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Trends in Public / Private Patient Activity in Public Acute Hospitals

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Introduction
This paper has been prepared by the Department of Health to review the trends in activity in public hospitals since the reforms introduced under the Health (Amendment) Act 2013 commenced. The paper primarily analyses information at national level on acute public hospital patient discharges between 2012 and 2016 on a public / private patient basis.

Background
In 2014 a change in policy was implemented enabling all patients that opt to be treated privately in a public hospital to be subject to charges, as provided for by the Health (Amendment) Act 2013. The Act addressed a situation identified by the Comptroller and Auditor General in his 2008 Report, whereby when a private inpatient was accommodated in a public or a non-designated bed, no private inpatient charge applied despite having a private treatment relationship with their consultant. This paper undertakes an analysis of the available evidence from selected sources over recent years to assist policy makers in understanding the impact of this change on public hospital activity.

Until 2014, 20% of beds in public hospitals were deemed “private” or “semi-private” and therefore chargeable to private patients when occupying such beds. From 1 January 2014, revised charges were levied on all private patients irrespective of the type of bed occupied. The change meant that a private patient in a public hospital now pays daily private inpatient rates of €659 or €813 for a bed in a multi-occupancy room (also described as a “public bed”) and rates of €800 or €1,000 for a single occupancy room (also described as a “private bed”) in Category I and Category II hospitals respectively. This compares to a daily rate of €80 (from January 1st 2017) that public patients are charged, which is capped at €800 in any 12-month period.

Trends in Private Health Insurance
The number of persons holding health insurance at December 2010 was 2.228m (49% of the population). At the end of December 2014 this number had dropped to 2.025m (44%) but it subsequently increased to 2.152m as of December 2016 (46% of the population). The decline in health insurance coverage reflects the employment downturn and includes a higher proportionate decline in the numbers of younger persons with private health insurance.

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1 The absence of a maintenance charge in such instances represented a significant loss of income to the public hospital system and to taxpayers and was an indirect subsidy to private insurance companies, who cover most private patients.
3 Population estimates based on Census 2011 data. Figures have been rounded to the nearest percentage point.
4 Population by age group with private health insurance excludes those with restricted undertakings and /or those serving initial waiting periods.
At the same time the costs of health-care increased, resulting in the higher costs of all claims in the market being borne by a smaller number of insured persons. This contributed to a number of years of significant double digit increases in private health insurance premiums as Chart 2 illustrates.\footnote{1}\footnote{Over the same period, the cost of providing health care (such as GP visits etc.) has increased by almost 8\%.}

Chart 3 illustrates the income from private patients received by public hospitals from 2012 to 2016. In 2014, when the legislation became effective, this amount had increased by €103 million from the previous year (€570 million compared to €467 million). In 2016, annual private patient income had increased to €626\footnote{2} million, a 34% increase compared to the 2013 level.

\footnote{1} Other drivers of health insurance premium costs include: claims costs, ageing of the market, health care innovations and insurance market conditions.
\footnote{2} This amount is provisional as 2016 accounts are not yet audited.


Trends in Hospital Bed Composition

As illustrated in Chart 4, there has been a decrease in the total number of available inpatient beds from 2009 to 2016 of 738 (representing a decrease of 6% compared to the 2009 level). However since 2013, this declining trend began to be reversed primarily as a result of the addition of 305 inpatient beds in public hospitals.

Since 2009, there has been a net increase of 370 daycase beds (21%), primarily as a result of the addition of 300 public daycase beds to facilitate improved efficiencies from providing more treatments on a daycase basis.
Trends in Hospital activity

Data from the Hospital In-Patient Enquiry (HIPE) system is discharge-based and covers a patient’s entire episode of care from admission to discharge.

In the HIPE analysis undertaken for this report, the following points regarding the data are important to consider:

- HIPE data for 2016 is provisional and subject to change\(^1\).
- According to HIPE definitions the Public / Private status of the patient refers to whether the patient is treated on a private or public basis rather than the type of bed occupied or whether the person has health insurance or not.
- Analysis excludes radiotherapy data from St. Luke’s Radiation Oncology Network centres located in Beaumont and St. James’s hospitals for comparability purposes. These data were not reported in the HIPE system prior to 2015\(^2\).
- Activity from private hospitals is not reported in HIPE and is not included in this analysis.
- Analysis excludes inpatient and daycase activity from a small number of hospitals who report data to HIPE which are not acute HSE hospitals.
- Each individual hospital is responsible for recording their activity correctly in the HIPE system.
- HIPE is a record of patient discharges from public hospitals primarily set up to facilitate morbidity analysis. HIPE is neither a billing system nor a bed management system.

