Activity in Acute Public Hospitals in Ireland

2019 ANNUAL REPORT

Healthcare Pricing Office

September 2020

Building a Better Health Service | Seirbhís Sláinte Níos Fearr á Forbairt

Healthcare Pricing Office

ISBN: 978-1-78602-160-1

METADATA

Title
Activity in Acute Public Hospitals in Ireland Annual Report, 2019

Creator
Healthcare Pricing Office (HPO), Health Service Executive (HSE)

Subject
Key words – free text: Hospital discharge activity, acute hospital, public hospital

Summary Description
This is a report on in-patient and day patient discharges from acute public hospitals participating in the Hospital In-Patient Enquiry (HIPE) scheme in 2019. Discharge activity is examined by patient type, admission type, hospital group, and by demographic parameters (such as age and sex). Particular issues of relevance to the Irish health care system covered in the report relate to the composition of discharges by medical card and public/private status. Discharges are also analysed by diagnoses, procedures, major diagnostic categories, and diagnosis related groups. The analysis is presented at the national level.

Publisher
Health Service Executive

Contributors
Healthcare Pricing Office, Health Service Executive

Date
First published September 2020

Type
Report

Identifier
978-1-78602-160-1

Citation
Healthcare Pricing Office (2020) Activity in Acute Public Hospitals in Ireland Annual Report, 2019. Dublin. Health Service Executive.

Language
en – English

Coverage
National

Rights
Downloadable from www.hpo.ie

Version
1.0 (September 2020) HIPE_2019_ASOF_0420_V17_CLOSE
Please note that there is the potential for minor revisions to the data set analysed in this report. Please check online at www.hpo.ie for information on updates.

ACKNOWLEDGEMENTS

The production of this annual report requires commitment and hard work from many individuals. Responsibility for collecting, coding, inputting, and validating data for the Hospital In-Patient Enquiry (HIPE) scheme rests with colleagues in acute hospitals throughout Ireland. Ensuring the continued operation of the HIPE scheme requires willing contributions from clinicians, clinical coders, HIPE managers, medical records staff, IT personnel, and administrative departments, together with hospital managers and hospital group personnel. We are greatly indebted to these individuals for their support and efforts.

The HIPE team within the Healthcare Pricing Office (HPO) oversees a wide range of tasks related to the management of this system, including software development and support, personnel training, data quality and audit, data management and analysis, and information dissemination. We acknowledge gratefully the dedication, skill and expertise that all the members of this team bring to their work on this scheme.

We would like to thank, specifically, Fiachra Bane (HPO), Jacqui Curley (HPO), and Deirdre Murphy (HPO) for reviewing and commenting on earlier drafts of this report and the HIPE IT team for their technical assistance.

Inevitably, a number of individuals have to carry most of the responsibility for producing a report of this type. In this case, Karen Kearns, Laura Metcalfe, Sinead O'Hara and Rory O'Reilly were to the fore in the preparation of the report for publication. We wish to express our sincere thanks to these colleagues for all of their hard work on the report. Their commitment, enthusiasm, and professionalism are gratefully acknowledged and sincerely appreciated.

Table of Contents

List of Tables

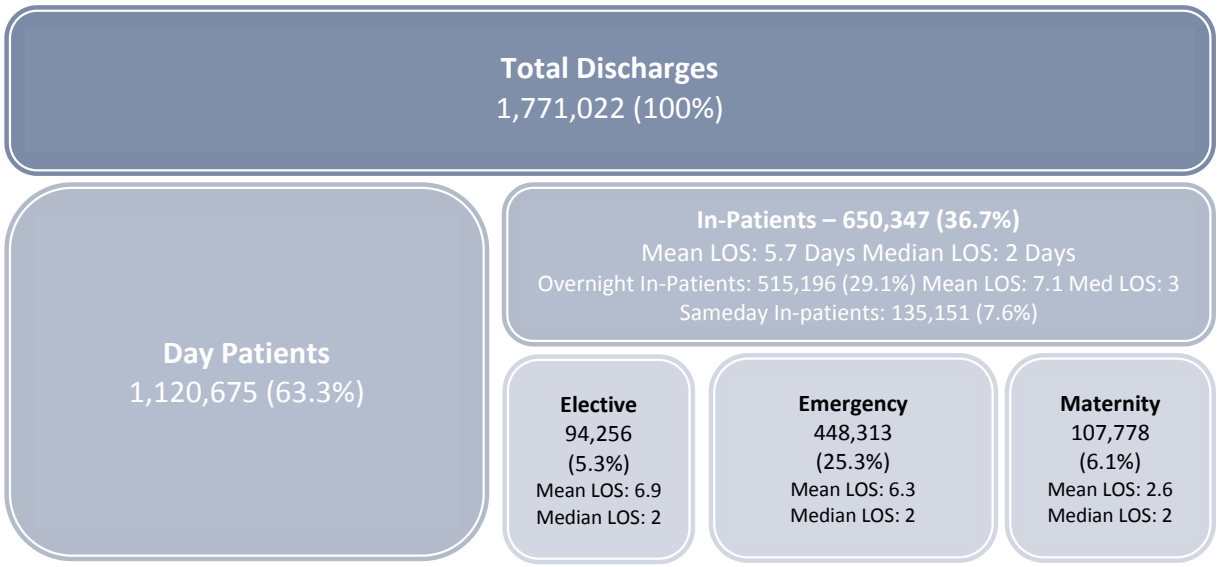
List of Figures

EXECUTIVE SUMMARY

The Hospital In-Patient Enquiry (HIPE) scheme, established in 1971, is a health information system designed to collect clinical and administrative data on discharges from, and deaths in, acute hospitals in Ireland. Since the 1st of January 2014, the Healthcare Pricing Office (HPO) has overseen the administration and management of this scheme. The HPO is responsible for overseeing all functions associated with the operation of this database, including the development and support of the data collection and reporting software, training of coders and data quality audit, reporting, and responding to requests for information.

This report relates to discharges that occurred in the 2019 calendar year. The aim of this report is to present an overview of discharge activity in acute public hospitals in Ireland.

TOTAL DISCHARGES, 2019



Discharge Overview

- Over 1.7 million discharges were reported by participating hospitals in 2019, an increase of 1.9 per cent over the period 2018–2019.
- Day patients accounted for 63.3 per cent of total discharges, an increase of 3.2 per cent since 2018.
- In-patients accounted for 36.7 per cent of total discharges, a decrease of 0.1 per cent since 2018 and an increase of 2.5 per cent from 2015–2019.
- Over the period 2015–2019, the number of elective in-patient discharges decreased by 4.9 per cent, maternity in-patients decreased by 8.5 per cent, while emergency in-patients increased by 7.4 per cent.

Length of Stay

- In-patient average length of stay was 5.7 days in 2019, this has remained the same since 2015.
- Over the period 2015–2019, the average length of stay has remained relatively constant for elective, emergency and maternity in-patients at 6.9 days, 6.3 days and 2.6 days in 2019 respectively.

Sex

- Similar to previous years, females accounted for 52.7 per cent of total discharges with males accounting for 47.3 per cent.
- Excluding maternity discharges, females accounted for 48.9 per cent of discharges with males accounting for 51.1 per cent.

Age

- Discharges aged 65 years and over accounted for 38.4 per cent of total discharges, representing an increase of 3.6 per cent since 2018 and an increase of 14.2 per cent since 2015.
- Discharges aged 65 years and over accounted for 55.8 per cent of total in-patient bed days, an increase of 1.5 per cent since 2018 and an increase of 8.4 per cent since 2015.

Public/Private Status

- Over 86 per cent of total discharges were treated on a public basis, representing a 2.7 per cent increase since 2018 and an 9.3 per cent increase since 2015. Private patients accounted for 13.7 per cent of total discharges, representing a 8.6 per cent decrease from 2015–2019.
- The 25–34 years age group had the largest proportion of total discharges treated publicly (90.5 per cent) with only 9.5 per cent treated on a private basis.

Hospital Group

- The largest proportion of total discharges were hospitalised in the Ireland East Hospital Group (20.0 per cent).
- Total in-patient discharges were highest in the Ireland East Hospital Group where 22.0 per cent of discharges were hospitalised, while the Dublin Midlands Hospital Group accounted for the highest proportion of day patients (21.0 per cent).

Admission Source

- The majority of total discharges were admitted from home (96.4 per cent).

Discharge Destination

- The majority of total discharges were discharged home (94.8 per cent).
- Of total emergency in-patients, 6.1 per cent were transferred to long stay accommodation, and 5.5 per cent were transferred to another hospital.

Day of Admission

- Just over 61 per cent of elective in-patients were admitted between Monday and Wednesday, with only 6.2 per cent admitted at the weekend.

Day of Discharge

- The proportion of elective in-patients discharged increased throughout the week, from 11.2 per cent on Monday to 22.4 per cent on Friday, falling to 10.2 per cent on Saturday and 4.7 per cent on Sunday.

Month of Discharge

- The largest numbers of emergency in-patients were discharged in January (40,376 discharges).

MORBIDITY ANALYSIS

Day Patients

- Day patients with a principal diagnosis of *Other medical care* (includes *Chemotherapy* and *Radiotherapy* encounters) and day patients with a principal diagnosis of *Care involving dialysis* accounted for 20.6 and 15.9 per cent of day patient discharges respectively. [1]
- At least one procedure was recorded for 92.1 per cent of day patient discharges.
- The highest principal procedure block reported was *Haemodialysis*, accounting for 17.2 per cent of day patients with at least one procedure recorded.

In-Patients

- The highest principal diagnosis reported for in-patient discharges was *Single spontaneous delivery* which accounted for 4.2 per cent of in-patients.
- At least one procedure was recorded for 57.6 per cent of in-patient discharges.
- The highest principal procedure block reported was *Generalised allied health interventions* which accounted for 29.1 per cent of in-patient discharges with at least one procedure recorded.[2]

Elective In-Patients

- Elective in-patients with a principal diagnosis of *Care involving use of rehabilitation procedures* accounted for 4.0 per cent of in-patient discharges.At least one procedure was recorded for 89.1 per cent of elective in-patient discharges.
- The highest principal procedure block reported for elective in-patients was *Generalised allied health interventions,* accounting for 11.5 per cent of elective in-patients who had at least one procedure reported.

Emergency In-Patients

- The highest principal diagnosis reported for emergency in-patients was *Pain in throat and chest*, accounting for 4.0 per cent of emergency in-patient discharges.

---

1 From 2015 this includes activity from St. Luke's Radiation Oncology Network centres located in Beaumont and St. James's Hospitals. These centres are operational since 2011, but data has only been included in HIPE from 2015.

2 This block includes interventions such as physiotherapy, pharmacy, dietetics, occupational therapy, speech pathology and social work. Together, these six interventions accounted for 93.7 per cent of cases within this procedure block.

- At least one procedure was recorded for 50.4 per cent of emergency in-patient discharges.
- The highest principal procedure block reported for emergency in-patients was *Generalised allied health interventions,* accounting for 42.6 per cent of emergency in-patient discharges who had at least one procedure reported.

Maternity In-Patients – by Delivery Status[3]

- Delivery discharges with a principal diagnosis of *Single spontaneous delivery* accounted for 47.3 per cent of delivery in-patient discharges.
- For delivery discharges who had a procedure reported, 36.0 per cent reported the principal procedure block *Caesarean section*.
- Non-delivery discharges with a principal diagnosis of *Other maternal diseases classifiable elsewhere but complicating pregnancy; childbirth and the puerperium* accounted for 26.7 per cent of non-delivery in-patient discharges.
- For non-delivery discharges who had a procedure reported, 28.1 per cent reported the principal procedure block *Curettage and evacuation of uterus*.

[3] Delivery discharges include discharges with a diagnosis of *Outcome of delivery* (ICD-10-AM: Z37). Non-delivery discharges are maternity discharges where admission was related to their obstetrical experience but they did not deliver during that episode of care.

CASE MIX ANALYSIS

The case mix classification presents analysis of patients who undergo similar treatment processes and incur similar levels of resource use.[4]

- The MDC with the largest proportion of day patients reported was *Neoplastic disorders (haematological and solid neoplasms)* (MDC 17), which accounted for 267,498 discharges or 23.9 per cent of day patients.
    - *Chemotherapy* (AR-DRG R63Z) accounted for 45.2 per cent of day patients within this MDC, and 10.8 per cent of total day patients*; Other Neoplastic Disorders, Minor Complexity* (AR-DRG R62C) accounted for 37.4 per cent of day patients within this MDC and 8.9 per cent of total day patients.
- The MDC with the largest proportion of in-patient discharges was *Pregnancy, Childbirth and the Puerperium* (MDC 14), which accounted for 16.5 per cent of in-patients.
    - *Antenatal and Other Obstetric Admission* (AR-DRGs O66A and O66B) accounted for 36.9 per cent of in-patients within this MDC and 6.1 per cent of total in-patient discharges.
    - *Vaginal Delivery* (AR-DRGs O60A, O60B and O60C) accounted for 34.7 per cent of in-patients within this MDC and 5.7 per cent of total in-patient discharges.

[4] In 2015, the AR-DRG classification was updated from AR-DRG Version 6.0 to AR-DRG Version 8.0. See Appendix VIII for an overview of changes between Version 6.0 and Version 8.0 of the AR-DRG Classification System.

Overview SECTION

One

Table of Contents

1.1 INTRODUCTION

This report aims to present an overview of discharge activity in acute public hospitals in Ireland during 2019 using data from the Hospital In-Patient Enquiry (HIPE) scheme. HIPE collects information on day patient and in-patient activity from participating hospitals.[1]

Section One provides an overview of the 2019 report. It outlines briefly the background of the HIPE scheme, and highlights other data sources used throughout the report. The scope of the HIPE data and the methods used in the report are discussed. Finally, an analysis of the trends in the main HIPE variables is undertaken using data from the period 2015–2019.

1.2 BACKGROUND

From 1st January 2014 the Health Research and Information Division at the ESRI and the National Casemix Programme (HSE) became the Healthcare Pricing Office (HPO).[2] While the HPO has initially been established on an administrative basis, attached to the HSE, it is planned that this Office will ultimately be established on a statutory basis.[3] Part of the remit of the HPO is to oversee all functions associated with the operation of the HIPE database, including the development and support of the data collection and reporting software, training of coders, data quality, audit, data analysis and reporting, and responding to requests for information.[4]

At the start of 2015, the classification used to code clinical information was updated from the 6th Edition to the 8th Edition of the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM), Australian Classification of Health interventions (ACHI), Australian Coding Standards (ACS).[5,6,7] Ireland updates the clinical classification every four to five years to ensure the classifications remain current for national and international use. Extensive training of all HIPE staff is undertaken when the classification is updated to ensure understanding of changes in the new classification. Use of ICD-10-AM/ACHI/ACS is complemented

1 See Appendix I for a list of hospitals participating in HIPE in 2019.

2 From 1990 until 2013 the Economic and Social Research Institute (ESRI) oversaw the administration and management of the HIPE scheme on behalf of the Health Service Executive (HSE) and the Department of Health (DoH).

3 This development is in line with the proposals in the 'Money Follows the Patient' policy paper published by the Department of Health in February 2013.

4 For more information on the work of the HPO please see www.hpo.ie

5 National Casemix and Classification Centre (NCCC), 2013: The *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification* (ICD-10-AM), *Australian Classification of Health Interventions* (ACHI) and *Australian Coding Standards* (ACS) – ICD-10-AM/ACHI/ACS *(8th Ed)*: NCCC, Australian Health Services Research Institute, University of Wollongong.

6 The spelling conventions of ICD-10-AM comply with the Macquarie Dictionary, as recommended by the Australian government style manual.

7 HIPE data for 2020 will be coded using the 10th edition of ICD-10-AM.

by the Irish Coding Standards (ICS).[8] The ICS are developed for use with the Australian Classifications and Coding Standards (ACS) and are revised regularly to reflect changing clinical practice and to ensure that the classification and its application are relevant to the Irish healthcare system. Due to the update in the classification, caution must be exercised when comparing procedure and diagnosis categories presented in reports from 2015 onwards compared to previous reports, due to changes in sequencing of codes, addition of new codes, deletion of codes, and updates to ACS and ICS.[9]

In 2015, the Australian Refined Diagnosis Related Groups (AR-DRG) classification was updated from AR-DRG Version 6.0 to AR-DRG Version 8.0[10]. The update to AR-DRG Version 8.0 included a revision of the complexity model used to assign AR-DRGs to discharges. In addition to this, it included a review of existing AR-DRGs, the removal of some AR-DRGs and the inclusion of new AR-DRGs. The naming convention for AR-DRGs was also updated. Due to the update in this classification, AR-DRGs in this report are not comparable with those in reports prior to 2016.[11]

Given the comprehensive coverage achieved by this information system, the data gathered by HIPE are used by policymakers, clinical teams and researchers. In addition to responding to requests for HIPE information, the HPO also manages the HIPE Statistics Reporter which is available online.[12]

1.3 Data Sources for Annual Report 2019

HIPE: The Hospital In-Patient Enquiry (HIPE) scheme, established in 1971, is a health information system designed to collect clinical and administrative data on discharges from, and deaths in, acute hospitals in Ireland.[13,14] In 2019, 53 public hospitals in Ireland participated in HIPE (see Appendix I).[15]

Population Estimates: Population estimates for 2015–2019 are based on Census 2016 data published by the Central Statistics Office.

---

8 Irish Coding Standards (ICS) provide guidelines for the collection of HIPE data for all discharges and are to be used in conjunction with 8th Edition ICD-10-AM/ACHI/ACS and the relevant HIPE Instruction Manual. For further information, see www.hpo.ie

9 See Appendix VII for an overview of changes from ICD-10-AM/ACHI/ACS 6th edition (in use from 2009–2014) to 8th Edition (in use from 1st January 2015).

10 AR-DRG Version 8.0 was first reported on in the HIPE Annual Report in 2016.

11 See Appendix VIII for an overview of changes between AR-DRG Version 6.0 and Version 8.0.

12 Available at www.hpo.ie

13 See Appendix II for details of data collected by HIPE, see also the HIPE Data Dictionary 2019 Version 11.1 available at www.hpo.ie

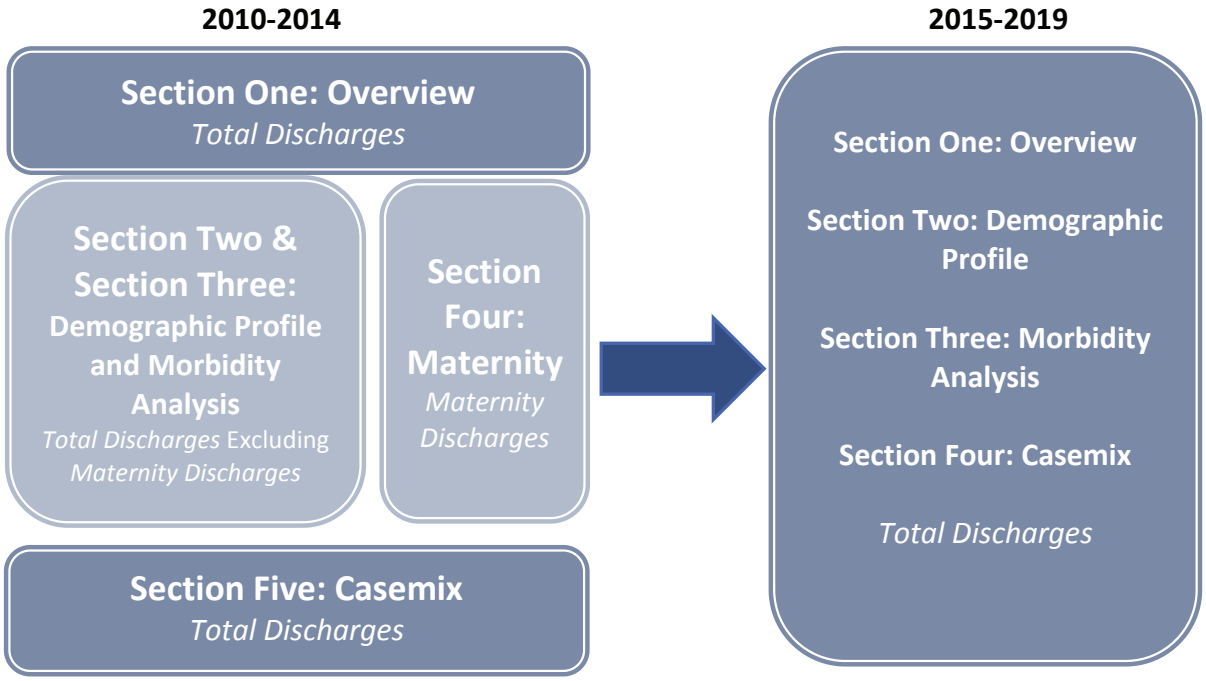
14 A copy of the HIPE data entry form for 2019 is contained in Appendix III.

15 For historical reasons, a small number of non-acute hospitals also reported to HIPE in 2019. Discharges from these hospitals have been included in this report.

1.4 Structure of Annual Report 2019

Figure 1.1 outlines the changes to the structure of the *Activity in Acute Public Hospitals in Ireland* Annual Reports 2010–2019.[16] As shown in Figure 1.1, discharges with admission type 'Maternity' are no longer presented separately in Section Four from 2015.[17] In lieu of this, maternity discharges are separated out in selected tables in Section Two and Section Three.

FIGURE 1.1 Changes to structure of the Activity in Acute Public Hospitals in Ireland Annual Report, 2010-2019



The remainder of the report is structured as follows:

Section Two

In Section Two the report is concerned with providing a demographic (WHO), regional (WHERE) and temporal (WHEN) profile of discharges reported to HIPE in 2019. Section Two includes many of the administrative variables reported to HIPE, including age, sex, marital/civil status, GMS status, and discharge status. The regional analysis uses Hospital Group to see where discharges are being hospitalised, while the temporal analysis looks at day of admission, day of discharge, and month of discharge.

Section Three

Section Three focuses on the diagnoses and procedures recorded for discharges reported to HIPE. Section Three presents analysis of hospital activity by patient

[16] See www.hpo.ie for the latest versions of these reports.

[17] It was decided that these discharges could be represented adequately in Section Two and Section Three. The National Perinatal Reporting System provides more detailed analysis of activity in Maternity hospitals (www.hpo.ie).

type with top 20 principal diagnoses and procedure blocks presented for day patients and for total, elective and emergency in-patients. The top 10 principal diagnoses and procedure blocks are presented by delivery status for maternity in-patients. Further analysis is presented for diagnoses and procedures reported for total discharges by sex and age group. The mean and median length of stay for in-patient discharges is presented by principal diagnoses and principal procedures.

Section Four

Section Four provides analysis of all HIPE data by case mix. Each Major Diagnostic Category (MDC) is presented with its associated Australian Refined Diagnosis Related Groups (AR-DRG) for total discharges. The analyses provide a breakdown of MDCs and AR-DRGs by patient type, with in-patient mean and median length of stay also provided. The version of the AR-DRG Classification used from 2016-2019 is Version 8.0.[18]

Annex

The annex is designed to highlight particular topics of interest that merit further analysis. This year's topic of interest is a discussion and analysis of the Hospital Acquired Diagnosis (HADx) Indicator over the period 2017-2019.

Glossary and Abbreviations

This section provides definitions of the terminology used in this report along with explanations of the abbreviations.

[18] Further information on AR-DRG Version 8.0 can be found on the Australian Consortium for Classification Development website https://www.accd.net.au/ArDrg.aspx?page=2 [Accessed 26th July 2018].

1.5 SCOPE OF HIPE DATA

- *Each HIPE discharge record represents one episode of care.* Patients may be admitted to hospital more than once in any given time period with the same or different diagnoses. In the absence of a unique health identifier, therefore, the data reported to HIPE facilitate analysis of hospital discharge activity but do not permit analysis of certain parameters, such as the number of hospital encounters per patient; or estimate the incidence or prevalence of a particular disease.
- *Emergency In-Patient Admissions:* HIPE includes patients who attended the Emergency Department and were subsequently admitted to hospital. As just a proportion of those attending the Emergency Department will subsequently be admitted to hospital, it is not possible to use emergency admissions reported to HIPE to draw conclusions about the total volume of activity in Emergency Departments.
- *Coverage of data:* Coverage of the HIPE system is calculated using the discharges returned as 'coded' as a proportion of total discharges reported within each hospital. The data available from participating hospitals for 2019 indicate that for day patient and in-patient discharges appropriate for inclusion in the HIPE data set, 99.5 per cent of the discharges reported from hospital systems were coded and returned for inclusion in the national HIPE data set.
- *Hospital factors:* Restructuring of the hospital system is reflected in the analysis presented in this report. From April 2011 St. Luke's Radiation Oncology Network commenced providing services at centres located in Beaumont and St. James's Hospitals, as well as continuing to provide services at St. Luke's Hospital, Rathgar. For 2011–2014 these data were not included in the HIPE national file, and 2015 was the first year these data were returned to HIPE.

1.6 METHODS AND DEFINITIONS

Some of the methods and definitions used to present data in the report are detailed below.

Patient Type: HIPE collects data on day patients and in-patients.

- A day patient is admitted to hospital for treatment on an elective (rather than an emergency) basis and is discharged alive, as scheduled, on the same day. [19] Deliveries are not included.
- An in-patient is admitted to hospital for treatment or investigation on an elective or emergency basis. Sameday in-patients are admitted as in-patients and discharged on the same day, while overnight in-patients stay at least one night in hospital.

In-Patient Length of Stay: In line with current reporting for Activity Based Funding, since the 2018 report the length of stay assigned for sameday in-patients has changed from one bed day to 0.5 bed days. This is based on an analysis of hospital data which shows that, on average, 0.5 days is a more appropriate measure of length of stay for this cohort of patients. This will impact on the total in-patient length of stay resulting in a lower average length of stay compared to years prior to 2018. Therefore, caution must be taken if comparing the average length of stay data presented in this report to HIPE annual reports prior to 2018.

Diagnosis Related Groups: *"Local DRG's" presented in report.* The official classification for AR-DRG's (Version 8.0) has been slightly modified by the addition of two local DRG's specific to Ireland to account for differences in the provision of care between Ireland and Australia. While this practice has been used for Activity Based Funding, this modification to the official classification has only been published in the HIPE Annual Report since 2018.

- *R99Z (Oncology Repeat Attendance):* There are many attendances at oncology day wards where patients undergo only very minor procedures (e.g. taking of bloods) which are generally of lower complexity than administration of chemotherapy or other oncology procedures. The "local DRG" R99Z (*Oncology Repeat Attendance*) is used to identify these cases and to ensure that they are costed and reimbursed appropriately.
- *J98Z (UV Therapy):* In general UV therapy is not administered in the acute hospital setting in Australia whereas it is in a number of Irish hospitals. In order to differentiate this activity from other skin disorder treatments the "local DRG" J98Z (*UV Therapy*) has been created which isolates this activity so that it can be costed and reimbursed appropriately.

[19] Definition is based on: Department of Health and Children, 2001. Quality and Fairness A Health System for You: Health Strategy, Department of Health and Children, 2001.

Derived Variables: For some of the categorical administrative variables, aggregation of categories has been necessary to ensure confidentiality. These derivations are presented in Appendix IV for admission type, admission source, and discharge destination.

Reporting of small numbers: The HPO does not report cells where the number of discharges reported to HIPE is five or fewer. The tables contained in this report have been suppressed in this manner by replacing such cells with the symbol **~**. Where further suppression is necessary to ensure that cells with five or fewer discharges are not disclosed, the cell with the next lowest number of discharges may be replaced with the symbol *****. Where cells containing five or fewer discharges have been suppressed, the associated mean and median in-patient length of stay figures may be suppressed using the symbol **^**. In Section Three, the symbol **ǂ** is used to denote where the sex and/or age group breakdown for a particular diagnosis or procedure has not been provided, as the numbers reported would result in suppression across the majority of categories.

1.7 Discharges Reported to HIPE, 2015-2019

In 2019, 1,771,022 discharges were reported to HIPE by participating acute public hospitals,[20] representing an increase of 6.4 per cent over the period 2015–2019 and an increase of 1.9 per cent over the period 2018–2019.

Table 1.1 and Figures 1.2 to 1.3 show the distribution of discharges over the period 2015–2019 by selected variables. The following points provide a summary of changes over the period 2015–2019:

- The male-female split in 2019 has remained consistent with previous years, with a larger proportion of female discharges (52.7 per cent).
- The 65 years and over age group accounted for the largest proportion of total discharges in 2019 (38.4 per cent), representing an increase of 14.2 per cent for this age group from 2015–2019.
- From 2015–2019 there was an increase of 9.3 per cent for public discharges and a decrease of 8.6 per cent for private discharges.[21]
- The proportion of total discharges treated by each Hospital Group remained similar between 2018 and 2019. The largest percentage increase was in the Ireland East Hospital Group with a 4.7 per cent increase between 2018 and 2019.
- The number of day patient discharges has increased from 1,029,860 in 2015 to 1,120,675 in 2019, an increase of 8.8 per cent, with an increase of 3.2 per cent between 2018 and 2019.
- The number of in-patient discharges has increased from 634,206 in 2015 to 650,347 in 2019, an increase of 2.5 per cent. Between 2018 and 2019 the number of in-patient discharges remained similar with a decrease of only 0.1 per cent.
- Emergency in-patient discharges comprised 65.8 per cent of total in-patient discharges in 2015, increasing to 68.9 per cent in 2019.
- Maternity in-patient discharges decreased by 8.5 per cent over the period 2015–2019 from 117,790 to 107,778 discharges. Between 2018 and 2019 there was a 2.6 per cent decrease in the proportion of maternity in-patient discharges reported to HIPE.
- Sameday in-patient discharges have increased by 14.9 per cent over the period 2015–2019 from 117,602 to 135,151 discharges.

---

[20] In 2019 there were <5 cases with sex recorded as 'unknown'. These cases were verified with the hospitals. For reasons of confidentiality these cases are not included in this report.

[21] Public/Private status refers to whether the patient saw the consultant on a private or public basis. It does not relate to the type of bed occupied nor is it an indicator of private health insurance.

- Over the period 2015–2019, the average length of stay has remained relatively constant for elective, emergency and maternity in-patients at 6.9 days, 6.3 days and 2.6 days in 2019 respectively.
- Overnight in-patient discharges stayed on average 6.8 days in 2015 which has increased to 7.1 days in 2019, an increase of 4.4 per cent. The median has remained constant at 3 days over the period.

TABLE 1.1 Acute Public Hospital Discharges in HIPE (N, %), 2015-2019

	2015 N (%)	2016 N (%)	2017 N (%)	2018 N (%)	2019 N (%)	% Change 2015–2019	% Change 2018–2019
Total Discharges	**1,664,066 100**	**1,704,452 100**	**1,718,523 100**	**1,737,212 100**	**1,771,022 100**	**6.4**	**1.9**
Discharge Rate[a]	**355.0**	**359.6**	**358.6**	**357.7**	**359.9**	1.4	0.6
Sex							
Males	763,844 45.9	788,702 46.3	800,443 46.6	817,851 47.1	837,916 47.3	9.7	2.5
Females	900,222 54.1	915,750 53.7	918,080 53.4	919,361 52.9	933,106 52.7	3.7	1.5
Age Group							
Under 15 Years	133,638 8.0	132,677 7.8	127,545 7.4	129,137 7.4	124,716 7.0	-6.7	-3.4
15–44 Years	464,203 27.9	471,123 27.6	465,383 27.1	456,062 26.3	457,073 25.8	-1.5	0.2
45–64 Years	470,145 28.3	483,587 28.4	490,964 28.6	495,211 28.5	508,747 28.7	8.2	2.7
65 Years and Over	596,080 35.8	617,065 36.2	634,631 36.9	656,802 37.8	680,486 38.4	14.2	3.6
Public/Private Status[b]							
Public Discharges	1,398,932 84.1	1,424,290 83.6	1,454,057 84.6	1,488,034 85.7	1,528,698 86.3	9.3	2.7
Private Discharges	265,134 15.9	280,162 16.4	264,466 15.4	249,178 14.3	242,324 13.7	-8.6	-2.8
GMS Status							
GMS	892,584 53.6	942,022 55.3	953,030 55.5	971,882 55.9	995,063 56.2	11.5	2.4
Non-GMS	748,461 45.0	744,344 43.7	740,996 43.1	740,522 42.6	723,922 40.9	-3.3	-2.2
Unknown	23,021 1.4	18,086 1.1	24,497 1.4	24,808 1.4	52,037 2.9	126.0	109.8
Hospital Group							
Ireland East	320,647 19.3	325,110 19.1	329,543 19.2	338,603 19.5	354,669 20.0	10.6	4.7
RCSI	244,242 14.7	254,227 14.9	258,768 15.1	258,954 14.9	263,641 14.9	7.9	1.8
Dublin Midlands[c]	310,649 18.7	318,725 18.7	319,373 18.6	325,230 18.7	333,923 18.9	7.5	2.7
South/South West	327,700 19.7	329,632 19.3	331,619 19.3	329,610 19.0	325,579 18.4	-0.6	-1.2
UL	102,762 6.2	106,749 6.3	111,771 6.5	113,077 6.5	114,679 6.5	11.6	1.4
Saolta	299,245 18.0	310,448 18.2	309,209 18.0	312,651 18.0	320,246 18.1	7.0	2.4
Children's	52,841 3.2	54,234 3.2	53,211 3.1	53,795 3.1	52,404 3.0	-0.8	-2.6
No group	5,980 0.4	5,327 0.3	5,029 0.3	5,292 0.3	5,881 0.3	-1.7	11.1
Day Patients[c]	**1,029,860 100**	**1,060,602 100**	**1,077,014 100**	**1,086,312 100**	**1,120,675 100**	**8.8**	**3.2**
Dialysis/Radiotherapy/ Chemotherapy[c]	393,868 38.2	399,895 37.7	396,925 36.9	394,397 36.3	405,990 36.2	3.1	2.9
Maternity	19,838 1.9	20,763 2.0	20,831 1.9	20,601 1.9	22,336 2.0	12.6	8.4
Other	616,154 59.8	639,944 60.3	659,258 61.2	671,314 61.8	692,349 61.8	12.4	3.1
In-Patients	**634,206 100**	**643,850 100**	**641,509 100**	**650,900 100**	**650,347 100**	**2.5**	**-0.1**
Elective	99,086 15.6	95,870 14.9	96,100 15.0	96,893 14.9	94,256 14.5	-4.9	-2.7
Emergency[d]	417,330 65.8	432,490 67.2	434,214 67.7	443,313 68.1	448,313 68.9	7.4	1.1
Maternity	117,790 18.6	115,490 17.9	111,195 17.3	110,694 17.0	107,778 16.6	-8.5	-2.6

Contd. overleaf

TABLE 1.1 Acute Public Hospital Discharges in HIPE (N, %), 2015–2019 (contd.)

		2015	2016	2017	2018	2019	% Change	% Change
		N (%)	N (%)	N (%)	N (%)	N (%)	2015–2019	2018–2019
Overnight In-Patients		516,604	519,738	518,756	522,003	515,196	-0.3	-1.3
		81.5	80.7	80.9	80.2	79.2		
Sameday In-Patients		117,602	124,112	122,753	128,897	135,151	14.9	4.9
		18.5	19.3	19.1	19.8	20.8		
In-Patient Length of Stay								
In-Patients	**Mean**	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**	**0.0**	**0.0**
	Median	**2**	**2**	**2**	**2**	**2**		
Elective	Mean	6.7	6.9	6.7	6.8	6.9	3.0	1.5
	Median	2	2	2	2	2		
Emergency[e]	Mean	6.3	6.2	6.3	6.2	6.3	0.0	1.6
	Median	2	2	2	2	2		
Maternity	Mean	2.6	2.7	2.7	2.6	2.6	0.0	0.0
	Median	2	2	2	2	2		
Overnight In-Patients	**Mean**	**6.8**	**6.8**	**6.9**	**7.0**	**7.1**	**4.4**	**1.4**
	Median	**3**	**3**	**3**	**3**	**3**		
In-Patient Bed Days[e]								
Total In-Patients		**3,622,860**	**3,651,438**	**3,679,625**	**3,711,417**	**3,727,639**	**2.9**	**0.4**
		100	**100**	**100**	**100**	**100**		
Under 15 Years		292,948	284,997	276,584	270,757	254,537	-13.1	-6.0
		8.1	7.8	7.5	7.3	6.8		
15 to 44 Years		713,848	717,761	709,097	670,925	666,872	-6.6	-0.6
		19.7	19.7	19.3	18.1	17.9		
45 to 64 Years		697,640	702,640	712,827	720,392	725,846	4.0	0.8
		19.3	19.2	19.4	19.4	19.5		
65 Years and Over		1,918,424	1,946,040	1,981,117	2,049,343	2,080,384	8.4	1.5
		53	53.3	53.8	55.2	55.8		
Overnight In-Patients		**3,505,258**	**3,527,326**	**3,556,872**	**3,646,968**	**3,660,063**	**4.4**	**0.4**
		96.8	**96.6**	**96.7**	**98.3**	**98.2**		

Notes: Percentage columns are subject to rounding.

a These rates are based on population estimates published by the CSO which are based on the 'usual residence' concept. Crude discharge rate is calculated as the ratio of total discharges to the population of Ireland, multiplied by 1,000. When those discharges with no fixed abode and who were living outside Ireland are excluded, the crude discharge rate is 358.8 per 1,000 population.

b Public/Private status refers to whether the patient saw the consultant on a private or public basis. It does not relate to the type of bed occupied nor is it an indicator of private health insurance.

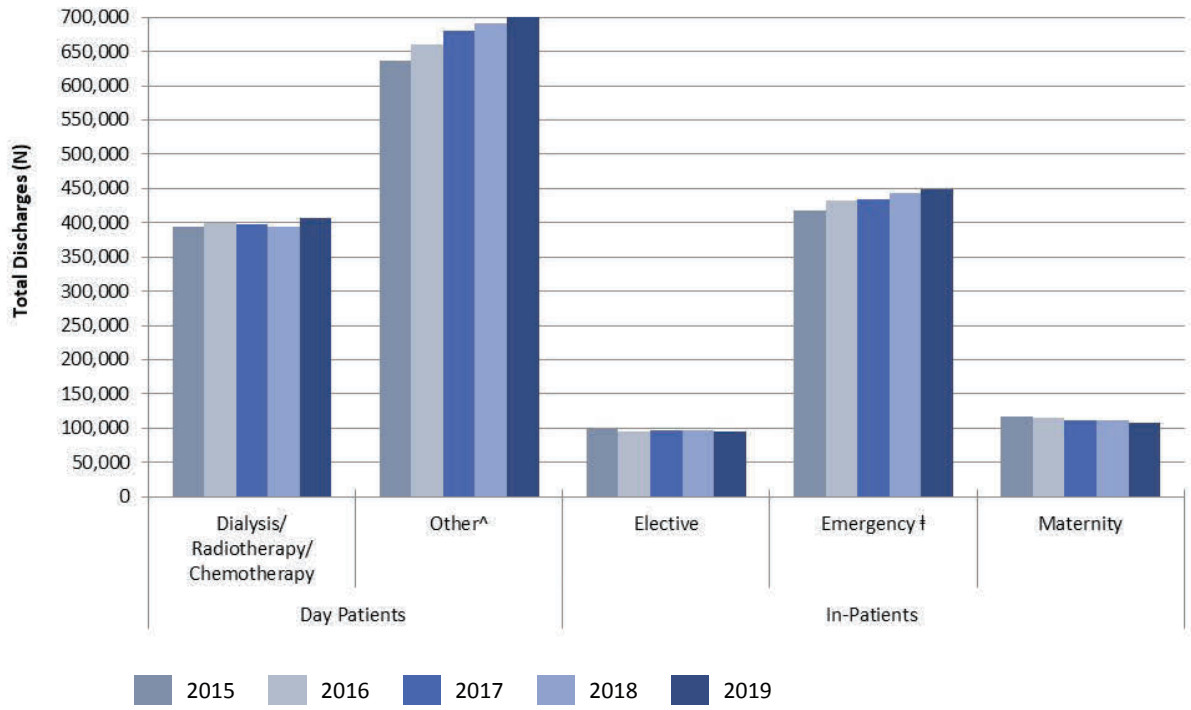
c The Dialysis category includes day patient discharges with a principal procedure of *haemodialysis* (ACHI procedure block 1060), the Chemotherapy category includes day patient discharges with a principal diagnosis of *pharmacotherapy session for neoplasm* (ICD-10-AM diagnosis code Z51.1), the Radiotherapy category includes day patient discharges with a principal diagnosis of *radiotherapy session* (ICD-10-AM diagnosis code Z51.0).

d HIPE includes patients who attended the Emergency Department and were subsequently admitted to hospital. As just a proportion of those attending the Emergency Department will subsequently be admitted to hospital, it is not possible to use emergency admissions reported to HIPE to draw conclusions about the total volume of activity in Emergency Departments.

e Bed Days are presented as a proportion of total in-patient bed days. The calculation of bed days assigns 0.5 bed days to in-patients discharged on the same day (sameday in-patients) and one bed day to in-patients who stayed one night in hospital.

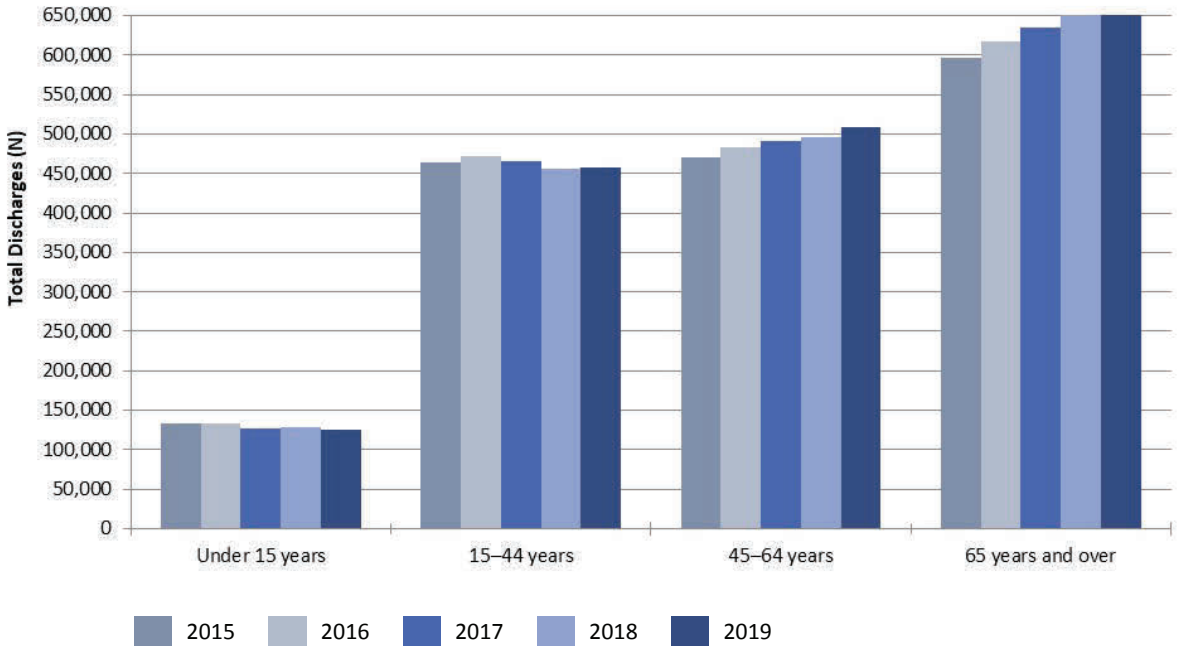
Sources: Data on discharges, length of stay and bed days for 2015-2019 were obtained from HIPE.
Population estimates for 2015-2019 were obtained from the Central Statistics Office.
www.cso.ie/px/pxeirestat/Statire/SelectVarVal/Define.asp?maintable=PEA01&PLanguage=0 [Accessed 12th August 2020].

FIGURE 1.2 Total Discharges by Patient Type and Admission Type (N), 2015–2019



Notes: See Appendix I for a list of hospitals that participated in HIPE in 2019.
^ Includes day patient maternity discharges (see Table 1.1).
ǂ Emergency admissions do not capture patients who attended the Emergency Department but were not subsequently admitted to hospital. For this reason, it is not possible to use emergency admissions reported to HIPE to draw conclusions about the volume of activity in Emergency Departments.
Source: Data for 2015–2019 were obtained from HIPE.

FIGURE 1.3 Total Discharges by Age Group (N), 2015–2019



Source: Data for 2015–2019 were obtained from HIPE.

Discharge Overview 2019

SECTION TWO

Table of Contents

2.1 INTRODUCTION

Section Two provides an overview of the demographic and temporal distribution of day patient and in-patient discharges.[1] Section Two is divided into three main sections.

- Section 2.2 reports on *who* the discharges were (age, sex, marital/civil status, public/private status, and GMS status).
- Section 2.3 reports on *where* discharges were hospitalised, where they came from, and where they were discharged to (hospital group, admission source, and discharge destination).
- Section 2.4 reports on *when* discharges were admitted to, and discharged from, hospital (day of admission, day of discharge, and month of discharge).

[1] The calculation of total in-patient length of stay differs in this report compared to reports prior to 2018. Since 2018, the length of stay assigned for sameday in-patients has changed from one bed day to 0.5 bed days. This will impact on the total in-patient length of stay resulting in a lower average length of stay compared to years prior to 2018 (see Section 1.6).

2.2 WHO

Section 2.2 examines patient characteristics. Total discharges are disaggregated in the following tables and figures by age, sex, marital/civil status, public/private status, and GMS status.

A day patient is admitted to hospital for treatment on an elective (rather than an emergency) basis and is discharged alive, as scheduled, on the same day. In 2019, day patient discharges accounted for 63.3 per cent of total discharges. In-patient discharges accounted for the remaining 36.7 per cent of total discharges with 68.9 per cent of in-patients admitted on an emergency basis, 14.5 per cent admitted on an elective basis and 16.6 per cent admitted as maternity in-patients.

2.2.1 Age

Table 2.1a disaggregates total discharges by patient type (day patient and in-patient) and age group. For the length of stay analysis, in-patient discharges are disaggregated into sameday in-patient and overnight in-patient discharges. Sameday in-patients are admitted as in-patients and discharged on the same day, while overnight in-patients stay at least one night in hospital. Overnight in-patient discharges and their associated length of stay are displayed in Figure 2.1.

Discharges

- The largest proportion of total discharges were in the 65–74 years age group (19.4 per cent). This age group accounted for the largest proportion of day patient discharges (22.5 per cent).
- Discharges in the older age groups accounted for a relatively large proportion of bed days; those aged 65 years and over accounted for 34.0 per cent of in-patient discharges and 55.8 per cent of in-patient bed days.

Length of Stay

- Discharges aged 25–34 years accounted for 16.5 per cent of total sameday in-patients, the largest amongst all age groups.
- Apart from those aged less than one year, mean length of stay increased with age for overnight in-patient discharges rising from 2.8 days for discharges aged 1–14 years to 13.6 days for discharges aged 85 years and over. Median length of stay ranged between 2 to 7 days across all age groups.

