PER BEDDAY 2008</th>
<th>COST PER BEDDAY EXCL MEDI + CASEMIX 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R</strong></td>
<td><strong>R</strong></td>
<td><strong>R</strong></td>
<td><strong>R</strong></td>
</tr>
<tr>
<td><strong>Category 1</strong></td>
<td><strong>R</strong></td>
<td><strong>R</strong></td>
<td><strong>R</strong></td>
</tr>
<tr>
<td><strong>Category 2</strong></td>
<td><strong>R</strong></td>
<td><strong>R</strong></td>
<td><strong>R</strong></td>
</tr>
<tr>
<td><strong>Weighted Average</strong></td>
<td><strong>R</strong></td>
<td><strong>R</strong></td>
<td><strong>R</strong></td>
</tr>
</tbody>
</table>

### Data Analysis

**Weighted Average** was calculated by adding the total of the variable item for the group and dividing by the total bed-days for hospital in the group.

### Example

- Total of inpatient cost for all hospitals in the group divided by the total of the bed-day for the hospitals in that group.
### Worksheet 2: Exceptional Costs and Unique Issues

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total amount excluded in 2008</td>
<td>€21,527,304</td>
</tr>
<tr>
<td>Proportion relating to in-patient beds</td>
<td>€12,133,547</td>
</tr>
<tr>
<td>Total number of in-patient bed days in 2008</td>
<td>3,194,240</td>
</tr>
<tr>
<td>Cost per bed day in 2008</td>
<td>€4</td>
</tr>
</tbody>
</table>
### Worksheet 3: Inflator

#### 2009

<table>
<thead>
<tr>
<th>Inflation Estimate</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non Pay</td>
<td>-2.10%</td>
</tr>
<tr>
<td>Pay</td>
<td>1.00%</td>
</tr>
</tbody>
</table>

Medical products, appliances and equipment from Health Inflation element of CPI

| Percentage Inflator for 2009 | 0.07% |

HSE Estimate

#### 2010

<table>
<thead>
<tr>
<th>Inflation Estimate</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non Pay</td>
<td>-0.75%</td>
</tr>
<tr>
<td>Pay</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

Department of Finance Estimate for CPI in 2010

| Percentage Inflator for 2009 | -0.23% |

Estimate
### Worksheet 4: Capital

<table>
<thead>
<tr>
<th></th>
<th>Major Teaching</th>
<th>Major Regional</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost on average per Bed (2007)</td>
<td>1,000,000</td>
<td>576,632</td>
<td>788,316</td>
</tr>
<tr>
<td>Building on average per bed (2007)</td>
<td>70% 700,000</td>
<td>70% 403,642</td>
<td>70% 551,821</td>
</tr>
<tr>
<td>Reduction in building costs since 2007</td>
<td>20% 200,000</td>
<td>20% 40,3642</td>
<td>20% 55,1821</td>
</tr>
<tr>
<td>Fees as % of building</td>
<td>10% 30,000</td>
<td>10% 14,3642</td>
<td>10% 22,097</td>
</tr>
<tr>
<td>VAT increase on fees</td>
<td>0.5% 1,500</td>
<td>0.5% 818</td>
<td>0.5% 1,229</td>
</tr>
<tr>
<td>Reduced building cost:</td>
<td>560,000</td>
<td>322,914</td>
<td>441,457</td>
</tr>
<tr>
<td>VAT adjustment on fees:</td>
<td>-2,660</td>
<td>-1,534</td>
<td>-2,097</td>
</tr>
<tr>
<td>Building on average per bed (2009)</td>
<td>557,340</td>
<td>321,380</td>
<td>439,360</td>
</tr>
<tr>
<td>Equipping (2007)</td>
<td>30% 300,000</td>
<td>30% 172,990</td>
<td>30% 236,495</td>
</tr>
<tr>
<td>Reduction in equipping costs since 2007</td>
<td>10% 30,000</td>
<td>10% 14,3642</td>
<td>10% 22,097</td>
</tr>
<tr>
<td>VAT increase on equipment</td>
<td>0.5% 1,500</td>
<td>0.5% 818</td>
<td>0.5% 1,229</td>
</tr>
<tr>
<td>Old equipping cost (excl. VAT):</td>
<td>247,934</td>
<td>142,967</td>
<td>195,450</td>
</tr>
<tr>
<td>New equipping cost (excl. VAT):</td>
<td>223,140</td>
<td>128,670</td>
<td>175,905</td>
</tr>
<tr>
<td>VAT on new equipping cost:</td>
<td>47,975</td>
<td>27,664</td>
<td>37,820</td>
</tr>
<tr>
<td>Equipping cost per bed (2009)</td>
<td>271,116</td>
<td>156,334</td>
<td>213,725</td>
</tr>
<tr>
<td>Total Cost per Private Bed (2009)</td>
<td>828,456</td>
<td>477,714</td>
<td>653,085</td>
</tr>
<tr>
<td>Depreciation period for Building (years)</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Depreciation period for Equipment (years)</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Days available per year</td>
<td>360</td>
<td>360</td>
<td>360</td>
</tr>
<tr>
<td>Occupancy rate</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>Cost per private bed per day (€)</td>
<td>149.12</td>
<td>85.99</td>
<td>117.55</td>
</tr>
</tbody>
</table>
## Worksheet 5: State Claims Agency Clinical Indemnity Scheme