The exclusion of available data described above facilitates consistent trend analysis of public / private hospital discharges over recent years.

Number and composition of patient discharges

As Chart 6A illustrates, during the period 2012 to 2016 the total number of all hospital discharges (comprising of daycase, inpatient and maternity discharges) has increased by 111,000 to just over 1.65 million (an increase of 7% from 2012 levels). During this period, the breakdown of all discharges

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\(^1\) Analysis is based on data file HIPE_2016_ASOF_0217_V16

\(^2\) For a full breakdown of the hospitals included in this analysis, please see Appendix I
by public and private status remained largely stable, with the proportion of public patients out of the total number varying slightly between 83% and 84% over the 4 years.

![Chart 6A: Public / Private status of All Discharges 2012-2016](chart6a.png)

Source: HIPE

Chart 6B illustrates the public, private and total cumulative change in all discharges relative to 2012 levels. Public patients were the largest source of the increase in all hospital discharges over the four years, accounting for over 95,000 more discharges (7% compared to the 2012 level), while private patient discharges increased by under 16,000 (6% compared to the 2012 level).

![Chart 6B: Cumulative changes in All Discharges from 2012 to 2016](chart6b.png)

Source: HIPE

Chart 6C illustrates discharges broken down by age and public/private status for the 2012-2016 period. There was a 1% decrease in public patients aged 17 and under treated between 2012 and 2016 (a decline of 1,000 discharges), in the same period there was a 7% decrease (3,000) in discharges treated on a private basis in the same age category. For discharges aged 18-69, public patient discharges increased by 45,000 (5% compared to 2012 levels), while private discharges increased by 3,000 (2% compared to 2012 levels). For patients aged 70+ years, there was an increase of 51,000 public discharges (16% compared to 2012 levels) while private discharges increased by 16,000 (31% compared to 2012 levels).
Chart 6D provides a detailed breakdown of year-on-year changes for all discharge types by admission type. Public elective discharges (which are primarily daycases) are the largest component of growth in discharge numbers for each year, with public emergency discharges providing the second largest increase in numbers over the 4-year period. Private emergency discharges increased by 4,000 (5% compared to 2012 levels).

**Daycase analysis**

In 2016, daycase discharges made up 61% of all public hospital discharges, and this proportion has been increasing in recent years and is likely to increase into the future as public hospitals seek to improve efficiency further. Chart 7A illustrates the annual number of daycase discharges between 2012 and 2016, broken down by public and private patients, while Chart 7B illustrates the cumulative change in daycase discharges compared to 2012. Over the period, total daycase discharges increased by 92,000 to 1.01 million (an increase of 10% compared to 2012 levels). Public daycase discharges increased by 74,000 to 862,000 (a 9% increase compared to 2012), while private daycase discharges increased by 19,000 to 148,000 (an increase of 14% compared to 2012 levels).
Public daycase discharges as a proportion of total daycase discharges slightly decreased from 86% to 85% over the 4 years.

**Inpatient Analysis**

Chart 8A and Chart 8B illustrate the public and private inpatient discharge numbers between 2012 and 2016. The total number of inpatient discharges increased by just over 19,000 to 640,000 (an increase of 3% from 2012 levels). Public inpatient discharges increased by 22,000 to 515,000 (4% compared to 2012 levels), while in contrast, private inpatient discharges actually declined by 3,000 to 125,000 (2% lower than 2012 levels). Public inpatient discharges as a proportion of total inpatient discharges has increased slightly from 79% in 2012 to 80% in 2016.
Elective / Emergency breakdown of inpatient discharges