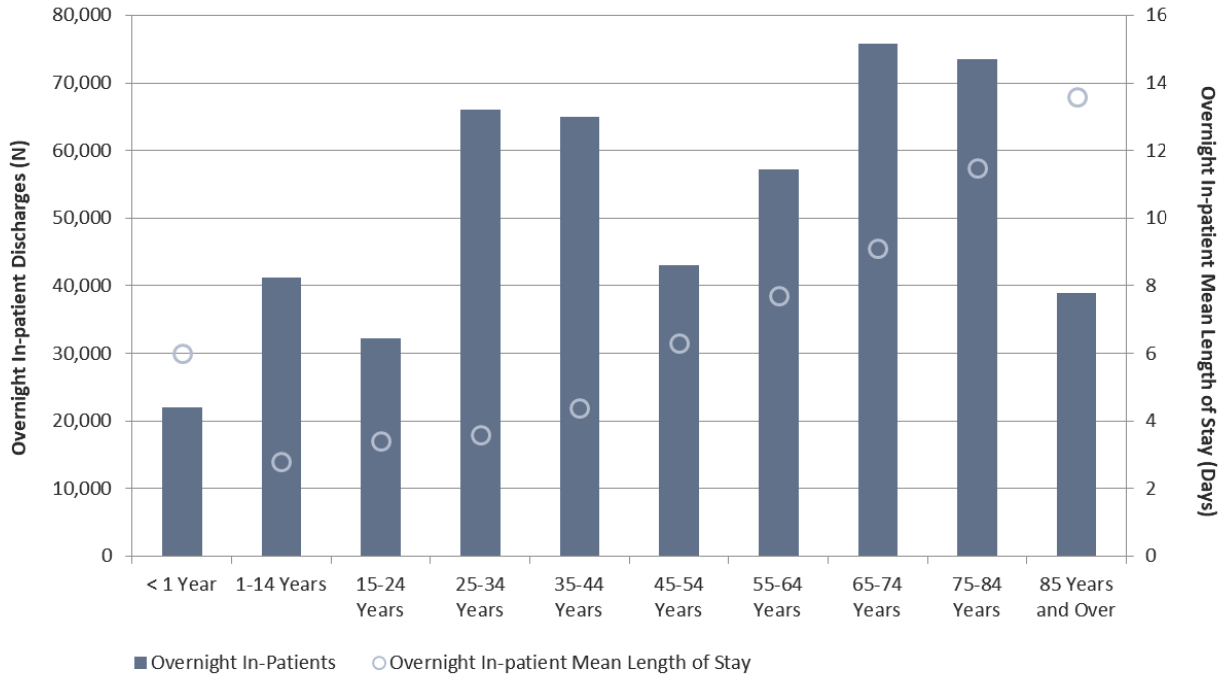
TABLE 2.1a Total Discharges: Patient Type by Age Group (N, %, Bed Days, %, and In-Patient Length of Stay)

	Discharges and Bed Days							
	Day Patients		In-Patients				Total Discharges	
	N	%	N	%	Bed Days	%	N	%
< 1 Year	3,723	0.3	25,239	3.9	134,221	3.6	28,962	1.6
1–14 Years	43,308	3.9	52,446	8.1	120,317	3.2	95,754	5.4
15–24 Years	39,727	3.5	45,266	7.0	116,925	3.1	84,993	4.8
25–34 Years	73,343	6.5	88,411	13.6	251,776	6.8	161,754	9.1
35–44 Years	124,062	11.1	86,264	13.3	298,172	8.0	210,326	11.9
45–54 Years	163,125	14.6	58,610	9.0	278,861	7.5	221,735	12.5
55–64 Years	214,316	19.1	72,696	11.2	446,985	12.0	287,012	16.2
65–74 Years	251,613	22.5	92,041	14.2	698,229	18.7	343,654	19.4
75–84 Years	167,174	14.9	85,879	13.2	849,874	22.8	253,053	14.3
85 Years and Over	40,284	3.6	43,495	6.7	532,282	14.3	83,779	4.7
Total Discharges	**1,120,675**	**100**	**650,347**	**100**	**3,727,639**	**100**	**1,771,022**	**100**

	In-Patient Length of Stay						
	Sameday In-Patients	Overnight In-Patients			Total In-Patients		
	N	N	Mean	Median	N	Mean	Median
< 1 Year	3,225	22,014	6.0	3	25,239	5.3	2
1–14 Years	11,159	41,287	2.8	2	52,446	2.3	1
15–24 Years	13,007	32,259	3.4	2	45,266	2.6	1
25–34 Years	22,320	66,091	3.6	2	88,411	2.8	2
35–44 Years	21,213	65,051	4.4	3	86,264	3.5	2
45–54 Years	15,509	43,101	6.3	3	58,610	4.8	2
55–64 Years	15,552	57,144	7.7	4	72,696	6.1	3
65–74 Years	16,251	75,790	9.1	5	92,041	7.6	3
75–84 Years	12,338	73,541	11.5	6	85,879	9.9	5
85 Years and Over	4,577	38,918	13.6	7	43,495	12.2	6
Total Discharges	**135,151**	**515,196**	**7.1**	**3**	**650,347**	**5.7**	**2**

Note: Percentage and bed day columns are subject to rounding.

FIGURE 2.1 Overnight In-Patients: Discharges and Mean Length of Stay (Days) by Age group



2.2.1.1 Age and Sex

The data presented in Table 2.1a are disaggregated by sex in Table 2.1b – Table 2.1d. Table 2.1b presents male discharges, while Table 2.1c presents female discharges (excl. maternity) and Table 2.1d presents female discharges (maternity). In 2019, there were 933,106 female discharges, and of these 13.9 per cent were maternity discharges.

Discharges

- The 65–74 years age group accounted for the largest proportion of both male and female (excl. maternity) discharges, 23.0 per cent and 18.8 per cent respectively.
- Discharges aged 65 years and over accounted for 40.7 per cent of male in-patient discharges and 58.4 per cent of male in-patient bed days, while for females (excl. maternity) this group accounted for 41.0 per cent of female in-patient discharges and 62.3 per cent of female in-patient bed days.
- The 75–84 years age group accounted for the largest proportion of in-patient bed days for both males (24.1 per cent) and females (excl. maternity) (25.2 per cent).
- Females aged between 25 and 34 years accounted for just over half of maternity in-patient discharges (51.2 per cent), while those aged 35–44 years accounted for 35.9 per cent of in-patient discharges in this group.

Length of Stay

- Male overnight in-patient discharges had a mean length of stay of 8.0 days and female (excl. maternity) overnight in-patient discharges had a mean length of stay of 7.8 days. As displayed in Figure 2.2, overnight in-patient mean length of stay generally increased with age for both sexes.
- For all age groups aged between 15 and 74 years, females (excl. maternity) had a lower overnight in-patient mean length of stay compared to males. Median overnight in-patient length of stay was similar across all age groups, ranging between 1 to 7 days for males and 2 to 7 days for females.
- For maternity discharges, total overnight in-patient mean length of stay was 3.1 days, increasing with age, from 2.8 days for females aged less than 25 years to 4.8 days for those aged 45 years and over.

TABLE 2.1b Total Male Discharges: Patient Type by Age Group (N, %, Bed Days, % and In-Patient Length of Stay)

	Discharges and Bed Days							
	Day Patients		Total In-Patients				Total Discharges	
	N	%	N	%	Bed Days	%	N	%
< 1 Year	2,029	0.4	14,055	5.1	73,319	4.1	16,084	1.9
1–14 Years	24,637	4.4	28,478	10.4	63,538	3.6	53,115	6.3
15–24 Years	19,223	3.4	15,041	5.5	43,491	2.4	34,264	4.1
25–34 Years	29,114	5.2	15,438	5.6	57,881	3.2	44,552	5.3
35–44 Years	49,350	8.8	22,017	8.0	99,657	5.6	71,367	8.5
45–54 Years	71,440	12.7	28,761	10.5	148,109	8.3	100,201	12.0
55–64 Years	109,683	19.5	39,044	14.2	257,233	14.4	148,727	17.7
65–74 Years	142,796	25.3	49,800	18.1	391,362	21.9	192,596	23.0
75–84 Years	94,359	16.7	43,407	15.8	430,599	24.1	137,766	16.4
85 Years and Over	20,834	3.7	18,410	6.7	222,449	12.4	39,244	4.7
Total Discharges	**563,465**	**100**	**274,451**	**100**	**1,787,636**	**100**	**837,916**	**100**

	In-Patient Length of Stay						
	Sameday In-Patients	Overnight In-Patients			Total In-Patients		
	N	N	Mean	Median	N	Mean	Median
< 1 Year	1,793	12,262	5.9	3	14,055	5.2	2
1–14 Years	6,261	22,217	2.7	1	28,478	2.2	1
15–24 Years	4,448	10,593	3.9	2	15,041	2.9	1
25–34 Years	4,642	10,796	5.1	2	15,438	3.7	1
35–44 Years	6,250	15,767	6.1	3	22,017	4.5	1
45–54 Years	7,238	21,523	6.7	3	28,761	5.1	2
55–64 Years	7,717	31,327	8.1	4	39,044	6.6	3
65–74 Years	8,214	41,586	9.3	5	49,800	7.9	4
75–84 Years	5,857	37,550	11.4	6	43,407	9.9	5
85 Years and Over	1,859	16,551	13.4	7	18,410	12.1	6
Total Discharges	**54,279**	**220,172**	**8.0**	**4**	**274,451**	**6.5**	**2**

Note: Percentage and bed day columns are subject to rounding.

TABLE 2.1c Female Discharges (excl. Maternity): Patient Type by Age Group (N, %, Bed Days, % and In-Patient Length of Stay)

	Discharges and Bed Days							
	Day Patients		Total In-Patients				Total Discharges	
	N	%	N	%	Bed Days	%	N	%
< 1 Year	1,694	0.3	11,184	4.2	60,902	3.7	12,878	1.6
1–14 Years	18,668	3.5	23,958	8.9	56,763	3.4	42,626	5.3
15–24 Years	18,606	3.5	16,944	6.3	44,455	2.7	35,550	4.4
25–34 Years	33,445	6.3	17,829	6.6	56,450	3.4	51,274	6.4
35–44 Years	65,346	12.2	25,586	9.5	91,237	5.5	90,932	11.3
45–54 Years	91,402	17.1	29,170	10.9	128,051	7.7	120,572	15.0
55–64 Years	104,631	19.6	33,649	12.6	189,714	11.4	138,280	17.2
65–74 Years	108,817	20.3	42,241	15.8	306,867	18.4	151,058	18.8
75–84 Years	72,815	13.6	42,472	15.8	419,276	25.2	115,287	14.4
85 Years and Over	19,450	3.6	25,085	9.4	309,833	18.6	44,535	5.5
Total Discharges	**534,874**	**100**	**268,118**	**100**	**1,663,546**	**100**	**802,992**	**100**

	In-Patient Length of Stay						
	Sameday In-Patients	Overnight In-Patients			Total In-Patients		
	N	N	Mean	Median	N	Mean	Median
< 1 Year	1,432	9,752	6.2	3	11,184	5.4	2
1–14 Years	4,896	19,062	2.8	2	23,958	2.4	1
15–24 Years	4,886	12,058	3.5	2	16,944	2.6	1
25–34 Years	5,881	11,948	4.5	2	17,829	3.2	1
35–44 Years	7,984	17,602	5.0	2	25,586	3.6	1
45–54 Years	8,151	21,019	5.9	3	29,170	4.4	2
55–64 Years	7,835	25,814	7.2	4	33,649	5.6	2
65–74 Years	8,037	34,204	8.9	5	42,241	7.3	3
75–84 Years	6,481	35,991	11.6	6	42,472	9.9	5
85 Years and Over	2,718	22,367	13.8	7	25,085	12.4	6
Total Discharges	**58,301**	**209,817**	**7.8**	**4**	**268,118**	**6.2**	**2**

Note: Percentage and bed day columns are subject to rounding.

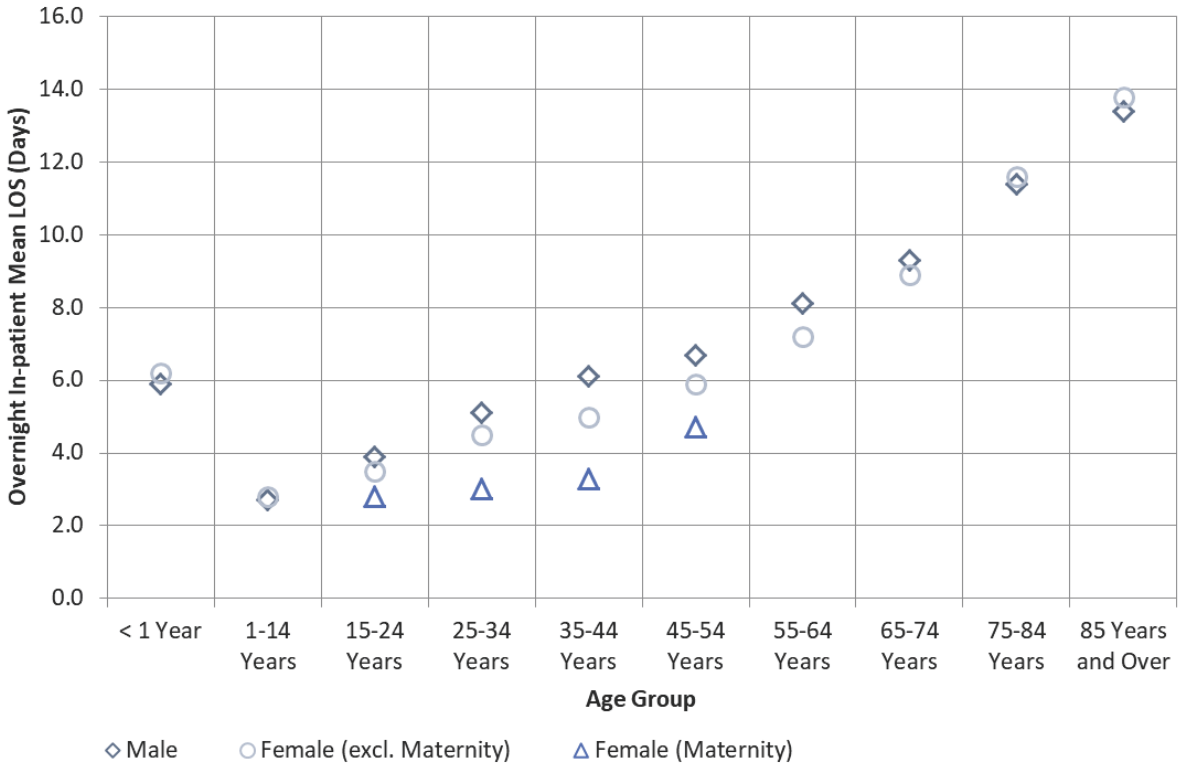
TABLE 2.1d Female Discharges (Maternity): Patient Type by Age Group (N, %, Bed Days, % and In-Patient Length of Stay)

	Discharges and Bed Days							
	Day Patients		Total In-Patients				Total Discharges	
	N	%	N	%	Bed Days	%	N	%
<25 Years	1,901	8.5	13,291	12.3	28,995	10.5	15,192	11.7
25–34 Years	10,784	48.3	55,144	51.2	137,446	49.7	65,928	50.7
35–44 Years	9,366	41.9	38,661	35.9	107,278	38.8	48,027	36.9
45 Years and Over	285	1.3	682	0.6	2,740	1.0	967	0.7
Total Discharges	**22,336**	**100**	**107,778**	**100**	**276,458**	**100**	**130,114**	**100**

	In-Patient Length of Stay						
	Sameday In-Patients	Overnight In-Patients			Total In-Patients		
	N	N	Mean	Median	N	Mean	Median
<25 Years	3,675	9,616	2.8	2	13,291	2.2	2
25–34 Years	11,797	43,347	3.0	3	55,144	2.5	2
35–44 Years	6,979	31,682	3.3	3	38,661	2.8	2
45 Years and Over	120	562	4.8	3	682	4.0	3
Total Discharges	**22,571**	**85,207**	**3.1**	**3**	**107,778**	**2.6**	**2**

Note: Percentage and bed day columns are subject to rounding.

FIGURE 2.2 Overnight In-Patients: Mean Length of Stay (Days) by Age Group and Sex: Males, Females (excl. Maternity), Females (Maternity)



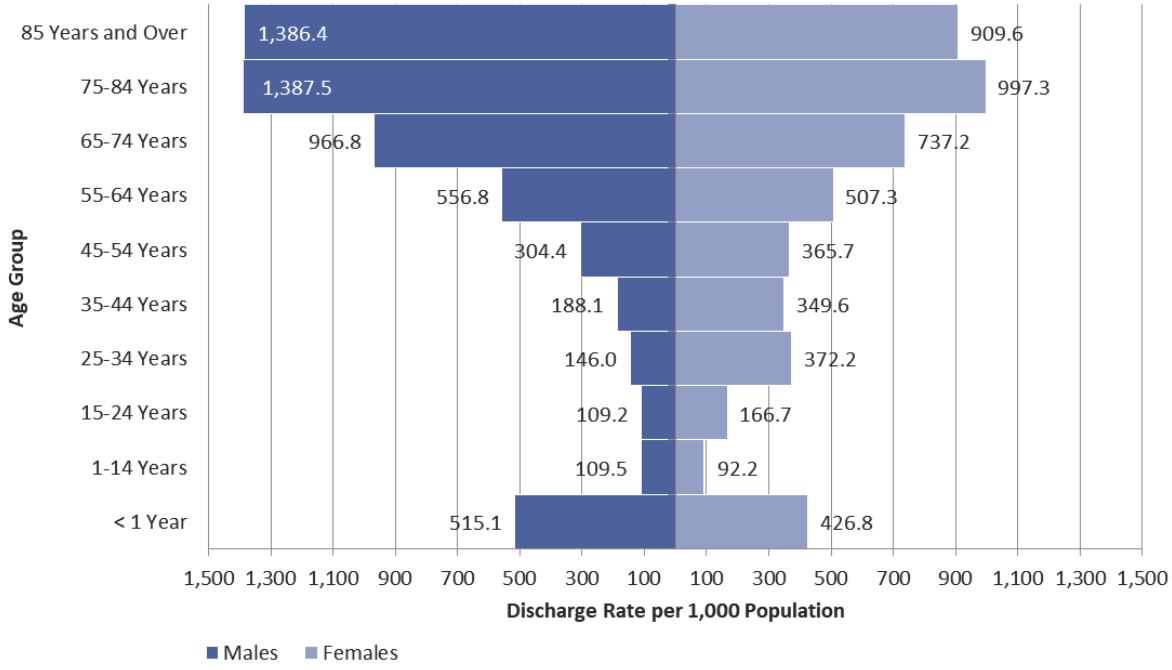
Note: Mean length of stay is not presented for female maternity discharges where there were a small number of discharges reported within a particular age group.

2.2.1.2 Discharge Rates by Age and Sex

Figure 2.3 shows the discharge rates per 1,000 population by sex and age group for total discharges.

- Apart from the youngest age group, for both males and females, the discharge rate generally increased with age. Those aged 75 to 84 years recorded the highest discharge rate for both males and females (1,387.5 per 1,000 population of males and 997.3 per 1,000 population of females).
- Females aged between 15 and 54 years had a higher discharge rate per 1,000 population than males; males had a higher discharge rate for all other age groups.

FIGURE 2.3 Total Discharges: Sex by Age Group (Discharge Rate per 1,000 Population)



Source: Population estimates for 2019 by sex and age group were obtained from the CSO. https://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/Define.asp?maintable=PEA11 [accessed 17th August 2020]

2.2.2 Marital/Civil Status

2.2.2.1 Marital/Civil Status by Patient Type

Table 2.2 disaggregates total discharges by patient type and marital/civil status.

- Married discharges accounted for 48.6 per cent of total discharges.
- Discharges who were widowed accounted for 9.4 per cent of total in-patient discharges, and 16.4 per cent of in-patient bed days.
- Overnight in-patient discharges with a marital status of single had the lowest mean length of stay of 5.6 days, compared to 11.6 days for discharges who were widowed.

TABLE 2.2 Total Discharges: Patient Type by Marital/Civil Status (N, %, and In-Patient Length of Stay)

	Discharges and Bed Days							
	Day Patients		Total In-Patients				Total Discharges	
	N	%	N	%	Bed Days	%	N	%
Single	336,795	30.1	266,119	40.9	1,197,840	32.1	602,914	34.0
Married	583,367	52.1	277,575	42.7	1,567,378	42.0	860,942	48.6
Widowed	94,041	8.4	60,954	9.4	612,449	16.4	154,995	8.8
Other*	49,736	4.4	23,302	3.6	171,874	4.6	73,038	4.1
Unknown	34,560	3.1	12,482	1.9	116,519	3.1	47,042	2.7
Divorced	22,176	2.0	9,915	1.5	61,580	1.7	32,091	1.8
Total Discharges	**1,120,675**	**100**	**650,347**	**100**	**3,727,639**	**100**	**1,771,022**	**100**

	In-Patient Length of Stay						
	Sameday In-Patients	Overnight In-Patients			Total In-Patients		
	N	N	Mean	Median	N	Mean	Median
Single	58,681	207,438	5.6	2	266,119	4.5	2
Married	58,784	218,791	7.0	3	277,575	5.6	2
Widowed	8,527	52,427	11.6	6	60,954	10.0	5
Other*	4,535	18,767	9.0	4	23,302	7.4	3
Unknown	2,424	10,058	11.5	4	12,482	9.3	3
Divorced	2,200	7,715	7.8	4	9,915	6.2	2
Total Discharges	**135,151**	**515,196**	**7.1**	**3**	**650,347**	**5.7**	**2**

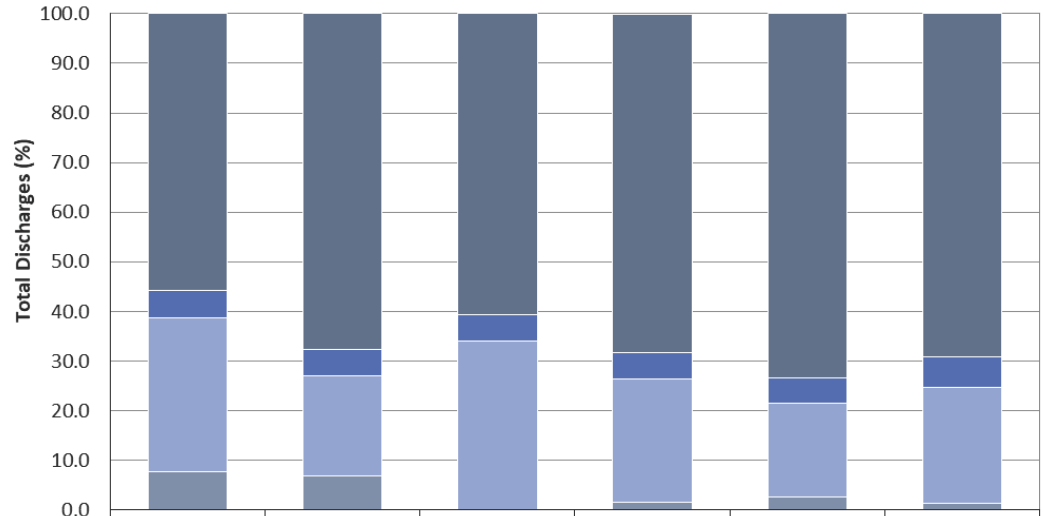
Notes: Percentage and bed day columns are subject to rounding.
* Other includes Separated, Civil Partner, Formal Civil Partner, and Surviving Civil Partner

2.2.2.2 Marital/Civil Status by Admission Type

Figure 2.4 shows the proportion of total discharges by marital/civil status and admission type.

- Approximately a third of total discharges with a marital/civil status of widowed or single were admitted as emergency in-patients (34.1 per cent and 31.1 per cent respectively).
- Almost eight per cent of total discharges with a marital/civil status of single and 6.9 per cent with a marital/civil status of married were admitted as maternity in-patients.

FIGURE 2.4 Total Discharges: Marital/Civil Status by Admission Type (%)



	Single	Married	Widowed	Other*	Unknown	Divorced
Day Patient	55.9	67.8	60.7	68.1	73.5	69.1
In-Patients Elective	5.5	5.2	5.2	5.5	5.0	6.2
In-Patients Emergency	31.1	20.2	34.1	24.7	18.9	23.4
In-Patients Maternity	7.6	6.9	0.0	1.6	2.7	1.3

Notes: Percentages are subject to rounding.
* Other includes Separated, Civil Partner, Formal Civil Partner, and Surviving Civil Partner

2.2.3 Public/Private Status

In HIPE, public/private status relates to whether the patient saw the consultant on a private or public basis. It does not relate to the type of bed occupied nor is it an indicator of possession of private health insurance.

Table 2.3 and Figure 2.5 disaggregate total discharges by public/private status and age group. Of total discharges, 86.3 per cent were discharged on a public basis.

- The 25–34 years age group had the largest proportion of total discharges treated publicly (90.5 per cent) with only 9.5 per cent treated on a private basis.
- The 1–14 years age group had the largest proportion of total discharges that were treated on a private basis, accounting for 17.3 per cent of all discharges in this age group.

Length of Stay

- For the majority of age groups, the public overnight in-patient mean length of stay exceeded the private overnight in-patient mean length of stay. The difference is largest for discharges aged 45–54 years, where public discharges stayed on average 1.6 days longer than their private counterparts (see Table 2.3 and Figure 2.6). Median length of stay for overnight in-patients was 3 days for both private and public discharges aged 45–54 years.

TABLE 2.3 Total Discharges: Public/Private Status by Patient Type and Age Group (N, Row %, In-Patient Length of Stay)

	Discharges											
	Day Patients				Total In-Patients				Total Discharges			
	Public		Private		Public		Private		Public		Private	
	N	%	N	%	N	%	N	%	N	%	N	%
< 1 Year	3,442	92.5	281	7.5	21,537	85.3	3,702	14.7	24,979	86.2	3,983	13.8
1–14 Years	37,276	86.1	6,032	13.9	41,958	80.0	10,488	20.0	79,234	82.7	16,520	17.3
15–24 Years	35,571	89.5	4,156	10.5	40,742	90.0	4,524	10.0	76,313	89.8	8,680	10.2
25–34 Years	66,506	90.7	6,837	9.3	79,921	90.4	8,490	9.6	146,427	90.5	15,327	9.5
35–44 Years	106,318	85.7	17,744	14.3	70,226	81.4	16,038	18.6	176,544	83.9	33,782	16.1
45–54 Years	140,394	86.1	22,731	13.9	49,721	84.8	8,889	15.2	190,115	85.7	31,620	14.3
55–64 Years	185,624	86.6	28,692	13.4	60,520	83.3	12,176	16.7	246,144	85.8	40,868	14.2
65–74 Years	218,306	86.8	33,307	13.2	76,341	82.9	15,700	17.1	294,647	85.7	49,007	14.3
75–84 Years	147,854	88.4	19,320	11.6	72,059	83.9	13,820	16.1	219,913	86.9	33,140	13.1
85 Years and Over	36,624	90.9	3,660	9.1	37,758	86.8	5,737	13.2	74,382	88.8	9,397	11.2
Total Discharges	**977,915**	**87.3**	**142,760**	**12.7**	**550,783**	**84.7**	**99,564**	**15.3**	**1,528,698**	**86.3**	**242,324**	**13.7**

	In-Patient Length of Stay											
	Sameday In-Patients		Overnight In-Patients						Total In-Patients			
	Public	Private	Public			Private			Public		Private	
	N	N	N	Mean	Median	N	Mean	Median	Mean	Median	Mean	Median
< 1 Year	2,865	360	18,672	6.1	3	3,342	5.7	2	5.3	2	5.2	2
1–14 Years	9,491	1,668	32,467	2.9	2	8,820	2.5	2	2.3	1	2.2	1
15–24 Years	12,300	707	28,442	3.4	2	3,817	3.4	2	2.5	1	3.0	2
25–34 Years	21,015	1,305	58,906	3.7	2	7,185	3.6	3	2.8	2	3.1	2
35–44 Years	18,914	2,299	51,312	4.5	3	13,739	4.0	3	3.4	2	3.5	3
45–54 Years	14,164	1,345	35,557	6.6	3	7,544	5.0	3	4.8	2	4.3	2
55–64 Years	14,145	1,407	46,375	8.0	4	10,769	6.5	3	6.2	2	5.8	3
65–74 Years	14,866	1,385	61,475	9.4	5	14,315	8.0	4	7.6	3	7.3	4
75–84 Years	11,377	961	60,682	11.7	6	12,859	10.3	6	10.0	5	9.6	5
85 Years and Over	4,325	252	33,433	13.8	7	5,485	12.5	7	12.3	6	12.0	7
Total Discharges	**123,462**	**11,689**	**427,321**	**7.3**	**3**	**87,875**	**6.3**	**3**	**5.7**	**2**	**5.7**	**3**

Note: Percentage columns are subject to rounding.

FIGURE 2.5 Total Discharges: Public/Private Status by Age Group (%)

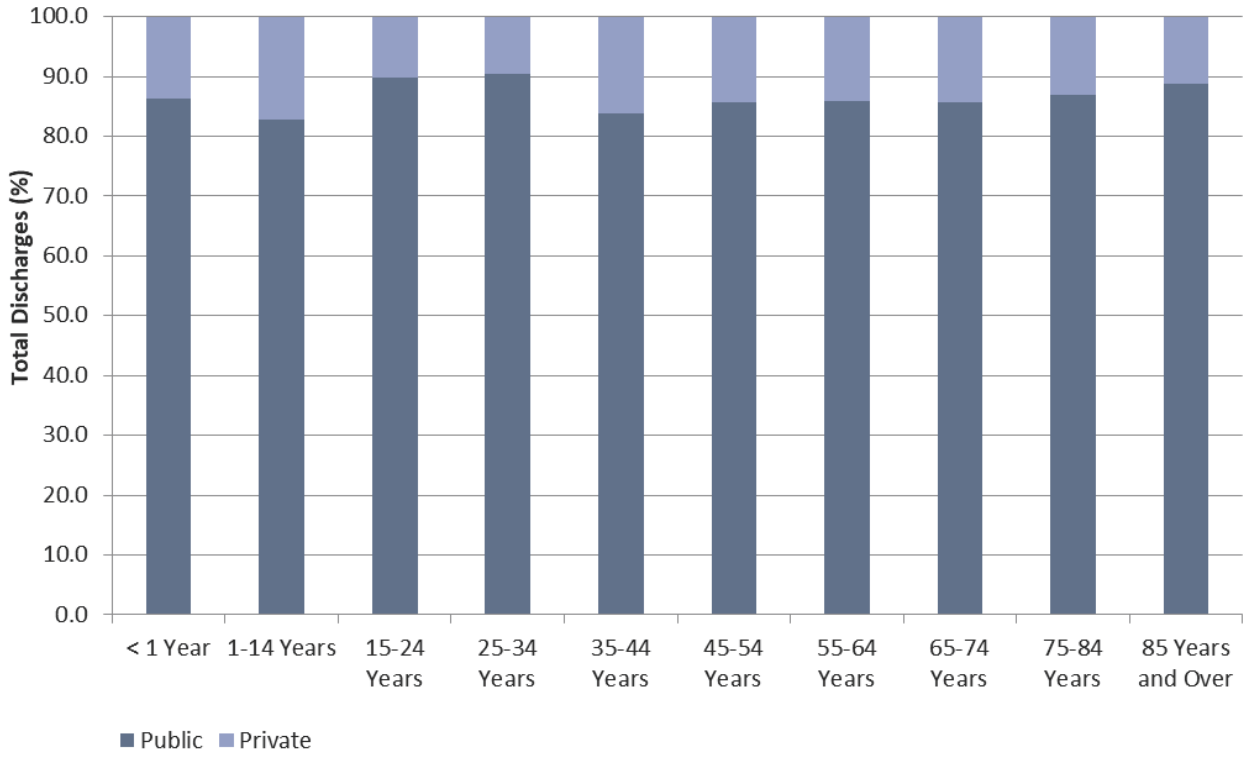
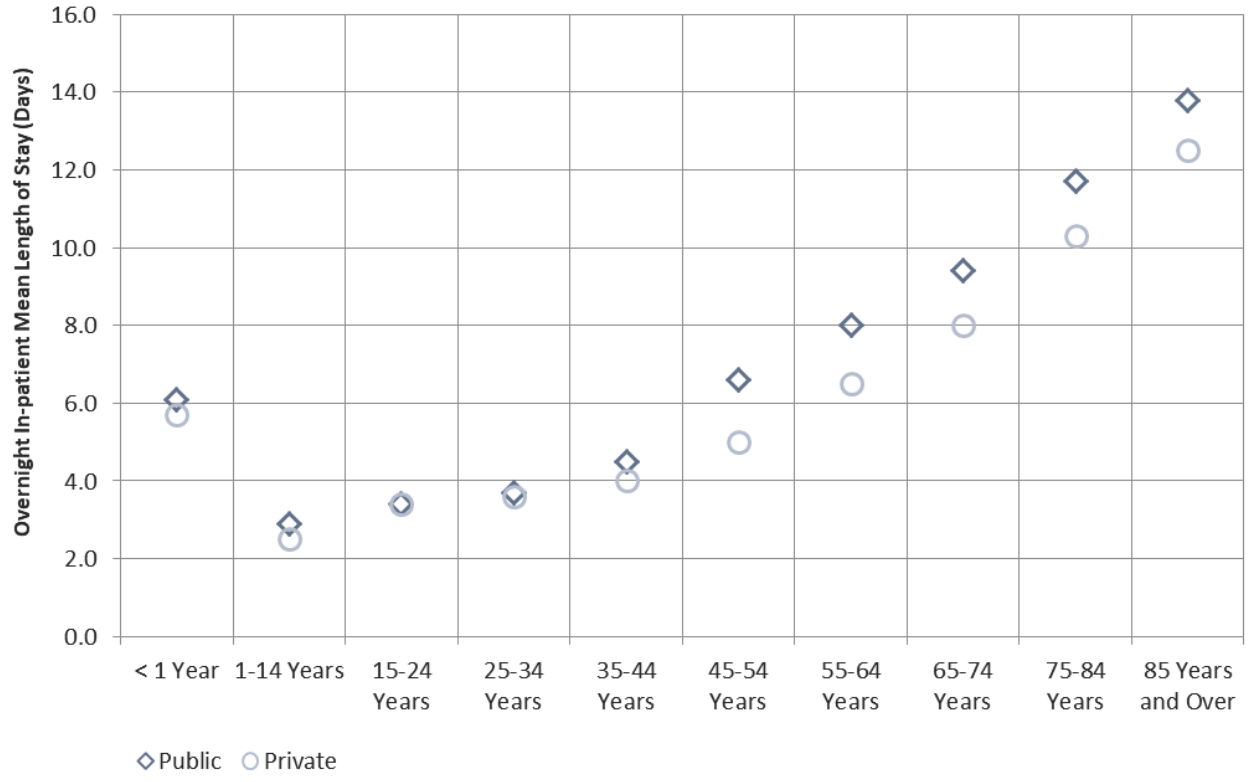


FIGURE 2.6 Overnight In-Patients: Mean Length of Stay (Days) by Age Group and Public/Private Status



2.2.4 GMS Status

GMS status refers to the medical card status of each HIPE discharge. Eligibility for a medical card is predominately dependent on income. It should be noted that where a discharge is recorded as having a medical card, this does not necessarily imply that the hospital discharge was publicly funded and vice versa.

2.2.4.1 GMS Status by Age Group

Table 2.4 disaggregates total discharges by GMS status and age group.

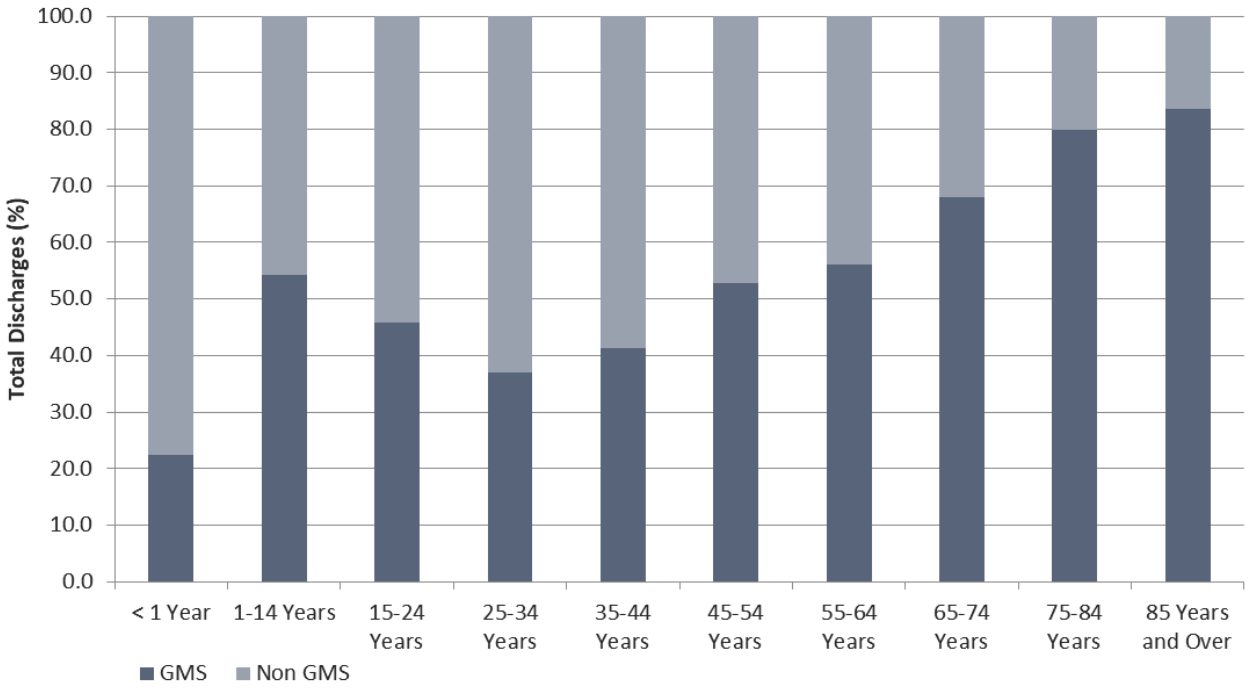
- Of total discharges, those aged 65–74 years accounted for the largest proportion of GMS discharges (22.4 per cent).
- The proportion of total discharges that were GMS discharges generally increased with age, with the largest proportion in the 85 years and over age group (83.5 per cent) – see Figure 2.7.

TABLE 2.4 Total Discharges: GMS Status by Age Group (N, %)

	GMS		Non-GMS		Unknown[a]		Total Discharges	
	N	%	N	%	N	%	N	%
< 1 Year	6,462	0.6	22,240	3.1	260	0.5	28,962	1.6
1–14 Years	51,872	5.2	43,678	6.0	204	0.4	95,754	5.4
15–24 Years	38,761	3.9	45,807	6.3	425	0.8	84,993	4.8
25–34 Years	59,321	6.0	100,884	13.9	1,549	3.0	161,754	9.1
35–44 Years	85,200	8.6	120,893	16.7	4,233	8.1	210,326	11.9
45–54 Years	112,997	11.4	101,008	14.0	7,730	14.9	221,735	12.5
55–64 Years	153,346	15.4	120,660	16.7	13,006	25.0	287,012	16.2
65–74 Years	223,071	22.4	105,645	14.6	14,938	28.7	343,654	19.4
75–84 Years	195,826	19.7	49,673	6.9	7,554	14.5	253,053	14.3
85 Years and Over	68,207	6.9	13,434	1.9	2,138	4.1	83,779	4.7
Total Discharges	**995,063**	**100**	**723,922**	**100**	**52,037**	**100**	**1,771,022**	**100**

Notes: Percentage columns are subject to rounding.
a Relates to discharges for whom GMS status was not known.

FIGURE 2.7 Total Discharges: GMS Status by Age Group (%)



Note: Data for discharges whose GMS status was 'unknown' are not included in the calculations for this figure.

2.3 WHERE

Section 2.3 examines where discharges were hospitalised, and where they were admitted from and discharged to. Data are presented in the following tables and figures by hospital group, admission source and discharge destination.

2.3.1 Hospital Group

Hospitals in Ireland are organised into seven hospital groups (see Appendix I). HIPE data is collected for all of the acute hospitals in these groups, along with a small number of non-acute hospitals that are not assigned to a group and are presented together as 'No group'. Table 2.5 disaggregates total discharges by hospital group and patient type.

Discharges

- The largest proportion of total discharges were hospitalised in the Ireland East Hospital Group (20.0 per cent).
- Total in-patient discharges were also highest in the Ireland East Hospital Group where 22.0 per cent of discharges were hospitalised, while the Dublin Midlands Hospital Group accounted for the highest proportion of day patients (21.0 per cent).

Length of Stay

- The overnight in-patient mean length of stay ranged from 4.8 days (Children's) to 8.0 days (Dublin Midlands) – see Figure 2.8.

TABLE 2.5 Total Discharges: Hospital Group by Patient Type (N, %, Bed Days, %, and In-Patient Length of Stay)

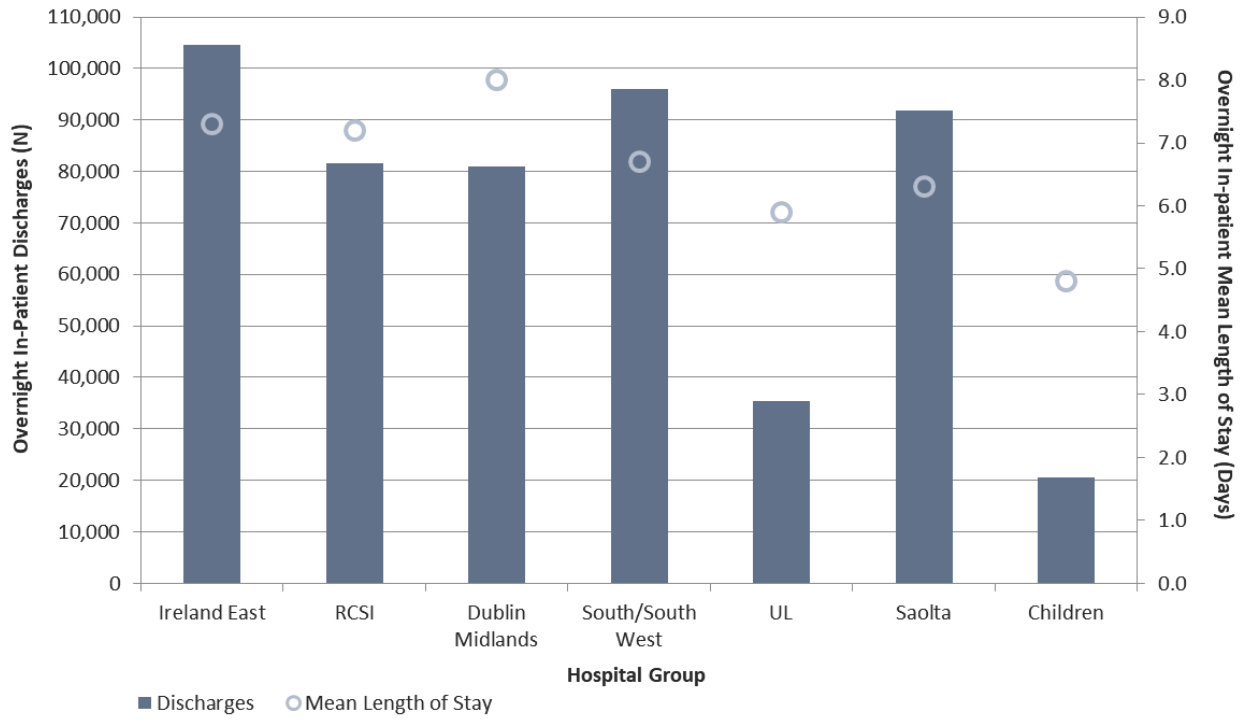
	Discharges and Bed Days							
	Day Patients		Total In-Patients				Total Discharges	
	N	%	N	%	Bed Days	%	N	%
Ireland East	211,739	18.9	142,930	22.0	786,363	21.1	354,669	20.0
RCSI	161,941	14.5	101,700	15.6	601,285	16.1	263,641	14.9
Dublin Midlands	235,628	21.0	98,295	15.1	661,156	17.7	333,923	18.9
South/South West	211,364	18.9	114,215	17.6	648,608	17.4	325,579	18.4
UL	67,176	6.0	47,503	7.3	215,888	5.8	114,679	6.5
Saolta	202,881	18.1	117,365	18.0	594,977	16.0	320,246	18.1
Children's	28,174	2.5	24,230	3.7	99,564	2.7	52,404	3.0
No group^	1,772	0.2	4,109	0.6	119,800	3.2	5,881	0.3
Total Discharges	**1,120,675**	**100**	**650,347**	**100**	**3,727,639**	**100**	**1,771,022**	**100**

	In-Patient Length of Stay						
	Sameday In-Patients	Overnight In-Patients			Total In-Patients		
	N	N	Mean	Median	N	Mean	Median
Ireland East	38,341	104,589	7.3	3	142,930	5.5	2
RCSI	20,139	81,561	7.2	3	101,700	5.9	2
Dublin Midlands	17,233	81,062	8.0	3	98,295	6.7	3
South/South West	18,162	96,053	6.7	3	114,215	5.7	3
UL	12,055	35,448	5.9	3	47,503	4.5	2
Saolta	25,475	91,890	6.3	3	117,365	5.1	2
Children's	3,730	20,500	4.8	2	24,230	4.1	2
No group^	16	4,093	29.3	18	4,109	29.2	18
Total Discharges	**135,151**	**515,196**	**7.1**	**3**	**650,347**	**5.7**	**2**

Notes: Percentage and bed day columns are subject to rounding.

^ Discharges allocated to 'No group' are not referred to in the text of this report as they refer to the small group of discharges in non-acute hospitals and would not be considered to be comparable to other groups. See Appendix I for the list of hospitals by Group in 2019.

FIGURE 2.8 Overnight In-Patients: Discharges (N) and Mean Length of Stay (Days) by Hospital Group



Note: Data for discharges hospitalised in 'No group' are not displayed in this figure.

2.3.1.1 Hospital Group by Admission Type

Table 2.6 disaggregates total discharges by hospital group and admission type.

Discharges

- The largest proportion of elective in-patients were treated in the South/South West Hospital Group (20.4 per cent), accounting for 15.9 per cent of total elective in-patient bed days.
- The Ireland East Hospital Group treated the largest proportion of both emergency in-patients (22.6 per cent) and maternity in-patients (21.7 per cent) compared to other groups.

TABLE 2.6 Total Discharges: Hospital Group by Patient Type and Admission Type (N, %, Bed Days, %)

	Discharges and Bed Days															
	Day Patients		In-Patients												Total Discharges	
			Elective				Emergency[a]				Maternity					
	N	%	N	%	Bed Days	%	N	%	Bed Days	%	N	%	Bed Days	%	N	%
Ireland East	211,739	18.9	18,143	19.2	112,958	17.4	101,435	22.6	617,877	22.0	23,352	21.7	55,528	20.1	354,669	20.0
RCSI	161,941	14.5	10,874	11.5	61,781	9.5	69,908	15.6	484,255	17.3	20,918	19.4	55,250	20.0	263,641	14.9
Dublin Midlands	235,628	21.0	13,711	14.5	106,123	16.4	62,841	14.0	508,595	18.1	21,743	20.2	46,439	16.8	333,923	18.9
South/South West	211,364	18.9	19,223	20.4	103,167	15.9	77,326	17.2	491,002	17.5	17,666	16.4	54,440	19.7	325,579	18.4
UL	67,176	6.0	6,575	7.0	29,993	4.6	34,588	7.7	163,424	5.8	6,340	5.9	22,471	8.1	114,679	6.5
Saolta	202,881	18.1	15,112	16.0	87,372	13.5	84,494	18.8	465,274	16.6	17,759	16.5	42,331	15.3	320,246	18.1
Children's	28,174	2.5	6,509	6.9	27,248	4.2	17,721	4.0	72,317	2.6	0	-	0	-	52,404	3.0
No group[ǂ]	1,772	0.2	4,109	4.4	119,800	18.5	0	-	0	-	0	-	0	-	5,881	0.3
Total Discharges	**1,120,675**	**100**	**94,256**	**100**	**648,439**	**100**	**448,313**	**100**	**2,802,742**	**100**	**107,778**	**100**	**276,458**	**100**	**1,771,022**	**100**

Notes:

Percentage and bed day columns are subject to rounding

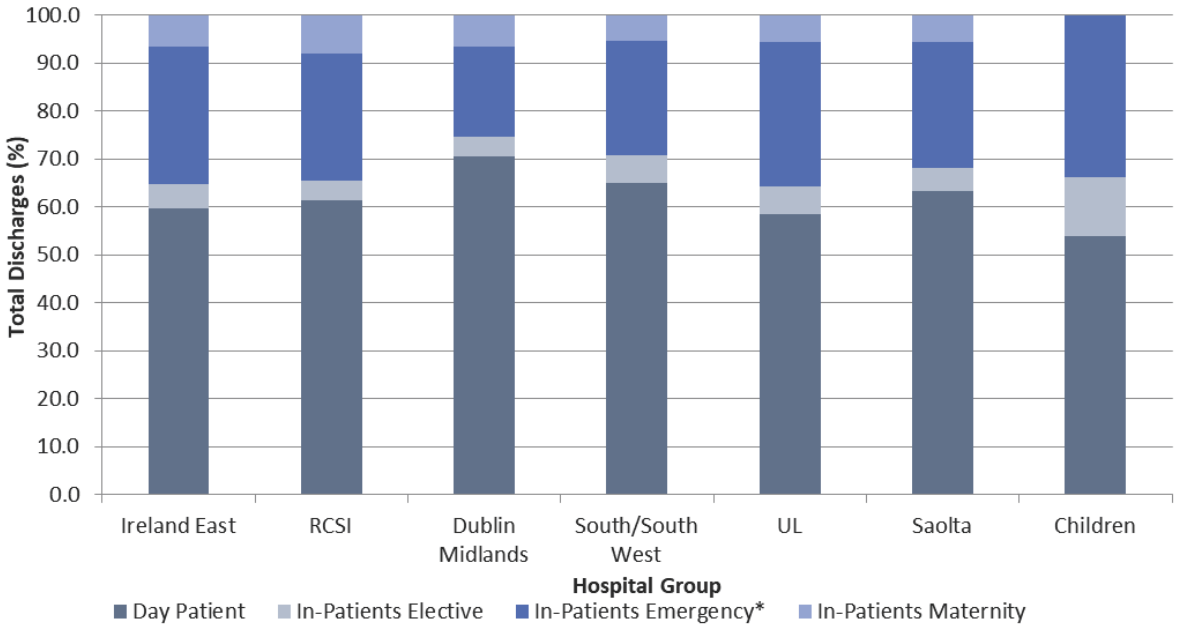
a HIPE includes patients who attended the Emergency Department and were subsequently admitted to hospital. As just a proportion of those attending the Emergency Department will subsequently be admitted to hospital, it is not possible to use emergency admissions reported to HIPE to draw conclusions about the total volume of activity in Emergency Departments.

ǂ Discharges allocated to 'No group' are not referred to in the text as they refer to the small group of discharges in non-acute hospitals and would not be considered to be comparable to other groups. See Appendix I for the list of hospitals by Group in 2019.

Figure 2.9 disaggregates total discharges in each hospital group by admission type.

- Across all hospital groups, the largest proportion of total discharges were treated as day patients, ranging from 53.8 per cent in the Children's Hospital Group to 70.6 per cent in the Dublin Midlands Hospital Group.
- The RCSI Hospital Group treated 7.9 per cent of total discharges as maternity in-patients, the highest amongst all hospital groups.
- The Children's Hospital Group treated the highest proportion of total discharges as emergency in-patients (33.8 per cent), followed by the UL Hospital Group (30.2 per cent).