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Hospitals Paid Amounts</td>
<td>€13,506,200</td>
<td>€38,163,312</td>
</tr>
<tr>
<td>Total Clinical Indemnity Scheme Paid Amounts</td>
<td>€15,300,554</td>
<td>€39,397,815</td>
</tr>
<tr>
<td>Percentage Relating to Acute Hospitals</td>
<td>88.27%</td>
<td>96.87%</td>
</tr>
<tr>
<td>Average Percentage Relating to Acute Hospitals</td>
<td>2009 Contribution to Scheme</td>
<td>€60,000,000</td>
</tr>
<tr>
<td>Estimate of Acute contribution (93%)</td>
<td>€55,800,000</td>
<td></td>
</tr>
<tr>
<td>Total amount in 2009</td>
<td>€55,800,000</td>
<td></td>
</tr>
<tr>
<td>Proportion relating to in-patient beds (71%)</td>
<td>€39,618,000</td>
<td></td>
</tr>
<tr>
<td>Total number of bed days in 2009 Service Plan</td>
<td>3,390,370</td>
<td></td>
</tr>
<tr>
<td>Cost per bed day in 2009</td>
<td>€12</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 6
FORECASTING MODEL
Worksheet 1: Establishing Percentage of Chargeable Private Beddays and Breakdown by Category and Private vs Semi-Private

<table>
<thead>
<tr>
<th>No. of Private and Semi-Private Beddays (Note 1)</th>
<th>No. of chargeable Beddays as per Casemix Data (Note 2)</th>
<th>% of Private Beddays which are chargeable (Note 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>747,639</td>
<td>385,656</td>
</tr>
<tr>
<td></td>
<td></td>
<td>52%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Private Beddays (Note 4)</th>
<th>Private 1/3</th>
<th>Semi-Private 2/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1</td>
<td>579,235</td>
<td>193,078</td>
<td>386,157</td>
</tr>
<tr>
<td>Category 2</td>
<td>168,404</td>
<td>56,135</td>
<td>112,269</td>
</tr>
</tbody>
</table>

Breakdown of Private and Semi-Private Beddays by % (Note 5)

- Category 1 Private Beds: 26%
- Category 1 Semi Private Beds: 52%
- Category 2 Private Beds: 8%
- Category 2 Semi-Private Beds: 15%
- Total: 100%

Note 1: Figure for no of private and semi-private beddays is taken from HIPE 08 data supplied by Casemix
Note 2: Figure for no of chargeable private and semi-private beddays is taken from HIPE 08 data supplied by Casemix
Note 3: Chargable beds are designated private or semi-private beds with private patients located in them
Note 4: Sourced from HIPE 08 data supplied by Casemix
Note 5: Breakdown of Private and Semi-Private in Category 1 and 2 hospitals is based on HIPE 08 chargeable bed data and the application of the one third private, two thirds semi-private rule. Percentages shown are rounded to nearest % (rounded)