Inpatient discharges can be further analysed by emergency inpatient and elective inpatient discharges. Chart 9A and Chart 9B illustrate emergency inpatient discharges between 2012 and 2016. Total emergency inpatient discharges have increased by 40,000 to 418,000 over the four years (an 11% increase compared to 2012 levels). Public patients make up the largest component of this increase, having increased by 37,000 to 338,000 discharges (12% compared to 2012 levels), while private emergency discharges have increased by under 4,000 to 80,000 (5% higher compared to 2012 levels). Public emergency inpatient discharges as a proportion of the total emergency inpatient discharges has increased slightly, from 80% in 2012 to 81% in 2016.
Chart 9C illustrates emergency inpatient discharges by age categories during the period 2012 to 2016. The proportion of public discharges aged 17 and under remained static at 74% of total discharges for that age cohort. For the 18-69 age cohort, the proportion of public emergency inpatient discharges increased from 81% to 83%, while for the 70+ age cohort, the proportion of public emergency inpatient discharges decreased from 82% in 2012 to 81% in 2016.
Chart 10A and Chart 10B illustrate elective inpatient discharges between 2012 and 2016. Over the period, elective inpatient discharges have decreased by 9,000 to 92,000 (9% lower compared to the 2012 level). This may be partly explained by the increased use of daycase beds, allowing for more minor procedures to be treated on a daycase basis, whereas in the past they may have involved an overnight stay. Public elective inpatient discharges have decreased by 7,000 to 67,000 (9% lower than 2012 levels) and private elective inpatient discharges have decreased by 2,000 to 25,000 (also 9% lower than 2012 levels). The composition of public elective inpatient discharges has remained relatively constant – in 2012 it measured 73%, it fluctuated between 72% and 74% between 2013 and 2015, and returned to 73% in 2016.
Chart 10C illustrates the public / private proportion of elective inpatient discharges by age category. For discharges aged 17 and under, the proportion of public elective inpatient discharges of total elective inpatient discharges remained stable at 74% from 2012 to 2014. For elective inpatient discharges aged 18-69, the proportion of public patients increased from 72% to 73%. For elective Inpatient discharges aged 70+, the proportion of public patients decreased from 75% in 2012 to 72% in 2016.

Maternity related Discharges
Chart 11A illustrates maternity related discharge numbers broken down by public and private patients between 2012 and 2016. There is no discernible trend from this chart, with the annual number of maternity discharges fluctuating around an average of 151,000. The proportion of public maternity discharges of total maternity discharges is relatively constant also, having increased slightly from 83% in 2012 to 84% in 2016. Chart 11B shows the cumulative change in maternity discharges relative to 2012 broken down by public and private patients. From Chart 11B, it can be seen that the absolute numbers of private maternity discharges in 2016 is 2,000 lower than in 2012 (a 9% decline). This decline is in the context of relatively small numbers involved.
Discharges by category of hospital

Chart 12 shows the breakdown of discharges by Category I and Category II hospitals as set out by the Health (Amendment) Act 2013. Category I hospitals in recent years have tended to have a slightly higher proportion of private discharges than Category II hospitals (17% private patients in Category I hospitals compared to 15% in Category II hospitals) and this trend has been constant over the four years.

1 See Appendix I for a breakdown of the Category I and Category II hospitals included in this analysis
**Average length of stay**

Chart 13 illustrates that private inpatients are staying slightly longer than in 2012 (0.23 days), whereas the length of stay for public inpatients has remained more stable (having increased by 0.03 days since 2012). In 2012, public patients’ average length of stay was slightly longer than for private patients (5.47 compared to 5.34); this had reversed in 2016 with private patients’ average length of stay increasing to 5.57, while public patients’ average length of stay was 5.5.

Chart 14 illustrates the Average length of stay by age category and admission type in 2016. We can see that the longest stay is for emergency inpatients aged 70+ with both public and private patients averaging approximately 10 days\(^1\).

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\(^1\) When calculating averages for these cases, the result may be skewed by a small number of extreme long stays.
Bed day activity analysis
While HIPE can be used to identify the number of days spent in different room types, its primary function is to facilitate morbidity analysis. HIPE was not designed to serve as a bed management system or a billing system. Differences in coding practices and IT systems between hospitals makes it difficult to form a robust analysis around bed-days used across different hospital bed types.

However, initial analysis completed as part of this exercise at national level has shown a change in room-type occupancy for both public and private patients. Private patients now spend less time in private or single occupancy rooms than would have been the case prior to 2014. There is also evidence to suggest that public patients are spending more bed-days in single occupancy rooms than prior to 2014. In addition to the reforms introduced in 2014 by the Health (Amendment) Act 2013, this change in room type occupancy may also be explained by factors such as infection control, end-of-life care or other social factors.

Conclusion
The core focus of the analysis undertaken in this paper was to examine trends in the total and public / private components of public hospital activity between 2012 and 2016 and assess the impact of the reforms introduced under the Health (Amendment) Act 2013.