FIGURE 2.9 Total Discharges: Hospital Group by Admission Type (%)



Notes: * HIPE includes patients who attended the Emergency Department and were subsequently admitted to hospital. As just a proportion of those attending the Emergency Department will subsequently be admitted to hospital, it is not possible to use emergency admissions reported to HIPE to draw conclusions about the total volume of activity in Emergency Departments.
Data for discharges hospitalised in 'No group' are not displayed in this figure.

2.3.1.2 Hospital Group by Public/Private Status

Table 2.7 disaggregates total discharges by hospital group, public/private status and patient type.

Discharges

- The RCSI Hospital Group treated the largest proportion of total discharges on a public basis (91.2 per cent), while the University of Limerick Hospital Group treated the smallest proportion of total discharges on a public basis (77.9 per cent).
- A larger proportion of total day patients were treated as public day patients, reaching 92.6 per cent in both the Ireland East and RCSI Hospital Groups. The smallest proportion was in the University of Limerick Hospital Group where 77.9 per cent of total day patients were treated on a public basis.
- The proportion of total in-patients treated on a public basis exceeded 80 per cent in all Hospital Groups except for the University of Limerick Hospital Group.

Length of Stay

- Overnight in-patient mean length of stay was 7.3 days for public discharges compared to 6.3 days for private discharges.
- The Dublin Midlands Hospital Group recorded the longest overnight in-patient mean length of stay for both public (8.1 days) and private discharges (7.7 days) compared to the other groups.

TABLE 2.7 Total Discharges: Hospital Group by Public/Private Status and Patient Type (N, % and In-Patient Length of Stay)

	Discharges											
	Day Patients				Total In-Patients				Total Discharges			
	Public		Private		Public		Private		Public		Private	
	N	%	N	%	N	%	N	%	N	%	N	%
Ireland East	196,115	92.6	15,624	7.4	122,993	86.1	19,937	13.9	319,108	90.0	35,561	10.0
RCSI	150,015	92.6	11,926	7.4	90,305	88.8	11,395	11.2	240,320	91.2	23,321	8.8
Dublin Midlands	199,795	84.8	35,833	15.2	81,951	83.4	16,344	16.6	281,746	84.4	52,177	15.6
South/South West	173,134	81.9	38,230	18.1	92,128	80.7	22,087	19.3	265,262	81.5	60,317	18.5
UL	52,352	77.9	14,824	22.1	36,947	77.8	10,556	22.2	89,299	77.9	25,380	22.1
Saolta	180,240	88.8	22,641	11.2	102,708	87.5	14,657	12.5	282,948	88.4	37,298	11.6
Children's	24,517	87.0	3,657	13.0	20,022	82.6	4,208	17.4	44,539	85.0	7,865	15.0
No group[ǂ]	1,747	98.6	25	1.4	3,729	90.8	380	9.2	5,476	93.1	405	6.9
Total Discharges	**977,915**	**87.3**	**142,760**	**12.7**	**550,783**	**84.7**	**99,564**	**15.3**	**1,528,698**	**86.3**	**242,324**	**13.7**

	In-Patient Length of Stay											
	Sameday In-Patients		Overnight In-Patients						Total In-Patients			
	Public	Private	Public			Private			Public		Private	
	N	N	N	Mean	Median	N	Mean	Median	Mean	Median	Mean	Median
Ireland East	35,120	3,221	87,873	7.6	3	16,716	5.9	3	5.6	2	5.0	2
RCSI	19,062	1,077	71,243	7.2	3	10,318	7.3	4	5.8	2	6.6	3
Dublin Midlands	15,470	1,763	66,481	8.1	3	14,581	7.7	4	6.7	3	6.9	3
South/South West	16,031	2,131	76,097	6.8	3	19,956	6.2	3	5.7	2	5.6	3
UL	11,408	647	25,539	6.2	3	9,909	5.2	3	4.5	2	4.9	3
Saolta	23,062	2,413	79,646	6.3	3	12,244	6.3	3	5.0	2	5.3	2
Children's	3,296	434	16,726	5.0	2	3,774	3.9	2	4.2	2	3.6	2
No group[ǂ]	13	~	3,716	30.8	20	377	14.2	3	30.7	19	14.1	3
Total Discharges	**123,462**	**11,689**	**427,321**	**7.3**	**3**	**87,875**	**6.3**	**3**	**5.7**	**2**	**5.7**	**3**

Notes:
Percentage columns are subject to rounding.
~ Denotes five or fewer discharges reported to HIPE.
ǂ Discharges allocated to 'No group' are not referred to in the text of this report as they refer to the small group of discharges in non-acute hospitals and would not be considered to be comparable to other groups. See Appendix I for the list of hospitals by Group in 2019.

2.3.2 Admission Source

Admission source describes where the patient was admitted from. It does not refer to where an emergency or accident occurred. Table 2.8 disaggregates total discharges by patient type, admission type and admission source.

- The majority of total discharges were admitted from home (96.4 per cent).
- Of total emergency in-patients, 4.1 per cent were transferred in from another hospital.
- Over 11 per cent of elective in-patients were transferred from another hospital.

TABLE 2.8 Total Discharges: Admission Source by Patient Type and Admission Type (N, %)

	Day Patients		In-Patients						Total Discharges	
			Elective		Emergency[a]		Maternity			
	N	%	N	%	N	%	N	%	N	%
Home	1,109,125	99.0	83,061	88.1	407,731	90.9	106,864	99.2	1,706,781	96.4
Long stay accommodation	1,889	0.2	358	0.4	11,355	2.5	~	-	13,603	0.8
Transfer from other hospital	9,060	0.8	10,727	11.4	18,561	4.1	732	0.7	39,080	2.2
Other	601	0.1	110	0.1	10,666	2.4	*	-	11,558	0.7
Total	**1,120,675**	**100**	**94,256**	**100**	**448,313**	**100**	**107,778**	**100**	**1,771,022**	**100**

Notes: Percentage columns are subject to rounding.
See Appendix IV for information on how the HIPE variable 'Admission Source' was grouped for this report.

a HIPE includes patients who attended the Emergency Department and were subsequently admitted to hospital. As just a proportion of those attending the Emergency Department will subsequently be admitted to hospital, it is not possible to use emergency admissions reported to HIPE to draw conclusions about the total volume of activity in Emergency Departments.

~ Denotes five or fewer discharges reported to HIPE.

* Further suppression required to prevent disclosure of five or fewer discharges.

2.3.3 Discharge Destination

Discharge destination identifies the destination of the discharge upon completion of their episode of care. Table 2.9 disaggregates total discharges by patient type, admission type and discharge destination.

- The majority of total discharges were discharged home (94.8 per cent).
- Of total emergency in-patients, 6.1 per cent were transferred to long stay accommodation, and 5.5 per cent were transferred to another hospital.

TABLE 2.9 Total Discharges: Discharge Destination by Patient Type and Admission Type (N, %)

	Day Patients		In-Patients						Total Discharges	
			Elective		Emergency[a]		Maternity			
	N	%	N	%	N	%	N	%	N	%
Home	1,108,178	98.9	86,009	91.3	379,240	84.6	105,921	98.3	1,679,348	94.8
Long stay accommodation	2,750	0.2	3,115	3.3	27,205	6.1	*	-	33,089	1.9
Transfer to other hospital	9,251	0.8	3,900	4.1	24,575	5.5	682	0.6	38,408	2.2
Died	0	-	701	0.7	10,397	2.3	~	-	11,100	0.6
Other	496	0.0	531	0.6	6,896	1.5	1,154	1.1	9,077	0.5
Total Discharges	**1,120,675**	**100**	**94,256**	**100**	**448,313**	**100**	**107,778**	**100**	**1,771,022**	**100**

Notes: Percentage columns are subject to rounding.
See Appendix IV for information on how the HIPE variable 'Discharge Destination' was grouped for this report.

a HIPE includes patients who attended the Emergency Department and were subsequently admitted to hospital. As just a proportion of those attending the Emergency Department will subsequently be admitted to hospital, it is not possible to use emergency admissions reported to HIPE to draw conclusions about the total volume of activity in Emergency Departments.

~ Denotes five or fewer discharges reported to HIPE.

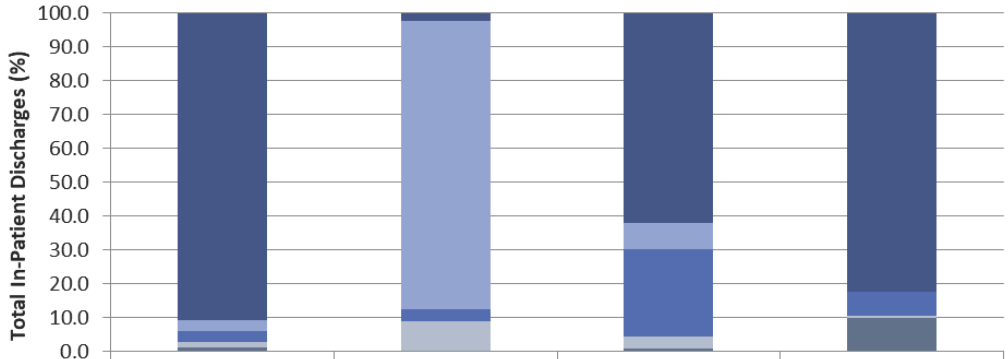
* Further suppression required to prevent disclosure of five or fewer discharges.

2.3.4 Admission Source by Discharge Destination

Figure 2.10 disaggregates the proportion of in-patient discharges by discharge destination and admission source.

- Of in-patients who were admitted from home, 90.9 per cent were discharged home.
- In-patients admitted from long stay accommodation were primarily discharged back to long stay accommodation (85.3 per cent).
- Over a quarter of in-patients (25.9 per cent) who were admitted from another hospital were transferred to another hospital, while 62.1 per cent were discharged home.

FIGURE 2.10 In-Patient Discharges: Discharge Destination by Admission Source (%)



	Home	Long stay accommodation	Transfer from other hospital	Other
Home	90.9	2.4	62.1	82.2
Long stay accommodation	3.0	85.3	7.6	0.2
Transfer to other hospital	3.4	3.3	25.9	6.9
Died	1.5	8.9	3.5	0.7
Other	1.2	0.1	0.8	9.9

Notes: See Appendix IV for information on how the HIPE variables 'Discharge Destination' and 'Admission Source' were grouped for this report.
Percentages are subject to rounding.

2.4 WHEN

Section 2.4 profiles when discharges were admitted to and discharged from hospital. Activity is presented by day of admission, day of discharge, and month of discharge for total discharges.

2.4.1 Day of Admission

Table 2.10 disaggregates total discharges by patient type, admission type, and day of admission (see also Figure 2.11).

Discharges

- Over 61 per cent of elective in-patients were admitted between Monday and Wednesday, with only 6.2 per cent admitted at the weekend.
- The proportion of in-patient discharges admitted as emergency in-patients remained relatively constant throughout the week at approximately 16 per cent per day, but fell at weekends when approximately 10 per cent were admitted per day.
- The majority of day patients were admitted mid-week, ranging from 20.4 per cent on Wednesday to only 2.6 per cent on Saturday and 1.0 per cent on Sunday.

Length of Stay[2]

- Mean length of stay for elective in-patients ranged from 6.5 days for those admitted on a Tuesday to 10.3 days for those admitted on a Saturday.
- Mean length of stay for emergency in-patients ranged from 5.8 days for those admitted on a Monday to 7.0 days for those admitted on a Saturday.

[2] Where length of stay is analysed by admission type, a breakdown of sameday and overnight in-patient length of stay is not provided.

TABLE 2.10 Total Discharges: Patient Type and Admission Type by Day of Admission (N, % and In-Patient Length of Stay)

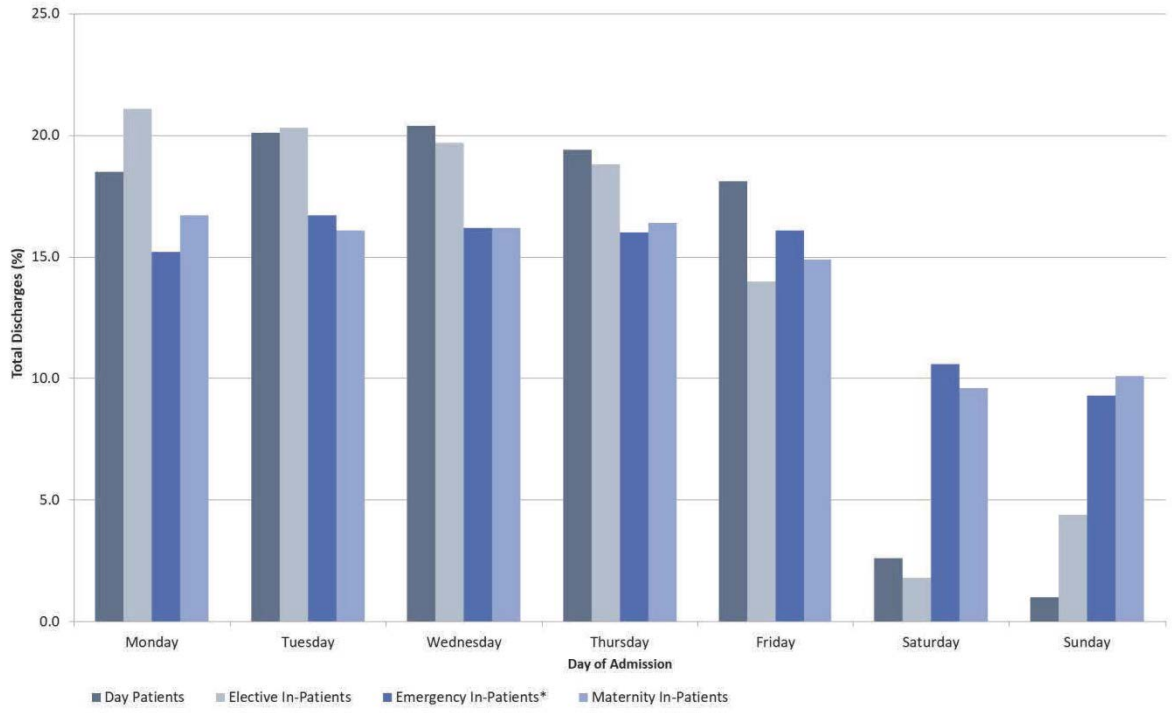
	Discharges									
	Day Patients		In-Patients						Total Discharges	
			Elective		Emergency[a]		Maternity			
	N	%	N	%	N	%	N	%	N	%
Monday	207,275	18.5	19,873	21.1	68,054	15.2	17,989	16.7	313,191	17.7
Tuesday	224,707	20.1	19,163	20.3	75,088	16.7	17,400	16.1	336,358	19.0
Wednesday	228,076	20.4	18,583	19.7	72,491	16.2	17,412	16.2	336,562	19.0
Thursday	217,828	19.4	17,675	18.8	71,730	16.0	17,666	16.4	324,899	18.3
Friday	202,526	18.1	13,153	14.0	72,022	16.1	16,102	14.9	303,803	17.2
Saturday	29,415	2.6	1,678	1.8	47,386	10.6	10,360	9.6	88,839	5.0
Sunday	10,848	1.0	4,131	4.4	41,542	9.3	10,849	10.1	67,370	3.8
Total Discharges	**1,120,675**	**100**	**94,256**	**100**	**448,313**	**100**	**107,778**	**100**	**1,771,022**	**100**

	In-Patient Length of Stay								
	Elective		Emergency[a]		Maternity		Total In-Patients		
	Mean	Median	Mean	Median	Mean	Median	N	Mean	Median
Monday	6.6	2	5.8	2	2.6	2	105,916	5.4	2
Tuesday	6.5	2	6.1	2	2.6	2	111,651	5.6	2
Wednesday	6.8	2	6.2	2	2.6	2	108,486	5.7	2
Thursday	6.6	2	6.2	2	2.7	2	107,071	5.7	2
Friday	7.5	3	6.4	3	2.5	2	101,277	5.9	3
Saturday	10.3	4	7.0	3	2.3	2	59,424	6.2	3
Sunday	8.1	4	6.4	3	2.4	2	56,522	5.7	2
In-Patient Discharges	**6.9**	**2**	**6.3**	**2**	**2.6**	**2**	**650,347**	**5.7**	**2**

Notes: Percentage columns are subject to rounding.

a HIPE includes patients who attended the Emergency Department and were subsequently admitted to hospital. As just a proportion of those attending the Emergency Department will subsequently be admitted to hospital, it is not possible to use emergency admissions reported to HIPE to draw conclusions about the total volume of activity in Emergency Departments.

FIGURE 2.11 Total Discharges: Patient Type and Admission Type by Day of Admission (%)



Note: * See note under Table 2.10

2.4.2 Day of Discharge

Table 2.11 disaggregates total discharges by patient type, admission type and day of discharge (see also Figure 2.12).

Discharges

- The proportion of elective in-patients discharged increased throughout the week, from 11.2 per cent on Monday to 22.4 per cent on Friday, falling to 10.2 per cent on Saturday and 4.7 per cent on Sunday.
- The largest proportion of emergency in-patients were discharged on Friday (20.2 per cent), with the smallest proportion discharged on Sunday (5.7 per cent).

Length of Stay[3]

- Elective in-patients discharged on a Monday had the longest in-patient mean length of stay (10.1 days).
- Emergency in-patient mean length of stay generally fell throughout the week from 6.8 days for those discharged on a Monday to 4.0 days for those discharged on a Sunday.

TABLE 2.11 Total Discharges: Patient Type and Admission Type by Day of Discharge (N, % and In-Patient Length of Stay)

	Discharges									
	Day Patients		In-Patients						Total Discharges	
			Elective		Emergency[a]		Maternity			
	N	%	N	%	N	%	N	%	N	%
Monday	207,275	18.5	10,585	11.2	71,776	16.0	16,233	15.1	305,869	17.3
Tuesday	224,707	20.1	15,283	16.2	77,499	17.3	15,560	14.4	333,049	18.8
Wednesday	228,076	20.4	16,320	17.3	74,978	16.7	14,680	13.6	334,054	18.9
Thursday	217,828	19.4	16,911	17.9	75,071	16.7	15,639	14.5	325,449	18.4
Friday	202,526	18.1	21,139	22.4	90,743	20.2	17,475	16.2	331,883	18.7
Saturday	29,415	2.6	9,603	10.2	32,571	7.3	14,765	13.7	86,354	4.9
Sunday	10,848	1.0	4,415	4.7	25,675	5.7	13,426	12.5	54,364	3.1
Total Discharges	**1,120,675**	**100**	**94,256**	**100**	**448,313**	**100**	**107,778**	**100**	**1,771,022**	**100**

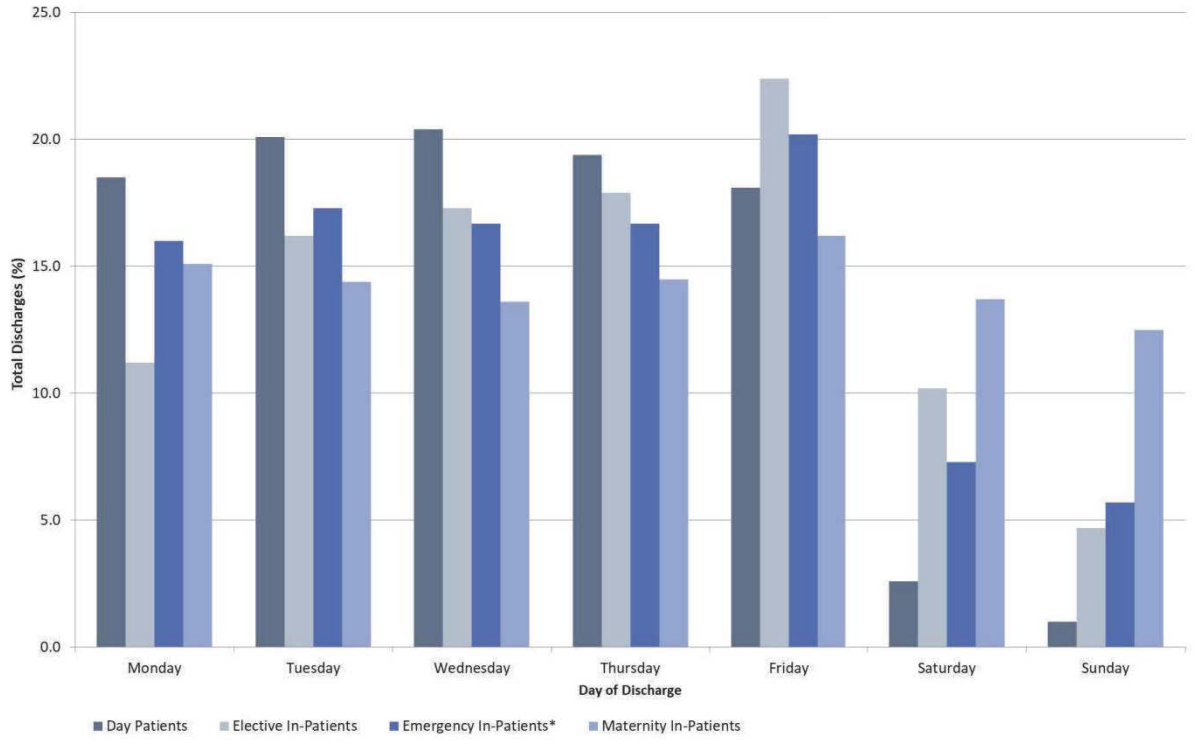
	In-Patient Length of Stay								
	Elective		Emergency[a]		Maternity		Total In-Patients		
	Mean	Median	Mean	Median	Mean	Median	N	Mean	Median
Monday	10.1	5	6.8	3	2.8	2	98,594	6.5	3
Tuesday	7.3	2	6.7	3	2.6	2	108,342	6.2	2
Wednesday	7.1	2	6.5	2	2.4	2	105,978	6.0	2
Thursday	6.4	2	6.6	2	2.4	2	107,621	5.9	2
Friday	6.6	2	6.2	2	2.4	2	129,357	5.8	2
Saturday	4.0	2	4.6	2	2.6	2	56,939	4.0	2
Sunday	6.1	3	4.0	2	2.8	2	43,516	3.9	2
In-Patient Discharges	**6.9**	**2**	**6.3**	**2**	**2.6**	**2**	**650,347**	**5.7**	**2**

Notes: Percentage columns are subject to rounding.

a HIPE includes patients who attended the Emergency Department and were subsequently admitted to hospital. As just a proportion of those attending the Emergency Department will subsequently be admitted to hospital, it is not possible to use emergency admissions reported to HIPE to draw conclusions about the total volume of activity in Emergency Departments.

[3] Where length of stay is analysed by admission type, a breakdown of sameday and overnight in-patient length of stay is not provided.

FIGURE 2.12 Total Discharges: Patient Type and Admission Type by Day of Discharge (%)



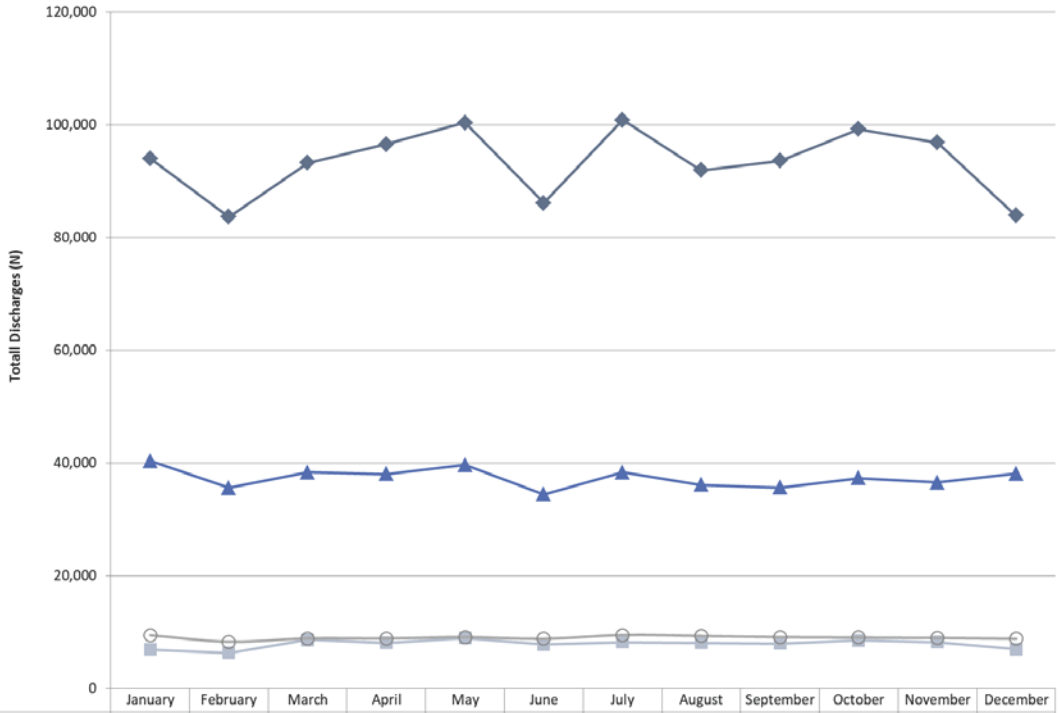
Note: * See note under Table 2.10

2.4.3 Month of Discharge

Figure 2.13 shows total discharges by month of discharge disaggregated by patient type and admission type.

- Hospital discharges peaked in May for elective in-patients (8,902 discharges), while February recorded the smallest number of elective in-patients with only 6,238 elective in-patients discharged in this month.
- Emergency in-patient hospital discharges peaked in January (40,376 discharges), while the smallest number of emergency in-patients were discharged in June with 34,423 discharges.
- Maternity in-patient discharges were highest in July (9,462 discharges) and lowest in February (8,257 discharges).

FIGURE 2.13 Total Discharges: Month of Discharge by Patient Type and Admission Type (N)



	January	February	March	April	May	June	July	August	September	October	November	December
Day Patients	94,017	83,692	93,253	96,588	100,404	86,153	100,890	91,933	93,645	99,285	96,880	83,935
Elective In-Patients	6,873	6,238	8,614	8,084	8,902	7,754	8,188	8,045	7,959	8,467	8,200	6,932
Emergency In-Patients*	40,376	35,594	38,312	38,024	39,662	34,423	38,302	36,103	35,632	37,308	36,525	38,052
Maternity	9,423	8,257	8,851	8,840	9,084	8,776	9,462	9,293	9,080	9,008	8,929	8,775

Notes: * HIPE includes patients who attended the Emergency Department and were subsequently admitted to hospital. As just a proportion of those attending the Emergency Department will subsequently be admitted to hospital, it is not possible to use emergency admissions reported to HIPE to draw conclusions about the total volume of activity in Emergency Departments.

Includes 9,123 discharges admitted prior to 2019 and discharged in 2019.

Morbidity Analysis 2019

SECTION Three

Table of Contents

3.1 INTRODUCTION

Section Three focuses on the diagnoses and procedures recorded for total discharges reported to HIPE by acute public hospitals.[1,2]

- Section 3.2 outlines the clinical coding process, the classification and definitions used in the assignment of diagnosis and procedure codes to a discharge, and analysis of the mean number of diagnoses and procedures reported for discharges.
- Section 3.3 provides a summary of related hospital activity. Top 20 diagnoses and procedure blocks, along with Top 10 Australian Refined Diagnosis Related Groups (AR-DRGs), are provided for day patient discharges and in-patient discharges (total, elective, emergency and maternity). Demographic data, including sex and age group, and administrative analyses including mode of emergency admission (for emergency in-patients only) are also presented.
- Section 3.4 provides details of the diagnoses and procedures reported for total discharges, by sex and age group. The mean and median length of stay for total in-patient discharges is presented for principal diagnoses and principal procedures.

3.2 CODING OF DIAGNOSES AND PROCEDURES

Coding of HIPE hospital activity is performed by the HIPE clinical coder who translates medical terminology into alpha-numeric codes. The clinical coder performs an essential function in providing high quality, accurate, and uniform medical information. The HPO is responsible for the training of all clinical coders nationally.[3,4] Since 2014, the HPO have delivered certification courses for clinical coders in collaboration with, and accredited by, the School of Computing in the Technological University Dublin (formally Dublin Institute of Technology). To date, over 100 clinical coders have achieved this certification.

The source document for coding for the HIPE system is the medical record or chart which can be in paper or electronic format. The clinical coder uses the entire chart to extract the conditions and procedures to provide a complete record of the patient and their hospital stay. In addition to the discharge summary or letter, additional documentation referenced for coding a case

1 The National Psychiatric In-Patient Reporting System, supported by the Health Research Board, reports information on all admissions to psychiatric hospitals and units nationally.

2 The calculation of total in-patient length of stay differs in this report compared to reports prior to 2018. Since 2018, the length of stay assigned for sameday in-patients has changed from one bed day to 0.5 bed days. This will impact on the total in-patient length of stay resulting in a lower average length of stay compared to years prior to 2018 (see Section 1.6).

3 There are currently approximately 300 clinical coders working full time and part time across all HIPE hospitals.

4 For further information on training programmes see www.hpo.ie

include; nursing notes, consultation reports, progress notes, operative reports, pre- and post-operative reports, pathology reports and, more recently, the sepsis form. Appendix III shows the HIPE Data Entry Form for 2019, which details the information that is collected and coded for each hospital discharge. No interpretation of test results may be undertaken by the clinical coder and all diagnoses and procedures recorded must be documented by a clinician in the chart.[5]

All HIPE data are entered in the hospital using the HIPE Portal data entry system which runs an extensive number of validation edit checks to ensure the quality of the data. Other data quality activities and data quality tools are in use at local and national HPO level.[6,7]

At the start of 2015, the classification used to code clinical information was updated from the 6th Edition to the 8th Edition of the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM), Australian Classification of Health interventions (ACHI), Australian Coding Standards (ACS).[8,9,10] Details of the ICD-10-AM diagnosis and ACHI procedure coding scheme are provided in Tables 3.1 and 3.2. ACS are developed to provide guidance in the application of ICD-10-AM and ACHI codes. Coding standards are provided with general guidelines and are categorised by site and/or body system according to the clinical specialty to which a disease or procedure relates. Use of ICD-10-AM/ACHI/ACS is complemented by the Irish Coding Standards (ICS); these are revised as required to reflect changing clinical practice and to ensure the classification and its application are relevant to the Irish Healthcare system.[11]

Due to the update in the classification, caution must be exercised when comparing procedure and diagnosis categories presented in reports from 2015 onwards to previous reports. Updates may include changes in sequencing of codes, addition of new codes, deletion of codes, and updates to ACS and ICS.[12]

---

5 This instruction is covered in ICS 0048: General Abstraction Guidelines, see www.hpo.ie for the current version of the Irish Coding Standards.

6 In 2015, the HSE engaged Pavilion Health Australia Pty Ltd. by competitive tender to undertake a review of the quality of HIPE data in order to assess whether the quality of the data was sufficient to support the introduction of Activity Based Funding (ABF). The final report is available at www.hpo.ie

7 In 2018, a commercial data quality tool, Performance Indicators of Coding Quality (PICQ), was procured by the HSE for use both locally in the hospitals and at a national level in the HPO.

8 National Casemix and Classification Centre (NCCC), 2013: The *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification* (ICD-10-AM), *Australian Classification of Health Interventions* (ACHI) and *Australian Coding Standards* (ACS) – ICD-10-AM/ACHI/ACS *(8th Ed)*: NCCC, Australian Health Services Research Institute, University of Wollongong.

9 The spelling conventions of ICD-10-AM comply with the Macquarie Dictionary, as recommended by the Australian government style manual.

10 In 2020 HIPE data will be coded using the 10th Edition of ICD-10-AM.

11 Irish Coding Standards (ICS) provide guidelines for the collection of HIPE data for all discharges and are to be used in conjunction with 8th Edition ICD-10-AM/ACHI/ACS and the relevant HIPE Instruction Manual. For further information, see www.hpo.ie

12 See Appendix VII for an overview of changes from ICD-10-AM/ACHI/ACS 6th edition (in use from 2009–2014) to 8th Edition (in use from 1st January 2015).

Table 3.1 provides details of the structure of ICD-10-AM diagnosis codes and presents the chapter structure for these ICD-10-AM diagnosis codes.

TABLE 3.1 ICD-10-AM Diagnosis Codes, Chapter and Title

ICD-10-AM Diagnosis Codes

The 'core' disease classification of ICD-10-AM is the three character code, which is the mandatory level of coding for international reporting to the World Health Organization (WHO) for general international comparisons. This core set of codes has been expanded to four and five character codes so that important specific disease entities can be identified, while also maintaining the ability to present data in broad groups to enable useful and understandable information to be obtained.

The ICD-10-AM is a variable-axis classification. Its structure is designed principally to facilitate epidemiological analysis. Diseases are organised in the following groups: epidemic diseases; constitutional or general diseases; local disease arranged by site; developmental diseases; and injuries.

Most of the tabular is taken up with the main disease classification composed of 22 chapters. The first character of the ICD-10-AM code is a letter, and each letter is associated with a particular chapter, except for the letter D, which spans both Chapter 2 *Neoplasms* and Chapter 3 *Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism*, and the letter H, which is used in both Chapter 7 *Diseases of the eye and adnexa* and Chapter 8 *Diseases of the ear and mastoid process*. Four chapters (Chapters 1, 2, 19 and 20) use more than one letter in the first position of their codes.

WHO intends the codes U00–U99 to be used for provisional assignment of new diseases of uncertain aetiology, for emergency use and for specific research purposes. U50–U73 are used in ICD-10-AM to classify activity and U90 classifies healthcare associated infections.

Chapter and Title		Code Prefix	Chapter and Title		Code Prefix
1	Certain infectious and parasitic diseases	A, B	12	Diseases of the skin and subcutaneous tissue	L
2	Neoplasms	C, D	13	Diseases of the musculoskeletal system and connective tissue	M
3	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D	14	Diseases of the genitourinary system	N
4	Endocrine, nutritional and metabolic diseases	E	15	Pregnancy, childbirth and the puerperium	O
5	Mental and behavioural disorders	F	16	Certain conditions originating in the perinatal period	P
6	Diseases of the nervous system	G	17	Congenital malformations, deformations and chromosomal abnormalities	Q
7	Diseases of the eye and adnexa	H	18	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R
8	Diseases of the ear and mastoid process	H	19	Injury, poisoning and certain other consequences of external causes	S, T
9	Diseases of the circulatory system	I	20	External causes of morbidity and mortality	U, V, W, X, Y
10	Diseases of the respiratory system	J	21	Factors influencing health status and contact with health services	Z
11	Diseases of the digestive system	K	22	Codes for special purposes	U

Source: National Casemix and Classification Centre (NCCC), 2013: *Australian Coding Standards* (ACS) *(8th Ed)*: NCCC, Australian Health Services Research Institute, University of Wollongong.p. xv-xvi.

Table 3.2 provides details of the structure of ACHI procedure codes and presents the chapter structure for these ACHI procedure codes.

TABLE 3.2 Australian Classification of Health Interventions (ACHI), Chapter and Title

Australian Classification of Health Interventions (ACHI)

The Australian Classification of Health Interventions (ACHI) was first developed by the National Centre for Classification in Health (NCCH) (the previous custodians of ICD-10-AM/ACHI/ACS) and is generally based on the Commonwealth Medicare Benefits Schedule (MBS).

The main features of the classification are:

1) The procedure classification captures procedures and interventions performed in public and private hospitals, day centres and ambulatory settings. Allied health interventions, dental services and procedures performed outside the operating theatre are included.[13]
2) The intervention classification has been based on the Commonwealth Medicare Benefits Schedule (MBS) (with some exceptions). A two digit extension number has been attached to each MBS item number to represent individual procedural concepts (e.g., 36564-00). Other ACHI procedures and interventions which are not represented in MBS are allocated a code number from the 90000 series. Note: 97000 code numbers are reserved for dental services.
3) The structure of the procedure classification is based on anatomy rather than surgical specialty. Chapters closely follow the chapter headings of the WHO ICD-10 to maintain parity with the disease classification.
4) Nonsurgical procedures are listed separately from the surgical procedures, whenever feasible.
5) A hierarchical structure with the following axes:
   - First level – anatomical site axis
   - Second level – procedure type axis
   - Third level – block axis
6) Inclusion of many more procedures which can be utilised in non-institutional settings, such as community based health and ambulatory care.
7) The interventions in the procedure classification are provider neutral. That is, the same code should be assigned for a specific intervention regardless of which health professional performs the intervention.

Chapter and Title		Chapter and Title	
1	Procedures on nervous system	11	Procedures on urinary system
2	Procedures on endocrine system	12	Procedures on male genital organs
3	Procedures on eye and adnexa	13	Gynaecological procedures
4	Procedures on ear and mastoid process	14	Obstetric procedures
5	Procedures on nose, mouth and pharynx	15	Procedures on musculoskeletal system
6	Dental services	16	Dermatological and plastic procedures
7	Procedures on respiratory system	17	Procedures on breast
8	Procedures on cardiovascular system	18	Radiation oncology procedures
9	Procedures on blood and blood-forming organs	19	Non-invasive, cognitive and other interventions, not elsewhere classified
10	Procedures on digestive system	20	Imaging services

Sources: National Casemix and Classification Centre (NCCC), 2013: *Australian Coding Standards* (ACS) *(8th Ed)*: NCCC, Australian Health Services Research Institute, University of Wollongong.
p. xvii.
National Casemix and Classification Centre (NCCC), 2013: *Australian Classification of Health Interventions* (ACHI) *Tabular List of Interventions (8th Ed)*: NCCC, Australian Health Services Research Institute, University of Wollongong.
p. iii.

[13] HIPE collects data on discharges from, and deaths in, acute public hospitals.

3.2.1 Definition of a Diagnosis

In 2019, HIPE collected a principal diagnosis for each discharge, together with up to 29 additional diagnosis codes.

DIAGNOSES

A **principal diagnosis** is defined as, 'the diagnosis established after study to be chiefly responsible for occasioning an episode of admitted patient care, an episode of residential care or an attendance at the healthcare establishment, as represented by a code'.[14]

An **additional diagnosis** is defined as, 'a condition or complaint either coexisting with the principal diagnosis or arising during the episode of admitted patient care, episode of residential care or attendance at a health care establishment, as represented by a code' and may be used as an indication of the level of comorbidity.[15]

Additional diagnoses are interpreted as conditions that affect patient management in terms of requiring commencement, alteration or adjustment of therapeutic treatment, diagnostic procedures, increased clinical care, and/or monitoring.

3.2.1.1 Mean Number of Diagnoses Reported

Table 3.3 outlines the mean number of diagnoses collected for day patient, in-patient, and total discharges, by sex and age group.

- The mean number of diagnoses recorded for total discharges was 2.7.
- The mean number of diagnoses recorded for in-patient discharges was 3.9, compared to 2.0 for day patients.
- The mean number of diagnoses recorded for in-patient discharges was higher for males (4.1) compared with females (3.7).
- The mean number of diagnoses recorded for in-patient discharges increased with age ranging from 2.6 in the less than 15 years age group to 4.9 in the 65 years and over age group.

TABLE 3.3 Total Discharges: Mean Number of All-Listed Diagnoses by Patient Type, Sex and Age Group

	Day Patients	In-Patients	Total Discharges
Total	**2.0**	**3.9**	**2.7**
Sex			
Male	2.0	4.1	2.7
Female	2.0	3.7	2.7
Maternity	2.0	3.8	3.5
Non-Maternity	2.0	3.7	2.6
Age Group			
< 15 Years	1.7	2.6	2.3
15–44 Years	1.8	3.4	2.5
45–64 Years	2.1	3.7	2.5
65 Years and Over	2.1	4.9	3.0

[14] National Casemix and Classification Centre (NCCC), 2013: *Australian Coding Standards* (ACS) *(8th Ed)*: NCCC, Australian Health Services Research Institute, University of Wollongong. p. 1.

[15] National Casemix and Classification Centre (NCCC), op. cit., p. 4.

3.2.2 Definition of a Procedure

In 2019, a principal procedure and up to 19 additional procedure codes for each discharge could be reported to HIPE where appropriate.

PROCEDURES

The classification of procedures in ICD-10-AM uses the Australian Classification of Health Interventions (ACHI).[16] Procedures are coded in HIPE in accordance with the following hierarchy:

- procedure performed for treatment of the principal diagnosis
- procedure performed for treatment of an additional diagnosis
- diagnostic/exploratory procedure related to the principal diagnosis
- diagnostic/exploratory procedure related to an additional diagnosis for the episode of care.[17]

A key feature of the ACHI procedure classification is a seven-character code in the format xxxxx-xx. The structure is organised on an anatomical basis and thus does not always appear in numerical order. Procedure blocks were introduced to provide a sequential framework for both coding and reporting purposes. The blocks represent homogenous groups of procedures, while the seven-digit codes allow for greater detail.[18] For example, procedure block 0732 represents 'direct closure of vein', containing the procedures 'direct closure of renal vein' (33833-04) and 'direct closure of vena cava' (90215-02). In this report, tables have been produced using the block framework.[19]

3.2.2.1 Discharges with a Procedure

Table 3.4 provides details of the number and percentage of discharges that had a principal procedure recorded by patient type and admission type.

- Of the 1,771,022 total discharges, principal procedures were recorded for 1,406,140 discharges (79.4 per cent).
- Just over 92 per cent of day patient discharges had a principal procedure recorded.
- Over 57 per cent of in-patient discharges had a principal procedure recorded, with 89.1 per cent of elective in-patients, 50.4 per cent of emergency in-patients, and 60.0 per cent of maternity in-patients undergoing a principal procedure.

---

16 National Casemix and Classification Centre (NCCC), 2013: *Australian Classification of Health Interventions* (ACHI) *(8th Ed)*: NCCC, Australian Health Services Research Institute, University of Wollongong.

17 National Casemix and Classification Centre (NCCC), 2013: *Australian Coding Standards* (ACS) *(8th Ed)*: NCCC, Australian Health Services Research Institute, University of Wollongong. p. 21.

18 National Casemix and Classification Centre (NCCC), 2013: *Australian Classification of Health Interventions* (ACHI) *Tabular List of Interventions (8th Ed)*: NCCC, Australian Health Services Research Institute, University of Wollongong. p. viii.

19 The move to the ACHI introduced significant changes to the collection of procedures from 2005, including the use of Australian Coding Standard (ACS) 0042 *Procedures normally not coded* (see Appendix V).

TABLE 3.4 Total Discharges: Number and Percentage of Discharges with a Principal Procedure by Patient Type and Admission Type

	Total Discharges	Total Discharges with a Principal Procedure	
	N	N	%
Total Discharges	**1,771,022**	**1,406,140**	**79.4**
Day Patients	1,120,675	1,031,700	92.1
In-Patients	650,347	374,440	57.6
Elective In-Patients	94,256	83,999	89.1
Emergency In-Patients	448,313	225,769	50.4
Maternity In-Patients	107,778	64,672	60.0

3.2.2.2 Mean Number of Procedures Reported

Table 3.5 outlines the mean number of procedures reported for day patients, in-patients and total discharges, by sex and age group. The calculation of mean procedures is based on discharges with at least one procedure reported to HIPE.[20]

- For those discharges who underwent at least one procedure, in-patient discharges had a mean number of 2.9 procedures recorded, compared to a mean of 1.4 procedures for day patients.
- While the mean number of procedures increased with age for in-patient discharges, the day patient pattern differed. For those undergoing a procedure, day patient discharges aged less than 15 years recorded a mean of 2.0 procedures, which was larger than that reported for older age groups.

TABLE 3.5 Total Discharges: Mean Number of All-Listed Procedures by Patient Type, Sex and Age Group

	Day Patients	In-Patients	Total Discharges
Total	**1.4**	**2.9**	**1.8**
Sex			
Male	1.4	2.9	1.8
Female	1.5	2.8	1.9
Maternity	1.5	2.8	2.7
Non-Maternity	1.5	2.9	1.8
Age Group			
< 15 Years	2.0	2.7	2.3
15–44 Years	1.5	2.7	1.9
45–64 Years	1.5	3.0	1.7
65 Years and Over	1.4	3.0	1.8

[20] Includes all anaesthesia except local anaesthesia. See ACS 0031 *Anaesthesia* in National Casemix and Classification Centre (NCCC), 2013: *Australian Coding Standards* (ACS) *(8th Ed)*: NCCC, Australian Health Services Research Institute, University of Wollongong. p.29.

3.3 Morbidity Analysis: Summary of Day Patient and In-Patient Activity

Section 3.3 provides a summary of the day patient and in-patient hospital activity reported to HIPE. This analysis reports on the most commonly recorded diagnoses, procedure blocks and diagnosis related groups, as well as providing demographic and administrative information for these discharges.

3.3.1 Day Patient Activity

A day patient is admitted to hospital for treatment on an elective (rather than an emergency) basis and is discharged alive, as scheduled, on the same day. Deliveries are not included. Table 3.6 presents a summary of day patient activity reported to HIPE.

Day Patients – Profile

- Day patient discharges accounted for 63.3 per cent of total discharges.
- Day patients aged 65 years or over accounted for 41.0 per cent of day patient discharges.

Day Patients – Top 20 Principal Diagnoses

- Day patients with a principal diagnosis of *Other medical care* (includes *Chemotherapy* and *Radiotherapy* encounters) and those with a principal diagnosis of *Care involving dialysis* accounted for 20.6 and 15.9 per cent of day patient discharges respectively.

Day Patients – Top 20 Principal Procedure Blocks

- A principal procedure was recorded for 92.1 per cent of day patient discharges (see Table 3.4).
- Procedures from the block *Haemodialysis* were reported as a principal procedure for 17.2 per cent of day patients with at least one procedure recorded.

Day Patients – Top 10 Australian Refined Diagnosis Related Groups (AR-DRGs)

- The top three AR-DRGs accounted for 35.5 per cent of day patient discharges reported to HIPE when analysed by diagnosis related group.[21,22]
- *Haemodialysis* accounted for 15.8 per cent, while *Chemotherapy* and *Other Neoplastic Disorders, Minor Complexity* accounted for 10.8 per cent and 8.9 per cent of day patient discharges respectively.

---

21 See Section Four for details of the case mix classification.

22 In 2015, the AR-DRG classification was updated from AR-DRG Version 6.0 to AR-DRG Version 8.0. See Appendix VIII for an overview of changes between Version 6.0 and Version 8.0 of the AR-DRG Classification System.

TABLE 3.6 Day Patient Activity (N, %)

Top 20 Principal Diagnoses[a]		N	%
Z51	Other medical care[c]	230,681	20.6
Z49	Care involving dialysis	177,683	15.9
H35	Other retinal disorders	27,910	2.5
E83	Disorders of mineral metabolism	23,072	2.1
L40	Psoriasis	15,055	1.3
C44	Other malignant neoplasms of skin	12,926	1.2
K29	Gastritis and duodenitis	12,686	1.1
Z13	Special screening examination for other diseases and disorders	12,547	1.1
K50	Crohn's disease [regional enteritis]	12,134	1.1
D12	Benign neoplasm of colon, rectum, anus and anal canal	11,032	1.0
M54	Dorsalgia	10,658	1.0
K51	Ulcerative colitis	10,290	0.9
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	9,103	0.8
H25	Senile cataract	9,061	0.8
C50	Malignant neoplasm of breast	8,708	0.8
Z08	Follow-up examination after treatment for malignant neoplasms	8,476	0.8
R10	Abdominal and pelvic pain	8,376	0.7
K57	Diverticular disease of intestine	8,312	0.7
K64	Haemorrhoids and perianal venous thrombosis	8,140	0.7
M25	Other joint disorders, not elsewhere classified	8,097	0.7

Day Patients

1,120,675

Sex	N	%
Male	563,465	50.3
Female	557,210	49.7

Age Group	N	%
< 1 Year	3,723	0.3
1–14 Years	43,308	3.9
15–24 Years	39,727	3.5
25–34 Years	73,343	6.5
35–44 Years	124,062	11.1
45–54 Years	163,125	14.6
55–64 Years	214,316	19.1
65–74 Years	251,613	22.5
75–84 Years	167,174	14.9
85 Years and Over	40,284	3.6

Top 20 Principal Procedure Blocks[b]		N	%
1060	Haemodialysis	177,445	17.2
1920	Administration of pharmacotherapy	174,180	16.9
1788	Megavoltage radiation treatment	102,036	9.9
1008	Panendoscopy with excision	47,377	4.6
0911	Fibreoptic colonoscopy with excision	41,218	4.0
1620	Excision of lesion(s) of skin and subcutaneous tissue	36,426	3.5
0209	Application, insertion or removal procedures on retina, choroid or posterior chamber	34,600	3.4
0905	Fibreoptic colonoscopy	27,803	2.7
1552	Administration of agent into other musculoskeletal sites	24,306	2.4
0725	Other incision procedures on veins	22,527	2.2
1893	Administration of blood and blood products	20,742	2.0
1610	Ultraviolet B [UVB] light therapy of skin	17,868	1.7
1089	Examination procedures on bladder	17,209	1.7
0197	Extracapsular crystalline lens extraction by phacoemulsification	12,421	1.2
0668	Coronary angiography	10,088	1.0
1005	Panendoscopy	8,111	0.8
1618	Biopsy of skin and subcutaneous tissue	7,306	0.7
1798	Radiation field setting	6,760	0.7
1259	Examination procedures on uterus	6,082	0.6
1824	Other assessment, consultation, interview, examination or evaluation	5,910	0.6

Hospital Group	N	%
Ireland East	211,739	18.9
RCSI	161,941	14.5
Dublin Midlands	235,628	21.0
South/South West	211,364	18.9
UL	67,176	6.0
Saolta	202,881	18.1
Children's	28,174	2.5
No group	1,772	0.2

Top 10 AR-DRGs		N	%
L61Z	Haemodialysis	177,341	15.8
R63Z	Chemotherapy	120,960	10.8
R62C	Other Neoplastic Disorders, Minor Complexity	100,031	8.9
G48B	Colonoscopy, Minor Complexity	51,945	4.6
I40Z	Infusions for Musculoskeletal Disorders, Sameday	38,930	3.5
G47C	Gastroscopy, Minor Complexity	38,154	3.4
Z64B	Other Factors Influencing Health Status, Minor Complexity	37,152	3.3
J11B	Other Skin, Subcutaneous Tissue and Breast Procedures, Minor Complexity	35,570	3.2
C03B	Retinal Procedures, Minor Complexity	33,341	3.0
R99Z	Oncology Repeat Attendance	23,541	2.1

Notes: Percentage columns are subject to rounding.

a ICD-10-AM diagnosis codes are analysed at three-character level.

b ACHI Procedure codes are analysed at block level. The percentage (%) is based on day patients with principal procedure reported.

c *Other medical care* includes chemotherapy and radiotherapy encounters.