<table>
<thead>
<tr>
<th>Total No of Beddays (public and private) Note 1</th>
<th>No. of Private and Semi-Private Beddays (Note 2)</th>
<th>No. of chargeable Beddays as per Casemix Data (Note 3)</th>
<th>% of Private Beddays which are chargeable</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,390,370</td>
<td>678,074</td>
<td>352,598</td>
<td>52%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Breakdown of Private and Semi-Private Beddays by % (Note 4)</th>
<th>Beddays</th>
<th>2009 prices (Note 5)</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 Private Beds</td>
<td>26%</td>
<td>91,059</td>
<td>€82,863,584</td>
</tr>
<tr>
<td>Category 1 Semi Private Beds</td>
<td>52%</td>
<td>182,118</td>
<td>€129,849,967</td>
</tr>
<tr>
<td>Category 2 Private Beds</td>
<td>8%</td>
<td>26,474</td>
<td>€16,069,684</td>
</tr>
<tr>
<td>Category 2 Semi-Private Beds</td>
<td>15%</td>
<td>52,948</td>
<td>€25,838,569</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>352,598</td>
<td>€254,621,804</td>
</tr>
</tbody>
</table>

Notes and Assumptions

Note 1 Figure for 2009 beddays is the number set out in the HSE Service Plan for 2009. Acute Hospitals Unit have recommended the use of this figure.

Note 2 Rule of Thumb that 20% of Overall Beddays are Private is applied

Note 3 No. of Chargeable beddays is multiplied by 52% as established by 2008 data in Worksheet 1

Note 4 As per breakdown established by 2008 data in Worksheet 1. Percentages shown are rounded to nearest %.

Note 5 2009 prices applied are the Maintenance Charges only and does not include the Statutory Charge element

Note 6 These forecasts do not incorporate the possibility of a reaction from private health insurance companies which leads to more procedures being carried out in private hospitals.
Worksheet 3: Charge the Economic Cost
Options for Charge 2010

<table>
<thead>
<tr>
<th>Weighted Average Cost</th>
<th>Statutory Charge</th>
<th>Average Cost less Statutory Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Cost Category 1</td>
<td>1122</td>
<td>75</td>
</tr>
<tr>
<td>Average Cost Category 2</td>
<td>911</td>
<td>75</td>
</tr>
</tbody>
</table>

**Proposed charges**

<table>
<thead>
<tr>
<th>Category 1 - Private</th>
<th>€1,047</th>
<th>2009 Increase between 09 and 10</th>
<th>910</th>
<th>15%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 - Semi-Private</td>
<td>€838</td>
<td>Note 1</td>
<td>713</td>
<td>17%</td>
</tr>
<tr>
<td>Category 2 - Private</td>
<td>€836</td>
<td></td>
<td>607</td>
<td>38%</td>
</tr>
<tr>
<td>Category 2 - Semi-Private</td>
<td>€669</td>
<td></td>
<td>488</td>
<td>37%</td>
</tr>
</tbody>
</table>

**Note 1**  For the purpose of this calculation, the semi-private charges have been set at 80% of the charge for private facilities

<table>
<thead>
<tr>
<th>% of chargeable private beds</th>
<th>Beddays</th>
<th>2010 prices</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 Private Beds</td>
<td>26%</td>
<td>91,059</td>
<td>€1,047</td>
</tr>
<tr>
<td>Category 1 Semi Private Beds</td>
<td>52%</td>
<td>182,118</td>
<td>€838</td>
</tr>
<tr>
<td>Category 2 Private Beds</td>
<td>8%</td>
<td>26,474</td>
<td>€836</td>
</tr>
<tr>
<td>Category 2 Semi Private Beds</td>
<td>15%</td>
<td>52,948</td>
<td>€669</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>352,598</td>
<td></td>
</tr>
</tbody>
</table>

Estimate of 2009 Income €254,621,804
Estimate of 2010 Income €305,424,255

Increase in Revenue in 2010 over 2009 €50,802,452
### Worksheet 4: Apply Percentage Increases

<table>
<thead>
<tr>
<th>Category</th>
<th>% of chargeable private beds</th>
<th>Beddays 2009</th>
<th>Prices 0% Increase</th>
<th>Income 0% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 Private Beds</td>
<td>26% 91,059</td>
<td>910</td>
<td>€910</td>
<td>€82,863,584</td>
</tr>
<tr>
<td>Category 1 Semi Private Beds</td>
<td>52% 182,118</td>
<td>713</td>
<td>€713</td>
<td>€129,949,967</td>
</tr>
<tr>
<td>Category 2 Private Beds</td>
<td>8% 26,474</td>
<td>607</td>
<td>€607</td>
<td>€16,903,684</td>
</tr>
<tr>
<td>Category 2 Semi-Private Beds</td>
<td>15% 52,948</td>
<td>488</td>
<td>€488</td>
<td>€25,838,569</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100% 352,598</td>
<td></td>
<td></td>
<td>€254,621,804</td>
</tr>
</tbody>
</table>