It is clear from the foregoing analysis that the total number of discharges in public hospitals has increased by 7% between 2012 and 2016 to 1.65 million discharges. Most of this increase occurred for daycases, which increased by 10% over the four years (an absolute increase of 92,000 daycase discharges). Emergency inpatient discharges also increased by 11% over the same period (an absolute increase of 40,000 discharges). In contrast, elective inpatient discharges have decreased by 9,000 over the four years (a reduction of 9% of the 2012 level). There was no discernable trend for maternity discharges.

Regarding the public / private composition of public hospital discharges, this analysis did not identify any significant impact arising from the reforms that became effective in 2014. Public patients accounted for between 83% and 84% of total public hospital discharges over the 2012 to 2016 period. Within daycase discharges, public patients accounted for 86% of all discharges in 2012 and this had decreased to 85% in 2016. For emergency inpatient discharges, public patients accounted
for 80% of public hospital discharges in 2012, and this increased to 81% in 2016. Within elective inpatient discharges, public patients accounted for 73% of total discharges in 2012 – the same level as in 2016. For maternity related discharges, public patients accounted for 83% of total discharges in 2012 and this increased to 84% in 2016. Additionally, Category I hospitals have tended to have a slightly higher proportion of private discharges than Category II hospitals (17% private patients in Category I hospitals compared to 15% in Category II hospitals) and this trend has been constant over the four years. Over the 2012-2016 period, there has also been a modest increase in the average length of stay for private patients (0.23 days), meaning that in 2016, the average length of stay for private patients was marginally longer than for public patients.

A key conclusion from this analysis is that, while overall hospital activity continues to increase on an annual basis, the proportion of patients treated privately remains very stable since the introduction of the new charging regime in 2014. This stability is evident for various patient types, including daycase, elective inpatient, and emergency inpatient and maternity.
**APPENDIX I**

**Category I Hospitals included in analysis**

Our Lady's Children's Hospital Crumlin; Mater Misericordiae University Hospital; St. Vincent’s University Hospital, Elm Park; Children's University Hospital, Temple Street; St. Luke’s Hospital, Rathgar; St. James's Hospital; Connolly Hospital, Blanchardstown; St. Michael's Hospital, Dun Laoghaire; Royal Victoria Eye & Ear Hospital, Dublin; Beaumont Hospital; Coombe Women's Hospital; Rotunda Hospital; National Maternity Hospital, Holles Street; Blackrock Hospice; Waterford Regional Hospital; Lourdes Orthopaedic Hospital Kilcreene, Kilkenny; Mercy University Hospital, Cork; Mid-Western Regional Hospital, Limerick; Mid-Western Regional Orthopaedic Hospital, Croom; Galway University Hospitals; Sligo General Hospital; Our Lady of Lourdes Hospital, Drogheda

**Category II hospitals included in analysis**

St. Columcille's Hospital, Loughlinstown; Naas General Hospital; Cappagh National Orthopaedic Hospital; St. Joseph’s Hospital, Raheny; St. Luke's General Hospital, Kilkenny; Wexford General Hospital; South Tipperary General Hospital, Clonmel; Bantry General Hospital; Mallow General Hospital, Cork; Kerry General Hospital, Tralee; St. Johns Hospital, Limerick; Mid-Western Regional Hospital, Ennis; Mid-Western Regional Hospital, Nenagh; Roscommon County Hospital; Portiuncula Hospital, Ballinasloe; Mayo General Hospital; Midland Regional Hospital, Tullamore; Midland Regional Hospital, Mullingar; Midland Regional Hospital, Portlaoise; Letterkenny General Hospital; Cavan General Hospital; Louth County Hospital; Monaghan General Hospital; Our Lady's Hospital, Navan

**Category I Hospitals not included in analysis**

Peamount Hospital, Newcastle; Our Lady’s Hospice, Harold’s Cross

**Category II hospitals not included in analysis**

Incorporated Orthopaedic Hospital, Clontarf;

**Other HIPE Hospitals not included in analysis**

National Rehabilitation Hospital; St Josephs Unit, Harolds Cross; Cherry Orchard Hospital, Ballyfermot; St. Finbarr's Hospital, Cork

**Data sources**

**HIPE:** This analysis excludes inpatient and daycase activity from a small number of hospitals who report data to HIPE which are not acute HSE hospitals. This analysis excludes data from radiotherapy data from St. Luke’s Radiation Oncology Network centres located in Beaumont and St. James’s hospitals as these data were not reported to HIPE prior to 2015. Please note 2016 data is provisional and subject to change with records still being added to the HIPE file.

**CSO:** Consumer price index:

16