3.3.2 In-Patient Activity

An in-patient is admitted to hospital for treatment or investigation on an elective or emergency basis. Sameday in-patients are admitted as in-patients and discharged on the same day, while overnight in-patients stay at least one night in hospital. Table 3.7 presents a summary of in-patient activity reported to HIPE.

In-Patients – Profile

- In-patient discharges accounted for 36.7 per cent of total discharges.
- Overnight in-patient discharges accounted for 79.2 per cent of in-patient discharges and had a mean length of stay of 7.1 days.

In-Patients – Top 20 Principal Diagnoses

- In-patient discharges with a principal diagnosis of *Single spontaneous delivery* accounted for 4.2 per cent of in-patient discharges.
- In-patient discharges with a principal diagnosis of *Pain in throat and chest* accounted for 2.9 per cent of in-patient discharges while those with a principal diagnosis of *Single delivery by caesarean section* accounted for 2.7 per cent of in-patient discharges.

In-Patients – Top 20 Principal Procedure Blocks

- A principal procedure was recorded for 57.6 per cent of total in-patient discharges (see Table 3.4).
- Procedures from the block *Generalised allied health interventions* were reported for 29.1 per cent of in-patient discharges with at least one procedure reported.[23]

In-Patients – Top 10 Australian Refined Diagnosis Related Groups (AR-DRGs)

- The top three AR-DRGs accounted for 9.6 per cent of in-patient discharges when analysed by diagnosis related group.[24,25]
- *Antenatal and Other Obstetric Admissions, Minor Complexity* accounted for 4.5 per cent of in-patient discharges. *Vaginal Delivery, Intermediate Complexity* and *Vaginal Delivery, Minor Complexity* accounted for 2.7 per cent and 2.4 per cent of in-patient discharges respectively.

---

23 This block includes interventions such as physiotherapy, pharmacy, dietetics, occupational therapy, speech pathology and social work. Together, these six interventions accounted for 93.7 per cent of cases within this procedure block.

24 See Section Four for details of the case mix classification.

25 In 2015, the AR-DRG classification was updated from AR-DRG Version 6.0 to AR-DRG Version 8.0. See Appendix VIII for an overview of changes between Version 6.0 and Version 8.0 of the AR-DRG Classification System.

TABLE 3.7 In-Patient Activity (N, %, Mean and Median Length of Stay)

Top 20 Principal Diagnoses[a]		N	%	Mean LOS	Med LOS
O80	Single spontaneous delivery	27,412	4.2	2.5	2
R07	Pain in throat and chest	18,746	2.9	1.4	1
O82	Single delivery by caesarean section	17,561	2.7	4.5	4
J44	Other chronic obstructive pulmonary disease	15,645	2.4	7.6	5
J22	Unspecified acute lower respiratory infection	14,620	2.2	6.0	3
N39	Other disorders of urinary system	13,750	2.1	8.8	5
O99	Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium	13,443	2.1	1.3	1
J18	Pneumonia, organism unspecified	12,692	2.0	10.5	6
R10	Abdominal and pelvic pain	10,546	1.6	1.8	1
R55	Syncope and collapse	8,860	1.4	4.3	2
O81	Single delivery by forceps and vacuum extractor	7,677	1.2	3.3	3
I48	Atrial fibrillation and flutter	6,762	1.0	3.7	2
I50	Heart failure	6,697	1.0	10.4	6
L03	Cellulitis	6,604	1.0	6.3	3
R51	Headache	6,212	1.0	1.8	1
I21	Acute myocardial infarction	6,138	0.9	6.8	4
K80	Cholelithiasis	5,882	0.9	5.1	3
K35	Acute appendicitis	5,813	0.9	3.3	2
A09	Other gastroenteritis and colitis of infectious and unspecified origin	5,678	0.9	4.2	2
R06	Abnormalities of breathing	5,456	0.8	1.7	1

In-Patients

650,347

Discharges	N	%
Total	**650,347**	**100**
Sameday	135,151	20.8
Overnight	515,196	79.2

Length of Stay	Mean	Median
Total	**5.7**	**2**
Overnight	7.1	3

Bed Days	N
Total	**3,727,639**
Overnight	3,660,063

Top 20 Principal Procedure Blocks[b]		N	%	Mean LOS	Med LOS
1916	Generalised allied health interventions	108,929	29.1	11.4	6
1340	Caesarean section	19,954	5.3	5.1	4
1344	Postpartum suture	13,491	3.6	2.5	2
1920	Administration of pharmacotherapy	9,615	2.6	8.0	4
1893	Administration of blood and blood forming products	9,248	2.5	10.0	5
1008	Panendoscopy with excision	6,611	1.8	10.8	6
0570	Noninvasive ventilatory support	6,507	1.7	13.8	8
0926	Appendicectomy	6,250	1.7	3.1	2
1338	Vacuum extraction	5,951	1.6	3.4	3
1489	Arthroplasty of hip	5,539	1.5	10.0	5
0668	Coronary angiography	5,118	1.4	5.5	3
1334	Medical or surgical induction of labour	5,052	1.3	3.0	3
0030	Lumbar puncture	4,560	1.2	9.2	4
0671	Transluminal coronary angioplasty with stenting	4,421	1.2	3.8	2
0569	Ventilatory support	3,542	0.9	22.4	9
1828	Sleep study	3,338	0.9	1.6	1
0412	Tonsillectomy or adenoidectomy	3,210	0.9	1.2	1
1343	Other procedures associated with delivery	3,083	0.8	2.9	3
1265	Curettage and evacuation of uterus	2,940	0.8	1.4	1
0965	Cholecystectomy	2,865	0.8	3.5	1

Hospital Group	N	%
Ireland East	142,930	22.0
RCSI	101,700	15.6
Dublin Midlands	98,295	15.1
South/South West	114,215	17.6
UL	47,503	7.3
Saolta	117,365	18.0
Children's	24,230	3.7
No group	4,109	0.6

Sex	N	%
Male	274,451	42.2
Female	375,896	57.8

Age Group	N	%
< 1 Year	25,239	3.9
1–14 Years	52,446	8.1
15–24 Years	45,266	7.0
25–34 Years	88,411	13.6
35–44 Years	86,264	13.3
45–54 Years	58,610	9.0
55–64 Years	72,696	11.2
65–74 Years	92,041	14.2
75–84 Years	85,879	13.2
85 Years and Over	43,495	6.7

Top 10 AR-DRGs		N	%	Mean LOS	Med LOS
O66B	Antenatal and Other Obstetric Admissions, Minor Complexity	29,081	4.5	1.0	1
O60B	Vaginal Delivery, Intermediate Complexity	17,292	2.7	3.0	3
O60C	Vaginal Delivery, Minor Complexity	15,932	2.4	2.2	2
F74B	Chest Pain, Minor Complexity	15,486	2.4	1.1	1
O01C	Caesarean Delivery, Minor Complexity	11,191	1.7	4.0	4
O66A	Antenatal and Other Obstetric Admissions, Major Complexity	10,384	1.6	2.0	1
E65B	Chronic Obstructive Airways Disease, Minor Complexity	10,065	1.5	4.5	3
L63B	Kidney and Urinary Tract Infections, Minor Complexity	8,713	1.3	4.4	3
B77B	Headaches, Minor Complexity	8,344	1.3	1.3	1
E62A	Respiratory Infections and Inflammations, Major Complexity	8,222	1.3	14.2	9

Notes: Percentage columns are subject to rounding.

a ICD-10-AM diagnosis codes are analysed at three-character level.

b ACHI Procedure codes are analysed at block level. The percentage (%) is based on in-patients with principal procedure reported.

3.3.2.1 Elective In-Patient Activity

An elective in-patient is an in-patient admission that has been arranged in advance. Table 3.8 presents a summary of elective in-patient activity reported to HIPE.

Elective In-Patients – Profile

- Elective in-patient discharges accounted for 5.3 per cent of total discharges and 14.5 per cent of in-patients.
- Elective in-patient bed days accounted for 648,439 in-patient bed days, or 17.4 per cent of total in-patient bed days (see Table 3.7).
- Elective overnight in-patient discharges accounted for 93.9 per cent of total elective in-patient discharges and had a mean length of stay of 7.3 days.

Elective In-Patients – Top 20 Principal Diagnoses

- Elective in-patients with a principal diagnosis of *Care involving use of rehabilitation procedures* accounted for 4.0 per cent of elective in-patient discharges.
- *Coxarthrosis [arthrosis of hip]* accounted for 3.6 per cent of elective in-patient discharges while *Chronic diseases of tonsils and adenoids* accounted for 3.3 per cent of elective in-patient discharges.

Elective In-Patients – Top 20 Principal Procedure Blocks

- A principal procedure was recorded for 89.1 per cent of elective in-patient discharges (see Table 3.4).
- The procedure block *Generalised allied health interventions* was reported for 11.5 per cent of elective in-patients who had a principal procedure reported.
- The procedure blocks *Arthroplasty of hip* and *Tonsillectomy or adenoidectomy* were reported for 4.2 per cent and 3.8 per cent of elective in-patient discharges with a principal procedure reported respectively.

Elective In-Patients – Top 10 Australian Refined Diagnosis Related Groups (AR-DRGs)

- The top three AR-DRGs accounted for 9.4 per cent of elective in-patient discharges reported to HIPE when analysed by diagnosis related group.[26,27]
- *Hip Replacement, Minor Complexity* and *Tonsillectomy and Adenoidectomy* accounted for 3.5 per cent and 3.4 per cent of elective in-patient discharges respectively. *Rehabilitation, Minor Complexity* accounted for 2.5 per cent of elective in-patient discharges.

---

[26] See Section Four for details of the case mix classification.

[27] In 2015, the AR-DRG classification was updated from AR-DRG Version 6.0 to AR-DRG Version 8.0. See Appendix VIII for an overview of changes between Version 6.0 and Version 8.0 of the AR-DRG Classification System.

TABLE 3.8 Elective In-Patient Activity (N, %, Mean and Median Length of Stay)

Top 20 Principal Diagnoses[a]		N	%	Mean LOS	Med LOS
Z50	Care involving use of rehabilitation procedures	3,799	4.0	37.1	23
M16	Coxarthrosis [arthrosis of hip]	3,418	3.6	4.6	4
J35	Chronic diseases of tonsils and adenoids	3,127	3.3	1.1	1
M17	Gonarthrosis [arthrosis of knee]	2,510	2.7	4.8	4
G47	Sleep disorders	2,472	2.6	1.3	1
I25	Chronic ischaemic heart disease	2,305	2.4	3.8	1
Z48	Other surgical follow-up care	2,251	2.4	15.5	6
C50	Malignant neoplasm of breast	2,016	2.1	4.3	2
K80	Cholelithiasis	1,998	2.1	2.5	1
N81	Female genital prolapse	1,321	1.4	3.3	3
K40	Inguinal hernia	1,225	1.3	1.5	1
R06	Abnormalities of breathing	1,101	1.2	1.4	1
C34	Malignant neoplasm of bronchus and lung	1,078	1.1	10.3	7
C18	Malignant neoplasm of colon	984	1.0	9.8	7
C67	Malignant neoplasm of bladder	878	0.9	5.3	3
Z51	Other medical care	824	0.9	24.0	16
I48	Atrial fibrillation and flutter	812	0.9	1.9	1
C61	Malignant neoplasm of prostate	776	0.8	7.2	3
J44	Other chronic obstructive pulmonary disease	755	0.8	10.3	6
C83	Non-follicular lymphoma	691	0.7	9.5	5

Elective In-Patients

94,256

Discharges	N	%
Total	**94,256**	**100**
Sameday	5,794	6.1
Overnight	88,462	93.9

Length of Stay	Mean	Median
Total	**6.9**	**2**
Overnight	7.3	3

Bed Days	N
Total	**648,439**
Overnight	645,542

Top 20 Principal Procedure Blocks[b]		N	%	Mean LOS	Med LOS
1916	Generalised allied health interventions	9,670	11.5	23.1	12
1489	Arthroplasty of hip	3,534	4.2	4.8	4
0412	Tonsillectomy or adenoidectomy	3,196	3.8	1.2	1
1828	Sleep study	3,158	3.8	1.2	1
1920	Administration of pharmacotherapy	3,009	3.6	8.8	4
1518	Arthroplasty of knee	2,437	2.9	5.0	4
0965	Cholecystectomy	2,136	2.5	2.1	1
1893	Administration of blood and blood products	1,521	1.8	7.0	3
1268	Abdominal hysterectomy	1,465	1.7	5.0	4
0671	Transluminal coronary angioplasty with stenting	1,193	1.4	1.9	1
0990	Repair of inguinal hernia	1,183	1.4	1.6	1
0913	Colectomy	1,055	1.3	10.9	8
1744	Excision of lesion of breast	1,044	1.2	1.5	1
1748	Simple mastectomy	958	1.1	3.6	3
1620	Excision of lesion(s) of skin and subcutaneous tissue	812	1.0	2.9	1
1100	Endoscopic resection of bladder lesion or tissue	802	1.0	3.5	2
0668	Coronary angiography	782	0.9	2.8	1
1283	Repair of prolapse of uterus, pelvic floor or enterocele	732	0.9	3.0	3
0114	Thyroidectomy	720	0.9	2.6	2
1788	Megavoltage radiation treatment	645	0.8	23.0	21

Hospital Group	N	%
Ireland East	18,143	19.2
RCSI	10,874	11.5
Dublin Midlands	13,711	14.5
South/South West	19,223	20.4
UL	6,575	7.0
Saolta	15,112	16.0
Children's	6,509	6.9
No group	4,109	4.4

Sex	N	%
Male	46,839	49.7
Female	47,417	50.3

Age Group	N	%
< 1 Year	1,438	1.5
1–14 Years	9,296	9.9
15–24 Years	4,449	4.7
25–34 Years	4,560	4.8
35–44 Years	8,397	8.9
45–54 Years	12,417	13.2
55–64 Years	16,839	17.9
65–74 Years	19,768	21.0
75–84 Years	13,268	14.1
85 Years and Over	3,824	4.1

Top 10 AR-DRGs		N	%	Mean LOS	Med LOS
I03B	Hip Replacement, Minor Complexity	3,332	3.5	4.4	4
D11Z	Tonsillectomy and Adenoidectomy	3,191	3.4	1.1	1
Z60B	Rehabilitation, Minor Complexity	2,370	2.5	27.6	19
I04B	Knee Replacement, Minor Complexity	2,273	2.4	4.4	4
H08B	Laparoscopic Cholecystectomy, Minor Complexity	1,885	2.0	1.5	1
J06B	Major Procedures for Breast Disorders, Minor Complexity	1,742	1.8	2.1	2
G10B	Hernia Procedures, Minor Complexity	1,654	1.8	1.6	1
Z63B	Other Follow Up After Surgery or Medical Care, Minor Complexity	1,581	1.7	11.1	3
E63B	Sleep Apnoea, Minor Complexity	1,513	1.6	1.1	1
N04B	Hysterectomy for Non-Malignancy, Minor Complexity	1,440	1.5	3.8	4

Notes: Percentage columns are subject to rounding.

a ICD-10-AM diagnosis codes are analysed at three-character level.

b ACHI Procedure codes are analysed at block level. The percentage (%) is based on elective in-patients with principal procedure reported.

3.3.2.2 Emergency In-Patient Activity

An emergency in-patient admission is unforeseen and requires urgent care. Table 3.9 presents a summary of emergency in-patient activity reported to HIPE. [28]

Emergency In-Patients – Profile

- Emergency in-patient discharges accounted for 25.3 per cent of total discharges and 68.9 per cent of in-patients.
- Emergency in-patient bed days accounted for 2,802,742 in-patient bed days, or 75.2 per cent of total in-patient bed days (see Table 3.7).
- Just over 66 per cent of emergency in-patient discharges were admitted from an Emergency Department, with 7.1 per cent admitted via a medical assessment unit (where they were admitted as an in-patient).

Emergency In-Patients – Top 20 Principal Diagnoses

- Emergency in-patient discharges with a principal diagnosis of *Pain in throat and chest* accounted for 4.0 per cent of emergency in-patients.
- Emergency in-patient discharges with a principal diagnosis of *Other chronic obstructive pulmonary disease* and those with a principal diagnosis of *Unspecified acute lower respiratory infection* accounted for 3.3 per cent and 3.2 per cent of emergency in-patient discharges respectively.

Emergency In-Patients – Top 20 Principal Procedure Blocks

- A principal procedure was recorded for 50.4 per cent of emergency in-patient discharges (see Table 3.4).
- Procedures from the block *Generalised allied health interventions* were reported for 42.6 per cent of emergency in-patient discharges with a procedure recorded.

Emergency In-Patient – Top 10 Australian Refined Diagnosis Related Groups (AR-DRGs)

- The top three AR-DRGs accounted for 7.4 per cent of emergency in-patient discharges reported to HIPE when analysed by diagnosis related group.[29,30]
- *Chest Pain, Minor Complexity* accounted for 3.3 per cent of emergency in-patient discharges. *Chronic Obstructive Airways Disease, Minor Complexity* and *Kidney and Urinary Tract Infections, Minor Complexity* accounted for 2.1 per cent and 1.9 per cent of emergency in-patient discharges respectively.

---

28 HIPE includes patients who attended the Emergency Department and were subsequently admitted to hospital. As just a proportion of those attending the Emergency Department will subsequently be admitted to hospital, it is not possible to use emergency admissions reported to HIPE to draw conclusions about the total volume of activity in Emergency Departments.

29 See Section Four for details of the case mix classification.

30 In 2015, the AR-DRG classification was updated from AR-DRG Version 6.0 to AR-DRG Version 8.0. See Appendix VIII for an overview of changes between Version 6.0 and Version 8.0 of the AR-DRG Classification System.

TABLE 3.9 Emergency In-Patient Activity (N, %, Mean and Median Length of Stay)

Top 20 Principal Diagnoses[a]		N	%	Mean LOS	Med LOS
R07	Pain in throat and chest	18,111	4.0	1.4	1
J44	Other chronic obstructive pulmonary disease	14,890	3.3	7.5	5
J22	Unspecified acute lower respiratory infection	14,303	3.2	5.9	3
N39	Other disorders of urinary system	13,358	3.0	8.8	5
J18	Pneumonia, organism unspecified	12,474	2.8	10.4	6
R10	Abdominal and pelvic pain	10,305	2.3	1.8	1
R55	Syncope and collapse	8,702	1.9	4.3	2
I50	Heart failure	6,484	1.4	10.2	6
L03	Cellulitis	6,452	1.4	6.2	3
R51	Headache	6,079	1.4	1.8	1
I48	Atrial fibrillation and flutter	5,949	1.3	3.9	2
I21	Acute myocardial infarction	5,819	1.3	6.8	4
K35	Acute appendicitis	5,747	1.3	3.3	2
A09	Other gastroenteritis and colitis of infectious and unspecified origin	5,529	1.2	4.2	2
I63	Cerebral infarction	4,692	1.0	16.9	8
S72	Fracture of femur	4,441	1.0	17.6	11
S52	Fracture of forearm	4,427	1.0	2.6	1
R06	Abnormalities of breathing	4,353	1.0	1.8	1
T81	Complications of procedures, not elsewhere classified	4,289	1.0	5.9	3
R56	Convulsions, not elsewhere classified	4,021	0.9	3.4	1

Emergency In-Patients

448,313

Discharges	N	%
Total	**448,313**	**100**
Sameday	106,786	23.8
Overnight	341,527	76.2

Length of Stay	Mean	Median
Total	**6.3**	**2**
Overnight	8.1	4

Bed Days	N
Total	**2,802,742**
Overnight	2,749,349

Top 20 Principal Procedure Blocks[b]		N	%	Mean LOS	Med LOS
1916	Generalised allied health interventions	96,222	42.6	10.5	6
1893	Administration of blood and blood products	7,551	3.3	10.8	6
1920	Administration of pharmacotherapy	6,361	2.8	7.9	4
0570	Noninvasive ventilatory support	6,193	2.7	14.0	9
0926	Appendicectomy	6,062	2.7	3.1	2
1008	Panendoscopy with excision	6,044	2.7	11.2	6
0030	Lumbar puncture	4,335	1.9	9.1	4
0668	Coronary angiography	4,334	1.9	6.0	3
0569	Ventilatory support	3,428	1.5	22.0	9
0671	Transluminal coronary angioplasty with stenting	3,227	1.4	4.5	3
1823	Mental, behavioural or psychosocial assessment	2,445	1.1	8.0	2
1005	Panendoscopy	2,410	1.1	13.2	7
1872	Alcohol and drug rehabilitation and detoxification	2,328	1.0	7.3	3
0911	Fibreoptic colonoscopy with excision	2,097	0.9	11.2	7
1489	Arthroplasty of hip	2,005	0.9	19.3	12
1479	Fixation of fracture of pelvis or femur	1,824	0.8	19.6	12
1539	Open reduction of fracture of ankle or toe	1,707	0.8	4.0	2
1628	Other debridement of skin and subcutaneous tissue	1,695	0.8	9.7	2
0560	Application, insertion or removal procedures on chest wall, mediastinum or diaphragm	1,542	0.7	15.3	11
1429	Open reduction of fracture of radius	1,538	0.7	2.4	1

Hospital Group	N	%
Ireland East	101,435	22.6
RCSI	69,908	15.6
Dublin Midlands	62,841	14.0
South/South West	77,326	17.2
UL	34,588	7.7
Saolta	84,494	18.8
Children's	17,721	4.0
No Group	0	0.0

Sex	N	%
Male	227,612	50.8
Female	220,701	49.2

Age Group	N	%
< 1 Year	23,801	5.3
1–14 Years	43,140	9.6
15–24 Years	27,536	6.1
25–34 Years	28,707	6.4
35–44 Years	39,206	8.7
45–54 Years	45,514	10.2
55–64 Years	55,854	12.5
65–74 Years	72,273	16.1
75–84 Years	72,611	16.2
85 Years and Over	39,671	8.8

Top 10 AR-DRGs		N	%	Mean LOS	Med LOS
F74B	Chest Pain, Minor Complexity	14,989	3.3	1.1	1
E65B	Chronic Obstructive Airways Disease, Minor Complexity	9,545	2.1	4.3	3
L63B	Kidney and Urinary Tract Infections, Minor Complexity	8,525	1.9	4.4	3
B77B	Headaches, Minor Complexity	8,211	1.8	1.3	1
E62A	Respiratory Infections and Inflammations, Major Complexity	8,045	1.8	14.2	8
G66B	Abdominal Pain and Mesenteric Adenitis, Minor Complexity	8,021	1.8	1.3	1
E75A	Other Respiratory System Disorders, Major Complexity	7,895	1.8	8.6	5
E75B	Other Respiratory System Disorders, Minor Complexity	7,794	1.7	2.2	1
F73B	Syncope and Collapse, Minor Complexity	7,660	1.7	2.4	1
D63B	Otitis Media and Upper Respiratory Infections, Minor Complexity	7,512	1.7	1.4	1

Mode of Emergency Admission	N	%
Emergency Department	296,424	66.1
Medical assessment unit - admitted as in-patient	31,864	7.1
Medical assessment unit only	62,428	13.9
Other[c]	57,580	12.8
Unknown	17	0.0

Notes: Percentage columns are subject to rounding.

a ICD-10-AM diagnosis codes are analysed at three-character level

b ACHI Procedure codes are analysed at block level. The percentage (%) is based on emergency in-patients with principal procedure reported.

c 'Other' includes emergency in-patients who were treated in locations other than an Emergency Department, for example, in a Local injury Unit, prior to admission to hospital.

3.3.2.3 Maternity In-Patient Activity

Maternity discharges are those who were admitted in relation to their obstetrical experience (from conception to six weeks post-delivery); that is, they were allocated to Admission Type 'Maternity'.[31] Table 3.10 presents a summary of maternity in-patient activity reported to HIPE; and presents diagnoses and procedures by delivery status. Delivery discharges include discharges with a diagnosis of outcome of delivery (ICD-10-AM: Z37). Non-delivery discharges are maternity discharges where admission was related to their obstetrical experience but they did not deliver during that episode of care.

Maternity In-Patients – Profile

- Maternity in-patient discharges accounted for 6.1 per cent of total discharges and 16.6 per cent of in-patients.
- Of maternity in-patient discharges, 53.8 per cent reported a diagnosis of *outcome of delivery* i.e. delivery discharges; while 46.2 per cent were non-delivery discharges.
- Single deliveries accounted for 98.1 per cent of delivery discharges.
- Almost 61 per cent of delivery discharges were multiparous deliveries. [32]
- Of delivery discharges, 34.2 per cent were aged between 30–34 years.

Maternity In-Patients – Top 10 Principal Diagnoses by Delivery Status

- Delivery discharges with a principal diagnosis of *Single spontaneous delivery* accounted for 47.3 per cent of delivery in-patient discharges.
- Non-delivery discharges with a principal diagnosis of *Other maternal diseases classifiable elsewhere but complicating pregnancy; childbirth and the puerperium* accounted for 26.7 per cent of non-delivery in-patient discharges.

Maternity In-Patients – Top 10 Principal Procedure Blocks by Delivery Status

- A principal procedure was recorded for 60.0 per cent of maternity in-patient discharges (see Table 3.4).
- For delivery discharges who had a procedure reported, 36.0 per cent reported the principal procedure block *Caesarean section*.
- For non-delivery discharges who had a procedure reported, 28.1 per cent reported the principal procedure block *Curettage and evacuation of uterus*.

Maternity In-Patient – Top 10 Australian Refined Diagnosis Related Groups (AR-DRGs)

- The top three AR-DRGs accounted for 57.8 per cent of maternity in-patient discharges reported to HIPE when analysed by diagnosis related group.[33,34]
- *Antenatal and Other Obstetric Admission, Minor Complexity* accounted for 27.0 per cent of maternity in-patient discharges.

---

31 See Hospital In-Patient Enquiry Scheme (HIPE) Data Dictionary 2019 Version 11.1 available at www.hpo.ie.

32 See Table 3.10 notes for definition of multiparous deliveries.

33 See Section Four for details of the case mix classification.

34 In 2015, the AR-DRG classification was updated from AR-DRG Version 6.0 to AR-DRG Version 8.0. See Appendix VIII for an overview of changes between Version 6.0 and Version 8.0 of the AR-DRG Classification System.

TABLE 3.10 Maternity In-Patient Activity (N, %, Mean and Median Length of Stay)

	Top 10 Principal Diagnoses[a]		N	%	Mean	Med
Delivery	O80	Single spontaneous delivery[b]	27,411	47.3	2.5	2
	O82	Single delivery by caesarean section[b]	17,561	30.3	4.5	4
	O81	Single delivery by forceps and vacuum extractor[b]	7,677	13.2	3.3	3
	O84	Multiple delivery[b]	927	1.6	5.3	5
	O42	Premature rupture of membranes	886	1.5	7.4	4
	O83	Other assisted single delivery[b]	876	1.5	3.1	3
	O36	Maternal care for other known or suspected fetal problems	638	1.1	8.1	5
	O14	Pre-eclampsia	339	0.6	9.7	7
	O13	Gestational [pregnancy-induced] Hypertension	240	0.4	7.1	6
	O46	Antepartum haemorrhage, not elsewhere classified	212	0.4	4.9	4
Non-Delivery	O99	Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium	13,266	26.7	1.2	1
	Z36	Antenatal screening	5,268	10.6	0.7	1
	O47	False labour	4,269	8.6	1.0	1
	O21	Excessive vomiting in pregnancy	2,304	4.6	1.5	1
	O03	Spontaneous abortion	2,263	4.5	1.2	1
	O02	Other abnormal products of conception	2,090	4.2	1.0	1
	O46	Antepartum haemorrhage, not elsewhere classified	1,890	3.8	1.6	1
	O36	Maternal care for other known or suspected fetal problems	1,734	3.5	1.5	1
	O13	Gestational [pregnancy-induced] hypertension	1,720	3.5	1.4	1
	O23	Infections of genitourinary tract in pregnancy	1,274	2.6	1.9	1

Maternity In-Patients

107,778

Delivery Status	N	%	Mean	Med
Total	**107,778**	**100**	**2.6**	**2**
Delivery[c]	58,006	53.8	3.6	3
Non-Delivery[d]	49,772	46.2	1.4	1

Delivery Discharges

Delivery Outcome[c]	N	%	Mean	Med
Single	56,924	98.1	3.5	3
Multiple	1,080	1.9	6.7	5
Unspecified	~	–	–	–
Parity[e]	**N**	**%**	**Mean**	**Med**
Primiparous	22,764	39.2	4.2	4
Multiparous	35,242	60.8	3.2	3
Age	**N**	**%**	**Mean**	**Med**
< 20 Years	856	1.5	3.5	3
20-24 Years	4,658	8.0	3.5	3
25-29 Years	9,857	17.0	3.4	3
30-34 Years	19,845	34.2	3.5	3
35-39 Years	18,277	31.5	3.6	3
40-44 Years	4,174	7.2	4.2	4
45 Years and Over	339	0.6	6.2	5
Discharge Status	**N**	**%**	**Mean**	**Med**
Public	47,714	82.3	3.5	3
Private	10,292	17.7	4.0	3

	Top 10 Principal Procedure Blocks[f]		N	%	Mean	Med
Delivery	1340	Caesarean section[g]	19,954	36.0	5.1	4
	1344	Postpartum suture	13,349	24.1	2.6	2
	1338	Vacuum extraction	5,951	10.7	3.4	3
	1334	Medical or surgical induction of labour	4,570	8.2	3.2	3
	1343	Other procedures associated with delivery[h]	3,082	5.6	2.9	3
	1333	Analgesia and anaesthesia during labour and delivery procedure	2,408	4.3	2.8	2
	1335	Medical or surgical augmentation of labour	2,073	3.7	2.3	2
	1337	Forceps delivery	1,993	3.6	3.6	3
	1336	Spontaneous vertex delivery[i]	530	1.0	2.2	2
	1916	Generalised allied health interventions	468	0.8	3.1	2
Non-Delivery	1265	Curettage and evacuation of uterus	2,603	28.1	1.1	1
	1916	Generalised allied health interventions	2,569	27.8	3.0	2
	1884	Immunisation	853	9.2	1.5	1
	1256	Procedures for management of ectopic pregnancy	671	7.3	1.9	1
	1334	Medical or surgical induction of labour	481	5.2	1.4	1
	1330	Antepartum application, insertion or removal procedures	290	3.1	1.8	1
	1920	Administration of pharmacotherapy	243	2.6	1.8	1
	1274	Application, insertion or removal procedures on cervix	238	2.6	1.6	1
	1893	Administration of blood and blood products	159	1.7	3.3	2
	1344	Postpartum suture	142	1.5	2.2	2

Top 10 AR-DRG's		N	%	Mean	Med
O66B	Antenatal and Other Obstetric Admissions, MINC	29,073	27.0	1.0	1
O60B	Vaginal Delivery, Intermediate Complexity	17,292	16.0	3.0	3
O60C	Vaginal Delivery, Minor Complexity	15,932	14.8	2.2	2
O01C	Caesarean Delivery, Minor Complexity	11,191	10.4	4.0	4
O66A	Antenatal and Other Obstetric Admissions, MAJC	10,378	9.6	2.0	1
O01B	Caesarean Delivery, Intermediate Complexity	7,400	6.9	5.6	5
O60A	Vaginal Delivery, Major Complexity	3,906	3.6	4.6	4
O61B	Postpartum and Post Abortion W/O OR Proc, MINC	3,035	2.8	1.9	1
O05Z	Abortion W OR Procedures	2,561	2.4	1.0	1
O63B	Abortion W/O OR Procedures, Minor Complexity	2,208	2.0	1.1	1

Notes:

Percentage columns are subject to rounding.

~ Denotes five or fewer discharges reported to HIPE.

a ICD-10-AM diagnosis codes are analysed at three-character level.

b In ICD-10-AM 8th Edition O80-O84 are delivery diagnosis codes for use in all obstetric episodes of care where delivery is the outcome. If the patient is admitted for a delivery then a delivery code will be assigned as the principal diagnosis.

c Discharges with ICD-10-AM Diagnosis Code Z37 *Outcome of Delivery* (used for delivery outcome variable).

d Non-Delivery discharges are maternity discharges where admission was related to their obstetrical experience but who did not deliver during that episode of care.

e Maternal parity is the number of previous live births and number of previous stillbirths (>500g). Primiparous Delivery discharges are deliveries to women who have had no previous pregnancy resulting in a live birth or stillbirth (>500g). Multiparous Delivery discharges are deliveries to women who have had at least one previous pregnancy resulting in a live birth or stillbirth (>500g).

f ACHI Procedure codes are analysed at block level. The percentage (%) is based on maternity in-patients with principal procedure reported. A principal procedure was recorded for 95.5 per cent of delivery in-patient discharges and 18.6 per cent of non-delivery in-patient discharges.

g As one principal procedure and up to 19 secondary procedures may be collected as applicable for each discharge, the number of principal procedure Caesarean sections may not equal the number of total Caesarean sections.

h Includes episiotomy

i This code is not required for all spontaneous vertex deliveries as the delivery can be assumed to be normal when there is an absence of procedure codes for interventions such as Caesarean, forceps delivery, etc.[Coding Matters Newsletter, NCCH, Vol.5 No3, Jan 1999]

3.4 Morbidity Analysis: Total Discharge Activity

The analysis presented in Section 3.4 is based on total discharges. Morbidity data are presented by chapter within the ICD-10-AM diagnosis coding scheme, with certain specific conditions within these chapters reported separately. Procedures are generally reported by block at chapter level with certain specific procedures reported separately. Discussion of morbidity analysis is limited to chapter level. Diagnosis and procedure tables are cross tabulated by sex and age group.

3.4.1 Total Discharges by Principal Diagnosis, Sex and Age Group

Table 3.11 presents the distribution of total discharges by sex, age group and principal diagnosis.

- Over 28 per cent of total discharges had a principal diagnosis of *Factors influencing health status and contact with health services*; this includes persons encountering health services for examination and investigation or for specific procedures and health care (e.g., *Chemotherapy*, *Radiotherapy* and *Dialysis*).
- The chapter *Diseases of the digestive system* had the second largest number of principal diagnoses, with 9.7 per cent of total discharges.
- For discharges aged less than 15 years (including discharges aged less than 1 year), the most common principal diagnosis came from the chapter *Diseases of the respiratory system,* which accounted for 14.2 per cent of total discharges within this age category.
- Diagnoses from the chapter *Factors influencing health status and contact with health services* were the most common principal diagnoses for discharges in the 45-64 years and 65 years and over age groups.

3.4.2 In-Patient Mean and Median Length of Stay by Principal Diagnosis, Sex and Age Group

Table 3.12 presents the total in-patient mean and median length of stay for principal diagnosis by sex and age group. The analysis presented here includes total in-patient (sameday and overnight) discharges, and excludes day patients. It should also be noted that the analysis by length of stay does not take into account the discharge destination of the patient. For example, a patient with a length of stay of one day for a diagnosis of chronic ischaemic heart disease may be transferred to another facility on discharge. Care must be taken, therefore, in interpreting the data on length of stay presented in Table 3.12, in the absence of information on discharge destination.[35]

[35] See Section Two for details of discharge destination.

Discussion of total in-patient mean length of stay is limited to ICD-10-AM chapter level.

- The longest in-patient mean length of stay was recorded for in-patient discharges with a principal diagnosis from the chapter *Mental and behavioural disorders* (12.8 days).
- For discharges aged less than 15 years, those with a principal diagnosis from the chapter *Certain conditions originating in the perinatal period* recorded an in-patient mean length of stay of 8.1 days.
- The longest in-patient mean length of stay for discharges aged 15–44 years was reported for those with a principal diagnosis from the *Neoplasms* chapter (7.4 days). When this diagnosis is analysed by sex, male discharges reported 9.5 days and females reported 6.2 days.
- The shortest in-patient mean length of stay for all ages was recorded for in-patient discharges with a principal diagnosis from the chapter *Diseases of the ear and mastoid process* (2.2 days).

3.4.3 All-Listed Diagnoses by Sex and Age Group

Table 3.13 provides details of all-listed diagnoses reported by sex and age group. Over 4.7 million diagnoses were recorded for total discharges reported to HIPE. As one principal diagnosis and up to 29 secondary diagnoses may be collected per discharge, the number of diagnoses will not equal the number of discharges.

- With the exception of females aged 15-44 years, the chapter *Factors influencing health status and contact with health services* had the most frequently reported diagnoses across both sexes and all age groups for total discharges. It accounted for 1,144,777 diagnoses, or 23.9 per cent of all-listed diagnoses reported.[36]
- *Neoplasms* accounted for 610,642 diagnoses or 12.8 per cent of all-listed diagnoses reported for total discharges.

[36] This chapter includes diagnoses such as Z51 *Other medical care* (includes Chemotherapy and Radiotherapy encounters) and Z49 *Care involving dialysis*.

TABLE 3.11 Total Discharges: Principal Diagnosis by Sex and Age Group (N)

Principal Diagnosis	ICD-10-AM Code	Male					Female					Total Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Total Discharges	–	**69,199**	**150,183**	**248,928**	**369,606**	**837,916**	**55,517**	**306,890**	**259,819**	**310,880**	**933,106**	**124,716**	**457,073**	**508,747**	**680,486**	**1,771,022**
Certain infectious and parasitic diseases	**A00–B99**	**4,069**	**3,395**	**2,333**	**3,102**	**12,899**	**3,675**	**3,513**	**2,582**	**3,664**	**13,434**	**7,744**	**6,908**	**4,915**	**6,766**	**26,333**
Intestinal infectious diseases (including diarrhoea)	A00–A09	2,063	1,334	1,134	1,389	5,920	2,073	1,834	1,507	2,060	7,474	4,136	3,168	2,641	3,449	13,394
Tuberculosis	A15–A19	*	82	91	*	210	~	52	21	*	85	7	134	112	42	295
Septicaemia	A40–A41	74	106	356	1,071	1,607	44	132	315	958	1,449	118	238	671	2,029	3,056
Human immunodeficiency virus [HIV] disease	B20–B24	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	29
Neoplasms	**C00–D48**	**3,046**	**7,521**	**23,843**	**41,557**	**75,967**	**2,915**	**13,162**	**25,006**	**29,803**	**70,886**	**5,961**	**20,683**	**48,849**	**71,360**	**146,853**
Malignant neoplasms	C00–C96	2,449	4,076	17,093	31,408	55,026	2,183	5,581	16,683	22,308	46,755	4,632	9,657	33,776	53,716	101,781
Malignant neoplasms of colon, rectum and anus	C18–C21	0	259	1,725	2,704	4,688	0	272	1,074	1,496	2,842	0	531	2,799	4,200	7,530
Malignant neoplasms of trachea, bronchus and lung	C33–C34	0	49	1,262	2,595	3,906	0	127	949	2,072	3,148	0	176	2,211	4,667	7,054
Melanoma and other malignant neoplasms of skin	C43–C44	*	*	1,996	6,874	9,292	~	*	1,536	4,077	6,074	8	875	3,532	10,951	15,366
Malignant neoplasms of breast	C50	0	0	21	20	41	0	1,813	5,438	3,847	11,098	0	1,813	5,459	3,867	11,139
Malignant neoplasms of female genital organs	C51–C58	0	0	0	0	0	9	458	1,406	1,393	3,266	9	458	1,406	1,393	3,266
Malignant neoplasm of prostate	C61	~	*	2,174	4,295	6,491	0	0	0	0	0	~	*	2,174	4,295	6,491
Malignant neoplasm of bladder	C67	44	32	451	1,472	1,999	0	18	197	393	608	44	50	648	1,865	2,607
Malignant neoplasms of lymphoid, haematopoietic and related tissue	C81–C96	1,449	1,553	4,324	6,555	13,881	1,114	1,202	2,455	4,413	9,184	2,563	2,755	6,779	10,968	23,065
In situ neoplasms	D00-D09	0	68	419	1,380	1,867	~	*	974	1,429	2,807	~	*	1,393	2,809	4,674
Benign neoplasms and neoplasms of uncertain or unknown behaviour	D10–D48	597	3,377	6,331	8,769	19,074	731	7,178	7,349	6,066	21,324	1,328	10,555	13,680	14,835	40,398
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	**D50–D89**	**2,265**	**2,702**	**3,516**	**7,434**	**15,917**	**1,567**	**4,395**	**4,451**	**6,949**	**17,362**	**3,832**	**7,097**	**7,967**	**14,383**	**33,279**
Endocrine, nutritional and metabolic diseases	**E00–E89**	**1,301**	**6,555**	**11,518**	**8,870**	**28,244**	**1,426**	**4,660**	**6,458**	**6,866**	**19,410**	**2,727**	**11,215**	**17,976**	**15,736**	**47,654**
Diabetes mellitus	E10–E14	270	1,016	2,332	3,107	6,725	273	970	1,061	1,902	4,206	543	1,986	3,393	5,009	10,931
Cystic fibrosis	E84	275	1,066	*	~	1,461	307	982	*	~	1,410	582	2,048	*	~	2,871
Mental and behavioural disorders	**F00–F99**	**460**	**1,431**	**1,380**	**1,303**	**4,574**	**425**	**1,130**	**816**	**1,367**	**3,738**	**885**	**2,561**	**2,196**	**2,670**	**8,312**
Mental and behavioural disorders due to alcohol	F10	26	802	997	293	2,118	29	317	434	147	927	55	1,119	1,431	440	3,045
Mental and behavioural disorders due to use of other psychoactive substance	F11–F19	~	224	42	*	278	~	102	16	*	131	~	326	58	*	409
Diseases of nervous system	**G00–G99**	**1,715**	**4,506**	**5,298**	**5,439**	**16,958**	**1,413**	**7,893**	**7,094**	**5,241**	**21,641**	**3,128**	**12,399**	**12,392**	**10,680**	**38,599**
Multiple sclerosis	G35	0	1,202	779	165	2,146	~	2,690	1,692	*	4,562	~	3,892	2,471	*	6,708
Epilepsy	G40, G41	690	878	517	350	2,435	551	801	352	334	2,038	1,241	1,679	869	684	4,473
Transient cerebral ischaemic attacks and related syndromes	G45	~	*	458	1,134	1,659	~	*	296	1,192	1,547	~	*	754	2,326	3,206
Diseases of the eye and adnexa	**H00–H59**	**756**	**2,036**	**6,711**	**19,758**	**29,261**	**640**	**2,055**	**5,331**	**25,937**	**33,963**	**1,396**	**4,091**	**12,042**	**45,695**	**63,224**
Diseases of the ear and mastoid process	**H60–H95**	**2,020**	**1,217**	**1,165**	**1,124**	**5,526**	**1,518**	**1,355**	**1,306**	**1,029**	**5,208**	**3,538**	**2,572**	**2,471**	**2,153**	**10,734**
Diseases of the circulatory system	**I00–I99**	**806**	**3,628**	**15,334**	**26,137**	**45,905**	**693**	**3,389**	**7,996**	**19,044**	**31,122**	**1,499**	**7,017**	**23,330**	**45,181**	**77,027**
Hypertensive diseases	I10–I15	31	329	599	397	1,356	28	327	572	745	1,672	59	656	1,171	1,142	3,028
Angina pectoris	I20	0	93	945	1,469	2,507	0	43	435	777	1,255	0	136	1,380	2,246	3,762
Acute myocardial infarction	I21–I22	0	250	1,786	2,380	4,416	0	52	491	1,340	1,883	0	302	2,277	3,720	6,299
Other ischaemic heart disease	I23–I25	0	246	3,680	4,807	8,733	0	70	1,194	2,178	3,442	0	316	4,874	6,985	12,175
Pulmonary heart disease and diseases of pulmonary circulation	I26–I28	0	138	319	421	878	17	175	271	503	966	17	313	590	924	1,844
Conduction disorders and cardiac arrhythmias	I44–I49	148	680	2,736	4,704	8,268	116	423	995	3,470	5,004	264	1,103	3,731	8,174	13,272
Heart failure	I50	6	36	478	3,440	3,960	7	34	268	2,741	3,050	13	70	746	6,181	7,010
Cerebrovascular disease	I60–I69	40	246	1,243	2,912	4,441	26	203	758	2,530	3,517	66	449	2,001	5,442	7,958
Atherosclerosis (non-coronary)	I70	0	17	312	746	1,075	0	16	120	407	543	0	33	432	1,153	1,618
Diseases of the respiratory system	**J00–J99**	**10,032**	**6,472**	**9,477**	**21,554**	**47,535**	**7,694**	**8,463**	**10,113**	**20,699**	**46,969**	**17,726**	**14,935**	**19,590**	**42,253**	**94,504**
Acute upper respiratory infections and influenza	J00–J11	3,620	1,200	589	825	6,234	2,712	1,758	701	858	6,029	6,332	2,958	1,290	1,683	12,263
Pneumonia	J12–J18	466	645	1,340	4,807	7,258	457	675	1,172	4,531	6,835	923	1,320	2,512	9,338	14,093
Chronic diseases of tonsils and adenoids	J35	1,328	415	43	23	1,809	1,178	1,001	69	24	2,272	2,506	1,416	112	47	4,081
Chronic obstructive pulmonary disease and bronchiectasis	J40–J44, J47	70	248	2,039	6,760	9,117	12	297	2,528	6,987	9,824	82	545	4,567	13,747	18,941
Asthma	J45–J46	942	700	1,495	849	3,986	582	1,483	1,990	1,033	5,088	1,524	2,183	3,485	1,882	9,074

TABLE 3.11 Total Discharges: Principal Diagnosis by Sex and Age Group (N) (contd.)