**Increase in Revenue over 2009**

€0

<table>
<thead>
<tr>
<th>Category</th>
<th>% of chargeable private beds</th>
<th>Beddays 2009</th>
<th>Prices 5% Increase</th>
<th>Income 5% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 Private Beds</td>
<td>26% 91,059</td>
<td>910</td>
<td>€956</td>
<td>€87,006,763</td>
</tr>
<tr>
<td>Category 1 Semi Private Beds</td>
<td>52% 182,118</td>
<td>713</td>
<td>€749</td>
<td>€136,342,466</td>
</tr>
<tr>
<td>Category 2 Private Beds</td>
<td>8% 26,474</td>
<td>607</td>
<td>€637</td>
<td>€16,873,168</td>
</tr>
<tr>
<td>Category 2 Semi-Private Beds</td>
<td>15% 52,948</td>
<td>488</td>
<td>€512</td>
<td>€27,130,497</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100% 352,598</td>
<td></td>
<td></td>
<td>€267,352,894</td>
</tr>
</tbody>
</table>

**Increase in Revenue over 2009**

€12,731,090

<table>
<thead>
<tr>
<th>Category</th>
<th>% of chargeable private beds</th>
<th>Beddays 2009</th>
<th>Prices 10% Increase</th>
<th>Income 10% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 Private Beds</td>
<td>26% 91,059</td>
<td>910</td>
<td>€1,001</td>
<td>€91,149,942</td>
</tr>
<tr>
<td>Category 1 Semi Private Beds</td>
<td>52% 182,118</td>
<td>713</td>
<td>€784</td>
<td>€142,834,964</td>
</tr>
<tr>
<td>Category 2 Private Beds</td>
<td>8% 26,474</td>
<td>607</td>
<td>€668</td>
<td>€17,676,652</td>
</tr>
<tr>
<td>Category 2 Semi-Private Beds</td>
<td>15% 52,948</td>
<td>488</td>
<td>€537</td>
<td>€28,422,426</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100% 352,598</td>
<td></td>
<td></td>
<td>€280,083,984</td>
</tr>
</tbody>
</table>

**Increase in Revenue over 2009**

€25,462,180

<table>
<thead>
<tr>
<th>Category</th>
<th>% of chargeable private beds</th>
<th>Beddays 2009</th>
<th>Prices 15% Increase</th>
<th>Income 15% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 Private Beds</td>
<td>26% 91,059</td>
<td>910</td>
<td>€1,047</td>
<td>€95,293,121</td>
</tr>
<tr>
<td>Category 1 Semi Private Beds</td>
<td>52% 182,118</td>
<td>713</td>
<td>€820</td>
<td>€149,327,463</td>
</tr>
<tr>
<td>Category 2 Private Beds</td>
<td>8% 26,474</td>
<td>607</td>
<td>€698</td>
<td>€18,480,136</td>
</tr>
<tr>
<td>Category 2 Semi-Private Beds</td>
<td>15% 52,948</td>
<td>488</td>
<td>€561</td>
<td>€29,714,354</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100% 352,598</td>
<td></td>
<td></td>
<td>€292,815,074</td>
</tr>
</tbody>
</table>

**Increase in Revenue over 2009**

€38,193,271

<table>
<thead>
<tr>
<th>Category</th>
<th>% of chargeable private beds</th>
<th>Beddays 2009</th>
<th>Prices 20% Increase</th>
<th>Income 20% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 Private Beds</td>
<td>26% 91,059</td>
<td>910</td>
<td>€1,092</td>
<td>€99,436,300</td>
</tr>
<tr>
<td>Category 1 Semi Private Beds</td>
<td>52% 182,118</td>
<td>713</td>
<td>€856</td>
<td>€155,819,961</td>
</tr>
<tr>
<td>Category 2 Private Beds</td>
<td>8% 26,474</td>
<td>607</td>
<td>€728</td>
<td>€19,283,620</td>
</tr>
<tr>
<td>Category 2 Semi-Private Beds</td>
<td>15% 52,948</td>
<td>488</td>
<td>€586</td>
<td>€31,006,283</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100% 352,598</td>
<td></td>
<td></td>
<td>€305,546,164</td>
</tr>
</tbody>
</table>