Principal Diagnosis	ICD-10-AM Code	Male					Female					Total Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Diseases of the digestive system	**K00–K93**	**5,870**	**26,811**	**28,619**	**24,487**	**85,787**	**4,488**	**28,937**	**28,186**	**23,907**	**85,518**	**10,358**	**55,748**	**56,805**	**48,394**	**171,305**
Diseases of oesophagus, stomach and duodenum	K20–K31	560	4,846	7,381	6,602	19,389	420	5,215	7,570	6,544	19,749	980	10,061	14,951	13,146	39,138
Diseases of appendix	K35–K38	1,162	1,825	383	190	3,560	855	1,709	380	118	3,062	2,017	3,534	763	308	6,622
Inguinal hernia	K40	353	703	1,291	1,384	3,731	89	55	68	115	327	442	758	1,359	1,499	4,058
Noninfective enteritis and colitis	K50–K52	805	8,310	4,085	1,430	14,630	417	7,419	3,699	1,454	12,989	1,222	15,729	7,784	2,884	27,619
Alcoholic liver disease	K70	0	150	516	195	861	0	108	248	83	439	0	258	764	278	1,300
Cholelithiasis	K80	7	469	969	1,500	2,945	21	2,116	1,789	1,695	5,621	28	2,585	2,758	3,195	8,566
Diseases of the skin and subcutaneous tissue	**L00–L99**	1,681	12,437	9,455	8,421	31,994	1,490	11,090	9,646	8,399	30,625	3,171	23,527	19,101	16,820	62,619
Cutaneous abscess, furuncle and carbuncle and cellulitis	L02–L03	451	1,195	1,323	1,648	4,617	354	706	748	1,700	3,508	805	1,901	2,071	3,348	8,125
Decubitus ulcer and pressure area	L89	~	*	49	74	163	*	*	17	59	98	12	50	66	133	261
Diseases of the musculoskeletal system and connective tissue	**M00–M99**	**1,508**	**6,791**	**13,104**	**12,205**	**33,608**	**1,863**	**8,660**	**18,191**	**19,412**	**48,126**	**3,371**	**15,451**	**31,295**	**31,617**	**81,734**
Rheumatoid arthritis	M05–M06	~	*	902	880	2,103	0	527	1,846	1,659	4,032	~	*	2,748	2,539	6,135
Coxarthrosis and Gonarthrosis	M16–M17	0	211	1,974	2,753	4,938	~	*	2,354	4,339	6,889	~	*	4,328	7,092	11,827
Intervertebral disc disorders	M50–M51	~	*	772	387	1,696	~	*	848	654	2,192	~	*	1,620	1,041	3,888
Dorsalgia (back pain)	M54	49	1,113	2,077	1,495	4,734	84	1,817	3,428	2,750	8,079	133	2,930	5,505	4,245	12,813
Diseases of the genitourinary system	**N00–N99**	**3,364**	**5,151**	**7,769**	**12,422**	**28,706**	**1,860**	**16,140**	**16,654**	**12,641**	**47,295**	**5,224**	**21,291**	**24,423**	**25,063**	**76,001**
Chronic kidney disease	N18	23	175	347	485	1,030	14	145	202	271	632	37	320	549	756	1,662
Urolithiasis	N20–N23	62	1,484	2,142	960	4,648	41	967	987	469	2,464	103	2,451	3,129	1,429	7,112
Hyperplasia of prostate	N40	0	58	1,113	2,186	3,357	0	0	0	0	0	0	58	1,113	2,186	3,357
Disorders of breast	N60–N64	7	76	25	15	123	11	1,319	1,391	278	2,999	18	1,395	1,416	293	3,122
Inflammatory diseases of female pelvic organs	N70–N77	0	0	0	0	0	28	854	292	94	1,268	28	854	292	94	1,268
Noninflammatory disorders of female genital tract	N80–N98	0	0	0	0	0	169	9,088	9,654	2,872	21,783	169	9,088	9,654	2,872	21,783
Pregnancy, childbirth and the puerperium	**O00–O99**	**0**	**0**	**0**	**0**	**0**	**8**	**110,482**	**774**	**0**	**111,264**	**8**	**110,482**	**774**	**0**	**111,264**
Gestational [pregnancy induced] hypertension	O13	0	0	0	0	0	~	3,640	*	0	3,716	~	3,640	*	0	3,716
Diabetes mellitus in pregnancy	O24	0	0	0	0	0	0	2,472	33	0	2,505	0	2,472	33	0	2,505
Single spontaneous delivery	O80	0	0	0	0	0	~	27,358	*	0	27,412	~	27,358	*	0	27,412
Single delivery by forceps and vacuum extractor	O81	0	0	0	0	0	~	7,654	*	0	7,677	~	7,654	*	0	7,677
Single delivery by caesarean section	O82	0	0	0	0	0	0	17,364	197	0	17,561	0	17,364	197	0	17,561
Other assisted single delivery	O83	0	0	0	0	0	0	*	~	0	876	0	*	~	0	876
Multiple delivery	O84	0	0	0	0	0	0	910	17	0	927	0	910	17	0	927
Certain conditions originating in the perinatal period	**P00–P96**	**5,460**	**0**	**0**	**0**	**5,460**	**4,285**	**0**	**0**	**0**	**4,285**	**9,745**	**0**	**0**	**0**	**9,745**
Congenital malformations, deformations and chromosomal abnormalities	**Q00–Q99**	**4,323**	**670**	**290**	**97**	**5,380**	**2,932**	**714**	**309**	**101**	**4,056**	**7,255**	**1,384**	**599**	**198**	**9,436**
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	**R00–R99**	**6,402**	**13,551**	**19,357**	**22,998**	**62,308**	**5,512**	**20,785**	**20,866**	**22,229**	**69,392**	**11,914**	**34,336**	**40,223**	**45,227**	**131,700**
Pain in throat and chest	R07	66	2,955	4,998	3,257	11,276	76	2,644	4,308	3,037	10,065	142	5,599	9,306	6,294	21,341
Abdominal and pelvic pain	R10	962	2,309	1,916	1,254	6,441	1,137	6,233	3,299	1,812	12,481	2,099	8,542	5,215	3,066	18,922
Injury, poisoning and certain other consequences of external causes	**S00–T98**	**6,335**	**12,736**	**7,301**	**8,740**	**35,112**	**4,619**	**6,797**	**5,999**	**11,783**	**29,198**	**10,954**	**19,533**	**13,300**	**20,523**	**64,310**
Intracranial injury	S06	161	611	413	675	1,860	116	237	202	573	1,128	277	848	615	1,248	2,988
Other injuries to the head (including skull fracture)	S00–S05, S07–S09	1,771	2,023	760	1,261	5,815	1,224	661	376	1,297	3,558	2,995	2,684	1,136	2,558	9,373
Fracture of femur	S72	94	127	215	1,137	1,573	42	35	280	2,576	2,933	136	162	495	3,713	4,506
Poisonings by drugs, medicaments and biological substances and toxic effects of substances chiefly nonmedicinal as to source	T36–T65	183	990	404	150	1,727	298	1,334	556	228	2,416	481	2,324	960	378	4,143
Factors influencing health status and contact with health services[a]	**U00–U49, Z00–Z99**	**7,786**	**32,573**	**82,458**	**143,958**	**266,775**	**6,494**	**53,270**	**88,041**	**91,809**	**239,614**	**14,280**	**85,843**	**170,499**	**235,767**	**506,389**
Other medical care (including radiotherapy and chemotherapy sessions)	Z51	2,893	6,912	36,337	65,014	111,156	1,875	16,380	55,936	46,218	120,409	4,768	23,292	92,273	111,232	231,565

Notes: ~ Denotes five or fewer discharges reported to HIPE.
* Further suppression required to prevent disclosure of five or fewer discharges.
ǂ Denotes that no breakdown is provided.
a This category includes discharges in the code range U00–U49 'codes for special purposes'.

TABLE 3.12 In-Patient Discharges: Mean and Median Length of Stay (Days) by Principal Diagnosis, Sex and Age Group[a]

Principal Diagnosis	ICD-10-AM Code	Male					Female					Total In-Patient Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Total In-Patient Discharges	**Mean**	**3.2**	**3.8**	**6.0**	**9.4**	**6.5**	**3.3**	**2.8**	**5.0**	**9.4**	**5.2**	**3.3**	**3.0**	**5.5**	**9.4**	**5.7**
	Median	**1**	**1**	**2**	**4**	**2**	**1**	**2**	**2**	**4**	**2**	**1**	**2**	**2**	**4**	**2**
Certain infectious and parasitic diseases	**A00–B99**	**2.1**	**4.5**	**7.7**	**11.7**	**5.8**	**2.0**	**3.6**	**6.6**	**10.0**	**5.4**	**2.0**	**4.0**	**7.1**	**10.7**	**5.6**
		1	**2**	**4**	**6**	**2**	**1**	**2**	**3**	**6**	**2**	**1**	**2**	**3**	**6**	**2**
Intestinal infectious diseases (including diarrhoea)	A00–A09	1.7	3.3	4.4	9.8	4.3	1.7	2.6	4.6	7.9	4.2	1.7	2.9	4.5	8.6	4.2
		1	2	2	4	2	1	2	3	4	2	1	2	3	4	2
Tuberculosis	A15–A19	^	17.3	22.5	33.3	22.0	^	15.5	12.9	18.3	15.1	^	16.6	19.8	30.0	19.8
		^	10	13	13	11	^	14	4	18	12	^	12	8	14	12
Septicaemia	A40–A41	5.8	8.8	12.9	13.6	12.8	8.4	9.4	11.9	14.0	12.9	6.8	9.2	12.5	13.8	12.9
		4	6	7	9	8	4	6	6	9	8	4	6	7	9	8
Human immunodeficiency virus [HIV] disease	B20–B24	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	17.5
		ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	9
Neoplasms	**C00–D48**	**5.5**	**9.5**	**10.5**	**11.7**	**10.9**	**6.9**	**6.2**	**8.4**	**11.0**	**9.1**	**6.2**	**7.4**	**9.4**	**11.4**	**10.0**
		2	**5**	**5**	**6**	**6**	**2**	**3**	**4**	**6**	**4**	**2**	**4**	**5**	**6**	**5**
Malignant neoplasms	C00–C96	5.8	10.0	11.0	12.4	11.5	6.5	8.1	9.4	11.6	10.2	6.1	8.9	10.2	12.1	10.9
		2	5	6	7	6	3	4	5	7	5	2	5	5	7	6
Malignant neoplasm of colon, rectum and anus	C18–C21	-	8.8	12.1	14.2	13.2	-	11.4	12.5	14.3	13.5	-	10.2	12.2	14.3	13.3
		-	6	8	8	8	-	7	7	9	8	-	7	8	9	8
Malignant neoplasm of trachea, bronchus and lung	C33–C34	-	12.2	11.7	13.0	12.6	-	12.3	9.0	12.2	11.3	-	12.2	10.6	12.7	12.0
		-	10	7	8	8	-	4	7	7	7	-	6	7	8	7
Melanoma and other malignant neoplasms of skin	C43–C44	^	3.9	6.2	7.0	6.7	-	3.1	5.6	4.8	4.8	^	3.5	6.0	6.3	6.0
		^	1	2	2	2	-	1	2	2	2	^	1	2	2	2
Malignant neoplasm of breast	C50	-	-	3.3	15.6	10.7	-	3.6	5.3	5.7	5.1	-	3.6	5.3	5.8	5.2
		-	-	3	3	3	-	2	2	2	2	-	2	2	2	2
Malignant neoplasms of female genital organs	C51–C58	-	-	-	-	-	^	8.1	10.0	13.1	11.0	^	8.1	10.0	13.1	11.0
		-	-	-	-	-	^	5	6	7	6	^	5	6	7	6
Malignant neoplasm of prostate	C61	^	4.9	5.4	11.4	8.9	-	-	-	-	-	^	4.9	5.4	11.4	8.9
		^	5	3	5	4	-	-	-	-	-	^	5	3	5	4
Malignant neoplasm of bladder	C67	2.4	5.0	7.1	8.1	7.8	-	3.3	7.1	10.4	9.2	2.4	4.3	7.1	8.6	8.1
		2	4	2	4	3	-	3	3	5	4	2	4	3	4	3
Malignant neoplasms of lymphoid, haematopoietic and related tissue	C81–C96	6.6	16.1	12.7	12.3	12.5	7.2	15.1	13.8	13.0	13.1	6.8	15.7	13.1	12.6	12.7
		3	6	5	6	6	2	6	6	7	6	3	6	5	6	6
In situ neoplasms	D00-D09	-	8.8	2.9	5.2	4.9	-	3.6	3.1	4.1	3.5	-	4.2	3.1	4.7	3.9
		-	3	2	2	2	-	2	2	2	2	-	2	2	2	2
Benign neoplasms and neoplasms of uncertain or unknown behaviour	D10–D48	4.3	6.9	6.5	6.6	6.5	8.2	3.5	5.6	6.5	5.2	6.6	4.2	5.9	6.5	5.7
		2	2	2	3	2	2	2	3	3	3	2	2	3	3	3
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	**D50–D89**	**3.7**	**4.9**	**5.9**	**6.4**	**5.7**	**3.7**	**3.4**	**3.6**	**5.5**	**4.5**	**3.7**	**4.0**	**4.6**	**5.9**	**5.1**
		2	**2**	**3**	**3**	**2**	**2**	**1**	**2**	**3**	**2**	**2**	**1**	**2**	**3**	**2**
Endocrine, nutritional and metabolic diseases	**E00–E89**	**5.2**	**7.4**	**8.3**	**10.4**	**8.6**	**4.0**	**5.5**	**6.4**	**9.0**	**6.9**	**4.6**	**6.3**	**7.4**	**9.7**	**7.8**
		3	**3**	**3**	**5**	**4**	**2**	**2**	**2**	**4**	**3**	**3**	**3**	**3**	**5**	**3**
Diabetes mellitus	E10–E14	4.1	3.5	9.6	12.4	9.1	4.2	4.5	7.8	13.0	8.2	4.2	4.0	9.0	12.6	8.7
		4	2	4	6	4	4	2	3	6	4	4	2	4	6	4
Cystic fibrosis	E84	10.8	15.5	14.8	-	14.5	8.9	13.2	16.4	^	12.6	9.9	14.4	15.5	^	13.5
		11	14	14	-	14	9	13	14	^	12	10	14	14	^	14
Mental and behavioural disorders	**F00–F99**	**4.2**	**5.6**	**8.2**	**22.8**	**11.4**	**9.3**	**8.9**	**8.7**	**23.8**	**14.4**	**7.2**	**7.0**	**8.4**	**23.3**	**12.8**
		1	**2**	**3**	**9**	**3**	**2**	**2**	**3**	**8**	**4**	**2**	**2**	**3**	**9**	**3**
Mental and behavioural disorders due to alcohol	F10	3.4	2.8	6.0	13.3	5.8	0.8	2.9	5.7	17.9	6.5	2.1	2.8	5.9	14.8	6.0
		1	2	3	5	2	1	2	3	6	3	1	2	3	5	2
Mental and behavioural disorders due to use of other psychoactive substance	F11–F19	^	7.9	10.5	12.1	8.4	^	11.0	9.0	12.1	10.8	^	8.9	10.1	12.1	9.1
		^	3	5	4	3	^	6	5	7	5	^	4	5	6	4

TABLE 3.12 In-Patient Discharges: Mean and Median Length of Stay (Days) by Principal Diagnosis, Sex and Age Group[a] (contd.)

Principal Diagnosis	ICD-10-AM Code	Male					Female					Total In-Patient Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Diseases of nervous system	**G00–G99**	3.5 1	4.6 1	6.0 1	9.6 3	6.5 2	3.4 1	3.6 1	5.5 1	9.0 3	5.7 2	3.5 1	4.0 1	5.8 1	9.3 3	6.1 2
Multiple sclerosis	G35	- -	5.7 3	10.7 4	22.0 9	10.6 4	- -	6.0 4	8.6 4	10.9 4	7.3 4	- -	5.9 4	9.2 4	16.9 7	8.3 4
Epilepsy	G40, G41	3.7 2	4.7 2	7.5 3	9.2 4	5.8 2	3.3 2	4.6 2	6.2 3	12.1 5	6.0 2	3.5 2	4.7 2	7.0 3	10.6 4	5.9 2
Transient cerebral ischaemic attacks and related syndromes	G45	^ ^	2.7 2	3.3 2	4.5 3	4.1 2	^ ^	2.9 2	2.9 2	4.7 3	4.3 3	^ ^	2.8 2	3.2 2	4.6 3	4.2 2
Diseases of the eye and adnexa	**H00–H59**	**2.7 1**	**2.9 1**	**2.5 1**	**3.1 1**	**2.8 1**	**2.3 1**	**2.2 1**	**2.6 1**	**2.7 1**	**2.5 1**	**2.5 1**	**2.5 1**	**2.6 1**	**2.9 1**	**2.7 1**
Diseases of the ear and mastoid process	**H60–H95**	**1.6 1**	**1.7 1**	**2.1 1**	**3.2 2**	**2.2 1**	**1.7 1**	**1.6 1**	**2.0 1**	**3.3 2**	**2.2 1**	**1.7 1**	**1.7 1**	**2.1 1**	**3.3 2**	**2.2 1**
Diseases of the circulatory system	**I00–I99**	**3.0 1**	**5.1 2**	**6.3 3**	**9.0 4**	**7.8 3**	**4.9 1**	**5.1 2**	**5.9 2**	**9.0 4**	**7.9 3**	**3.9 1**	**5.1 2**	**6.2 3**	**9.0 4**	**7.8 3**
Hypertensive diseases	I10–I15	2.2 2	2.5 1	2.6 1	5.6 1	3.5 1	4.5 3	2.1 1	1.4 1	2.7 1	2.2 1	3.4 2	2.3 1	2.0 1	3.7 1	2.8 1
Angina pectoris	I20	- -	2.9 2	3.4 2	4.6 2	4.1 2	- -	2.9 1	3.4 2	4.0 2	3.7 2	- -	2.9 1	3.4 2	4.4 2	4.0 2
Acute myocardial infarction	I21–I22	- -	3.9 3	5.1 3	8.3 4	6.7 4	- -	12.3 4	4.4 3	7.8 4	7.1 4	- -	5.4 3	4.9 3	8.1 4	6.8 4
Other ischaemic heart disease	I23–I25	- -	3.6 1	4.9 2	5.2 2	5.0 2	- -	2.5 1	4.3 2	4.7 2	4.5 2	- -	3.4 1	4.8 2	5.1 2	4.9 2
Pulmonary heart disease and diseases of pulmonary circulation	I26–I28	- -	5.1 4	6.9 4	8.3 5	7.3 5	- -	6.8 4	9.2 4	10.2 7	9.3 5	- -	6.1 4	7.9 4	9.3 6	8.3 5
Conduction disorders and cardiac arrhythmias	I44–I49	2.6 1	3.3 1	2.9 1	4.6 2	3.9 2	3.6 2	3.1 1	3.0 1	4.8 2	4.3 2	3.0 2	3.3 1	3.0 1	4.7 2	4.1 2
Heart failure	I50	5.4 5	9.1 7	8.8 5	10.2 6	10.0 6	149.5 8	9.6 6	10.3 6	10.5 7	10.8 7	83.0 8	9.3 7	9.3 6	10.3 7	10.4 6
Cerebrovascular disease	I60–I69	18.7 5	13.2 6	14.2 7	16.8 8	15.9 7	7.6 5	10.9 7	12.8 7	17.2 8	15.9 8	14.9 5	12.2 6	13.7 7	17.0 8	15.9 8
Atherosclerosis (non-coronary)	I70	- -	34.2 10	15.7 6	17.6 7	17.4 7	- -	7.3 5	10.5 7	14.8 8	13.7 7	- -	23.6 8	14.3 6	16.6 7	16.2 7
Diseases of the respiratory system	**J00–J99**	**2.5 1**	**3.4 1**	**6.4 3**	**9.5 6**	**6.6 3**	**2.4 1**	**2.5 1**	**5.6 3**	**9.4 6**	**6.3 3**	**2.5 1**	**2.9 1**	**6.0 3**	**9.5 6**	**6.5 3**
Acute upper respiratory infections and influenza	J00–J11	1.6 1	1.9 1	4.4 2	6.7 4	2.6 1	1.7 1	1.8 1	3.3 2	6.3 4	2.6 1	1.7 1	1.8 1	3.8 2	6.5 4	2.6 1
Pneumonia	J12–J18	8.2 3	6.0 4	9.0 5	12.7 7	11.1 6	3.3 3	4.5 3	9.8 6	12.4 7	10.6 6	5.8 3	5.3 3	9.4 5	12.5 7	10.9 6
Chronic diseases of tonsils and adenoids	J35	1.1 1	1.2 1	1.3 1	2.6 1	1.2 1	1.1 1	1.2 1	1.3 1	1.8 1	1.1 1	1.1 1	1.2 1	1.3 1	2.2 1	1.1 1
Chronic obstructive pulmonary disease and bronchiectasis	J40–J44, J47	7.0 4	6.6 3	6.1 3	8.0 5	7.6 5	^ ^	3.6 2	5.9 4	8.3 5	7.6 5	6.9 4	4.8 2	6.0 4	8.2 5	7.6 5
Asthma	J45–J46	1.7 1	1.9 1	3.2 1	4.3 2	2.4 1	1.8 1	2.4 1	2.8 2	5.1 3	2.9 2	1.8 1	2.2 1	3.0 1	4.8 3	2.7 1
Diseases of the digestive system	**K00–K93**	**2.8 2**	**4.0 2**	**5.8 3**	**7.8 4**	**5.7 3**	**2.8 2**	**3.4 2**	**5.4 3**	**8.5 4**	**5.6 3**	**2.8 2**	**3.7 2**	**5.6 3**	**8.1 4**	**5.7 3**
Diseases of oesophagus, stomach and duodenum	K20–K31	2.0 1	2.8 1	4.1 2	7.3 3	4.7 2	1.8 1	2.5 1	3.6 1	6.7 3	4.3 2	1.9 1	2.6 1	3.9 1	7.0 3	4.5 2
Diseases of appendix	K35–K38	3.1 2	2.9 2	4.1 3	6.8 4	3.3 2	3.1 2	2.7 2	4.0 3	7.2 6	3.2 2	3.1 2	2.8 2	4.1 3	7.0 5	3.2 2

TABLE 3.12 In-Patient Discharges: Mean and Median Length of Stay (Days) by Principal Diagnosis, Sex and Age Group[a] (contd.)

Principal Diagnosis	ICD-10-AM Code	Male					Female					Total In-Patient Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Inguinal hernia	K40	2.1	1.3	1.5	3.2	2.4	1.3	1.6	3.8	6.7	4.7	2.0	1.3	1.6	3.5	2.5
		1	1	1	1	1	1	1	1	2	1	1	1	1	1	1
Noninfective enteritis and colitis	K50–K52	4.6	7.3	7.2	9.6	7.6	3.8	6.0	6.8	9.1	6.9	4.3	6.7	7.0	9.3	7.2
		3	5	5	6	5	3	4	5	6	5	3	5	5	6	5
Alcoholic liver disease	K70	-	10.8	15.1	15.9	14.5	-	12.4	15.0	14.3	14.2	-	11.5	15.1	15.4	14.4
		-	7	8	8	8	-	8	9	8	9	-	7	8	8	8
Cholelithiasis	K80	3.5	4.1	4.3	8.5	6.4	2.8	2.8	3.7	7.2	4.4	3.0	3.0	4.0	7.8	5.1
		3	2	3	6	4	2	1	2	4	2	2	2	2	5	3
Diseases of the skin and subcutaneous tissue	**L00–L99**	**2.5**	**4.1**	**5.7**	**8.8**	**5.8**	**2.4**	**3.2**	**4.5**	**9.5**	**6.0**	**2.5**	**3.7**	**5.2**	**9.2**	**5.9**
		2	**2**	**3**	**5**	**3**	**2**	**1**	**2**	**5**	**2**	**2**	**2**	**3**	**5**	**2**
Cutaneous abscess, furuncle and carbuncle and cellulitis	L02–L03	2.7	3.7	4.8	7.9	5.4	2.5	3.5	4.5	9.0	6.3	2.6	3.6	4.7	8.5	5.8
		2	2	3	5	3	2	2	3	5	3	2	2	3	5	3
Decubitus ulcer and pressure area	L89	^	69.5	36.0	37.7	42.6	^	^	12.1	31.3	31.5	1.0	78.3	29.7	34.7	38.4
		^	11	12	10	11	^	^	13	10	8	1	11	13	10	10
Diseases of the musculoskeletal system and connective tissue	**M00–M99**	**3.1**	**3.4**	**4.8**	**7.5**	**5.6**	**3.9**	**2.8**	**3.8**	**6.9**	**5.0**	**3.5**	**3.1**	**4.2**	**7.1**	**5.3**
		2	**1**	**2**	**4**	**2**	**2**	**1**	**2**	**4**	**2**	**2**	**1**	**2**	**4**	**2**
Rheumatoid arthritis	M05–M06	^	7.4	3.0	5.1	4.6	-	2.8	4.8	6.9	5.6	^	4.5	4.1	6.3	5.3
		^	3	2	3	3	-	1	3	4	3	^	2	2	4	3
Coxarthrosis and Gonarthrosis	M16–M17	-	3.1	3.7	5.6	4.8	^	3.9	3.9	5.9	5.3	^	3.5	3.8	5.8	5.1
		-	3	3	4	4	^	3	4	4	4	^	3	3	4	4
Intervertebral disc disorders	M50–M51	^	3.4	4.1	8.1	4.8	-	3.8	4.6	10.5	5.6	^	3.7	4.4	9.4	5.2
		^	2	2	4	2	-	2	2	5	3	^	2	2	4	2
Dorsalgia (back pain)	M54	1.7	1.9	2.9	5.9	3.8	2.8	2.4	3.0	6.2	4.0	2.3	2.2	3.0	6.1	3.9
		1	1	1	2	1	2	1	1	2	1	2	1	1	2	1
Diseases of the genitourinary system	**N00–N99**	**2.3**	**2.9**	**4.8**	**9.9**	**6.6**	**2.8**	**2.8**	**4.1**	**10.0**	**5.9**	**2.5**	**2.8**	**4.4**	**10.0**	**6.2**
		1	**1**	**3**	**5**	**3**	**2**	**2**	**3**	**5**	**3**	**2**	**2**	**3**	**5**	**3**
Chronic kidney disease	N18	5.8	7.4	7.3	12.1	9.5	8.5	12.8	6.5	15.0	11.7	6.9	9.3	7.1	13.2	10.3
		3	7	6	6	6	3	4	5	5	5	3	6	5	6	6
Urolithiasis	N20–N23	2.6	2.0	2.6	3.5	2.6	2.0	2.4	2.9	4.1	2.9	2.4	2.2	2.7	3.7	2.7
		1	1	2	2	2	2	1	2	2	2	1	1	2	2	2
Hyperplasia of prostate	N40	-	-	3.3	5.1	4.6	-	-	-	-	-	-	-	3.3	5.1	4.6
		-	-	3	4	3	-	-	-	-	-	-	-	3	4	3
Disorders of breast	N60–N64	^	1.8	1.1	^	1.5	1.6	1.8	2.2	4.2	2.1	1.4	1.8	2.1	4.0	2.1
		^	1	1	^	1	1	1	1	2	1	1	1	1	2	1
Inflammatory diseases of female pelvic organs	N70–N77	-	-	-	-	-	3.1	2.5	4.1	5.4	3.0	3.1	2.5	4.1	5.4	3.0
		-	-	-	-	-	2	2	2	2	2	2	2	2	2	2
Noninflammatory disorders of female genital tract	N80–N98	-	-	-	-	-	1.9	2.2	2.8	3.8	2.7	1.9	2.2	2.8	3.8	2.7
		-	-	-	-	-	1	1	2	3	2	1	1	2	3	2
Pregnancy, childbirth and the puerperium	**O00–O99**	**-**	**-**	**-**	**-**	**-**	**1.8**	**2.7**	**4.3**	**-**	**2.7**	**1.8**	**2.7**	**4.3**	**-**	**2.7**
		-	**-**	**-**	**-**	**-**	**1**	**2**	**3**	**-**	**2**	**1**	**2**	**3**	**-**	**2**
Gestational [pregnancy induced] hypertension	O13	-	-	-	-	-	-	2.1	2.9	-	2.1	-	2.1	2.9	-	2.1
		-	-	-	-	-	-	1	1	-	1	-	1	1	-	1
Diabetes mellitus in pregnancy	O24	-	-	-	-	-	-	2.2	2.2	-	2.2	-	2.2	2.2	-	2.2
		-	-	-	-	-	-	1	1	-	1	-	1	1	-	1
Single spontaneous delivery	O80	-	-	-	-	-	^	2.5	2.9	-	2.5	^	2.5	2.9	-	2.5
		-	-	-	-	-	^	2	3	-	2	^	2	3	-	2
Single delivery by forceps and vacuum extractor	O81	-	-	-	-	-	^	3.3	3.2	-	3.3	^	3.3	3.2	-	3.3
		-	-	-	-	-	^	3	3	-	3	^	3	3	-	3
Single delivery by caesarean section	O82	-	-	-	-	-	-	4.5	4.9	-	4.5	-	4.5	4.9	-	4.5
		-	-	-	-	-	-	4	5	-	4	-	4	5	-	4
Other assisted single delivery	O83	-	-	-	-	-	-	3.1	4.4	-	3.1	-	3.1	4.4	-	3.1
		-	-	-	-	-	-	3	3	-	3	-	3	3	-	3

TABLE 3.12 In-Patient Discharges: Mean and Median Length of Stay (Days) by Principal Diagnosis, Sex and Age Group[a] (contd.)

Principal Diagnosis	ICD-10-AM Code	Male					Female					Total In-Patient Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Multiple delivery	O84	-	-	-	-	-	-	5.3	6.6	-	5.3	-	5.3	6.6	-	5.3
		-	-	-	-	-	-	4	5	-	5	-	4	5	-	5
Certain conditions originating in the perinatal period	**P00–P96**	**7.8**	**-**	**-**	**-**	**7.8**	**8.5**	**-**	**-**	**-**	**8.5**	**8.1**	**-**	**-**	**-**	**8.1**
		3	-	-	-	**3**	**3**	-	-	-	**3**	**3**	-	-	-	**3**
Congenital malformations, deformations and chromosomal abnormalities	**Q00–Q99**	**6.5**	**4.4**	**5.9**	**9.0**	**6.2**	**6.0**	**4.7**	**3.9**	**4.4**	**5.7**	**6.3**	**4.5**	**4.8**	**6.6**	**6.0**
		2	**2**	**3**	**5**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**4**	**2**
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	**R00–R99**	**1.7**	**1.5**	**2.3**	**4.6**	**2.9**	**1.8**	**1.6**	**2.0**	**4.3**	**2.6**	**1.8**	**1.5**	**2.1**	**4.5**	**2.7**
		1	**1**	**1**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Pain in throat and chest	R07	1.2	0.9	1.3	2.1	1.4	1.2	0.9	1.3	2.0	1.4	1.2	0.9	1.3	2.0	1.4
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Abdominal and pelvic pain	R10	1.2	1.4	2.1	2.8	1.7	1.4	1.6	2.1	3.2	1.8	1.3	1.5	2.1	3.1	1.8
		1	1	1	1	1	1	1	1	2	1	1	1	1	1	1
Injury, poisoning and certain other consequences of external causes	**S00–T98**	**1.4**	**3.3**	**5.8**	**12.2**	**5.9**	**1.5**	**3.2**	**5.0**	**12.3**	**7.1**	**1.5**	**3.3**	**5.5**	**12.3**	**6.5**
		1	**1**	**2**	**5**	**2**	**1**	**1**	**2**	**6**	**2**	**1**	**1**	**2**	**6**	**2**
Intracranial injury	S06	3.6	7.3	11.8	15.9	11.1	2.0	4.4	12.5	11.9	9.4	3.0	6.4	12.0	14.1	10.5
		1	1	3	5	2	1	1	3	5	3	1	1	3	5	3
Other injuries to the head (including skull fracture)	S00–S05, S07–S09	1.0	1.9	3.3	7.2	3.1	1.0	1.7	2.7	7.5	3.8	1.0	1.9	3.1	7.4	3.4
		1	1	1	2	1	1	1	1	2	1	1	1	1	2	1
Fracture of femur	S72	2.8	12.8	15.8	21.0	18.6	2.7	6.7	11.1	18.0	17.0	2.8	11.5	13.2	18.9	17.5
		2	4	8	12	10	2	5	7	12	11	2	4	8	12	11
Poisonings by drugs, medicaments and biological substances and toxic effects of substances chiefly nonmedicinal as to source	T36–T65	1.1	3.4	4.0	11.7	4.0	2.1	2.6	4.3	11.4	3.7	1.7	2.9	4.1	11.5	3.9
		1	1	2	4	1	1	1	2	4	1	1	1	2	4	1
Factors influencing health status and contact with health services[b]	**U00–U49, Z00–Z99**	**2.6**	**17.7**	**18.1**	**22.1**	**16.3**	**2.6**	**1.6**	**13.9**	**25.8**	**8.7**	**2.6**	**2.8**	**16.1**	**24.1**	**11.0**
		2	**2**	**4**	**10**	**4**	**2**	**1**	**3**	**16**	**1**	**2**	**1**	**3**	**13**	**1**
Other medical care (including radiotherapy and chemotherapy sessions)	Z51	8.5	11.3	5.2	25.6	18.7	10.8	1.6	9.1	35.1	25.6	9.5	3.4	6.3	31.2	22.6
		4	2	2	17	9	3	1	4	26	17	3	1	2	22	14

Notes:
^ Denotes that length of stay calculation was based on five or fewer discharges.
\- Length of stay cannot be calculated as no in-patients are reported.
ǂ Denotes that no breakdown is provided.
a Includes length of stay for total in-patients (includes sameday and overnight in-patients). Excludes day patients.
b This category includes discharges in the code range U00–U49 'codes for special purposes'.

TABLE 3.13 Total Discharges: All-Listed Diagnoses by Sex and Age Group (N)

Diagnosis	ICD-10-AM Code	Male					Female					Total Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Total Discharges	–	69,199	150,183	248,928	369,606	837,916	55,517	306,890	259,819	310,880	933,106	124,716	457,073	508,747	680,486	1,771,022
All Conditions	–	156,915	341,204	651,413	1,128,163	2,277,695	127,196	818,747	629,703	930,003	2,505,649	284,111	1,159,951	1,281,116	2,058,166	4,783,344
Certain infectious and parasitic diseases	**A00-B99**	**9,027**	**11,609**	**12,094**	**20,573**	**53,303**	**8,009**	**13,468**	**10,497**	**22,461**	**54,435**	**17,036**	**25,077**	**22,591**	**43,034**	**107,738**
Intestinal infectious diseases (including diarrhoea)	A00–A09	2,684	2,310	2,663	4,207	11,864	2,649	4,452	3,298	5,716	16,115	5,333	6,762	5,961	9,923	27,979
Tuberculosis	A15–A19	*	107	109	*	279	~	77	30	*	141	12	184	139	85	420
Septicaemia	A40–A41	157	514	1,539	4,557	6,767	96	696	1,228	3,786	5,806	253	1,210	2,767	8,343	12,573
Human immunodeficiency virus [HIV] disease	B20–B24	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	530
Neoplasms	**C00–D48**	**7,549**	**21,037**	**97,114**	**165,414**	**291,114**	**6,369**	**45,661**	**139,628**	**127,870**	**319,528**	**13,918**	**66,698**	**236,742**	**293,284**	**610,642**
Malignant neoplasms	C00–C96	6,717	16,588	85,452	145,475	254,232	5,384	35,348	123,271	113,299	277,302	12,101	51,936	208,723	258,774	531,534
Malignant neoplasm of colon, rectum and anus	C18–C21	0	1,262	8,709	12,478	22,449	~	*	5,504	6,520	13,257	~	*	14,213	18,998	35,706
Malignant neoplasm of trachea, bronchus and lung	C33–C34	0	292	5,805	11,449	17,546	0	424	5,454	9,569	15,447	0	716	11,259	21,018	32,993
Melanoma and other malignant neoplasms of skin	C43–C44	*	*	3,586	12,415	16,654	~	*	2,401	6,221	9,359	8	1,382	5,987	18,636	26,013
Malignant neoplasm of breast	C50	0	~	127	*	220	0	*	39,714	*	73,491	0	12,084	39,841	21,786	73,711
Malignant neoplasms of female genital organs	C51–C58	0	0	0	0	0	15	2,467	7,252	6,627	16,361	15	2,467	7,252	6,627	16,361
Malignant neoplasm of prostate	C61	~	*	8,488	26,213	34,745	0	0	0	8	8	~	*	8,488	26,221	34,753
Malignant neoplasm of bladder	C67	103	81	1,361	3,775	5,320	0	24	556	946	1,526	103	105	1,917	4,721	6,846
Malignant neoplasms of lymphoid, haematopoietic and related tissue	C81–C96	3,770	3,574	11,115	20,068	38,527	2,351	2,642	6,053	13,133	24,179	6,121	6,216	17,168	33,201	62,706
In situ neoplasms	D00-D09	*	*	638	2,000	2,746	~	*	4,561	3,418	9,093	27	1,195	5,199	5,418	11,839
Benign neoplasms and neoplasms of uncertain or unknown behaviour	D10–D48	806	4,367	11,024	17,939	34,136	984	9,200	11,796	11,153	33,133	1,790	13,567	22,820	29,092	67,269
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	**D50–D89**	**3,269**	**4,559**	**7,765**	**18,274**	**33,867**	**2,396**	**10,740**	**8,362**	**16,547**	**38,045**	**5,665**	**15,299**	**16,127**	**34,821**	**71,912**
Endocrine, nutritional and metabolic diseases	**E00–E89**	**3,597**	**14,537**	**49,573**	**89,565**	**157,272**	**3,763**	**16,070**	**27,930**	**66,965**	**114,728**	**7,360**	**30,607**	**77,503**	**156,530**	**272,000**
Diabetes mellitus	E10–E14	464	6,041	32,204	65,102	103,811	540	6,214	15,439	40,614	62,807	1,004	12,255	47,643	105,716	166,618
Cystic fibrosis	E84	353	1,371	*	~	1,891	371	1,240	*	~	1,755	724	2,611	*	~	3,646
Mental and behavioural disorders	**F00–F99**	**1,969**	**9,295**	**10,539**	**16,247**	**38,050**	**1,461**	**7,259**	**6,283**	**16,568**	**31,571**	**3,430**	**16,554**	**16,822**	**32,815**	**69,621**
Mental and behavioural disorders due to alcohol	F10	34	3,644	6,182	3,567	13,427	33	1,519	2,482	1,306	5,340	67	5,163	8,664	4,873	18,767
Mental and behavioural disorders due to use of other psychoactive substance	F11–F19	16	2,650	978	111	3,755	6	1,397	342	121	1,866	22	4,047	1,320	232	5,621
Diseases of nervous system	**G00–G99**	**3,582**	**7,041**	**9,863**	**14,482**	**34,968**	**3,057**	**11,015**	**10,763**	**12,907**	**37,742**	**6,639**	**18,056**	**20,626**	**27,389**	**72,710**
Multiple sclerosis	G35	0	1,292	1,054	356	2,702	~	2,969	2,166	*	5,690	~	4,261	3,220	*	8,392
Epilepsy	G40, G41	1,085	1,295	930	712	4,022	973	1,374	670	624	3,641	2,058	2,669	1,600	1,336	7,663
Transient cerebral ischaemic attacks and related syndromes	G45	~	*	505	1,298	1,886	*	*	346	1,333	1,759	18	145	851	2,631	3,645
Diseases of the eye and adnexa	**H00–H59**	**1,427**	**3,035**	**8,967**	**25,728**	**39,157**	**1,158**	**3,720**	**7,229**	**32,142**	**44,249**	**2,585**	**6,755**	**16,196**	**57,870**	**83,406**
Diseases of the ear and mastoid process	**H60–H95**	**3,024**	**1,656**	**1,694**	**1,863**	**8,237**	**2,221**	**1,904**	**1,747**	**1,688**	**7,560**	**5,245**	**3,560**	**3,441**	**3,551**	**15,797**
Diseases of the circulatory system	**I00–I99**	**1,744**	**7,854**	**38,626**	**89,737**	**137,961**	**1,968**	**7,843**	**18,934**	**66,263**	**95,008**	**3,712**	**15,697**	**57,560**	**156,000**	**232,969**
Hypertensive diseases	I10–I15	239	1,780	9,206	17,398	28,623	626	1,937	4,525	13,810	20,898	865	3,717	13,731	31,208	49,521
Angina pectoris	I20	0	106	1,188	2,057	3,351	0	50	532	1,086	1,668	0	156	1,720	3,143	5,019
Acute myocardial infarction	I21–I22	~	*	2,347	3,477	6,118	0	74	644	2,071	2,789	~	*	2,991	5,548	8,907
Other ischaemic heart disease	I23–I25	0	560	7,177	11,617	19,354	~	*	2,097	5,138	7,408	~	*	9,274	16,755	26,762
Pulmonary heart disease and diseases of pulmonary circulation	I26–I28	24	263	688	1,308	2,283	56	293	557	1,507	2,413	80	556	1,245	2,815	4,696
Conduction disorders and cardiac arrhythmias	I44–I49	258	1,158	5,730	20,123	27,269	215	866	2,227	14,625	17,933	473	2,024	7,957	34,748	45,202
Heart failure	I50	21	164	1,470	9,806	11,461	29	121	737	8,146	9,033	50	285	2,207	17,952	20,494
Cerebrovascular disease	I60–I69	109	432	2,159	5,488	8,188	104	370	1,381	4,541	6,396	213	802	3,540	10,029	14,584
Atherosclerosis (non-coronary)	I70	0	35	544	1,681	2,260	0	32	226	867	1,125	0	67	770	2,548	3,385
Diseases of the respiratory system	**J00–J99**	**13,080**	**10,273**	**18,231**	**47,076**	**88,660**	**10,118**	**13,695**	**17,363**	**43,707**	**84,883**	**23,198**	**23,968**	**35,594**	**90,783**	**173,543**
Acute upper respiratory infections and influenza	J00–J11	4,612	1,541	901	1,428	8,482	3,499	2,960	1,072	1,426	8,957	8,111	4,501	1,973	2,854	17,439
Pneumonia	J12–J18	581	1,146	2,493	8,757	12,977	548	1,240	2,009	7,973	11,770	1,129	2,386	4,502	16,730	24,747
Chronic diseases of tonsils and adenoids	J35	1,803	464	72	28	2,367	1,551	1,066	85	30	2,732	3,354	1,530	157	58	5,099
Chronic obstructive pulmonary disease and bronchiectasis	J40–J44, J47	131	481	3,481	12,378	16,471	103	564	3,853	12,200	16,720	234	1,045	7,334	24,578	33,191
Asthma	J45–J46	1,211	1,000	1,785	1,143	5,139	747	2,075	2,478	1,606	6,906	1,958	3,075	4,263	2,749	12,045
Diseases of the digestive system	**K00–K93**	**7,713**	**43,069**	**61,246**	**66,409**	**178,437**	**5,860**	**47,675**	**57,837**	**62,252**	**173,624**	**13,573**	**90,744**	**119,083**	**128,661**	**352,061**

TABLE 3.13 Total Discharges: All-Listed Diagnoses by Sex and Age Group (N) (contd.)

Diagnosis	ICD-10-AM Code	Male					Female					Total Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Diseases of oesophagus, stomach and duodenum	K20–K31	845	11,289	19,151	19,559	50,844	642	11,354	18,212	18,231	48,439	1,487	22,643	37,363	37,790	99,283
Diseases of appendix	K35–K38	1,207	1,880	409	223	3,719	885	1,818	419	138	3,260	2,092	3,698	828	361	6,979
Inguinal hernia	K40	454	719	1,343	1,622	4,138	97	60	72	143	372	551	779	1,415	1,765	4,510
Noninfective enteritis and colitis	K50–K52	899	9,060	4,748	2,063	16,770	485	8,495	4,565	2,106	15,651	1,384	17,555	9,313	4,169	32,421
Alcoholic liver disease	K70	0	459	1,592	810	2,861	0	276	682	247	1,205	0	735	2,274	1,057	4,066
Cholelithiasis	K80	10	529	1,178	2,086	3,803	25	2,436	2,059	2,311	6,831	35	2,965	3,237	4,397	10,634
Diseases of the skin and subcutaneous tissue	**L00–L99**	**2,480**	**14,290**	**12,961**	**17,471**	**47,202**	**2,122**	**14,252**	**12,756**	**16,754**	**45,884**	**4,602**	**28,542**	**25,717**	**34,225**	**93,086**
Cutaneous abscess, furuncle and carbuncle and cellulitis	L02–L03	639	1,752	2,224	3,662	8,277	458	1,198	1,291	3,541	6,488	1,097	2,950	3,515	7,203	14,765
Decubitus ulcer and pressure area	L89	28	174	458	2,215	2,875	25	101	303	2,085	2,514	53	275	761	4,300	5,389
Diseases of the musculoskeletal system and connective tissue	**M00–M99**	**2,223**	**9,492**	**18,166**	**20,989**	**50,870**	**2,605**	**15,618**	**24,506**	**32,012**	**74,741**	**4,828**	**25,110**	**42,672**	**53,001**	**125,611**
Rheumatoid arthritis	M05–M06	~	*	1,027	1,144	2,515	0	612	2,083	2,167	4,862	~	*	3,110	3,311	7,377
Coxarthrosis and Gonarthrosis	M16–M17	0	260	2,164	3,314	5,738	~	*	2,596	5,310	8,134	~	*	4,760	8,624	13,872
Intervertebral disc disorders	M50–M51	~	*	1,021	712	2,390	~	*	1,101	1,088	3,068	~	*	2,122	1,800	5,458
Dorsalgia (back pain)	M54	82	1,445	2,689	2,394	6,610	166	4,189	4,333	4,108	12,796	248	5,634	7,022	6,502	19,406
Diseases of the genitourinary system	**N00–N99**	**5,081**	**16,545**	**39,878**	**89,975**	**151,479**	**3,963**	**35,645**	**41,073**	**61,850**	**142,531**	**9,044**	**52,190**	**80,951**	**151,825**	**294,010**
Chronic kidney disease	N18	386	8,944	25,708	54,360	89,398	857	6,785	13,973	28,800	50,415	1,243	15,729	39,681	83,160	139,813
Urolithiasis	N20–N23	71	1,677	2,426	1,331	5,505	57	1,161	1,156	668	3,042	128	2,838	3,582	1,999	8,547
Hyperplasia of prostate	N40	0	100	1,760	4,397	6,257	0	0	0	0	0	0	100	1,760	4,397	6,257
Disorders of breast	N60–N64	11	81	32	28	152	17	1,808	1,874	533	4,232	28	1,889	1,906	561	4,384
Inflammatory diseases of female pelvic organs	N70–N77	0	0	0	0	0	61	2,698	756	398	3,913	61	2,698	756	398	3,913
Noninflammatory disorders of female genital tract	N80–N98	0	0	0	0	0	280	16,437	14,728	4,932	36,377	280	16,437	14,728	4,932	36,377
Pregnancy, childbirth and the puerperium	**O00–O99**	**0**	**0**	**0**	**0**	**0**	**17**	**262,825**	**2,055**	**0**	**264,897**	**17**	**262,825**	**2,055**	**0**	**264,897**
Gestational [pregnancy induced] hypertension	O13	0	0	0	0	0	~	5,526	*	0	5,641	~	5,526	*	0	5,641
Diabetes mellitus in pregnancy	O24	0	0	0	0	0	0	11,871	166	0	12,037	0	11,871	166	0	12,037
Single spontaneous delivery	O80	0	0	0	0	0	~	28,609	*	0	28,672	~	28,609	*	0	28,672
Single delivery by forceps and vacuum extractor	O81	0	0	0	0	0	~	8,066	*	0	8,090	~	8,066	*	0	8,090
Single delivery by caesarean section	O82	0	0	0	0	0	0	19,014	221	0	19,235	0	19,014	221	0	19,235
Other assisted single delivery	O83	0	0	0	0	0	0	*	~	0	931	0	*	~	0	931
Multiple delivery	O84	0	0	0	0	0	0	1,051	29	0	1,080	0	1,051	29	0	1,080
Certain conditions originating in the perinatal period	**P00–P96**	**15,069**	**0**	**0**	**0**	**15,069**	**11,503**	**~**	**~**	**~**	**11,510**	**26,572**	**~**	**~**	**~**	**26,579**
Congenital malformations, deformations and chromosomal abnormalities	**Q00–Q99**	**10,860**	**2,188**	**1,447**	**582**	**15,077**	**8,992**	**2,472**	**1,208**	**477**	**13,149**	**19,852**	**4,660**	**2,655**	**1,059**	**28,226**
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	**R00–R99**	**12,959**	**26,451**	**42,047**	**75,266**	**156,723**	**11,311**	**54,680**	**42,163**	**69,685**	**177,839**	**24,270**	**81,131**	**84,210**	**144,951**	**334,562**
Pain in throat and chest	R07	119	3,540	5,921	4,449	14,029	142	4,030	5,235	4,143	13,550	261	7,570	11,156	8,592	27,579
Abdominal and pelvic pain	R10	1,179	3,175	2,811	2,212	9,377	1,371	14,083	4,843	3,004	23,301	2,550	17,258	7,654	5,216	32,678
Injury, poisoning and certain other consequences of external causes	**S00–T98**	**8,530**	**23,649**	**16,192**	**20,417**	**68,788**	**6,061**	**12,535**	**11,443**	**23,847**	**53,886**	**14,591**	**36,184**	**27,635**	**44,264**	**122,674**
Intracranial injury	S06	345	1,248	879	1,289	3,761	176	475	403	1,018	2,072	521	1,723	1,282	2,307	5,833
Other injuries to the head (including skull fracture)	S00–S05, S07–S09	2,274	3,848	2,010	3,193	11,325	1,518	1,208	969	3,227	6,922	3,792	5,056	2,979	6,420	18,247
Fracture of femur	S72	108	160	299	1,468	2,035	48	51	389	3,442	3,930	156	211	688	4,910	5,965
Poisonings by drugs, medicaments and biological substances and toxic effects of substances chiefly nonmedicinal as to source	T36–T65	238	2,082	922	335	3,577	414	2,593	1,215	498	4,720	652	4,675	2,137	833	8,297
External causes of morbidity and mortality	**U50–Y98**	**21,284**	**45,207**	**33,538**	**52,821**	**152,850**	**15,425**	**29,434**	**27,236**	**61,578**	**133,673**	**36,709**	**74,641**	**60,774**	**114,399**	**286,523**
Transport accidents	V01–V99	550	1,659	830	479	3,518	339	939	399	368	2,045	889	2,598	1,229	847	5,563
Factors influencing health status and contact with health services[a]	**U00–U49, Z00–Z99**	**22,448**	**69,417**	**171,472**	**295,274**	**558,611**	**18,817**	**212,234**	**160,688**	**194,427**	**586,166**	**41,265**	**281,651**	**332,160**	**489,701**	**1,144,777**
Other medical care (including radiotherapy and chemotherapy sessions)	Z51	3,030	7,428	39,604	73,395	123,457	1,949	17,217	58,917	52,870	130,953	4,979	24,645	98,521	126,265	254,410

Notes: ~ Denotes five or fewer discharges reported to HIPE.
* Further suppression required to prevent disclosure of five or fewer discharges.
ǂ Denotes that no breakdown is provided.
a This category includes discharges in the code range U00–U49 'codes for special purposes'.

3.4.4 Total Discharges by Principal Procedure, Sex and Age Group

In 2019, 79.4 per cent of total discharges had a principal procedure recorded (see Table 3.4). Discussion of procedures is confined to ACHI chapter level.

Table 3.14 provides a breakdown of principal procedure by sex and age group.

- Procedures from the chapter *Non-invasive, cognitive and other interventions, not elsewhere classified* accounted for 27.3 per cent of total discharges with a principal procedure reported. Almost 38 per cent of discharges aged less than 15 years, 22.9 per cent aged between 15–44 years, 25.2 per cent aged between 45–64 years and 30.1 per cent aged 65 years and over had a procedure from this chapter recorded as a principal procedure.
- Over 63 per cent of total discharges with a principal procedure from the chapter *Procedures on urinary system* were males. Procedures from this chapter accounted for 15.4 per cent of total discharges with a principal procedure reported.
- Over 27 per cent of female discharges aged between 15–44 years who underwent a procedure recorded a principal procedure from the chapter *Obstetric procedures*.
- Procedures from the chapter *Procedures on digestive system* accounted for 13.1 per cent of total discharges with a principal procedure reported, almost 72 per cent of these were aged 45 years and over.

3.4.5 In-Patient Mean and Median Length of Stay by Principal Procedure, Sex and Age Group

Table 3.15 presents the in-patient mean and median length of stay for principal procedure by sex and age group. The analysis presented here includes total in-patient (sameday and overnight) discharges, and excludes day patients. These measures include pre-operative and post-operative length of stay. It should also be noted that this analysis by length of stay does not take into account the status of the patient on discharge. For example, a patient may be transferred to another facility on discharge. Care must be taken, therefore, in interpreting the data on length of stay presented in Table 3.15, in the absence of information on discharge destination.[37]

- At chapter level, *Radiation oncology procedures* reported the longest in-patient mean length of stay at 19.1 days. It should be noted that the majority of discharges with *Radiation oncology procedures* recorded as a principal procedure were day patients and are therefore not included in Table 3.15.

[37] See Section Two for details of discharge destination.

- The longest in-patient mean length of stay for those aged less than 15 years and those aged between 15–44 years was reported for the chapter *Procedures on blood and blood forming organs* at 15.8 days and 16.0 days respectively. For the two older age groups the longest in-patient mean length of stay was reported for the chapter *Radiation oncology procedures* at 19.0 days for those aged between 45–64 years and 20.7 days for those aged 65 years and over.
- The shortest in-patient mean lengths of stay were reported for the chapters *Procedures on nose, mouth and pharynx* at 2.6 days and *Procedures on eye and adnexa* at 2.7 days for total discharges.

3.4.6 All-Listed Procedures by Sex and Age Group

Table 3.16 provides details of all-listed procedures reported by sex and age group for total discharges. As one principal procedure and up to 19 secondary procedures may be collected as applicable per discharge, the total number of procedures will not equal the number of total discharges.

- Over 2.5 million procedures were reported for total discharges.
- Procedures within the chapter *Non-invasive, cognitive and other interventions, not elsewhere classified* accounted for 1,169,394 of all-listed procedures or 45.4 per cent of all procedures reported for total discharges.
- Males accounted for 65.0 per cent of procedures from the chapter *Procedures on cardiovascular system*.
- Total discharges aged less than 15 years accounted for just over 40 per cent of procedures from the chapter *Procedures on ear and mastoid process*.

TABLE 3.14 Total Discharges: Principal Procedure by Sex and Age Group (N)

Principal Procedure	Procedure Block	Male					Female					Total Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Total Discharges	-	**69,199**	**150,183**	**248,928**	**369,606**	**837,916**	**55,517**	**306,890**	**259,819**	**310,880**	**933,106**	**124,716**	**457,073**	**508,747**	**680,486**	**1,771,022**
All Principal Procedures	0001–2016	40,820	119,651	210,289	317,172	687,932	31,050	204,652	220,829	261,677	718,208	71,870	324,303	431,118	578,849	1,406,140
Procedures on nervous system	**0001–0086**	**824**	**3,212**	**4,495**	**3,257**	**11,788**	**666**	**4,534**	**6,379**	**5,040**	**16,619**	**1,490**	**7,746**	**10,874**	**8,297**	**28,407**
Lumbar puncture	0030	619	794	561	436	2,410	480	1,397	728	425	3,030	1,099	2,191	1,289	861	5,440
Procedures on endocrine system	**0110–0129**	**28**	**134**	**206**	**173**	**541**	**21**	**467**	**632**	**356**	**1,476**	**49**	**601**	**838**	**529**	**2,017**
Procedures on eye and adnexa	**0160–0256**	**637**	**1,899**	**6,968**	**18,995**	**28,499**	**528**	**1,592**	**4,765**	**24,256**	**31,141**	**1,165**	**3,491**	**11,733**	**43,251**	**59,640**
Lens extraction	0195–0202	30	143	1,115	4,884	6,172	21	135	1,143	6,597	7,896	51	278	2,258	11,481	14,068
Procedures on ear and mastoid process	**0300–0333**	**1,814**	**1,088**	**879**	**765**	**4,546**	**1,383**	**1,073**	**885**	**633**	**3,974**	**3,197**	**2,161**	**1,764**	**1,398**	**8,520**
Myringotomy	0309	1,099	112	81	55	1,347	775	111	84	47	1,017	1,874	223	165	102	2,364
Procedures on nose, mouth and pharynx	**0370–0422**	**2,161**	**2,951**	**2,608**	**1,894**	**9,614**	**1,741**	**3,548**	**2,469**	**1,577**	**9,335**	**3,902**	**6,499**	**5,077**	**3,471**	**18,949**
Tonsillectomy or adenoidectomy	0412	1,273	372	38	22	1,705	1,140	907	41	11	2,099	2,413	1,279	79	33	3,804
Dental services	**0450–0490**	**1,657**	**753**	**287**	**147**	**2,844**	**1,575**	**1,006**	**266**	**133**	**2,980**	**3,232**	**1,759**	**553**	**280**	**5,824**
Procedures on respiratory system	**0520–0571**	**2,376**	**1,958**	**4,347**	**6,838**	**15,519**	**1,707**	**1,633**	**3,741**	**5,736**	**12,817**	**4,083**	**3,591**	**8,088**	**12,574**	**28,336**
Bronchoscopy with/without biopsy	0543–0544, 41892-01[0545]	153	699	1,814	2,575	5,241	121	659	1,730	2,232	4,742	274	1,358	3,544	4,807	9,983
Procedures on cardiovascular system	**0600–0777**	**842**	**5,700**	**17,146**	**15,480**	**39,168**	**814**	**3,319**	**8,973**	**9,176**	**22,282**	**1,656**	**9,019**	**26,119**	**24,656**	**61,450**
Coronary angiography	0668	58	546	4,158	4,774	9,536	47	239	2,214	3,170	5,670	105	785	6,372	7,944	15,206
Transluminal coronary angioplasty with/without stenting	0670–0671	~	*	1,888	2,133	4,186	0	33	441	864	1,338	~	*	2,329	2,997	5,524
CABG	0672–0679	0	*	*	387	697	0	~	*	71	111	0	12	338	458	808
Leg varicose vein ligation	0727–0728	0	330	662	301	1,293	0	849	986	451	2,286	0	1,179	1,648	752	3,579
Procedures on blood and blood-forming	**0800–0817**	**145**	**428**	**1,091**	**1,410**	**3,074**	**130**	**534**	**987**	**1,035**	**2,686**	**275**	**962**	**2,078**	**2,445**	**5,760**
Procedures on digestive system	**0850–1011**	**2,696**	**21,104**	**33,703**	**34,478**	**91,981**	**1,780**	**26,411**	**33,233**	**30,629**	**92,053**	**4,476**	**47,515**	**66,936**	**65,107**	**184,034**
Fibreoptic colonoscopy with/without excision	0905, 0911	63	7,553	14,368	14,954	36,938	46	9,299	14,280	12,772	36,397	109	16,852	28,648	27,726	73,335
Appendicectomy	0926	1,127	1,740	333	127	3,327	844	1,713	327	87	2,971	1,971	3,453	660	214	6,298
Procedures for haemorrhoids	0941	~	824	941	*	2,179	~	911	773	*	2,115	~	*	1,714	822	4,294
Cholecystectomy	0965	~	*	546	411	1,252	*	*	1,199	469	3,141	21	1,747	1,745	880	4,393
Division of abdominal adhesions	0986	10	25	38	66	139	10	186	112	98	406	20	211	150	164	545
Repair of inguinal and obstructed hernia	0990, 0997	349	671	1,246	1,253	3,519	84	72	114	159	429	433	743	1,360	1,412	3,948
Panendoscopy with/without excision	1005–1008	469	7,232	11,380	11,595	30,676	350	9,431	12,622	11,994	34,397	819	16,663	24,002	23,589	65,073
Procedures on urinary system	**1040–1129**	**629**	**18,000**	**41,905**	**75,960**	**136,494**	**1,001**	**13,434**	**26,186**	**39,341**	**79,962**	**1,630**	**31,434**	**68,091**	**115,301**	**216,456**
Examination procedures on bladder (includes cystoscopy)	1089	39	1,145	3,359	6,755	11,298	31	1,421	2,478	2,887	6,817	70	2,566	5,837	9,642	18,115
Procedures on male genital organs	**1160–1203**	**2,874**	**1,324**	**2,785**	**2,649**	**9,632**	**0**	**0**	**0**	**0**	**0**	**2,874**	**1,324**	**2,785**	**2,649**	**9,632**
Prostatectomy	1165–1167	0	~	*	665	1,151	0	0	0	0	0	0	~	*	665	1,151
Circumcision	30653-00[1196]	1,304	440	243	157	2,144	0	0	0	0	0	1,304	440	243	157	2,144
Gynaecological procedures	**1240–1299**	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	**72**	**14,839**	**11,140**	**2,981**	**29,032**
Oophorectomy and salpingo-oophorectomy	1243, 1252	0	0	0	0	0	8	349	418	119	894	8	349	418	119	894
Salpingectomy	1251	0	0	0	0	0	~	221	41	~	272	~	221	41	~	272
Examination procedures on uterus	1259	0	0	0	0	0	0	2,384	3,554	719	6,657	0	2,384	3,554	719	6,657
Curettage and evacuation of uterus	1265	0	0	0	0	0	~	5,803	2,443	*	8,641	~	5,803	2,443	*	8,641
Hysterectomy	1268–1269	0	0	0	0	0	~	*	1,243	517	2,227	~	*	1,243	517	2,227
Repair of prolapse of uterus, pelvic floor or enterocele	1283	0	0	0	0	0	0	80	360	307	747	0	80	360	307	747
Obstetric procedures	**1330–1347**	**0**	**0**	**0**	**0**	**0**	**~**	**55,671**	*****	**0**	**56,022**	**~**	**55,671**	*****	**0**	**56,022**
Analgesia and anaesthesia during labour and delivery procedure	1333	0	0	0	0	0	0	2,406	7	0	2,413	0	2,406	7	0	2,413

TABLE 3.14 Total Discharges: Principal Procedure by Sex and Age Group (N) (contd.)

Principal Procedure	Procedure Block	Male					Female					Total Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Medical or surgical induction of labour	1334	0	0	0	0	0	~	5,174	*	0	5,198	~	5,174	*	0	5,198
Medical or surgical augmentation of labour	1335	0	0	0	0	0	0	*	~	0	2,075	0	*	~	0	2,075
Forceps delivery	1337	0	0	0	0	0	0	*	~	0	1,993	0	*	~	0	1,993
Vacuum extraction	1338	0	0	0	0	0	~	5,931	*	0	5,951	~	5,931	*	0	5,951
Breech delivery and extraction	1339	0	0	0	0	0	0	73	0	0	73	0	73	0	0	73
Caesarean section	1340	0	0	0	0	0	0	19,706	248	0	19,954	0	19,706	248	0	19,954
Episiotomy associated with delivery	90472-00[1343]	0	0	0	0	0	0	*	~	0	2,958	0	*	~	0	2,958
Postpartum suture	1344	0	0	0	0	0	~	13,473	*	0	13,496	~	13,473	*	0	13,496
Procedures on musculoskeletal system	**1360–1580**	**3,655**	**9,834**	**10,021**	**9,177**	**32,687**	**3,066**	**6,138**	**12,613**	**15,316**	**37,133**	**6,721**	**15,972**	**22,634**	**24,493**	**69,820**
Arthroplasty of hip	1489	~	*	768	1,544	2,412	~	*	761	2,299	3,141	~	*	1,529	3,843	5,553
Arthroplasty of knee	1518–1519	0	17	363	626	1,006	0	18	432	1,034	1,484	0	35	795	1,660	2,490
Dermatological and plastic procedures	**1600–1718**	**3,105**	**15,512**	**12,752**	**16,331**	**47,700**	**2,615**	**14,967**	**13,277**	**13,271**	**44,130**	**5,720**	**30,479**	**26,029**	**29,602**	**91,830**
Excision of lesion(s) of skin and subcutaneous tissue	1620	456	4,347	5,546	8,779	19,128	432	5,651	5,760	6,584	18,427	888	9,998	11,306	15,363	37,555
Other debridement of skin and subcutaneous tissue	1628	198	701	420	415	1,734	107	268	258	286	919	305	969	678	701	2,653
Skin graft	1640–1650	16	79	53	76	224	15	40	29	64	148	31	119	82	140	372
Procedures on breast	**1740–1759**	**~**	**79**	**45**	*****	**165**	*****	**3,715**	**4,782**	*****	**10,620**	**13**	**3,794**	**4,827**	**2,151**	**10,785**
Breast biopsy	1743–1744	~	27	26	*	79	~	2,672	3,329	*	7,605	6	2,699	3,355	1,624	7,684
Mastectomy	1747–1748	0	27	6	10	43	0	278	510	320	1,108	0	305	516	330	1,151
Radiation oncology procedures	**1786–1799**	**235**	**3,131**	**18,691**	**36,024**	**58,081**	**299**	**7,352**	**28,260**	**21,242**	**57,153**	**534**	**10,483**	**46,951**	**57,266**	**115,234**
Non-invasive, cognitive and other interventions, not elsewhere classified[a]	**1820–1923**	**15,233**	**31,213**	**49,337**	**89,224**	**185,007**	**11,832**	**43,057**	**59,387**	**85,214**	**199,490**	**27,065**	**74,270**	**108,724**	**174,438**	**384,497**
Administration of blood and blood products	1893	1,753	1,916	3,299	8,828	15,796	1,221	2,701	3,660	6,612	14,194	2,974	4,617	6,959	15,440	29,990
Conduction anaesthesia	1909	0	~	10	~	15	~	15	14	~	33	~	16	24	*	48
Cerebral anaesthesia	1910	19	20	16	24	79	36	29	23	18	106	55	49	39	42	185
Imaging services[b]	**1940–2016**	**1,906**	**1,331**	**3,022**	**4,332**	**10,591**	**1,806**	**1,362**	**2,508**	**3,628**	**9,304**	**3,712**	**2,693**	**5,530**	**7,960**	**19,895**
Computerised tomography scan	1952–1966	237	380	994	1,528	3,139	184	278	896	985	2,343	421	658	1,890	2,513	5,482
Magnetic resonance imaging	2015	1,265	104	65	66	1,500	1,113	130	75	76	1,394	2,378	234	140	142	2,894

Notes:
~ Denotes five or fewer discharges reported to HIPE.
* Further suppression required to prevent disclosure of five or fewer discharges.
ǂ Denotes that no breakdown is provided.
a Procedure block 1923 was added in 2019. From 1st January 2019 a procedure code is available in Ireland to indicate that a robotic assisted intervention has been performed (96233-00 [1923] Robotic Assisted Intervention). Please note that this code is not listed in the 8th Edition of the classification (e-book or hard copy of classification). It cannot be entered as the principal procedure.
b See Appendix V for information on updated Australian Coding Standard (ACS) 0042 *Procedures normally not coded* in ICD-10-AM 8th edition.

TABLE 3.15 In-Patient Discharges: Mean and Median Length of Stay (Days) by Principal Procedure, Sex and Age Group[a]

Principal Procedure	Procedure Block	Male					Female					Total In-Patient Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Total In-Patient Discharges	**Mean**	**3.2**	**3.8**	**6.0**	**9.4**	**6.5**	**3.3**	**2.8**	**5.0**	**9.4**	**5.2**	**3.3**	**3.0**	**5.5**	**9.4**	**5.7**
	Median	**1**	**1**	**2**	**4**	**2**	**1**	**2**	**2**	**4**	**2**	**1**	**2**	**2**	**4**	**2**
All Principal Procedures	0001–2016	5.2	5.8	8.7	12.5	9.6	5.5	4.0	7.6	12.8	7.7	5.3	4.4	8.2	12.6	8.5
		2	2	4	7	4	2	3	4	7	4	2	3	4	7	4
Procedures on nervous system	**0001–0086**	**6.1**	**7.2**	**11.4**	**14.6**	**9.8**	**6.5**	**5.7**	**9.9**	**14.8**	**8.8**	**6.3**	**6.3**	**10.6**	**14.7**	**9.3**
		4	**3**	**5**	**7**	**4**	**4**	**3**	**5**	**7**	**4**	**4**	**3**	**5**	**7**	**4**
Lumbar puncture	0030	5.1	6.5	12.3	21.9	10.1	5.3	4.9	10.8	20.0	8.5	5.2	5.5	11.4	21.0	9.2
		4	4	7	14	5	4	3	6	12	4	4	3	6	13	4
Procedures on endocrine system	**0110–0129**	**2.9**	**5.3**	**5.1**	**10.9**	**6.6**	**5.4**	**3.6**	**4.3**	**4.2**	**4.1**	**3.9**	**4.0**	**4.5**	**6.3**	**4.8**
		1	**2**	**2**	**4**	**3**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
Procedures on eye and adnexa	**0160–0256**	**2.2**	**2.9**	**2.4**	**3.3**	**2.8**	**1.9**	**2.1**	**2.5**	**2.8**	**2.6**	**2.1**	**2.6**	**2.4**	**3.1**	**2.7**
		1	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Lens extraction	0195–0202	1.3	1.2	2.3	3.2	2.7	1.1	1.7	2.1	1.8	1.8	1.3	1.4	2.2	2.4	2.2
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Procedures on ear and mastoid process	**0300–0333**	**1.4**	**6.1**	**2.7**	**6.6**	**3.8**	**1.4**	**2.1**	**2.8**	**11.6**	**2.9**	**1.4**	**4.5**	**2.8**	**8.5**	**3.4**
		1	**1**	**1**	**3**	**1**	**1**	**1**	**1**	**2**	**1**	**1**	**1**	**1**	**3**	**1**
Myringotomy	0309	1.3	26.5	^	4.1	3.7	1.4	^	2.9	^	1.7	1.3	20.3	2.4	6.0	2.8
		1	1	^	1	1	1	^	2	^	1	1	1	1	1	1
Procedures on nose, mouth and pharynx	**0370–0422**	**1.2**	**1.9**	**4.3**	**6.7**	**2.7**	**1.2**	**1.6**	**3.6**	**8.7**	**2.5**	**1.2**	**1.7**	**4.0**	**7.5**	**2.6**
		1	**1**	**1**	**3**	**1**	**1**	**1**	**1**	**3**	**1**	**1**	**1**	**1**	**3**	**1**
Tonsillectomy or adenoidectomy	0412	1.2	1.3	1.3	2.1	1.2	1.1	1.2	2.1	6.5	1.2	1.1	1.2	1.7	3.6	1.2
		1	1	1	1	1	1	1	1	2	1	1	1	1	1	1
Dental services	**0450–0490**	**2.1**	**1.6**	**9.2**	**5.0**	**3.2**	**2.0**	**2.0**	**4.8**	**61.4**	**5.6**	**2.0**	**1.8**	**7.1**	**26.5**	**4.4**
		1	**1**	**1**	**2**	**1**	**1**	**1**	**2**	**3**	**1**	**1**	**1**	**1**	**2**	**1**
Procedures on respiratory system	**0520–0571**	13.9	15.4	15.8	17.8	16.2	15.7	16.1	15.4	16.6	16.1	14.6	15.6	15.6	17.2	16.1
		6	6	8	10	8	7	8	8	10	8	7	7	8	10	8
Bronchoscopy with/without biopsy	0543–0544, 41892-1 [0545]	17.5	15.4	12.5	16.1	15.0	29.7	12.3	12.0	16.7	15.4	23.0	14.2	12.3	16.3	15.1
		6	9	9	11	10	9	8	8	11	9	7	9	8	11	9
Procedures on cardiovascular system	**0600–0777**	**11.1**	**6.2**	**6.3**	**8.5**	**7.6**	**14.0**	**6.2**	**5.6**	**8.7**	**7.9**	**12.4**	**6.2**	**6.1**	**8.6**	**7.7**
		5	**2**	**3**	**4**	**3**	**6**	**2**	**2**	**4**	**3**	**5**	**2**	**3**	**4**	**3**
Coronary angiography	0668	4.7	4.3	4.6	6.3	5.5	6.6	6.8	4.2	6.3	5.6	5.5	5.0	4.5	6.3	5.5
		1	2	2	3	3	1	2	2	3	3	1	2	2	3	3
Transluminal coronary angioplasty with/without stenting	0670–0671	^	3.3	3.3	4.2	3.7	-	10.0	3.0	4.8	4.3	^	4.5	3.3	4.3	3.9
		^	3	2	2	2	-	4	2	2	2	^	3	2	2	2
CABG	0672–0679	-	14.6	14.1	17.3	15.9	-	^	19.0	18.2	18.4	-	14.0	14.7	17.4	16.2
		-	10	10	12	11	-	^	12	12	12	-	9	11	12	11
Leg varicose vein ligation	0727–0728	-	1.0	1.0	1.8	1.2	-	1.0	1.3	2.1	1.4	-	1.0	1.2	2.0	1.4
		-	1	1	1	1	-	1	1	1	1	-	1	1	1	1
Procedures on blood and blood-forming organs	**0800–0817**	**16.1**	**18.7**	**16.2**	**18.9**	**17.7**	**15.4**	**13.1**	**12.3**	**15.0**	**13.6**	**15.8**	**16.0**	**14.4**	**17.3**	**15.9**
		10	**9**	**9**	**11**	**9**	**7**	**4**	**5**	**8**	**6**	**8**	**7**	**7**	**10**	**8**
Procedures on digestive system	**0850–1011**	6.1	5.7	9.4	13.1	9.8	5.3	4.8	9.0	14.1	9.5	5.8	5.2	9.2	13.6	9.7
		2	3	5	7	4	3	2	5	8	4	2	2	5	7	4
Fibreoptic colonoscopy with/without excision	0905, 0911	4.0	8.5	8.7	12.4	10.7	6.1	6.5	7.6	11.4	9.3	4.8	7.5	8.2	12.0	10.1
		3	5	5	6	6	2	5	5	7	6	2	5	5	7	6
Appendicectomy	0926	3.0	2.8	3.7	6.6	3.1	3.0	2.7	3.8	5.7	3.0	3.0	2.8	3.8	6.3	3.1
		2	2	3	4	2	2	2	3	4	2	2	2	3	4	2
Procedures for haemorrhoids	0941	-	2.2	2.6	4.2	2.8	^	1.4	2.1	4.5	2.6	^	1.7	2.4	4.4	2.7
		-	1	1	2	1	^	1	1	3	1	^	1	1	3	1

TABLE 3.15 In-Patient Discharges: Mean and Median Length of Stay (Days) by Principal Procedure, Sex and Age Group[a] (contd.)

Principal Procedure	Procedure Block	Male					Female					Total In-Patient Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Cholecystectomy	0965	^	3.5	3.7	5.5	4.4	2.9	2.3	2.8	5.3	3.1	2.9	2.5	3.1	5.4	3.5
		^	2	2	3	2	2	1	1	2	1	3	1	1	2	1
Division of abdominal adhesions	0986	9.0	7.7	11.6	14.4	12.3	10.8	4.0	10.1	16.3	9.8	9.9	4.6	10.5	15.5	10.6
		7	5	7	11	8	6	2	7	13	6	7	2	7	12	7
Repair of inguinal and obstructed hernia	0990, 0997	4.7	1.7	2.0	3.2	2.7	1.5	2.5	5.3	10.1	6.9	4.3	1.8	2.5	4.2	3.4
		2	1	1	1	1	1	1	3	5	2	2	1	1	1	1
Panendoscopy with/without excision	1005–1008	4.7	5.7	9.3	14.0	11.2	6.0	6.8	9.1	14.4	11.7	5.2	6.3	9.3	14.2	11.4
		2	3	5	8	6	3	3	5	8	6	2	3	5	8	6
Procedures on urinary system	**1040–1129**	**5.2**	**5.1**	**6.8**	**10.5**	**8.4**	**7.6**	**5.1**	**6.6**	**11.2**	**8.2**	**6.2**	**5.1**	**6.7**	**10.7**	**8.3**
		3	**2**	**3**	**5**	**4**	**3**	**3**	**4**	**6**	**4**	**3**	**3**	**3**	**5**	**4**
Examination procedures on bladder (includes cystoscopy)	1089	^	3.3	9.8	11.1	10.3	^	5.9	3.9	9.6	7.2	4.4	4.7	7.7	10.7	9.4
		^	2	2	6	5	^	2	1	4	2	3	2	2	5	4
Procedures on male genital organs	**1160–1203**	**1.2**	**2.2**	**3.7**	**6.0**	**3.6**	**-**	**-**	**-**	**-**	**-**	**1.2**	**2.2**	**3.7**	**6.0**	**3.6**
		1	**1**	**3**	**4**	**2**	**-**	**-**	**-**	**-**	**-**	**1**	**1**	**3**	**4**	**2**
Prostatectomy	1165–1167	-	^	3.9	5.5	4.8	-	-	-	-	-	-	^	3.9	5.5	4.8
		-	^	3	4	3	-	-	-	-	-	-	^	3	4	3
Circumcision	30653-00 [1196]	1.1	1.5	1.6	2.3	1.5	-	-	-	-	-	1.1	1.5	1.6	2.3	1.5
		1	1	1	1	1	-	-	-	-	-	1	1	1	1	1
Gynaecological procedures	**1240–1299**	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	**3.0**	**2.0**	**3.7**	**5.9**	**3.0**
		ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	ǂ	**3**	**1**	**3**	**3**	**2**
Oophorectomy and salpingo-oophorectomy	1243, 1252	-	-	-	-	-	3.4	3.5	2.8	4.5	3.3	3.4	3.5	2.8	4.5	3.3
		-	-	-	-	-	4	2	1	3	2	4	2	1	3	2
Salpingectomy	1251	-	-	-	-	-	^	2.3	1.9	^	2.2	^	2.3	1.9	^	2.2
		-	-	-	-	-	^	1	1	^	1	^	1	1	^	1
Examination procedures on uterus	1259	-	-	-	-	-	-	1.7	2.5	6.2	3.2	-	1.7	2.5	6.2	3.2
		-	-	-	-	-	-	1	1	2	1	-	1	1	2	1
Curettage and evacuation of uterus	1265	-	-	-	-	-	-	1.1	1.8	9.9	1.4	-	1.1	1.8	9.9	1.4
		-	-	-	-	-	-	1	1	1	1	-	1	1	1	1
Hysterectomy	1268–1269	-	-	-	-	-	^	4.2	4.8	6.3	5.1	^	4.2	4.8	6.3	5.1
		-	-	-	-	-	^	4	4	4	4	^	4	4	4	4
Repair of prolapse of uterus, pelvic floor or enterocele	1283	-	-	-	-	-	-	2.8	2.8	3.4	3.1	-	2.8	2.8	3.4	3.1
		-	-	-	-	-	-	3	3	3	3	-	3	3	3	3
Obstetric procedures	**1330–1347**	**-**	**-**	**-**	**-**	**-**	**^**	**3.6**	**6.0**	**-**	**3.7**	**^**	**3.6**	**6.0**	**-**	**3.7**
		-	**-**	**-**	**-**	**-**	**^**	**3**	**4**	**-**	**3**	**^**	**3**	**4**	**-**	**3**
Analgesia and anaesthesia during labour and delivery procedure	1333	-	-	-	-	-	-	2.8	5.3	-	2.8	-	2.8	5.3	-	2.8
		-	-	-	-	-	-	2	3	-	2	-	2	3	-	2
Medical or surgical induction of labour	1334	-	-	-	-	-	^	3.0	3.0	-	3.0	^	3.0	3.0	-	3.0
		-	-	-	-	-	^	3	2	-	3	^	3	2	-	3
Medical or surgical augmentation of labour	1335	-	-	-	-	-	-	2.3	^	-	2.3	-	2.3	^	-	2.3
		-	-	-	-	-	-	2	^	-	2	-	2	^	-	2
Forceps delivery	1337	-	-	-	-	-	-	3.6	^	-	3.6	-	3.6	^	-	3.6
		-	-	-	-	-	-	3	^	-	3	-	3	^	-	3
Vacuum extraction	1338	-	-	-	-	-	^	3.4	3.2	-	3.4	^	3.4	3.2	-	3.4
		-	-	-	-	-	^	3	3	-	3	^	3	3	-	3
Breech delivery and extraction	1339	-	-	-	-	-	-	6.1	-	-	6.1	-	6.1	-	-	6.1
		-	-	-	-	-	-	3	-	-	3	-	3	-	-	3

TABLE 3.15 In-Patient Discharges: Mean and Median Length of Stay (Days) by Principal Procedure, Sex and Age Group[a] (contd.)

Principal Procedure	Procedure Block	Male					Female					Total In-Patient Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Caesarean section	1340	-	-	-	-	-	-	5.1	7.1	-	5.1	-	5.1	7.1	-	5.1
		-	-	-	-	-	-	4	5	-	4	-	4	5	-	4
Episiotomy associated with delivery	90472-00	-	-	-	-	-	-	3.0	^	-	3.0	-	3.0	^	-	3.0
	[1343]	-	-	-	-	-	-	3	^	-	3	-	3	^	-	3
Postpartum suture	1344	-	-	-	-	-	^	2.5	3.1	-	2.5	^	2.5	3.1	-	2.5
		-	-	-	-	-	^	2	3	-	2	^	2	3	-	2
Procedures on musculoskeletal system	**1360–1580**	**1.9**	**3.6**	**7.0**	**14.6**	**7.5**	**2.0**	**3.9**	**5.2**	**11.9**	**7.9**	**2.0**	**3.7**	**6.1**	**12.9**	**7.7**
		1	**1**	**3**	**6**	**2**	**1**	**2**	**3**	**6**	**3**	**1**	**1**	**3**	**6**	**3**
Arthroplasty of hip	1489	^	3.8	4.9	12.5	9.7	^	4.8	5.7	11.9	10.3	^	4.3	5.3	12.2	10.0
		^	3	3	6	4	^	4	4	7	6	^	3	4	6	5
Arthroplasty of knee	1518–1519	-	4.6	4.1	5.5	5.0	-	3.4	4.3	5.6	5.2	-	4.0	4.2	5.6	5.1
		-	4	4	4	4	-	4	4	4	4	-	4	4	4	4
Dermatological and plastic procedures	**1600–1718**	**2.6**	**3.2**	**6.7**	**12.2**	**5.6**	**2.7**	**4.1**	**5.4**	**12.8**	**6.0**	**2.7**	**3.5**	**6.2**	**12.4**	**5.8**
		1	**1**	**2**	**3**	**1**	**1**	**2**	**2**	**4**	**2**	**1**	**1**	**2**	**4**	**2**
Excision of lesion(s) of skin and subcutaneous tissue	1620	1.0	3.2	3.0	6.7	5.3	0.9	1.8	3.0	7.5	5.2	0.9	2.4	3.0	7.0	5.2
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Other debridement of skin and subcutaneous tissue	1628	1.9	3.7	10.6	20.9	9.1	1.8	10.7	9.8	17.6	11.8	1.9	5.7	10.3	19.4	10.0
		1	1	3	8	2	1	2	3	10	4	1	2	3	9	2
Skin graft	1640–1650	8.0	9.3	10.2	12.5	10.3	2.7	13.1	11.4	11.8	11.1	5.5	10.6	10.6	12.1	10.6
		5	6	9	8	7	2	8	6	8	6	4	6	7	8	7
Procedures on breast	**1740–1759**	**^**	**2.3**	**1.9**	**13.7**	**4.8**	**^**	**2.7**	**2.7**	**3.5**	**2.9**	**1.6**	**2.7**	**2.7**	**3.6**	**3.0**
		^	**2**	**1**	**2**	**2**	**^**	**2**	**1**	**2**	**2**	**2**	**2**	**1**	**2**	**2**
Breast biopsy	1743–	^	^	^	^	1.6	^	1.3	1.6	2.8	2.0	^	1.3	1.6	2.8	2.0
	1744	^	^	^	^	1	^	1	1	1	1	^	1	1	1	1
Mastectomy	1747–	-	2.6	3.8	16.9	7.8	-	3.7	3.9	4.4	4.0	-	3.7	3.9	4.8	4.1
	1748	-	3	4	3	3	-	3	3	3	3	-	3	3	3	3
Radiation oncology procedures	**1786–1799**	**^**	**13.5**	**21.8**	**21.3**	**20.8**	**^**	**12.0**	**17.0**	**20.1**	**17.6**	**^**	**12.5**	**19.0**	**20.7**	**19.1**
		^	**6**	**14**	**17**	**14**	**^**	**5**	**13**	**16**	**13**	**^**	**6**	**14**	**16**	**14**
Non-invasive, cognitive and other interventions, not elsewhere classified[b]	**1820–1923**	**4.6**	**7.1**	**9.3**	**12.6**	**10.4**	**5.0**	**5.2**	**8.8**	**13.3**	**10.5**	**4.8**	**5.9**	**9.0**	**13.0**	**10.5**
		3	**3**	**5**	**7**	**6**	**3**	**2**	**5**	**7**	**6**	**3**	**3**	**5**	**7**	**6**
Administration of blood and blood products	1893	3.1	7.0	10.1	11.5	10.3	4.2	6.0	8.4	12.0	9.8	3.6	6.3	9.2	11.7	10.0
		2	4	5	7	6	2	3	4	6	5	2	3	5	7	5
Conduction anaesthesia	1909	-	-	^	^	23.0	-	2.3	^	^	3.9	-	2.3	7.4	24.2	9.5
		-	-	^	^	3	-	3	^	^	3	-	3	6	2	3
Cerebral anaesthesia	1910	8.1	4.9	13.5	8.2	7.8	^	3.4	7.5	16.0	9.1	6.9	4.3	10.5	11.8	8.4
		5	4	7	2	2	^	2	2	3	2	5	2	4	2	2
Imaging services[c]	**1940–2016**	**6.1**	**8.2**	**11.2**	**14.4**	**11.5**	**5.8**	**6.9**	**9.9**	**12.1**	**9.5**	**5.9**	**7.6**	**10.7**	**13.4**	**10.6**
		2	**5**	**6**	**8**	**6**	**2**	**3**	**5**	**8**	**5**	**2**	**4**	**5**	**8**	**5**
Computerised tomography scan	1952-1966	7.1	4.0	8.6	4.4	5.9	4.4	1.5	2.3	3.0	2.9	5.7	2.4	5.7	3.8	4.4
		3	1	1	1	1	1	1	1	1	1	2	1	1	1	1
Magnetic resonance imaging	2015	6.7	5.5	16.9	19.3	7.9	6.9	1.3	2.1	9.4	6.1	6.8	3.0	9.5	13.9	7.0
		2	6	1	10	2	3	1	1	6	2	2	1	1	9	2

Notes:
^ Denotes that length of stay calculation was based on five or fewer discharges.
ǂ Denotes that no breakdown is provided.
- Length of stay cannot be calculated as no in-patients are reported.
a Includes length of stay for total in-patients (includes sameday and overnight in-patients). Excludes day patients.
b Procedure block 1923 was added in 2019. From 1st January 2019 a procedure code is available in Ireland to indicate that a robotic assisted intervention has been performed (96233-00 [1923] Robotic Assisted Intervention). Please note that this code is not listed in the 8th Edition of the classification (e-book or hard copy of classification). It cannot be entered as the principal procedure.
c See Appendix V for information on updated Australian Coding Standard (ACS) 0042 *Procedures normally not coded* in ICD-10-AM 8th edition.

TABLE 3.16 Total Discharges: All-Listed Procedures by Sex and Age Group (N)

All Procedures	Procedure Block	Male					Female					Total Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Total Discharges	-	**69,199**	**150,183**	**248,928**	**369,606**	**837,916**	**55,517**	**306,890**	**259,819**	**310,880**	**933,106**	**124,716**	**457,073**	**508,747**	**680,486**	**1,771,022**
All Procedures	0001–2016	92,994	203,270	360,779	560,246	1,217,289	71,432	423,174	380,338	481,846	1,356,790	164,426	626,444	741,117	1,042,092	2,574,079
Procedures on nervous system	**0001–0086**	**1,786**	**4,473**	**6,503**	**4,841**	**17,603**	**1,286**	**6,149**	**9,199**	**7,826**	**24,460**	**3,072**	**10,622**	**15,702**	**12,667**	**42,063**
Lumbar puncture	0030	1,418	970	775	681	3,844	956	1,557	897	588	3,998	2,374	2,527	1,672	1,269	7,842
Procedures on endocrine system	**0110–0129**	**41**	**148**	**234**	**202**	**625**	**25**	**478**	**666**	**391**	**1,560**	**66**	**626**	**900**	**593**	**2,185**
Procedures on eye and adnexa	**0160–0256**	**825**	**2,278**	**8,023**	**20,773**	**31,899**	**686**	**1,916**	**5,440**	**26,220**	**34,262**	**1,511**	**4,194**	**13,463**	**46,993**	**66,161**
Lens extraction	0195–0202	34	149	1,149	4,955	6,287	26	140	1,179	6,715	8,060	60	289	2,328	11,670	14,347
Procedures on ear and mastoid process	**0300–0333**	**2,421**	**1,312**	**1,030**	**930**	**5,693**	**1,808**	**1,282**	**1,021**	**740**	**4,851**	**4,229**	**2,594**	**2,051**	**1,670**	**10,544**
Myringotomy	0309	1,388	140	89	66	1,683	1,006	135	96	53	1,290	2,394	275	185	119	2,973
Procedures on nose, mouth and pharynx	**0370–0422**	**2,611**	**3,879**	**3,678**	**2,557**	**12,725**	**2,115**	**4,357**	**3,229**	**2,042**	**11,743**	**4,726**	**8,236**	**6,907**	**4,599**	**24,468**
Tonsillectomy or adenoidectomy	0412	1,410	380	48	26	1,864	1,248	913	49	15	2,225	2,658	1,293	97	41	4,089
Dental services	**0450–0490**	**4,058**	**1,949**	**600**	**240**	**6,847**	**3,418**	**1,776**	**498**	**204**	**5,896**	**7,476**	**3,725**	**1,098**	**444**	**12,743**
Procedures on respiratory system	**0520–0571**	**3,777**	**3,190**	**6,941**	**10,546**	**24,454**	**2,744**	**2,651**	**5,497**	**8,196**	**19,088**	**6,521**	**5,841**	**12,438**	**18,742**	**43,542**
Bronchoscopy with/without biopsy	0543–0544, 41892-01[0545]	254	900	2,223	3,200	6,577	198	809	2,017	2,606	5,630	452	1,709	4,240	5,806	12,207
Procedures on cardiovascular system	**0600–0777**	**3,129**	**6,611**	**22,405**	**22,688**	**54,833**	**2,573**	**3,883**	**10,678**	**12,344**	**29,478**	**5,702**	**10,494**	**33,083**	**35,032**	**84,311**
Coronary angiography	0668	267	790	6,191	7,212	14,460	250	310	2,719	4,161	7,440	517	1,100	8,910	11,373	21,900
Transluminal coronary angioplasty with/without stenting	0670–0671	~	*	2,119	2,389	4,700	0	35	487	964	1,486	~	*	2,606	3,353	6,186
CABG	0672–0679	~	*	717	952	1,694	0	~	*	184	271	~	25	*	1,136	1,965
Leg varicose vein ligation	0727–0728	0	336	668	309	1,313	0	858	1,001	462	2,321	0	1,194	1,669	771	3,634
Procedures on blood and blood-forming organs	**0800–0817**	**379**	**690**	**1,753**	**2,406**	**5,228**	**270**	**1,285**	**3,089**	**2,738**	**7,382**	**649**	**1,975**	**4,842**	**5,144**	**12,610**
Procedures on digestive system	**0850–1011**	**3,247**	**25,800**	**42,793**	**45,566**	**117,406**	**2,108**	**33,672**	**42,417**	**40,004**	**118,201**	**5,355**	**59,472**	**85,210**	**85,570**	**235,607**
Fibreoptic colonoscopy with/without excision	0905, 0911	195	9,413	17,806	18,956	46,370	109	11,744	17,913	16,285	46,051	304	21,157	35,719	35,241	92,421
Appendicectomy	0926	1,149	1,761	357	158	3,425	864	1,788	439	150	3,241	2,013	3,549	796	308	6,666
Procedures for haemorrhoids	0941	~	1,355	1,619	*	3,656	~	1,437	1,347	*	3,553	6	2,792	2,966	1,445	7,209
Cholecystectomy	0965	~	300	632	*	1,436	*	1,479	1,254	*	3,262	21	1,779	1,886	1,012	4,698
Division of abdominal adhesions	0986	60	240	377	433	1,110	49	1,485	756	526	2,816	109	1,725	1,133	959	3,926
Repair of inguinal and obstructed hernia	0990, 0997	373	675	1,259	1,283	3,590	86	75	116	170	447	459	750	1,375	1,453	4,037
Panendoscopy with/without excision	1005–1008	517	8,074	13,302	14,532	36,425	379	10,527	14,472	14,420	39,798	896	18,601	27,774	28,952	76,223
Procedures on urinary system	**1040–1129**	**737**	**19,018**	**44,024**	**79,315**	**143,094**	**1,097**	**14,309**	**27,688**	**40,764**	**83,858**	**1,834**	**33,327**	**71,712**	**120,079**	**226,952**
Examination procedures on bladder (includes cystoscopy)	1089	52	1,198	3,499	7,128	11,877	48	1,519	2,727	3,121	7,415	100	2,717	6,226	10,249	19,292
Procedures on male genital organs	**1160–1203**	**3,235**	**1,497**	**2,992**	**2,913**	**10,637**	**0**	**0**	**0**	**0**	**0**	**3,235**	**1,497**	**2,992**	**2,913**	**10,637**
Prostatectomy	1165–1167	0	~	*	734	1,240	0	0	0	0	0	0	~	*	734	1,240
Circumcision	30653-00[1196]	1,348	447	255	168	2,218	0	0	0	0	0	1,348	447	255	168	2,218
Gynaecological procedures	**1240–1299**	†	†	†	†	†	†	†	†	†	†	**97**	**26,460**	**21,439**	**4,783**	**52,779**
Oophorectomy and salpingo-oophorectomy	1243, 1252	0	0	0	0	0	9	417	475	157	1,058	9	417	475	157	1,058
Salpingectomy	1251	0	0	0	0	0	8	1,080	79	7	1,174	8	1,080	79	7	1,174
Examination procedures on uterus	1259	0	0	0	0	0	0	4,929	6,377	1,122	12,428	0	4,929	6,377	1,122	12,428
Curettage and evacuation of uterus	1265	0	0	0	0	0	~	8,450	5,751	*	15,157	~	8,450	5,751	*	15,157
Hysterectomy	1268–1269	0	0	0	0	0	~	497	1,301	*	2,356	~	497	1,301	*	2,356
Repair of prolapse of uterus, pelvic floor or enterocele	1283	0	0	0	0	0	0	118	605	562	1,285	0	118	605	562	1,285

TABLE 3.16 Total Discharges: All-Listed Procedures by Sex and Age Group (N) (contd.)

All Procedures	Procedure Block	Male					Female					Total Discharges				
		< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total	< 15	15–44	45–64	≥65	Total
Obstetric procedures	**1330–1347**	0	0	0	0	0	*	120,052	557	~	120,620	*	120,052	557	~	120,620
Analgesia and anaesthesia during labour and delivery procedure	1333	0	0	0	0	0	~	23,931	71	~	24,005	~	23,931	71	~	24,005
Medical or surgical induction of labour	1334	0	0	0	0	0	~	19,809	*	0	19,909	~	19,809	*	0	19,909
Medical or surgical augmentation of labour	1335	0	0	0	0	0	~	9,242	*	0	9,259	~	9,242	*	0	9,259
Forceps delivery	1337	0	0	0	0	0	0	*	~	0	2,316	0	*	~	0	2,316
Vacuum extraction	1338	0	0	0	0	0	~	7,008	*	0	7,030	~	7,008	*	0	7,030
Breech delivery and extraction	1339	0	0	0	0	0	0	116	0	0	116	0	116	0	0	116
Caesarean section	1340	0	0	0	0	0	0	19,768	249	0	20,017	0	19,768	249	0	20,017
Episiotomy associated with delivery	90472-00[1343]	0	0	0	0	0	~	9,966	*	0	9,988	~	9,966	*	0	9,988
Postpartum suture	1344	0	0	0	0	0	~	18,317	*	0	18,358	~	18,317	*	0	18,358
Procedures on musculoskeletal system	**1360–1579**	4,833	13,167	13,322	11,753	43,075	4,649	8,565	16,993	19,442	49,649	9,482	21,732	30,315	31,195	92,724
Arthroplasty of hip	1489	**~**	*****	**772**	**1,567**	**2,440**	**~**	*****	**763**	**2,330**	**3,175**	**~**	*****	**1,535**	**3,897**	**5,615**
Arthroplasty of knee	1518–1519	0	17	365	628	1,010	0	18	432	1,036	1,486	0	35	797	1,664	2,496
Dermatological and plastic procedures	**1600–1718**	4,702	19,041	16,914	23,416	64,073	3,641	18,976	16,665	18,208	57,490	8,343	38,017	33,579	41,624	121,563
Excision of lesion(s) of skin and subcutaneous tissue	1620	**513**	**5,433**	**7,142**	**11,483**	**24,571**	**460**	**7,080**	**7,241**	**8,312**	**23,093**	**973**	**12,513**	**14,383**	**19,795**	**47,664**
Other debridement of skin and subcutaneous tissue	1628	499	1,795	1,350	1,201	4,845	260	1,909	730	1,041	3,940	759	3,704	2,080	2,242	8,785
Skin graft	1640–1650	53	199	280	803	1,335	41	112	181	564	898	94	311	461	1,367	2,233
Procedures on breast	**1740–1759**	**~**	**100**	**47**	*****	**190**	*****	**4,266**	**5,710**	*****	**12,388**	**14**	**4,366**	**5,757**	**2,441**	**12,578**
Breast biopsy	1743–1744	~	30	26	*	83	~	2,737	3,474	*	7,898	6	2,767	3,500	1,708	7,981
Mastectomy	1747–1748	0	28	6	10	44	0	279	511	320	1,110	0	307	517	330	1,154
Radiation oncology procedures	**1786–1799**	**534**	**6,451**	**35,376**	**65,572**	**107,933**	**770**	**13,015**	**45,520**	**35,001**	**94,306**	**1,304**	**19,466**	**80,896**	**100,573**	**202,239**
Non-invasive, cognitive and other interventions, not elsewhere classified[a]	**1820–1923**	**54,273**	**91,811**	**149,146**	**259,124**	**554,354**	**41,806**	**158,023**	**160,353**	**254,858**	**615,040**	**96,079**	**249,834**	**309,499**	**513,982**	**1,169,394**
Administration of blood and blood products	1893	**3,050**	**3,180**	**6,708**	**15,235**	**28,173**	**2,273**	**5,613**	**6,149**	**11,495**	**25,530**	**5,323**	**8,793**	**12,857**	**26,730**	**53,703**
Conduction anaesthesia	1909	460	1,678	3,569	6,682	12,389	236	16,874	4,287	8,887	30,284	696	18,552	7,856	15,569	42,673
Cerebral anaesthesia	1910	20,907	37,084	52,062	55,633	165,686	14,565	52,776	60,442	52,380	180,163	35,472	89,860	112,504	108,013	345,849
Imaging services[b]	**1940–2016**	2,402	1,855	4,997	7,365	16,619	2,319	2,059	3,680	5,682	13,740	4,721	3,914	8,677	13,047	30,359
Computerised tomography scan	1952–1966	**271**	**483**	**1,223**	**1,885**	**3,862**	**223**	**353**	**1,180**	**1,302**	**3,058**	**494**	**836**	**2,403**	**3,187**	**6,920**
Magnetic resonance imaging	2015	1,530	128	86	84	1,828	1,389	156	95	94	1,734	2,919	284	181	178	3,562

Notes:
~ Denotes five or fewer discharges reported to HIPE.
* Further suppression required to prevent disclosure of five or fewer discharges.
ǂ Denotes that no breakdown is provided.
a Procedure block 1923 was added in 2019. From 1st January 2019 a procedure code is available in Ireland to indicate that a robotic assisted intervention has been performed (96233-00 [1923] Robotic Assisted Intervention). Please note that this code is not listed in the 8th Edition of the classification (e-book or hard copy of classification). It cannot be entered as the principal procedure.
b See Appendix V for information on updated Australian Coding Standard (ACS) 0042 *Procedures normally not coded* in ICD-10-AM 8th edition.

Case Mix Analysis 2019

SECTION Four

Table of Contents

4.1 INTRODUCTION

The analysis in this Section focuses on the case mix classification for all discharges reported to the Hospital In-Patient Enquiry (HIPE) scheme in 2019.[1] Hospital case mix may be defined as 'the proportion of cases of each disease and health problem treated in the hospital'.[2]

- Section 4.2 presents background to the applied case mix classification and details of the assignment of discharges to Major Diagnostic Categories (MDC) and Australian Refined Diagnosis Related Groups (AR-DRG). The AR-DRG Classification System has been updated from Version 6.0 to Version 8.0 for 2015 onwards.[3] The update to AR-DRG Version 8.0 included a revision of the complexity model used to assign AR-DRGs to episodes of care. In addition to this, it included a review of existing AR-DRGs, the removal of some AR-DRGs and the inclusion of new AR-DRGs. The naming convention for AR-DRGs was also updated. Due to the update in this classification, DRGs in this report are not comparable with those in reports prior to 2016.[4]
- Section 4.3 presents analysis of HIPE data by case mix for day patients and in-patients.