**Increase in Revenue over 2009**

€50,924,361

<table>
<thead>
<tr>
<th>Category</th>
<th>% of chargeable private beds</th>
<th>Beddays 2009</th>
<th>Prices 30% Increase</th>
<th>Income 30% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 Private Beds</td>
<td>26% 91,059</td>
<td>910</td>
<td>€1,183</td>
<td>€107,722,609</td>
</tr>
<tr>
<td>Category 1 Semi Private Beds</td>
<td>52% 182,118</td>
<td>713</td>
<td>€927</td>
<td>€168,804,958</td>
</tr>
<tr>
<td>Category 2 Private Beds</td>
<td>8% 26,474</td>
<td>607</td>
<td>€789</td>
<td>€20,890,589</td>
</tr>
<tr>
<td>Category 2 Semi-Private Beds</td>
<td>15% 52,948</td>
<td>488</td>
<td>€634</td>
<td>€33,590,139</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100% 352,598</td>
<td></td>
<td></td>
<td>€331,008,345</td>
</tr>
</tbody>
</table>

**Increase in Revenue over 2009**

€76,366,541

<table>
<thead>
<tr>
<th>Category</th>
<th>% of chargeable private beds</th>
<th>Beddays 2009</th>
<th>Prices 35% Increase</th>
<th>Income 35% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 Private Beds</td>
<td>26% 91,059</td>
<td>910</td>
<td>€1,228</td>
<td>€111,885,826</td>
</tr>
<tr>
<td>Category 1 Semi Private Beds</td>
<td>52% 182,118</td>
<td>713</td>
<td>€963</td>
<td>€175,297,406</td>
</tr>
<tr>
<td>Category 2 Private Beds</td>
<td>8% 26,474</td>
<td>607</td>
<td>€815</td>
<td>€21,594,570</td>
</tr>
<tr>
<td>Category 2 Semi-Private Beds</td>
<td>15% 52,948</td>
<td>488</td>
<td>€659</td>
<td>€34,862,068</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100% 352,598</td>
<td></td>
<td></td>
<td>€343,739,435</td>
</tr>
</tbody>
</table>

**Increase in Revenue over 2009**

€88,117,624

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Estimate of 2009 Income €254,621,804
Worksheet 5: Reduce Subsidy to 10% for Private and Discount by 20% Further for Semi-Private

<table>
<thead>
<tr>
<th>Category</th>
<th>Average Cost less Statutory Charge</th>
<th>Subtract Subsidy/Discount (Note 1)</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 - Private</td>
<td>1046</td>
<td>941</td>
<td>3%</td>
</tr>
<tr>
<td>Category 1 - Semi-Private</td>
<td>1046</td>
<td>753</td>
<td>6%</td>
</tr>
<tr>
<td>Category 2 - Private</td>
<td>836</td>
<td>752</td>
<td>24%</td>
</tr>
<tr>
<td>Category 2 - Semi-Private</td>
<td>836</td>
<td>602</td>
<td>23%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% of chargeable private beds</th>
<th>Beddays</th>
<th>2010 Prices</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 - Private</td>
<td>26%</td>
<td>91,059</td>
<td>85,722,833</td>
</tr>
<tr>
<td>Category 1 - Semi-Private</td>
<td>52%</td>
<td>182,118</td>
<td>137,156,532</td>
</tr>
<tr>
<td>Category 2 - Private</td>
<td>8%</td>
<td>26,474</td>
<td>19,918,995</td>
</tr>
<tr>
<td>Category 2 - Semi-Private</td>
<td>15%</td>
<td>52,948</td>
<td>31,870,392</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>352,598</td>
<td>274,668,752</td>
</tr>
</tbody>
</table>

Increase in Revenue in 2010 over 2009: € 20,046,948

Note 1: Figures are rounded

<table>
<thead>
<tr>
<th>2009 Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>910</td>
</tr>
<tr>
<td>713</td>
</tr>
<tr>
<td>607</td>
</tr>
<tr>
<td>488</td>
</tr>
</tbody>
</table>