4.2 OVERVIEW

4.2.1 Case Mix Classification

- The Diagnosis Related Group (DRG) scheme enables the disaggregation of patients into homogeneous groups, which undergo similar treatment processes and incur similar levels of resource use.
- The data required for DRG assignment include principal and secondary diagnoses, procedures performed, age, sex, length of stay, admission weight, sameday status and patient destination on discharge from hospital.
- Since the inception of the national case mix programme, the DRG classification scheme has been adopted as the national standard for Ireland.[5] One of the key features of this methodology is the classification of cases into different levels of complexity within AR-DRGs. ICD-10-AM/ACHI/ACS 8th Edition is the coding system used for AR-DRG grouping since 2015.[6] As all of the data required for AR-DRG classification are available

---

1 For information on how the DRG system is used in Activity Based Funding see http://health.gov.ie/wp-content/uploads/2015/07/ABF_Implementation_Plan_20_05_2015.pdf

2 Hornbrook, M.C., 1985. Techniques for Assessing Hospital Case Mix', *Annual Review of Public Health*, Vol. 6. pp. 295–324.

3 AR-DRG Version 8.0 was first reported on in the HIPE Annual Report in 2016.

4 See Appendix VIII for an overview of changes between AR-DRG Version 6.0 and Version 8.0.

5 Wiley, M.M., 2005. 'Diagnosis Related Groups (DRGs): Measuring Hospital Case Mix', in P. Armitage and T. Colton (eds.) *Encyclopaedia of Biostatistics*. Chichester: Wiley and Sons. See also Department of Health and Children, 2004, *The Modernisation of the National Case Mix Programme in Ireland.* Dublin: Department of Health and Children, for information on development of case mix in Ireland.

6 See Section Three for further details on ICD-10-AM/ACHI/ACS.

on the HIPE system, and since diagnoses and procedures are coded with ICD-10-AM/ACHI/ACS, discharges are assigned to the AR-DRG system from this database. AR-DRG Version 6.0 was used in Ireland from 2009-2014.[7] In 2015, this classification was updated to AR-DRG Version 8.0.[8]

4.2.2 Assignment of Discharges to MDC and AR-DRG

Figure 4.1 shows the steps in AR-DRG assignment;

- The first step in assignment is the classification of discharges by Major Diagnostic Category (MDC). There are 23 MDCs which are essentially primary diagnostic groupings based on the systems of the body, for example nervous system (MDC 1), eye (MDC 2), circulatory system (MDC 5), etc. As not all discharges can be assigned directly to a MDC, there is a category entitled 'unassignable to MDC'.
- To deal with certain categories of high cost discharges, the second step involves a Pre-MDC analysis which can override the initial MDC assignment. Examples of discharges affected include transplants, human immunodeficiency virus (HIV) disease, and multiple significant trauma.[9]
- After assignment to the appropriate MDCs, discharges are assigned to an AR-DRG. In total, there are 807 AR-DRGs in version 8.0 of the AR-DRG classification.

FIGURE 4.1 Steps in AR-DRG Assignment

In AR-DRG Version 8.0 an AR-DRG consists of four alphanumeric characters in the form of 'MAAD':

- 'M' is either a letter (indicating the broad group of the DRG) or an '8' or a '9' (indicating an unrelated operating room procedure DRG or an error DRG, respectively).[10]
- 'AA' identifies the partition to which the adjacent DRG belongs.[11] Both characters are numbers whose values indicate whether the code is surgical,

7 For a more detailed description of case mix and its application in Ireland see O'Reilly J., McCarthy B., Wiley, M. M., 'Ireland: A review of Casemix applications within the acute public hospital system' in R. Busse, A. Geissler, W. Quentin & M. M. Wiley (eds), *Diagnosis-Related Groups in Europe: Moving Towards Transparency, Efficiency and Quality in Hospitals.* Maidenhead: Open University Press and WHO Regional Office for Europe, 2011.

8 See Appendix VIII for an overview of changes between AR-DRG Version 6.0 and Version 8.0.

9 'Some episodes involving procedures that are particularly resource-intensive may be assigned to the *Pre-MDC* category, irrespective of the MDC that would have been assigned on the basis of the principal diagnosis.' Australian Institute of Health and Welfare (2009) Australian Hospital Statistics 2007–08. Canberra: Australian Institute of Health and Welfare. p. 276.

10 'Episodes that contain clinically atypical or invalid information are assigned Error DRGs.' Australian Institute of Health and Welfare (2009) Australian hospital statistics 2007–08. Canberra: Australian Institute of Health and Welfare. p 276.

medical or other.[12] Discharges with a surgical procedure performed are assigned to the surgical AR-DRGs where classification is based on the most resource intensive procedure performed. Medical discharges are assigned to an AR-DRG on the basis of principal diagnosis.

- 'D' is a complexity split indicator that ranks DRGs within adjacent DRGs on the basis of their level of complexity/resource use. It is either 'A', 'B', 'C', 'D' or 'Z' with 'A' being the most complex or 'Z' indicating that there is no complexity split.[13] The complexity of the case is determined by particular variables, such as the presence of complications and/or comorbidities (CC), age, or discharge status, which influence the treatment process and/or the pattern of resource utilisation.[14]

4.2.2.1 AR-DRG Complexity Split

The AR-DRG complexity split for total discharges is presented in Table 4.1. Almost 29 per cent of total discharges had no complexity split. For in-patient discharges, 25.3 per cent were assigned to complexity group A *'Highest consumption of resources'*, and 60.0 per cent were assigned to complexity group B *'Second highest consumption of resources'.*

TABLE 4.1 Total Discharges: AR-DRG Complexity Split by Patient Type (N, %)

	Discharges									
	Day Patients		In-Patients[a]						Total Discharges	
			Sameday In-Patients		Overnight In-Patients		Total In-Patients			
	N	%	N	%	N	%	N	%	N	%
A Highest consumption of resources	34,079	3.0	13,285	9.8	150,994	29.3	164,279	25.3	198,358	11.2
B Second highest consumption of resources	417,291	37.2	104,006	77.0	286,130	55.5	390,136	60.0	807,427	45.6
C Third highest consumption of resources	187,371	16.7	5,260	3.9	55,827	10.8	61,087	9.4	248,458	14.0
D Fourth highest consumption of resources	337	0.0	872	0.6	5,985	1.2	6,857	1.1	7,194	0.4
Z No complexity split	481,597	43.0	11,728	8.7	16,260	3.2	27,988	4.3	509,585	28.8
Total Discharges	**1,120,675**	**100**	**135,151**	**100**	**515,196**	**100**	**650,347**	**100**	**1,771,022**	**100**

Notes: Percentage columns are subject to rounding.

a The sameday and overnight in-patient split is provided in this table for information purposes, this split is not provided in Tables 4.2 to 4.27.

11 'Adjacent Diagnosis Related Group (ADRGs) are clinically meaningful MDC partitions that are generally defined by the same (principal) diagnosis or intervention codes. Occasionally ADRGs may also be defined by age, length of stay (i.e. sameday) and separation mode (e.g. died or transfer). An ADRG consists of one or more end classes or DRGs.' Australian Consortium for Classification Development, 2015, *Australian Refined Diagnosis Related Groups, Version 8.0, Definitions Manual*, Volume 1. Independent Hospital Pricing Authority. p. xiii.

12 'The separate ranges - 01 to 39, 40 to 59 and 60 to 99 - are used to indicate the surgical, other and medical partitions respectively.' Australian Consortium for Classification Development, 2015, *Australian Refined Diagnosis Related Groups, Version 8.0, Definitions Manual*, Volume 1. Independent Hospital Pricing Authority. p. 8.

13 For a more detailed description of how AR-DRGs are numbered see Australian Consortium for Classification Development, 2015, *Australian Refined Diagnosis Related Groups, Version 8.0, Definitions Manual*, Volume 1. Independent Hospital Pricing Authority. pp. 4–11.

14 Complications may arise during the hospital stay, while comorbidities are assumed to be prior existing conditions which were present at the time of admission.

4.3 Analysis of HIPE Data by Case Mix

The analysis presented in this section includes all discharges reported to HIPE. Analysis of 2019 HIPE data by MDC is presented in Table 4.2 and Figures 4.2 and 4.3. Tables 4.3 to 4.27 represent each MDC (including unassignable to MDC and pre-MDC) and their associated AR-DRGs.[15,16,17]

4.3.1 Analysis of Day Patients by MDC and AR-DRG

- The MDC with the largest proportion of day patients reported was *Neoplastic disorders (haematological and solid neoplasms)* (MDC 17), which accounted for 267,498 discharges or 23.9 per cent of day patients (see Tables 4.2 and 4.19 and Figure 4.3).
    - *Chemotherapy* (AR-DRG R63Z) accounted for 45.2 per cent of day patients within this MDC, and 10.8 per cent of total day patients; *Other Neoplastic Disorders, Minor Complexity* (AR-DRG R62C) accounted for 37.4 per cent of day patients within this MDC and 8.9 per cent of total day patients.[18]

- *Diseases and disorders of the kidney and urinary tract* (MDC 11), with 207,244 discharges, accounted for 18.5 per cent of day patients (see Tables 4.2 and 4.13 and Figure 4.3).
    - *Haemodialysis* (AR-DRG L61Z) accounted for 85.6 per cent of day patients within this MDC and 15.8 per cent of total day patients.

4.3.2 Analysis of In-Patients by MDC and AR-DRG

- The MDC with the largest proportion of in-patient discharges was *Pregnancy, Childbirth and the Puerperium* (MDC 14), with 106,992 discharges, which accounted for 16.5 per cent of in-patients (see Tables 4.2 and 4.16 and Figure 4.3).
    - *Antenatal and Other Obstetric Admission* (AR-DRGs O66A and O66B) accounted for 36.9 per cent of in-patients within this MDC and 6.1 per cent of total in-patient discharges.

---

15 See Glossary & Abbreviations for details of the abbreviations used in this section.

16 The official classification for AR-DRG's (Version 8.0) has been slightly modified by the addition of two local DRG's specific to Ireland to account for differences in the provision of care between Ireland and Australia. While this practice has been used for Activity Based Funding, this modification to the official AR-DRG classification has only been published in the HIPE Annual Report since 2018. See MDC 9 (Table 4.11) for a description of J98Z (*UV Therapy*) and MDC 17 (Table 4.19) for a description of R99Z (*Oncology Repeat Attendance*).

17 The calculation of total in-patient length of stay differs in this report compared to reports prior to 2018. Since 2018, the length of stay assigned for sameday in-patients has changed from one bed day to 0.5 bed days. This will impact on the total in-patient length of stay resulting in a lower average length of stay compared to years prior to 2018 (see Section 1.6).

18 R62 *Other Neoplastic Disorders* is a new ADRG in Version 8.0 of the AR-DRG classification system; most cases in this ADRG were grouped to R64 *Radiotherapy* in AR-DRG Version 6.0. For an overview of changes between AR-DRG Version 6.0 and Version 8.0 see Appendix VIII.

- *Vaginal Delivery* (AR-DRGs O60A, O60B and O60C) accounted for 34.7 per cent of in-patients within this MDC and 5.7 per cent of total in-patient discharges.
- *Caesarean Delivery* (AR-DRGs O01A, O01B and O01C) accounted for 18.7 per cent of in-patients within this MDC, with *Caesarean Delivery, Minor Complexity* (AR-DRG O01C) accounting for the majority of these cases (55.9 per cent).
- For *Vaginal Delivery* (AR-DRGs O60A, O60B and O60C), the in-patient mean length of stay ranged from 2.2 days for *Vaginal Delivery, Minor Complexity* (AR-DRG O60C) to 4.6 days for *Vaginal Delivery, Major Complexity* (AR-DRG O60A).
- For *Caesarean Delivery* (AR-DRGs O01A, O01B and O01C), the in-patient mean length of stay ranged from 4.0 days for *Caesarean Delivery, Minor Complexity* (AR-DRG O01C) to 10.8 days for *Caesarean Delivery, Major Complexity* (AR-DRG O01A).

- *Diseases and Disorders of the Circulatory System* (MDC 5), with 78,767 in-patient discharges, accounted for 12.1 per cent of total in-patients (see Tables 4.2 and 4.7 and Figure 4.3).
- *Diseases and Disorders of the Respiratory System* (MDC 4), with 76,397 discharges, accounted for 11.7 per cent of total in-patients (see Tables 4.2 and 4.6 and Figure 4.3).

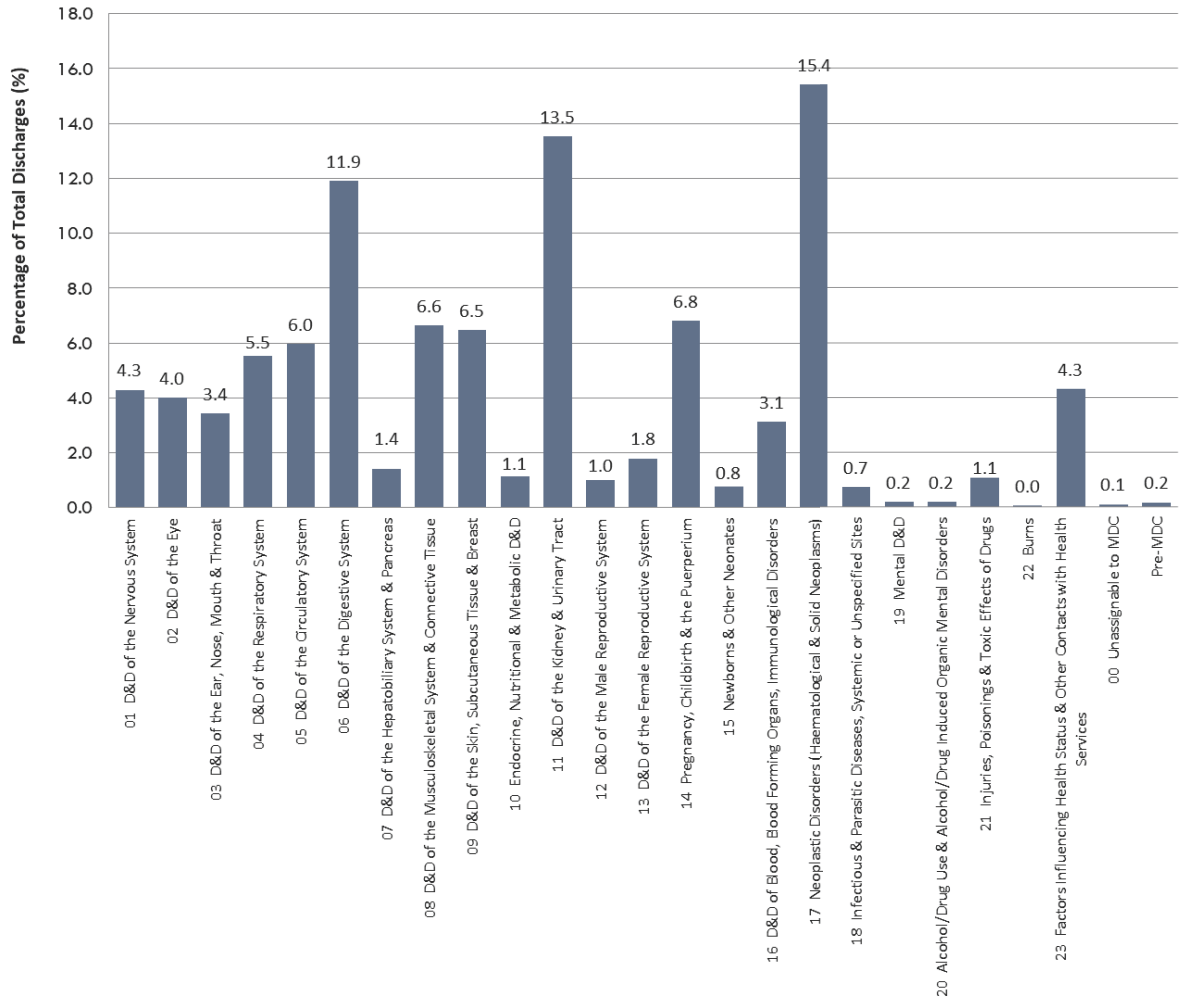
TABLE 4.2 Total Discharges: MDC by Patient Type (N, %)

Major Diagnostic Category	Day Patients		In-Patients		Total Discharges	
	N	%	N	%	N	%
01 Diseases and disorders of the nervous system	23,658	2.1	52,387	8.1	76,045	4.3
02 Diseases and disorders of the eye	65,075	5.8	5,893	0.9	70,968	4.0
03 Diseases and disorders of the ear, nose, mouth and throat	28,889	2.6	31,843	4.9	60,732	3.4
04 Diseases and disorders of the respiratory system	21,656	1.9	76,397	11.7	98,053	5.5
05 Diseases and disorders of the circulatory system	26,842	2.4	78,767	12.1	105,609	6.0
06 Diseases and disorders of the digestive system	143,596	12.8	67,307	10.3	210,903	11.9
07 Diseases and disorders of the hepatobiliary system and pancreas	8,629	0.8	16,567	2.5	25,196	1.4
08 Diseases and disorders of the musculoskeletal system and connective tissue	64,619	5.8	52,833	8.1	117,452	6.6
09 Diseases and disorders of the skin, subcutaneous tissue and breast	93,859	8.4	20,544	3.2	114,403	6.5
10 Endocrine, nutritional and metabolic diseases and disorders	7,540	0.7	12,775	2.0	20,315	1.1
11 Diseases and disorders of the kidney and urinary tract	207,244	18.5	32,246	5.0	239,490	13.5
12 Diseases and disorders of the male reproductive system	12,333	1.1	5,192	0.8	17,525	1.0
13 Diseases and disorders of the female reproductive system	20,806	1.9	10,930	1.7	31,736	1.8
14 Pregnancy, childbirth and the puerperium	13,731	1.2	106,992	16.5	120,723	6.8
15 Newborns and other neonates	457	0.0	13,285	2.0	13,742	0.8
16 Diseases and disorders of blood, blood forming organs, immunological disorders	46,728	4.2	8,517	1.3	55,245	3.1
17 Neoplastic disorders (haematological and solid neoplasms)[a]	267,498	23.9	5,448	0.8	272,946	15.4
18 Infectious and parasitic diseases, systemic or unspecified sites	1,540	0.1	11,422	1.8	12,962	0.7
19 Mental diseases and disorders	765	0.1	2,548	0.4	3,313	0.2
20 Alcohol/drug use and alcohol/drug induced organic mental disorders	12	0.0	3,172	0.5	3,184	0.2
21 Injuries, poisonings and toxic effects of drugs	1,439	0.1	17,228	2.6	18,667	1.1
22 Burns	102	0.0	626	0.1	728	0.0
23 Factors influencing health status and other contacts with health services	63,106	5.6	13,206	2.0	76,312	4.3
Unassignable to MDC	425	0.0	1,381	0.2	1,806	0.1
Pre-MDC	126	0.0	2,841	0.4	2,967	0.2
Total Discharges	**1,120,675**	**100**	**650,347**	**100**	**1,771,022**	**100**

Notes: Percentage columns are subject to rounding.

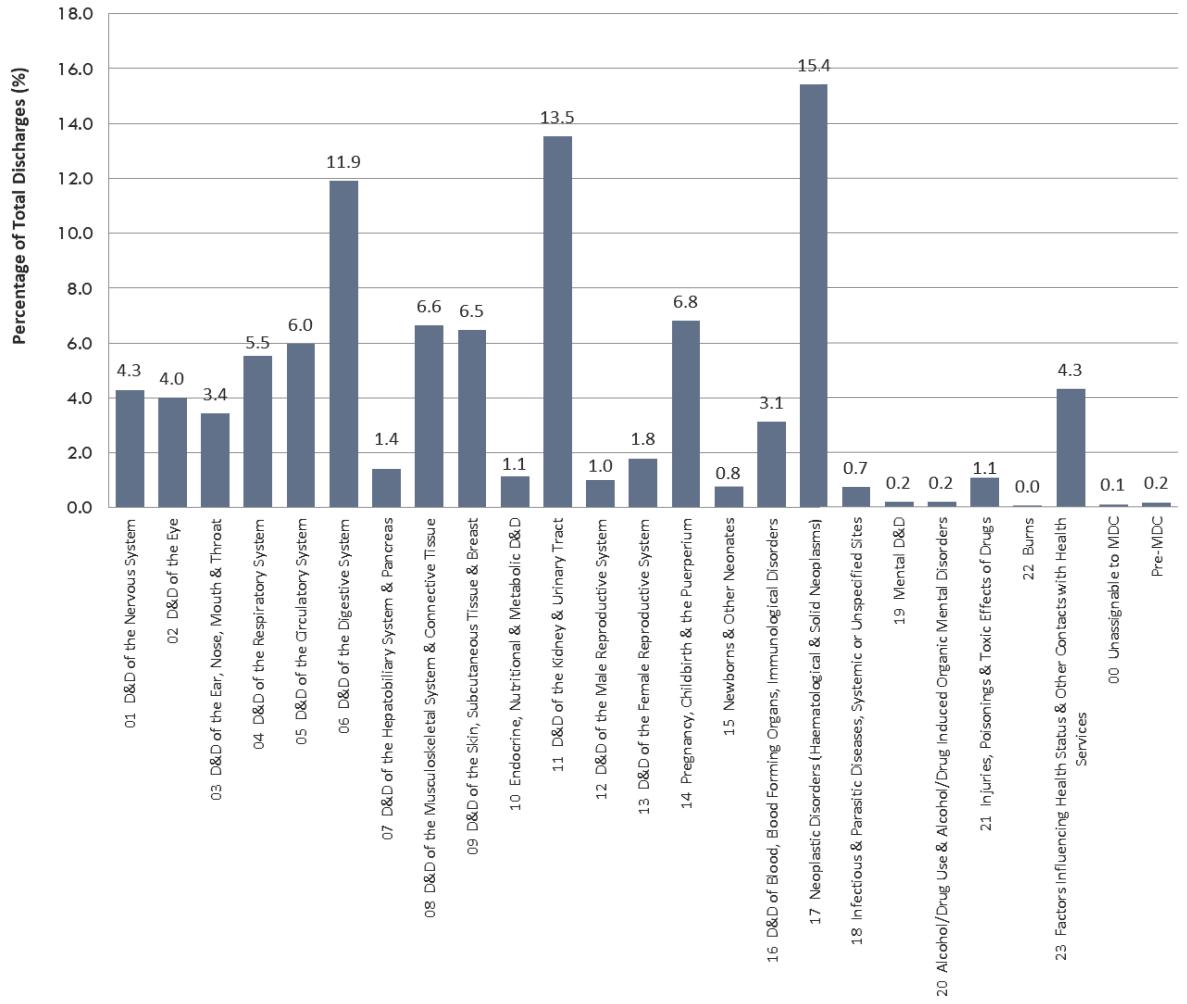
a From 2015 this data includes activity from St. Luke's Radiation Oncology Network centres located in Beaumont and St. James's Hospitals. These centres are operational since 2011, but data has only been included in HIPE from 2015.

FIGURE 4.2 Total Discharges: Major Diagnostic Category (MDC) (%)



Notes: D&D = Diseases and disorders
Percentages are subject to rounding.

FIGURE 4.3 Total Discharges: Major Diagnostic Category (MDC) by Patient Type (%)



Note: D&D = Diseases and disorders

TABLE 4.3 Total Discharges: MDC 1 Diseases and Disorders of the Nervous System: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 1 Diseases and Disorders of the Nervous System	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
B01A Ventricular Shunt Revision, Major Complexity	0	19	25.6	7
B01B Ventricular Shunt Revision, Minor Complexity	0	62	4.0	3
B02A Cranial Procedures, Major Complexity	~	235	27.1	17
B02B Cranial Procedures, Intermediate Complexity	~	629	11.0	9
B02C Cranial Procedures, Minor Complexity	7	1,248	5.6	5
B03A Spinal Procedures, Major Complexity	0	53	29.5	12
B03B Spinal Procedures, Intermediate Complexity	~	109	4.7	3
B03C Spinal Procedures, Minor Complexity	22	67	3.6	2
B04A Extracranial Vascular Procedures, Major Complexity	0	62	23.6	17
B04B Extracranial Vascular Procedures, Intermediate Complexity	0	87	9.4	8
B04C Extracranial Vascular Procedures, Minor Complexity	~	217	5.7	4
B05Z Carpal Tunnel Release	1,627	43	1.4	1
B06A Procedures for Cerebral Palsy, Muscular Dystrophy and Neuropathy, Major Comp	6	36	28.8	4
B06B Procedures for Cerebral Palsy, Muscular Dystrophy and Neuropathy, Interm Comp	11	47	15.5	5
B06C Procedures for Cerebral Palsy, Muscular Dystrophy and Neuropathy, Minor Comp	245	125	4.4	1
B07A Cranial or Peripheral Nerve and Other Nervous System Procedures, Major Comp	~	43	26.8	14
B07B Cranial or Peripheral Nerve and Other Nervous System Procedures, Minor Comp	127	331	1.5	1
B40Z Plasmapheresis W Neurological Disease, Sameday	19	0	-	-
B41Z Telemetric EEG Monitoring	3	225	6.9	7
B42A Nervous System Disorders W Ventilator Support, Major Complexity	0	58	29.8	19
B42B Nervous System Disorders W Ventilator Support, Minor Complexity	0	171	6.5	3
B60A Acute Paraplegia and Quadriplegia W or W/O OR Procedures, Major Complexity	0	39	54.3	26
B60B Acute Paraplegia and Quadriplegia W or W/O OR Procedures, Minor Complexity	~	135	34.4	8
B61A Spinal Cord Conditions W or W/O OR Procedures, Major Complexity	~	77	27.2	15
B61B Spinal Cord Conditions W or W/O OR Procedures, Minor Complexity	18	129	8.6	4
B62Z Apheresis	254	~	^	^
B63A Dementia and Other Chronic Disturbances of Cerebral Function, Major Complexity	77	720	51.0	29
B63B Dementia and Other Chronic Disturbances of Cerebral Function, Minor Complexity	218	601	17.4	8
B64A Delirium, Major Complexity	9	777	16.7	9
B64B Delirium, Minor Complexity	34	1,060	4.1	2
B65A Cerebral Palsy, Major Complexity	38	*	^	^
B65B Cerebral Palsy, Minor Complexity	323	16	4.3	2
B66A Nervous System Neoplasms, Major Complexity	69	569	18.0	10
B66B Nervous System Neoplasms, Minor Complexity	1,447	677	7.6	4
B67A Degenerative Nervous System Disorders, Major Complexity	123	900	25.4	13
B67B Degenerative Nervous System Disorders, Intermediate Complexity	491	790	6.2	3
B67C Degenerative Nervous System Disorders, Minor Complexity	728	150	4.6	2
B68A Multiple Sclerosis and Cerebellar Ataxia, Major Complexity	219	430	12.3	6
B68B Multiple Sclerosis and Cerebellar Ataxia, Minor Complexity	5,907	470	4.4	3
B69A TIA and Precerebral Occlusion, Major Complexity	~	779	8.3	5
B69B TIA and Precerebral Occlusion, Minor Complexity	38	2,166	3.1	2
B70A Stroke and Other Cerebrovascular Disorders, Major Complexity	0	881	44.6	31
B70B Stroke and Other Cerebrovascular Disorders, Intermediate Complexity	0	2,206	16.4	10
B70C Stroke and Other Cerebrovascular Disorders, Minor Complexity	22	2,760	8.1	5
B70D Stroke and Other Cerebrovascular Disorders, Transferred <5 Days	7	326	1.3	1
B71A Cranial and Peripheral Nerve Disorders, Major Complexity	1,788	1,419	5.9	2
B71B Cranial and Peripheral Nerve Disorders, Minor Complexity	3,282	459	3.0	1
B72A Nervous System Infection Except Viral Meningitis, Major Complexity	10	253	19.8	12
B72B Nervous System Infection Except Viral Meningitis, Minor Complexity	209	305	8.2	5
B73Z Viral Meningitis	11	348	4.7	4
B74A Nontraumatic Stupor and Coma, Major Complexity	~	55	9.8	6
B74B Nontraumatic Stupor and Coma, Minor Complexity	10	164	2.2	1
B75Z Febrile Convulsions	34	588	1.7	1
B76A Seizures, Major Complexity	58	2,098	8.5	4
B76B Seizures, Minor Complexity	958	5,175	2.4	1
B77A Headaches, Major Complexity	81	1,779	3.7	2
B77B Headaches, Minor Complexity	1,785	8,344	1.3	1
B78A Intracranial Injuries, Major Complexity	0	349	30.8	15
B78B Intracranial Injuries, Minor Complexity	~	817	6.5	3
B78C Intracranial Injuries, Transferred <5 Days	0	101	1.4	1
B79A Skull Fractures, Major Complexity	~	183	7.7	4

TABLE 4.3 Total Discharges: MDC 1 Diseases and Disorders of the Nervous System: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay) (contd.)

MDC 1 Diseases and Disorders of the Nervous System	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
B79B Skull Fractures, Minor Complexity	~	201	2.7	1
B80A Other Head Injuries, Major Complexity	0	509	9.5	4
B80B Other Head Injuries, Minor Complexity	12	2,879	1.1	1
B81A Other Disorders of the Nervous System, Major Complexity	41	978	18.3	10
B81B Other Disorders of the Nervous System, Minor Complexity	3,116	4,321	3.8	1
B82A Chronic & Unspec Para/Quadriplegia W or W/O OR Proc, Major Complexity	~	83	87.4	45
B82B Chronic & Unspec Para/Quadriplegia W or W/O OR Proc, Intermediate Complexity	17	267	23.5	9
B82C Chronic & Unspec Para/Quadriplegia W or W/O OR Proc, Minor Complexity	130	170	9.5	3
Total	**23,658**	**52,387**	**8.0**	**2**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
* Further suppression required to prevent disclosure of five or fewer discharges.
^ Denotes that length of stay is suppressed where the number of discharges is not reported.
\- Mean and median length of stay cannot be calculated as no in-patients are reported.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.4 Total Discharges: MDC 2 Diseases and Disorders of the Eye: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 2 Diseases and Disorders of the Eye	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
C01A Procedures for Penetrating Eye Injury, Major Complexity	~	43	6.6	3
C01B Procedures for Penetrating Eye Injury, Minor Complexity	9	60	2.8	2
C02Z Enucleations and Orbital Procedures	37	99	2.9	2
C03A Retinal Procedures, Major Complexity	3,617	1,072	2.6	2
C03B Retinal Procedures, Minor Complexity	33,341	168	1.8	1
C04A Major Corneal, Scleral and Conjunctival Procedures, Major Complexity	~	52	3.7	2
C04B Major Corneal, Scleral and Conjunctival Procedures, Minor Complexity	7	111	1.7	2
C05Z Dacryocystorhinostomy	80	114	1.1	1
C10Z Strabismus Procedures	785	51	1.0	1
C11Z Eyelid Procedures	1,041	105	1.0	1
C12Z Other Corneal, Scleral and Conjunctival Procedures	461	88	4.4	4
C13Z Lacrimal Procedures	459	7	1.9	1
C14A Other Eye Procedures, Major Complexity	118	64	4.3	3
C14B Other Eye Procedures, Minor Complexity	1,708	94	1.4	1
C15Z Glaucoma and Complex Cataract Procedures	967	311	1.9	1
C16Z Lens Procedures	13,311	257	2.0	1
C60A Acute and Major Eye Infections, Major Complexity	~	66	13.3	9
C60B Acute and Major Eye Infections, Minor Complexity	38	197	5.8	4
C61A Neurological and Vascular Disorders of the Eye, Major Complexity	319	414	4.2	2
C61B Neurological and Vascular Disorders of the Eye, Minor Complexity	797	616	2.2	1
C62A Hyphaema and Medically Managed Trauma to the Eye, Major Complexity	42	206	10.0	4
C62B Hyphaema and Medically Managed Trauma to the Eye, Minor Complexity	47	412	1.9	1
C63A Other Disorders of the Eye, Major Complexity	235	206	5.9	3
C63B Other Disorders of the Eye, Intermediate Complexity	2,835	972	2.0	1
C63C Other Disorders of the Eye, Minor Complexity	4,815	108	1.4	1
Total	**65,075**	**5,893**	**3.0**	**1**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.5 Total Discharges: MDC 3 Diseases and Disorders of the Ear, Nose, Mouth and Throat: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 3 Diseases and Disorders of the Ear, Nose, Mouth and Throat	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
D01Z Cochlear Implant	0	135	2.2	2
D02A Head and Neck Procedures, Major Complexity	0	85	17.3	11
D02B Head and Neck Procedures, Intermediate Complexity	~	43	8.6	4
D02C Head and Neck Procedures, Minor Complexity	35	95	3.3	2
D03Z Surgical Repair for Cleft Lip and Palate Disorders	22	114	2.4	2
D04A Maxillo Surgery, Major Complexity	28	485	3.4	2
D04B Maxillo Surgery, Minor Complexity	28	236	2.3	2
D05Z Parotid Gland Procedures	~	177	2.4	2
D06Z Sinus and Complex Middle Ear Procedures	483	675	1.5	1
D10Z Nasal Procedures	687	465	1.3	1
D11Z Tonsillectomy and Adenoidectomy	746	3,699	1.2	1
D12A Other Ear, Nose, Mouth and Throat Procedures, Major Complexity	58	117	7.8	4
D12B Other Ear, Nose, Mouth and Throat Procedures, Minor Complexity	1,231	369	1.7	1
D13Z Myringotomy W Tube Insertion	1,926	131	1.6	1
D14A Mouth and Salivary Gland Procedures, Major Complexity	282	273	4.5	2
D14B Mouth and Salivary Gland Procedures, Minor Complexity	724	72	2.0	1
D15Z Mastoid Procedures	35	249	1.8	1
D40Z Dental Extractions and Restorations	5,132	220	2.0	1
D60A Ear, Nose, Mouth and Throat Malignancy, Major Complexity	60	369	24.8	17
D60B Ear, Nose, Mouth and Throat Malignancy, Minor Complexity	1,021	363	8.4	4
D61A Dysequilibrium, Major Complexity	25	780	4.5	3
D61B Dysequilibrium, Minor Complexity	521	4,500	1.6	1
D62A Epistaxis, Major Complexity	0	121	8.8	5
D62B Epistaxis, Minor Complexity	690	809	2.2	2
D63A Otitis Media and Upper Respiratory Infections, Major Complexity	214	4,459	3.7	2
D63B Otitis Media and Upper Respiratory Infections, Minor Complexity	2,424	7,678	1.4	1
D64A Laryngotracheitis and Epiglottitis, Major Complexity	~	141	2.3	1
D64B Laryngotracheitis and Epiglottitis, Minor Complexity	17	777	1.1	1
D65A Nasal Trauma and Deformity, Major Complexity	10	114	5.6	3
D65B Nasal Trauma and Deformity, Minor Complexity	1,123	364	1.2	1
D66A Other Ear, Nose, Mouth and Throat Disorders, Major Complexity	649	608	4.0	2
D66B Other Ear, Nose, Mouth and Throat Disorders, Minor Complexity	9,248	1,766	1.4	1
D67A Oral and Dental Disorders, Major Complexity	73	417	5.1	3
D67B Oral and Dental Disorders, Minor Complexity	1,388	937	1.5	1
Total	**28,889**	**31,843**	**2.5**	**1**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.6 Total Discharges: MDC 4 Diseases and Disorders of the Respiratory System: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 4 Diseases and Disorders of the Respiratory System	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
E01A Major Chest Procedures, Major Complexity	0	66	38.0	28
E01B Major Chest Procedures, Intermediate Complexity	0	283	13.7	11
E01C Major Chest Procedures, Minor Complexity	18	682	7.7	7
E02A Other Respiratory System OR Procedures, Major Complexity	7	209	26.2	19
E02B Other Respiratory System OR Procedures, Intermediate Complexity	247	248	6.2	4
E02C Other Respiratory System OR Procedures, Minor Complexity	267	81	2.0	1
E40A Respiratory System Disorders W Ventilator Support, Major Complexity	0	74	24.5	16
E40B Respiratory System Disorders W Ventilator Support, Minor Complexity	0	210	13.3	8
E41A Respiratory System Disorders W Non-Invasive Ventilation, Major Complexity	0	749	22.8	15
E41B Respiratory System Disorders W Non-Invasive Ventilation, Minor Complexity	0	1,949	11.9	9
E42A Bronchoscopy, Major Complexity	495	817	17.0	13
E42B Bronchoscopy, Minor Complexity	6,417	537	5.7	4
E60A Cystic Fibrosis, Major Complexity	106	651	13.1	13
E60B Cystic Fibrosis, Minor Complexity	1,815	164	8.0	8
E61A Pulmonary Embolism, Major Complexity	~	597	10.9	7
E61B Pulmonary Embolism, Minor Complexity	23	890	4.1	3
E62A Respiratory Infections and Inflammations, Major Complexity	12	8,222	14.2	9
E62B Respiratory Infections and Inflammations, Minor Complexity	83	7,199	5.1	4
E63A Sleep Apnoea, Major Complexity	11	499	2.5	1
E63B Sleep Apnoea, Minor Complexity	109	1,574	1.1	1
E64A Pulmonary Oedema and Respiratory Failure, Major Complexity	0	175	12.7	10
E64B Pulmonary Oedema and Respiratory Failure, Minor Complexity	~	252	6.0	4
E65A Chronic Obstructive Airways Disease, Major Complexity	105	4,957	11.6	7
E65B Chronic Obstructive Airways Disease, Minor Complexity	1,064	10,065	4.5	3
E66A Major Chest Trauma, Major Complexity	0	248	11.7	7
E66B Major Chest Trauma, Minor Complexity	0	360	3.5	2
E67A Respiratory Signs and Symptoms, Major Complexity	160	1,176	3.9	2
E67B Respiratory Signs and Symptoms, Minor Complexity	1,310	5,354	1.2	1
E68A Pneumothorax, Major Complexity	~	272	9.7	7
E68B Pneumothorax, Minor Complexity	11	449	3.5	3
E69A Bronchitis and Asthma, Major Complexity	72	575	6.4	4
E69B Bronchitis and Asthma, Minor Complexity	4,673	3,913	2.0	1
E70A Whooping Cough and Acute Bronchiolitis, Major Complexity	12	363	5.0	3
E70B Whooping Cough and Acute Bronchiolitis, Minor Complexity	24	2,447	2.4	2
E71A Respiratory Neoplasms, Major Complexity	66	927	15.3	11
E71B Respiratory Neoplasms, Minor Complexity	2,657	1,159	6.8	4
E72Z Respiratory Problems Arising from Neonatal Period	7	58	6.0	2
E73A Pleural Effusion, Major Complexity	~	166	17.4	15
E73B Pleural Effusion, Intermediate Complexity	12	379	8.0	6
E73C Pleural Effusion, Minor Complexity	86	290	3.7	2
E74A Interstitial Lung Disease, Major Complexity	141	509	10.0	7
E74B Interstitial Lung Disease, Minor Complexity	786	422	4.5	2
E75A Other Respiratory System Disorders, Major Complexity	81	8,139	8.6	5
E75B Other Respiratory System Disorders, Minor Complexity	750	7,938	2.2	1
E76A Respiratory Tuberculosis, Major Complexity	~	48	28.2	20
E76B Respiratory Tuberculosis, Minor Complexity	17	55	9.6	7
Total	**21,656**	**76,397**	**6.9**	**4**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.7 Total Discharges: MDC 5 Diseases and Disorders of the Circulatory System: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 5 Diseases and Disorders of the Circulatory System	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
F01A Implantation and Replacement of AICD, Total System, Major Complexity	0	64	21.3	17
F01B Implantation and Replacement of AICD, Total System, Minor Complexity	263	295	4.6	1
F02Z Other AICD Procedures	15	43	4.8	1
F03A Cardiac Valve Procedures W CPB Pump W Invasive Cardiac Investigation, Major Comp	0	49	32.4	28
F03B Cardiac Valve Procedures W CPB Pump W Invasive Cardiac Investigation, Minor Comp	~	84	18.7	18
F04A Cardiac Valve Procedures W CPB Pump W/O Invasive Cardiac Invest, Major Comp	0	44	24.6	18
F04B Cardiac Valve Procedures W CPB Pump W/O Invasive Cardiac Invest, Interm Comp	0	243	12.7	11
F04C Cardiac Valve Procedures W CPB Pump W/O Invasive Cardiac Invest, Minor Comp	~	374	8.8	8
F05A Coronary Bypass W Invasive Cardiac Investigation, Major Complexity	0	45	33.0	34
F05B Coronary Bypass W Invasive Cardiac Investigation, Minor Complexity	0	138	20.5	19
F06A Coronary Bypass W/O Invasive Cardiac Investigation, Major Complexity	0	61	22.8	20
F06B Coronary Bypass W/O Invasive Cardiac Investigation, Minor Complexity	0	532	11.1	9
F07A Other Cardiothoracic/Vascular Procedures W CPB Pump, Major Complexity	0	32	16.3	12
F07B Other Cardiothoracic/Vascular Procedures W CPB Pump, Intermediate Complexity	0	54	8.8	7
F07C Other Cardiothoracic/Vascular Procedures W CPB Pump, Minor Complexity	0	85	9.4	8
F08A Major Reconstructive Vascular Procedures W/O CPB Pump, Major Complexity	0	85	38.4	24
F08B Major Reconstructive Vascular Procedures W/O CPB Pump, Intermediate Complexity	0	343	15.7	13
F08C Major Reconstructive Vascular Procedures W/O CPB Pump, Minor Complexity	12	298	8.1	6
F09A Other Cardiothoracic Procedures W/O CPB Pump, Major Complexity	0	45	12.7	9
F09B Other Cardiothoracic Procedures W/O CPB Pump, Intermediate Complexity	~	59	14.9	10
F09C Other Cardiothoracic Procedures W/O CPB Pump, Minor Complexity	23	81	3.6	2
F10A Interventional Coronary Procedures, Admitted for AMI, Major Complexity	0	285	11.1	8
F10B Interventional Coronary Procedures, Admitted for AMI, Minor Complexity	79	1,916	3.2	3
F11A Amputation, Except Upper Limb and Toe, for Circulatory Disorders, Major Comp	0	106	76.4	55
F11B Amputation, Except Upper Limb and Toe, for Circulatory Disorders, Minor Comp	0	84	39.8	24
F12A Implantation and Replacement of Pacemaker, Total System, Major Complexity	7	299	13.8	8
F12B Implantation and Replacement of Pacemaker, Total System, Minor Complexity	481	596	3.6	2
F13A Amputation, Upper Limb and Toe, for Circulatory Disorders, Major Complexity	0	52	23.1	17
F13B Amputation, Upper Limb and Toe, for Circulatory Disorders, Minor Complexity	~	78	13.4	8
F14A Vascular Procedures, Except Major Reconstruction, W/O CPB Pump, Major Complexity	17	131	19.0	12
F14B Vascular Procedures, Except Major Reconstruction, W/O CPB Pump, Interm Comp	39	349	9.4	7
F14C Vascular Procedures, Except Major Reconstruction, W/O CPB Pump, Minor Complexity	232	378	4.1	2
F15A Interventional Coronary Procs, Not Adm for AMI, W Stent Implant, Major Comp	15	407	7.0	3
F15B Interventional Coronary Procs, Not Adm for AMI, W Stent Implant, Minor Comp	814	2,047	2.2	1
F16A Interventional Coronary Procs, Not Adm for AMI, W/O Stent Implant, Major Comp	0	14	10.1	6
F16B Interventional Coronary Procs, Not Adm for AMI, W/O Stent Implant, Minor Comp	31	88	2.3	1
F17A Insertion and Replacement of Pacemaker Generator, Major Complexity	15	25	8.6	7
F17B Insertion and Replacement of Pacemaker Generator, Minor Complexity	268	36	2.1	1
F18A Other Pacemaker Procedures, Major Complexity	~	25	13.8	6
F18B Other Pacemaker Procedures, Minor Complexity	24	44	4.8	2
F19A Trans-Vascular Percutaneous Cardiac Intervention, Major Complexity	18	59	23.2	2
F19B Trans-Vascular Percutaneous Cardiac Intervention, Minor Complexity	156	77	1.6	1
F20Z Vein Ligation and Stripping	3,930	173	1.6	1
F21A Other Circulatory System OR Procedures, Major Complexity	0	33	46.2	27
F21B Other Circulatory System OR Procedures, Intermediate Complexity	12	42	11.5	8
F21C Other Circulatory System OR Procedures, Minor Complexity	17	49	4.6	2
F40A Circulatory Disorders W Ventilator Support, Major Complexity	0	49	18.4	10
F40B Circulatory Disorders W Ventilator Support, Minor Complexity	0	59	6.6	4

TABLE 4.7 Total Discharges: MDC 5 Diseases and Disorders of the Circulatory System: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay) (contd.)

MDC 5 Diseases and Disorders of the Circulatory System	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
F41A Circulatory Disorders, Adm for AMI W Invasive Cardiac Inves Proc, Major Comp	0	160	13.8	9
F41B Circulatory Disorders, Adm for AMI W Invasive Cardiac Inves Proc, Minor Comp	56	605	3.9	2
F42A Circulatory Dsrds, Not Adm for AMI W Invasive Cardiac Inves Proc, Major Comp	372	1,120	8.6	6
F42B Circulatory Dsrds, Not Adm for AMI W Invasive Cardiac Inves Proc, Minor Comp	9,373	3,025	2.8	1
F43A Circulatory Disorders W Non-Invasive Ventilation, Major Complexity	0	113	24.7	18
F43B Circulatory Disorders W Non-Invasive Ventilation, Minor Complexity	0	164	14.6	11
F60A Circulatory Dsrd, Adm for AMI W/O Invas Card Inves Proc	~	2,231	8.6	5
F60B Circulatory Dsrd, Adm for AMI W/O Invas Card Inves Proc, Transf <5 Days	11	608	1.8	1
F61A Infective Endocarditis, Major Complexity	12	77	35.2	23
F61B Infective Endocarditis, Minor Complexity	11	75	17.0	16
F62A Heart Failure and Shock, Major Complexity	~	2,080	16.9	11
F62B Heart Failure and Shock, Minor Complexity	214	4,022	6.2	5
F62C Heart Failure and Shock, Transferred <5 Days	~	120	1.6	1
F63A Venous Thrombosis, Major Complexity	~	496	8.5	5
F63B Venous Thrombosis, Minor Complexity	77	1,468	1.7	1
F64A Skin Ulcers in Circulatory Disorders, Major Complexity	~	132	26.7	15
F64B Skin Ulcers in Circulatory Disorders, Intermediate Complexity	75	261	8.7	6
F64C Skin Ulcers in Circulatory Disorders, Minor Complexity	8	77	4.3	2
F65A Peripheral Vascular Disorders, Major Complexity	38	442	13.6	7
F65B Peripheral Vascular Disorders, Minor Complexity	1,085	1,040	3.8	2
F66A Coronary Atherosclerosis, Major Complexity	30	341	8.8	6
F66B Coronary Atherosclerosis, Minor Complexity	632	2,235	3.2	1
F67A Hypertension, Major Complexity	7	346	8.8	5
F67B Hypertension, Minor Complexity	135	2,348	1.4	1
F68A Congenital Heart Disease, Major Complexity	401	88	4.3	2
F68B Congenital Heart Disease, Minor Complexity	450	59	1.8	1
F69A Valvular Disorders, Major Complexity	61	357	11.1	7
F69B Valvular Disorders, Minor Complexity	857	3,403	1.5	1
F72A Unstable Angina, Major Complexity	~	193	8.1	6
F72B Unstable Angina, Minor Complexity	22	968	3.8	2
F73A Syncope and Collapse, Major Complexity	76	2,628	10.4	6
F73B Syncope and Collapse, Minor Complexity	2,577	7,783	2.4	1
F74A Chest Pain, Major Complexity	49	2,263	3.2	1
F74B Chest Pain, Minor Complexity	669	15,486	1.1	1
F75A Other Circulatory Disorders, Major Complexity	~	325	15.9	11
F75B Other Circulatory Disorders, Intermediate Complexity	46	519	8.5	5
F75C Other Circulatory Disorders, Minor Complexity	655	1,719	3.4	2
F76A Arrhythmia, Cardiac Arrest and Conduction Disorders, Major Complexity	77	2,365	7.2	5
F76B Arrhythmia, Cardiac Arrest and Conduction Disorders, Minor Complexity	2,261	6,470	2.2	1
Total	**26,842**	**78,767**	**4.7**	**1**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.8 Total Discharges: MDC 6 Diseases and Disorders of the Digestive System: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 6 Diseases and Disorders of the Digestive System	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
G01A Rectal Resection, Major Complexity	0	82	54.9	42
G01B Rectal Resection, Intermediate Complexity	0	186	22.2	18
G01C Rectal Resection, Minor Complexity	~	754	10.5	8
G02A Major Small and Large Bowel Procedures, Major Complexity	0	266	42.6	33
G02B Major Small and Large Bowel Procedures, Intermediate Complexity	~	809	19.5	15
G02C Major Small and Large Bowel Procedures, Minor Complexity	53	1,660	9.7	8
G03A Stomach, Oesophageal and Duodenal Procedures, Major Complexity	~	172	25.1	16
G03B Stomach, Oesophageal and Duodenal Procedures, Intermediate Complexity	8	245	13.3	11
G03C Stomach, Oesophageal and Duodenal Procedures, Minor Complexity	43	282	6.2	5
G04A Peritoneal Adhesiolysis, Major Complexity	0	88	23.5	18
G04B Peritoneal Adhesiolysis, Intermediate Complexity	~	254	10.2	8
G04C Peritoneal Adhesiolysis, Minor Complexity	86	554	4.6	3
G05A Minor Small and Large Bowel Procedures, Major Complexity	0	63	16.8	10
G05B Minor Small and Large Bowel Procedures, Minor Complexity	14	301	6.8	6
G06Z Pyloromyotomy	0	29	3.1	3
G07A Appendicectomy, Major Complexity	0	451	6.6	5
G07B Appendicectomy, Minor Complexity	43	5,470	2.7	2
G10A Hernia Procedures, Major Complexity	55	409	8.1	5
G10B Hernia Procedures, Minor Complexity	3,103	2,185	2.0	1
G11A Anal and Stomal Procedures, Major Complexity	41	265	8.3	4
G11B Anal and Stomal Procedures, Minor Complexity	1,433	1,073	2.2	2
G12A Other Digestive System OR Procedures, Major Complexity	0	92	32.5	21
G12B Other Digestive System OR Procedures, Intermediate Complexity	21	280	12.6	9
G12C Other Digestive System OR Procedures, Minor Complexity	273	327	5.0	3
G46A Complex Endoscopy, Major Complexity	614	1,224	13.2	8
G46B Complex Endoscopy, Minor Complexity	12,565	561	5.0	3
G47A Gastroscopy, Major Complexity	195	1,716	11.6	7
G47B Gastroscopy, Intermediate Complexity	2,100	1,594	4.1	3
G47C Gastroscopy, Minor Complexity	38,154	1,695	3.1	2
G48A Colonoscopy, Major Complexity	2,512	1,487	9.7	6
G48B Colonoscopy, Minor Complexity	51,945	1,436	4.3	3
G60A Digestive Malignancy, Major Complexity	270	854	13.8	8
G60B Digestive Malignancy, Minor Complexity	2,438	695	5.5	3
G61A Gastrointestinal Haemorrhage, Major Complexity	20	663	7.3	4
G61B Gastrointestinal Haemorrhage, Minor Complexity	503	1,249	2.3	1
G64A Inflammatory Bowel Disease, Major Complexity	230	330	6.9	5
G64B Inflammatory Bowel Disease, Minor Complexity	18,541	791	3.3	2
G65A Gastrointestinal Obstruction, Major Complexity	~	468	12.4	7
G65B Gastrointestinal Obstruction, Minor Complexity	11	1,256	3.3	2
G66A Abdominal Pain and Mesenteric Adenitis, Major Complexity	132	2,498	2.5	1
G66B Abdominal Pain and Mesenteric Adenitis, Minor Complexity	914	8,113	1.3	1
G67A Oesophagitis and Gastroenteritis, Major Complexity	52	3,213	6.8	4
G67B Oesophagitis and Gastroenteritis, Minor Complexity	837	6,990	1.8	1
G70A Other Digestive System Disorders, Major Complexity	1,207	6,477	5.4	3
G70B Other Digestive System Disorders, Minor Complexity	5,176	7,700	1.8	1
Total	**143,596**	**67,307**	**4.9**	**2**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.9 Total Discharges: MDC 7 Diseases and Disorders of the Hepatobiliary System and Pancreas: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 7 Diseases and Disorders of the Hepatobiliary System and Pancreas	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
H01A Pancreas, Liver and Shunt Procedures, Major Complexity	0	19	33.4	23
H01B Pancreas, Liver and Shunt Procedures, Intermediate Complexity	~	334	9.1	7
H01C Pancreas, Liver and Shunt Procedures, Minor Complexity	10	125	4.8	2
H02A Major Biliary Tract Procedures, Major Complexity	~	108	24.2	21
H02B Major Biliary Tract Procedures, Minor Complexity	29	167	10.1	8
H05A Hepatobiliary Diagnostic Procedures, Major Complexity	8	41	16.7	12
H05B Hepatobiliary Diagnostic Procedures, Minor Complexity	33	40	4.3	3
H06A Other Hepatobiliary and Pancreas OR Procedures, Major Complexity	0	78	29.5	22
H06B Other Hepatobiliary and Pancreas OR Procedures, Intermediate Complexity	8	104	13.8	10
H06C Other Hepatobiliary and Pancreas OR Procedures, Minor Complexity	14	149	2.2	1
H07A Open Cholecystectomy, Major Complexity	~	23	24.5	24
H07B Open Cholecystectomy, Intermediate Complexity	0	23	11.2	9
H07C Open Cholecystectomy, Minor Complexity	17	111	6.2	5
H08A Laparoscopic Cholecystectomy, Major Complexity	14	246	9.2	6
H08B Laparoscopic Cholecystectomy, Minor Complexity	1,492	2,394	2.3	1
H40A Endoscopic Procedures for Bleeding Oesophageal Varices, Major Complexity	0	33	17.0	9
H40B Endoscopic Procedures for Bleeding Oesophageal Varices, Intermediate Complexity	6	36	7.6	6
H40C Endoscopic Procedures for Bleeding Oesophageal Varices, Minor Complexity	45	37	6.0	6
H43A ERCP Procedures, Major Complexity	11	222	22.7	14
H43B ERCP Procedures, Intermediate Complexity	232	372	9.9	8
H43C ERCP Procedures, Minor Complexity	1,814	733	5.5	4
H60A Cirrhosis and Alcoholic Hepatitis, Major Complexity	0	489	19.6	13
H60B Cirrhosis and Alcoholic Hepatitis, Intermediate Complexity	160	563	7.8	5
H60C Cirrhosis and Alcoholic Hepatitis, Minor Complexity	201	100	4.2	2
H61A Malignancy of Hepatobiliary System and Pancreas, Major Complexity	24	521	14.5	12
H61B Malignancy of Hepatobiliary System and Pancreas, Minor Complexity	922	783	6.2	4
H62A Disorders of Pancreas, Except Malignancy, Major Complexity	~	390	13.2	10
H62B Disorders of Pancreas, Except Malignancy, Minor Complexity	426	1,452	5.1	4
H63A Other Disorders of Liver, Major Complexity	17	519	12.0	8
H63B Other Disorders of Liver, Intermediate Complexity	478	820	4.7	3
H63C Other Disorders of Liver, Minor Complexity	1,900	612	1.9	1
H64A Disorders of the Biliary Tract, Major Complexity	125	1,992	8.9	7
H64B Disorders of the Biliary Tract, Minor Complexity	636	2,931	3.8	3
Total	**8,629**	**16,567**	**7.0**	**4**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.10 Total Discharges: MDC 8 Diseases and Disorders of the Musculoskeletal System and Connective Tissue: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 8 Diseases and Disorders of the Musculoskeletal System and Connective Tissue	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
I01A Bilateral and Multiple Major Joint Procedures of Lower Limb, Major Complexity	0	80	34.1	6
I01B Bilateral and Multiple Major Joint Procedures of Lower Limb, Minor Complexity	0	34	6.3	5
I02A Microvascular Tissue Transfers or Skin Grafts, Excluding Hand, Major Complexity	0	20	59.4	41
I02B Microvascular Tissue Transfers or Skin Grafts, Excluding Hand, Intermediate Comp	12	63	24.4	14
I02C Microvascular Tissue Transfers or Skin Grafts, Excluding Hand, Minor Complexity	20	30	9.8	5
I03A Hip Replacement, Major Complexity	0	466	29.6	16
I03B Hip Replacement, Minor Complexity	14	4,930	7.4	5
I04A Knee Replacement, Major Complexity	0	184	11.4	7
I04B Knee Replacement, Minor Complexity	~	2,282	4.5	4
I05A Other Joint Replacement, Major Complexity	0	55	12.1	8
I05B Other Joint Replacement, Minor Complexity	9	362	3.9	2
I06Z Spinal Fusion for Deformity	46	229	7.1	5
I07Z Amputation	0	75	32.6	20
I08A Other Hip and Femur Procedures, Major Complexity	~	608	30.8	19
I08B Other Hip and Femur Procedures, Minor Complexity	43	2,015	11.4	8
I09A Spinal Fusion, Major Complexity	0	35	37.4	18
I09B Spinal Fusion, Intermediate Complexity	~	151	10.9	6
I09C Spinal Fusion, Minor Complexity	~	366	4.4	4
I10A Other Back and Neck Procedures, Major Complexity	~	115	17.8	7
I10B Other Back and Neck Procedures, Minor Complexity	1,159	904	3.1	2
I11Z Limb Lengthening Procedures	~	27	4.1	5
I12A Misc Musculoskeletal Procs for Infect/Inflam of Bone/Joint, Major Complexity	~	142	42.9	28
I12B Misc Musculoskeletal Procs for Infect/Inflam of Bone/Joint, Intermediate Comp	9	260	14.6	11
I12C Misc Musculoskeletal Procs for Infect/Inflam of Bone/Joint, Minor Complexity	108	216	6.9	3
I13A Humerus, Tibia, Fibula and Ankle Procedures, Major Complexity	~	586	10.7	6
I13B Humerus, Tibia, Fibula and Ankle Procedures, Minor Complexity	306	3,786	2.8	2
I15A Cranio-Facial Surgery, Major Complexity	~	37	4.4	4
I15B Cranio-Facial Surgery, Minor Complexity	~	26	5.9	5
I16Z Other Shoulder Procedures	286	727	1.3	1
I17A Maxillo-Facial Surgery, Major Complexity	~	32	7.9	8
I17B Maxillo-Facial Surgery, Minor Complexity	~	38	2.9	2
I18A Other Knee Procedures, Major Complexity	110	328	5.8	3
I18B Other Knee Procedures, Minor Complexity	1,385	237	1.4	1
I19A Other Elbow and Forearm Procedures, Major Complexity	9	199	8.9	4
I19B Other Elbow and Forearm Procedures, Minor Complexity	623	2,977	1.6	1
I20A Other Foot Procedures, Major Complexity	10	144	5.5	3
I20B Other Foot Procedures, Minor Complexity	403	965	1.5	1
I21Z Local Excision and Removal of Internal Fixation Devices of Hip and Femur	85	67	3.3	1
I23A Local Excision & Removal of Internal Fixation Device, Except Hip & Fmr, Maj Comp	105	113	4.6	1
I23B Local Excision & Removal of Internal Fixation Device, Except Hip & Fmr, Min Comp	2,031	306	1.3	1
I24A Arthroscopy, Major Complexity	38	56	7.8	2
I24B Arthroscopy, Minor Complexity	327	75	1.7	1
I25A Bone and Joint Diagnostic Procedures Including Biopsy, Major Complexity	23	49	21.9	12
I25B Bone and Joint Diagnostic Procedures Including Biopsy, Minor Complexity	166	65	4.7	2
I27A Soft Tissue Procedures, Major Complexity	18	150	20.1	11
I27B Soft Tissue Procedures, Minor Complexity	641	680	2.9	1
I28A Other Musculoskeletal Procedures, Major Complexity	~	92	25.1	10
I28B Other Musculoskeletal Procedures, Intermediate Complexity	128	441	4.5	2
I28C Other Musculoskeletal Procedures, Minor Complexity	132	190	1.7	1
I29Z Knee Reconstructions, and Revisions of Reconstructions	102	347	1.4	1
I30Z Hand Procedures	2,008	1,909	1.2	1
I31A Revision of Hip Replacement, Major Complexity	0	54	42.2	29
I31B Revision of Hip Replacement, Intermediate Complexity	0	176	19.8	14
I31C Revision of Hip Replacement, Minor Complexity	0	296	13.2	6
I32A Revision of Knee Replacement, Major Complexity	0	34	20.7	14
I32B Revision of Knee Replacement, Minor Complexity	0	81	10.5	6
I40Z Infusions for Musculoskeletal Disorders, Sameday	38,930	104	0.5	1
I60Z Femoral Shaft Fractures	0	70	7.7	2
I61A Distal Femoral Fractures, Major Complexity	0	20	27.6	17
I61B Distal Femoral Fractures, Minor Complexity	0	58	7.4	5
I63A Sprains, Strains and Dislocations of Hip, Pelvis and Thigh, Major Complexity	0	41	11.8	6

TABLE 4.10 Total Discharges: MDC 8 Diseases and Disorders of the Musculoskeletal System and Connective Tissue: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay) (contd.)

MDC 8 Diseases and Disorders of the Musculoskeletal System and Connective Tissue	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
I63B Sprains, Strains and Dislocations of Hip, Pelvis and Thigh, Minor Complexity	0	133	3.6	2
I64A Osteomyelitis, Major Complexity	0	168	31.9	22
I64B Osteomyelitis, Minor Complexity	0	381	12.0	8
I65A Musculoskeletal Malignant Neoplasms, Major Complexity	0	188	19.3	13
I65B Musculoskeletal Malignant Neoplasms, Minor Complexity	0	781	6.8	4
I66A Inflammatory Musculoskeletal Disorders, Major Complexity	0	86	32.5	16
I66B Inflammatory Musculoskeletal Disorders, Intermediate Complexity	0	212	10.3	7
I66C Inflammatory Musculoskeletal Disorders, Minor Complexity	0	579	5.8	4
I67A Septic Arthritis, Major Complexity	0	54	23.0	15
I67B Septic Arthritis, Minor Complexity	0	112	9.0	6
I68A Non-surgical Spinal Disorders, Major Complexity	0	1,484	15.6	9
I68B Non-surgical Spinal Disorders, Minor Complexity	0	2,227	4.9	3
I69A Bone Diseases and Arthropathies, Major Complexity	0	457	13.4	7
I69B Bone Diseases and Arthropathies, Minor Complexity	0	663	5.6	4
I71A Other Musculotendinous Disorders, Major Complexity	0	460	10.8	5
I71B Other Musculotendinous Disorders, Minor Complexity	0	1,190	3.6	2
I72A Specific Musculotendinous Disorders, Major Complexity	0	208	16.0	9
I72B Specific Musculotendinous Disorders, Minor Complexity	0	572	4.2	3
I73A Aftercare of Musculoskeletal Implants or Prostheses, Major Complexity	0	94	26.0	17
I73B Aftercare of Musculoskeletal Implants or Prostheses, Minor Complexity	0	231	6.9	4
I74A Injuries to Forearm, Wrist, Hand and Foot, Major Complexity	0	311	14.6	8
I74B Injuries to Forearm, Wrist, Hand and Foot, Minor Complexity	0	1,055	2.1	1
I75A Injuries to Shoulder, Arm, Elbow, Knee, Leg and Ankle, Major Complexity	0	548	19.3	12
I75B Injuries to Shoulder, Arm, Elbow, Knee, Leg and Ankle, Minor Complexity	0	1,273	3.9	2
I76A Other Musculoskeletal Disorders, Major Complexity	0	114	23.5	15
I76B Other Musculoskeletal Disorders, Intermediate Complexity	0	301	9.4	5
I76C Other Musculoskeletal Disorders, Minor Complexity	0	393	4.3	3
I77A Fractures of Pelvis, Major Complexity	0	393	21.5	15
I77B Fractures of Pelvis, Minor Complexity	0	493	8.9	6
I78A Fractures of Neck of Femur, Major Complexity	0	67	21.3	15
I78B Fractures of Neck of Femur, Minor Complexity	0	143	8.1	5
I79A Pathological Fractures, Major Complexity	0	117	27.4	20
I79B Pathological Fractures, Minor Complexity	0	296	10.5	7
I80Z Femoral Fractures, Transferred to Acute Facility <2 Days	0	20	0.9	1
I81Z Musculoskeletal Injuries, Sameday	764	2,022	0.5	1
I82Z Other Sameday Treatment for Musculoskeletal Disorders	14,529	5,802	0.5	1
Total	**64,619**	**52,833**	**6.5**	**2**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.11 Total Discharges: MDC 9 Diseases and Disorders of the Skin, Subcutaneous Tissue and Breast: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 9 Diseases and Disorders of the Skin, Subcutaneous Tissue and Breast	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
J01A Microvas Tiss Transf for Skin, Subcut Tiss & Breast Dsrds, Major Complexity	0	9	20.8	10
J01B Microvas Tiss Transf for Skin, Subcut Tiss & Breast Dsrds, Minor Complexity	0	105	6.4	6
J06A Major Procedures for Breast Disorders, Major Complexity	33	242	7.3	4
J06B Major Procedures for Breast Disorders, Minor Complexity	1,191	1,814	2.2	2
J07A Minor Procedures for Breast Disorders, Major Complexity	809	224	1.5	1
J07B Minor Procedures for Breast Disorders, Minor Complexity	1,180	146	0.9	1
J08A Other Skin Grafts and Debridement Procedures, Major Complexity	~	121	28.6	10
J08B Other Skin Grafts and Debridement Procedures, Intermediate Complexity	50	136	4.4	3
J08C Other Skin Grafts and Debridement Procedures, Minor Complexity	1,455	259	2.4	1
J09Z Perianal and Pilonidal Procedures	513	238	2.3	1
J10A Plastic OR Procs for Skin, Subcutaneous Tissue and Breast Disorders, Major Comp	126	75	4.4	2
J10B Plastic OR Procs for Skin, Subcutaneous Tissue and Breast Disorders, Minor Comp	1,190	137	2.0	1
J11A Other Skin, Subcutaneous Tissue and Breast Procedures, Major Complexity	1,655	394	7.1	2
J11B Other Skin, Subcutaneous Tissue and Breast Procedures, Minor Complexity	35,570	525	1.4	1
J12A Lower Limb Procedures W Ulcer or Cellulitis, Major Complexity	~	34	24.1	21
J12B Lower Limb Procedures W Ulcer or Cellulitis, Minor Complexity	33	99	11.2	8
J13A Lower Limb Procedures W/O Ulcer or Cellulitis, Major Complexity	14	49	11.5	5
J13B Lower Limb Procedures W/O Ulcer or Cellulitis, Minor Complexity	159	84	2.9	2
J14Z Major Breast Reconstructions	23	222	3.9	4
J60A Skin Ulcers, Major Complexity	~	179	27.3	16
J60B Skin Ulcers, Intermediate Complexity	22	264	7.9	6
J60C Skin Ulcers, Minor Complexity	991	193	4.1	2
J62A Malignant Breast Disorders, Major Complexity	40	200	13.1	10
J62B Malignant Breast Disorders, Minor Complexity	5,365	378	11.0	6
J63A Non-Malignant Breast Disorders, Major Complexity	162	254	2.9	2
J63B Non-Malignant Breast Disorders, Minor Complexity	3,241	136	0.9	1
J64A Cellulitis, Major Complexity	29	2,320	11.2	7
J64B Cellulitis, Minor Complexity	771	5,902	3.0	2
J65A Trauma to Skin, Subcutaneous Tissue and Breast, Major Complexity	0	512	14.1	9
J65B Trauma to Skin, Subcutaneous Tissue and Breast, Minor Complexity	72	1,392	2.0	1
J67A Minor Skin Disorders, Major Complexity	660	521	4.8	3
J67B Minor Skin Disorders, Minor Complexity	13,615	1,984	1.3	1
J68A Major Skin Disorders, Major Complexity	678	817	5.4	3
J68B Major Skin Disorders, Minor Complexity	1,567	351	2.0	1
J69A Skin Malignancy, Major Complexity	20	94	18.3	14
J69B Skin Malignancy, Intermediate Complexity	563	90	12.1	6
J69C Skin Malignancy, Minor Complexity	2,383	44	8.6	3
J98Z UV Therapy[b]	19,669	0	-	-
Total	**93,859**	**20,544**	**5.0**	**2**

Notes:
~ Denotes five or fewer discharges reported to HIPE.
- Mean and median length of stay cannot be calculated as no in-patients are reported.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.
b The official classification for AR-DRG's (Version 8.0) has been slightly modified by the addition of two local DRG's specific to Ireland to account for some differences between Ireland and Australia in the provision of care. While this practice has been used for Activity Based Funding, this modification to the official classification has only been published in the HIPE Annual Report since 2018.
In general UV therapy is not administered in the acute hospital setting in Australia whereas it is in a number of Irish hospitals. In order to differentiate this activity from other skin disorder treatments the local DRG J98Z (*UV Therapy*) has been created which isolates this activity so it can be costed and reimbursed appropriately.

TABLE 4.12 Total Discharges: MDC 10 Endocrine, Nutritional and Metabolic Diseases and Disorders: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 10 Endocrine, Nutritional and Metabolic Diseases and Disorders	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
K01A OR Procedures for Diabetic Complications, Major Complexity	0	66	57.6	45
K01B OR Procedures for Diabetic Complications, Intermediate Complexity	~	96	32.3	21
K01C OR Procedures for Diabetic Complications, Minor Complexity	~	210	14.4	10
K02A Pituitary Procedures, Major Complexity	0	9	23.1	15
K02B Pituitary Procedures, Minor Complexity	~	63	9.4	7
K03Z Adrenal Procedures	0	67	11.2	6
K05A Parathyroid Procedures, Major Complexity	0	49	6.9	4
K05B Parathyroid Procedures, Minor Complexity	23	209	2.3	2
K06A Thyroid Procedures, Major Complexity	0	80	6.4	4
K06B Thyroid Procedures, Minor Complexity	25	651	2.3	2
K08Z Thyroglossal Procedures	11	49	1.6	1
K09A Other Endocrine, Nutritional and Metabolic OR Procedures, Major Complexity	~	40	51.1	19
K09B Other Endocrine, Nutritional and Metabolic OR Procedures, Minor Complexity	57	48	10.3	7
K10A Revisional and Open Bariatric Procedures, Major Complexity	0	~	^	^
K10B Revisional and Open Bariatric Procedures, Minor Complexity	0	6	3.2	2
K11A Major Laparoscopic Bariatric Procedures, Major Complexity	0	40	2.8	3
K11B Major Laparoscopic Bariatric Procedures, Minor Complexity	0	52	2.3	2
K12A Other Bariatric Procedures, Major Complexity	~	~	^	^
K12B Other Bariatric Procedures, Minor Complexity	~	0	-	-
K13Z Plastic OR Procedures for Endocrine, Nutritional and Metabolic Disorders	23	31	2.4	2
K40A Endoscopic and Investigative Procedures for Metabolic Disorders, Major Comp	33	337	18.0	11
K40B Endoscopic and Investigative Procedures for Metabolic Disorders, Minor Comp	1,120	112	6.7	5
K60A Diabetes, Major Complexity	~	958	12.0	6
K60B Diabetes, Minor Complexity	348	2,930	4.0	2
K61A Severe Nutritional Disturbance, Major Complexity	0	29	53.0	27
K61B Severe Nutritional Disturbance, Minor Complexity	~	25	23.1	7
K62A Miscellaneous Metabolic Disorders, Major Complexity	19	732	13.9	8
K62B Miscellaneous Metabolic Disorders, Intermediate Complexity	150	1,732	5.6	3
K62C Miscellaneous Metabolic Disorders, Minor Complexity	1,898	2,323	2.4	1
K63A Inborn Errors of Metabolism, Major Complexity	301	181	6.3	2
K63B Inborn Errors of Metabolism, Minor Complexity	359	47	2.6	2
K64A Endocrine Disorders, Major Complexity	670	863	6.3	4
K64B Endocrine Disorders, Minor Complexity	2,485	738	1.8	1
Total	**7,540**	**12,775**	**6.5**	**3**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
^ Denotes that length of stay is suppressed where the number of discharges is not reported.
- Mean and median length of stay cannot be calculated as no in-patients are reported.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.13 Total Discharges: MDC 11 Diseases and Disorders of the Kidney and Urinary Tract: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 11 Diseases and Disorders of the Kidney and Urinary Tract	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
L02A Operative Insertion of Peritoneal Catheter for Dialysis, Major Complexity	~	35	16.1	10
L02B Operative Insertion of Peritoneal Catheter for Dialysis, Minor Complexity	36	52	4.3	3
L03A Kidney, Ureter and Major Bladder Procedures for Neoplasm, Major Complexity	0	93	26.8	22
L03B Kidney, Ureter and Major Bladder Procedures for Neoplasm, Intermediate Comp	~	237	9.9	8
L03C Kidney, Ureter and Major Bladder Procedures for Neoplasm, Minor Complexity	15	402	6.2	5
L04A Kidney, Ureter and Major Bladder Procedures for Non-Neoplasm, Major Complexity	0	196	28.1	15
L04B Kidney, Ureter and Major Bladder Procedures for Non-Neoplasm, Intermediate Comp	58	660	8.1	5
L04C Kidney, Ureter and Major Bladder Procedures for Non-Neoplasm, Minor Complexity	793	1,448	2.9	2
L05A Transurethral Prostatectomy for Urinary Disorder, Major Complexity	0	21	15.7	11
L05B Transurethral Prostatectomy for Urinary Disorder, Minor Complexity	~	92	5.4	4
L06A Minor Bladder Procedures, Major Complexity	0	63	21.3	16
L06B Minor Bladder Procedures, Intermediate Complexity	15	88	7.7	5
L06C Minor Bladder Procedures, Minor Complexity	107	169	4.0	3
L07A Other Transurethral Procedures, Major Complexity	8	249	11.0	6
L07B Other Transurethral Procedures, Minor Complexity	675	1,112	3.0	2
L08A Urethral Procedures, Major Complexity	~	19	6.1	3
L08B Urethral Procedures, Minor Complexity	64	96	2.4	2
L09A Other Procedures for Kidney and Urinary Tract Disorders, Major Complexity	0	51	42.0	26
L09B Other Procedures for Kidney and Urinary Tract Disorders, Intermediate Complexity	7	54	11.1	8
L09C Other Procedures for Kidney and Urinary Tract Disorders, Minor Complexity	300	129	3.4	1
L40Z Ureteroscopy	65	112	2.9	2
L41Z Cystourethroscopy for Urinary Disorder, Sameday	12,446	98	0.5	1
L42Z ESW Lithotripsy	2,065	110	3.3	3
L60A Kidney Failure, Major Complexity	~	617	23.7	14
L60B Kidney Failure, Intermediate Complexity	66	1,896	7.7	5
L60C Kidney Failure, Minor Complexity	658	565	3.3	2
L61Z Haemodialysis	177,341	19	1.0	1
L62A Kidney and Urinary Tract Neoplasms, Major Complexity	30	250	17.3	11
L62B Kidney and Urinary Tract Neoplasms, Minor Complexity	1,033	328	5.1	2
L63A Kidney and Urinary Tract Infections, Major Complexity	40	6,725	13.1	7
L63B Kidney and Urinary Tract Infections, Minor Complexity	1,501	8,713	4.4	3
L64A Urinary Stones and Obstruction, Major Complexity	100	935	4.8	3
L64B Urinary Stones and Obstruction, Minor Complexity	325	2,052	2.0	1
L65A Kidney and Urinary Tract Signs and Symptoms, Major Complexity	36	613	8.9	6
L65B Kidney and Urinary Tract Signs and Symptoms, Minor Complexity	2,601	1,710	3.1	2
L66Z Urethral Stricture	257	95	2.7	2
L67A Other Kidney and Urinary Tract Disorders, Major Complexity	445	994	9.0	5
L67B Other Kidney and Urinary Tract Disorders, Intermediate Complexity	2,647	972	3.2	2
L67C Other Kidney and Urinary Tract Disorders, Minor Complexity	3,499	176	2.3	1
L68Z Peritoneal Dialysis	~	0	-	-
Total	**207,244**	**32,246**	**7.2**	**4**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
- Mean and median length of stay cannot be calculated as no in-patients are reported.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.14 Total Discharges: MDC 12 Diseases and Disorders of the Male Reproductive System: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 12 Diseases and Disorders of the Male Reproductive System	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
M01A Major Male Pelvic Procedures, Major Complexity	0	53	8.9	6
M01B Major Male Pelvic Procedures, Minor Complexity	~	476	3.5	3
M02A Transurethral Prostatectomy for Reproductive System Disorder, Major Complexity	0	66	8.6	7
M02B Transurethral Prostatectomy for Reproductive System Disorder, Minor Complexity	11	456	4.1	3
M03A Penis Procedures, Major Complexity	28	55	5.8	3
M03B Penis Procedures, Minor Complexity	355	131	1.6	1
M04Z Testes Procedures	1,235	842	1.8	1
M05Z Circumcision	1,832	150	1.3	1
M06A Other Male Reproductive System OR Procedures, Major Complexity	55	42	13.6	9
M06B Other Male Reproductive System OR Procedures, Minor Complexity	158	32	2.9	2
M40Z Cystourethroscopy for Male Reproductive System Disorder, Sameday	2,140	~	^	^
M60A Male Reproductive System Malignancy, Major Complexity	334	471	11.3	5
M60B Male Reproductive System Malignancy, Minor Complexity	3,988	196	12.7	5
M61A Benign Prostatic Hypertrophy, Major Complexity	25	38	8.7	5
M61B Benign Prostatic Hypertrophy, Minor Complexity	956	65	2.8	1
M62A Male Reproductive System Inflammation, Major Complexity	~	183	8.1	5
M62B Male Reproductive System Inflammation, Minor Complexity	463	1,108	2.4	2
M63Z Male Sterilisation Procedures	131	~	^	^
M64A Other Male Reproductive System Disorders, Major Complexity	25	76	5.2	2
M64B Other Male Reproductive System Disorders, Minor Complexity	594	745	1.1	1
Total	**12,333**	**5,192**	**4.1**	**2**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
^ Denotes that length of stay is suppressed where the number of discharges is not reported.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.15 Total Discharges: MDC 13 Diseases and Disorders of the Female Reproductive System: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 13 Diseases and Disorders of the Female Reproductive System	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
N01A Pelvic Evisceration and Radical Vulvectomy, Major Complexity	0	*	^	^
N01B Pelvic Evisceration and Radical Vulvectomy, Minor Complexity	0	98	8.6	7
N04A Hysterectomy for Non-Malignancy, Major Complexity	0	186	7.4	6
N04B Hysterectomy for Non-Malignancy, Minor Complexity	7	1,497	3.8	4
N05A Oophorectomy and Complex Fallopian Tube Procedures for Non-Malignancy, Maj Comp	~	60	7.3	5
N05B Oophorectomy and Complex Fallopian Tube Procedures for Non-Malignancy, Min Comp	209	549	2.6	2
N06A Female Reproductive System Reconstructive Procedures, Major Complexity	0	61	5.9	4
N06B Female Reproductive System Reconstructive Procedures, Minor Complexity	122	781	2.9	3
N07A Other Uterus and Adnexa Procedures for Non-Malignancy, Major Complexity	1,097	1,128	2.6	2
N07B Other Uterus and Adnexa Procedures for Non-Malignancy, Minor Complexity	2,371	204	1.3	1
N08Z Endoscopic and Laparoscopic Procedures, Female Reproductive System	768	355	2.8	1
N09Z Other Vagina, Cervix and Vulva Procedures	2,026	735	5.0	2
N10Z Diagnostic Curettage and Diagnostic Hysteroscopy	9,420	691	2.1	1
N11A Other Female Reproductive System OR Procedures, Major Complexity	23	109	11.6	7
N11B Other Female Reproductive System OR Procedures, Minor Complexity	15	~	^	^
N12A Uterus and Adnexa Procedures for Malignancy, Major Complexity	0	43	29.3	18
N12B Uterus and Adnexa Procedures for Malignancy, Intermediate Complexity	~	148	8.4	7
N12C Uterus and Adnexa Procedures for Malignancy, Minor Complexity	49	360	4.3	4
N60A Female Reproductive System Malignancy, Major Complexity	12	222	19.7	14
N60B Female Reproductive System Malignancy, Minor Complexity	932	486	6.6	4
N61A Female Reproductive System Infections, Major Complexity	~	94	6.2	4
N61B Female Reproductive System Infections, Minor Complexity	87	326	2.4	2
N62A Menstrual and Other Female Reproductive System Disorders, Major Complexity	66	526	3.3	2
N62B Menstrual and Other Female Reproductive System Disorders, Minor Complexity	3,596	2,226	1.6	1
Total	**20,806**	**10,930**	**3.9**	**2**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
* Further suppression required to prevent disclosure of five or fewer discharges.
^ Denotes that length of stay is suppressed where the number of discharges is not reported.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.16 Total Discharges: MDC 14 Pregnancy, Childbirth and the Puerperium: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 14 Pregnancy, Childbirth and the Puerperium	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
O01A Caesarean Delivery, Major Complexity	0	1,413	10.8	7
O01B Caesarean Delivery, Intermediate Complexity	0	7,400	5.6	5
O01C Caesarean Delivery, Minor Complexity	0	11,191	4.0	4
O02A Vaginal Delivery W OR Procedures, Major Complexity	0	141	5.3	4
O02B Vaginal Delivery W OR Procedures, Minor Complexity	0	721	3.3	3
O03A Ectopic Pregnancy, Major Complexity	~	122	3.0	2
O03B Ectopic Pregnancy, Minor Complexity	46	550	1.7	1
O04A Postpartum and Post Abortion W OR Procedures, Major Complexity[b]	~	87	5.9	4
O04B Postpartum and Post Abortion W OR Procedures, Minor Complexity[b]	26	162	2.0	2
O05Z Abortion W OR Procedures[b]	1,605	2,562	1.0	1
O60A Vaginal Delivery, Major Complexity	0	3,906	4.6	4
O60B Vaginal Delivery, Intermediate Complexity	0	17,292	3.0	3
O60C Vaginal Delivery, Minor Complexity	0	15,932	2.2	2
O61A Postpartum and Post Abortion W/O OR Procedures, Major Complexity[b]	55	557	4.0	3
O61B Postpartum and Post Abortion W/O OR Procedures, Minor Complexity[b]	1,553	3,040	1.9	1
O63A Abortion W/O OR Procedures, Major Complexity[b]	19	242	1.9	1
O63B Abortion W/O OR Procedures, Minor Complexity[b]	524	2,209	1.1	1
O66A Antenatal and Other Obstetric Admissions, Major Complexity	1,497	10,384	2.0	1
O66B Antenatal and Other Obstetric Admissions, Minor Complexity	8,399	29,081	1.0	1
Total	**13,731**	**106,992**	**2.6**	**2**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.
b This includes spontaneous abortions and pregnancies with abortive outcome.

TABLE 4.17 Total Discharges: MDC 15 Newborns and Other Neonates: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 15 Newborns and Other Neonates	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
P01Z Neonate W Sig OR Proc/Vent>=96hrs, Died or Transfer to Acute Faclity <5Days	~	33	2.1	2
P02Z Cardiothoracic and Vascular Procedures for Neonates	0	51	27.6	17
P03A Neonate, AdmWt 1000-1499g W Significant OR Proc/Vent>=96hrs, Major Complexity	0	41	62.6	60
P03B Neonate, AdmWt 1000-1499g W Significant OR Proc/Vent>=96hrs, Minor Complexity	0	138	39.4	42
P04A Neonate, AdmWt 1500-1999g W Significant OR Proc/Vent>=96hrs, Major Complexity	0	11	49.0	39
P04B Neonate, AdmWt 1500-1999g W Significant OR Proc/Vent>=96hrs, Minor Complexity	0	84	28.5	26
P05A Neonate, AdmWt 2000-2499g W Significant OR Proc/Vent>=96hrs, Major Complexity	0	15	76.1	46
P05B Neonate, AdmWt 2000-2499g W Significant OR Proc/Vent>=96hrs, Minor Complexity	~	78	20.4	17
P06A Neonate, AdmWt >=2500g W Significant OR Proc/Vent>=96hrs, Major Complexity	0	118	29.7	18
P06B Neonate, AdmWt >=2500g W Significant OR Proc/Vent>=96hrs, Minor Complexity	~	223	13.1	10
P07Z Neonate, AdmWt <750g W Significant OR Procedures	0	12	102.1	114
P08Z Neonate, AdmWt 750-999g W Significant OR Procedures	0	7	76.7	84
P60A Neonate W/O Sig OR/Vent>=96hrs, Died/Transfer Acute Facility <5 Days, MajC	0	82	2.2	2
P60B Neonate W/O Sig OR/Vent>=96hrs, Died/Transfer Acute Facility <5 Days, MinC	0	516	1.1	1
P61Z Neonate, AdmWt <750g W/O Significant OR procedure	9	74	58.8	62
P62A Neonate, AdmWt 750-999g W/O Significant OR Procedures, Major Complexity	0	23	62.5	71
P62B Neonate, AdmWt 750-999g W/O Significant OR Procedures, Minor Complexity	0	66	46.9	49
P63A Neonate, AdmWt 1000-1249g W/O Significant OR Proc/Vent>=96hrs, Major Complexity	0	7	49.0	47
P63B Neonate, AdmWt 1000-1249g W/O Significant OR Proc/Vent>=96hrs, Minor Complexity	0	15	30.6	35
P64A Neonate, AdmWt 1250-1499g W/O Significant OR Proc/Vent>=96hrs, Major Complexity	0	21	30.5	29
P64B Neonate, AdmWt 1250-1499g W/O Significant OR Proc/Vent>=96hrs, Minor Complexity	0	70	30.4	29
P65A Neonate, AdmWt 1500-1999g W/O Significant OR Proc/Vent>=96hrs, Extreme Comp	0	36	32.3	29
P65B Neonate, AdmWt 1500-1999g W/O Significant OR Proc/Vent>=96hrs, Major Complexity	0	87	25.8	24
P65C Neonate, AdmWt 1500-1999g W/O Significant OR Proc/Vent>=96hrs, Intermediate Comp	0	297	19.3	19
P65D Neonate, AdmWt 1500-1999g W/O Significant OR Proc/Vent>=96hrs, Minor Complexity	0	176	12.6	12
P66A Neonate, AdmWt 2000-2499g W/O Significant OR Proc/Vent>=96hrs, Extreme Comp	0	81	20.4	17
P66B Neonate, AdmWt 2000-2499g W/O Significant OR Proc/Vent>=96hrs, Major Complexity	0	299	13.9	13
P66C Neonate, AdmWt 2000-2499g W/O Significant OR Proc/Vent>=96hrs, Intermediate Comp	~	669	8.9	7
P66D Neonate, AdmWt 2000-2499g W/O Significant OR Proc/Vent>=96hrs, Minor Complexity	20	445	4.2	3
P67A Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, <37 Comp Wks Gest, Extr Comp	~	92	15.7	13
P67B Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, <37 Comp Wks Gest, Maj Comp	~	187	9.1	8
P67C Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, <37 Comp Wks Gest, Int Comp	~	225	6.9	5
P67D Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, <37 Comp Wks Gest, Min Comp	10	361	4.6	3
P68A Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, >=37 Comp Wks Gest, Ext Comp	7	505	10.2	7
P68B Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, >=37 Comp Wks Gest, Maj Comp	28	1,046	5.0	4
P68C Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, >=37 Comp Wks Gest, Int Comp	71	1,545	3.3	3
P68D Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, >=37 Comp Wks Gest, Min Comp	300	5,549	2.2	2
Total	**457**	**13,285**	**7.2**	**3**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.18 Total Discharges: MDC 16 Diseases and Disorders of Blood, Blood Forming Organs, Immunological Disorders: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 16 Diseases and Disorders of Blood, Blood Forming Organs, Immunological Disorders	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
Q01A Splenectomy, Major Complexity	0	6	22.5	15
Q01B Splenectomy, Minor Complexity	0	25	7.2	6
Q02A Blood and Immune System Disorders W Other OR Procedures, Major Complexity	~	57	33.6	13
Q02B Blood and Immune System Disorders W Other OR Procedures, Minor Complexity	447	188	4.8	3
Q60A Reticuloendothelial and Immunity Disorders, Major Complexity	483	1,255	6.5	4
Q60B Reticuloendothelial and Immunity Disorders, Minor Complexity	4,454	497	2.1	1
Q61A Red Blood Cell Disorders, Major Complexity	919	2,175	7.8	5
Q61B Red Blood Cell Disorders, Intermediate Complexity	15,019	3,257	2.2	1
Q61C Red Blood Cell Disorders, Minor Complexity	22,054	80	0.7	1
Q62A Coagulation Disorders, Major Complexity	*	371	7.2	4
Q62B Coagulation Disorders, Minor Complexity	3,261	606	2.0	1
Total	**46,728**	**8,517**	**4.7**	**2**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
* Further suppression required to prevent disclosure of five or fewer discharges.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.19 Total Discharges: MDC 17 Neoplastic Disorders (Haematological and Solid Neoplasms): AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 17 Neoplastic Disorders (Haematological and Solid Neoplasms)	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
R01A Lymphoma and Leukaemia W Major OR Procedures, Major Complexity	~	66	26.3	17
R01B Lymphoma and Leukaemia W Major OR Procedures, Minor Complexity	21	62	9.2	5
R02A Other Neoplastic Disorders W Major OR Procedures, Major Complexity	0	22	15.8	14
R02B Other Neoplastic Disorders W Major OR Procedures, Intermediate Complexity	~	96	9.4	8
R02C Other Neoplastic Disorders W Major OR Procedures, Minor Complexity	41	152	4.1	3
R03A Lymphoma and Leukaemia W Other OR Procedures, Major Complexity	0	80	43.9	37
R03B Lymphoma and Leukaemia W Other OR Procedures, Intermediate Complexity	8	120	14.4	12
R03C Lymphoma and Leukaemia W Other OR Procedures, Minor Complexity	165	144	5.3	3
R04A Other Neoplastic Disorders W Other OR Procedures, Major Complexity	28	59	14.6	10
R04B Other Neoplastic Disorders W Other OR Procedures, Minor Complexity	923	115	4.7	3
R60A Acute Leukaemia, Major Complexity	102	453	25.9	22
R60B Acute Leukaemia, Minor Complexity	2,844	427	6.6	3
R61A Lymphoma and Non-Acute Leukaemia, Major Complexity	530	1,433	15.6	9
R61B Lymphoma and Non-Acute Leukaemia, Minor Complexity	10,471	1,868	4.3	2
R62A Other Neoplastic Disorders, Major Complexity[b]	888	189	18.0	11
R62B Other Neoplastic Disorders, Intermediate Complexity[b]	6,939	129	7.2	3
R62C Other Neoplastic Disorders, Minor Complexity[b]	100,031	33	6.5	3
R63Z Chemotherapy	120,960	0	-	-
R99Z Oncology Repeat Attendance[c]	23,541	0	-	-
Total	**267,498**	**5,448**	**11.2**	**5**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
\- Mean and median length of stay cannot be calculated as no in-patients are reported.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.
b From 2015 this data includes activity from St. Luke's Radiation Oncology Network centres located in Beaumont and St. James's Hospitals. These centres are operational since 2011, but data has only been included in HIPE from 2015.
c The official classification for AR-DRG's (V8.0) has been slightly modified by the addition of two local DRG's specific to Ireland to account for some differences in the provision of care. While this practice has been used for Activity Based Funding, this modification to the official classification has only been published in the HIPE Annual Report since 2018.
There are many attendances at oncology day wards where patients undergo only very minor procedures (e.g. taking of bloods) which are generally of lower complexity than administration of chemotherapy or other oncology procedures. The local DRG R99Z (*Oncology Repeat Attendance*) is used to identify these cases and to ensure that they are costed and reimbursed appropriately.

TABLE 4.20 Total Discharges: MDC 18 Infectious and Parasitic Diseases, Systemic or Unspecified Sites: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 18 Infectious and Parasitic Diseases, Systemic or Unspecified Sites	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
S65A Human Immunodeficiency Virus, Major Complexity	0	50	45.2	18
S65B Human Immunodeficiency Virus, Intermediate Complexity	~	93	8.8	6
S65C Human Immunodeficiency Virus, Minor Complexity	37	27	3.4	2
T01A Infectious and Parasitic Diseases W OR Procedures, Major Complexity	0	135	35.8	26
T01B Infectious and Parasitic Diseases W OR Procedures, Intermediate Complexity	~	191	17.7	13
T01C Infectious and Parasitic Diseases W OR Procedures, Minor Complexity	40	244	11.5	8
T40Z Infectious and Parasitic Diseases W Ventilator Support	0	36	10.9	7
T60A Septicaemia, Major Complexity	0	351	26.2	19
T60B Septicaemia, Intermediate Complexity	~	1,132	12.8	9
T60C Septicaemia, Minor Complexity	14	1,535	7.2	6
T61A Postoperative and Post-Traumatic Infections, Major Complexity	~	326	12.1	8
T61B Postoperative and Post-Traumatic Infections, Minor Complexity	101	940	4.5	3
T62A Fever of Unknown Origin, Major Complexity	0	180	9.0	6
T62B Fever of Unknown Origin, Minor Complexity	37	1,033	2.8	2
T63A Viral Illnesses, Major Complexity	177	490	4.8	3
T63B Viral Illnesses, Minor Complexity	335	4,144	1.5	1
T64A Other Infectious and Parasitic Diseases, Major Complexity	0	31	24.6	17
T64B Other Infectious and Parasitic Diseases, Intermediate Complexity	16	154	12.4	9
T64C Other Infectious and Parasitic Diseases, Minor Complexity	770	330	4.6	3
Total	**1,540**	**11,422**	**6.6**	**3**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.21 Total Discharges: MDC 19 Mental Diseases and Disorders: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 19 Mental Diseases and Disorders	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
U40Z Mental Health Treatment W ECT, Sameday	38	~	^	^
U60A Mental Health Treatment W/O ECT, Sameday, Major Complexity	485	276	0.5	1
U60B Mental Health Treatment W/O ECT, Sameday, Minor Complexity	242	562	0.5	1
U61A Schizophrenia Disorders, Major Complexity	0	*	^	^
U61B Schizophrenia Disorders, Minor Complexity	0	116	29.9	18
U62A Paranoia and Acute Psychotic Disorders, Major Complexity	0	33	26.4	13
U62B Paranoia and Acute Psychotic Disorders, Minor Complexity	0	84	10.4	4
U63A Major Affective Disorders, Major Complexity	0	59	50.9	21
U63B Major Affective Disorders, Minor Complexity	0	155	17.3	11
U64A Other Affective and Somatoform Disorders, Major Complexity	0	47	16.3	8
U64B Other Affective and Somatoform Disorders, Minor Complexity	0	150	7.7	3
U65A Anxiety Disorders, Major Complexity	0	152	12.5	7
U65B Anxiety Disorders, Minor Complexity	0	336	4.6	2
U66A Eating and Obsessive-Compulsive Disorders, Major Complexity	0	61	41.6	20
U66B Eating and Obsessive-Compulsive Disorders, Minor Complexity	0	155	18.8	10
U67A Personality Disorders and Acute Reactions, Major Complexity	0	61	37.9	9
U67B Personality Disorders and Acute Reactions, Minor Complexity	0	188	7.2	2
U68A Childhood Mental Disorders, Major Complexity	0	44	7.5	2
U68B Childhood Mental Disorders, Minor Complexity	0	39	3.2	2
Total	**765**	**2,548**	**11.1**	**2**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
* Further suppression required to prevent disclosure of five or fewer discharges.
^ Denotes that length of stay is suppressed where the number of discharges is not reported.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.22 Total Discharges: MDC 20 Alcohol/Drug Use and Alcohol/Drug Induced Organic Mental Disorders: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 20 Alcohol/Drug Use and Alcohol/Drug Induced Organic Mental Disorders	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
V60A Alcohol Intoxication and Withdrawal, Major Complexity	0	515	10.2	6
V60B Alcohol Intoxication and Withdrawal, Minor Complexity	0	1,226	3.5	2
V61A Drug Intoxication and Withdrawal, Major Complexity	0	29	15.0	6
V61B Drug Intoxication and Withdrawal, Minor Complexity	0	145	5.5	3
V62A Alcohol Use and Dependence, Major Complexity	0	88	13.6	7
V62B Alcohol Use and Dependence, Minor Complexity	0	471	4.8	3
V63Z Opioid Use and Dependence	0	99	19.1	21
V64Z Other Drug Use and Dependence	0	51	8.2	3
V65Z Treatment for Alcohol Disorders, Sameday	*	480	0.5	1
V66Z Treatment for Drug Disorders, Sameday	~	68	0.5	1
Total	**12**	**3,172**	**5.3**	**2**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
* Further suppression required to prevent disclosure of five or fewer discharges.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.23 Total Discharges: MDC 21 Injuries, Poisonings and Toxic Effects of Drugs: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 21 Injuries, Poisonings and Toxic Effects of Drugs	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
W01A Vent, Trac & Cran Procs for Mult Sig Trauma, Major Complexity	0	18	92.2	42
W01B Vent, Trac & Cran Procs for Mult Sig Trauma, Intermediate Complexity	0	60	48.8	26
W01C Vent, Trac & Cran Procs for Mult Sig Trauma, Minor Complexity	0	52	26.9	17
W02A Hip, Femur and Lower Limb Procedures for Multiple Sig Trauma, Major Complexity	0	24	51.4	33
W02B Hip, Femur and Lower Limb Procedures for Multiple Sig Trauma, Minor Complexity	0	89	25.0	14
W03Z Abdominal Procedures for Multiple Significant Trauma	0	18	23.5	14
W04A Multiple Significant Trauma W Other OR Procedures, Major Complexity	0	20	23.8	19
W04B Multiple Significant Trauma W Other OR Procedures, Minor Complexity	0	50	11.2	8
W60A Multiple Sig Trauma, Died or Transferred to Acute Facility <5 Days, Major Comp	0	23	2.0	2
W60B Multiple Sig Trauma, Died or Transferred to Acute Facility <5 Days, Minor Comp	0	51	1.8	1
W61A Multiple Significant Trauma W/O OR Procedures, Major Complexity	0	89	29.6	15
W61B Multiple Significant Trauma W/O OR Procedures, Minor Complexity	0	144	8.2	6
X02A Microvascular Tissue Transfer and Skin Grafts for Injuries to Hand, Major Comp	~	19	6.6	6
X02B Microvascular Tissue Transfer and Skin Grafts for Injuries to Hand, Minor Comp	14	100	1.8	1
X04A Other Procedures for Injuries to Lower Limb, Major Complexity	0	39	31.0	15
X04B Other Procedures for Injuries to Lower Limb, Minor Complexity	18	155	2.9	2
X05A Other Procedures for Injuries to Hand, Major Complexity	22	290	2.3	1
X05B Other Procedures for Injuries to Hand, Minor Complexity	239	948	0.8	1
X06A Other Procedures for Other Injuries, Major Complexity	~	140	21.2	14
X06B Other Procedures for Other Injuries, Intermediate Complexity	46	292	6.7	4
X06C Other Procedures for Other Injuries, Minor Complexity	245	916	2.2	1
X07A Skin Grafts for Injuries Excluding Hand, Major Complexity	0	32	35.6	23
X07B Skin Grafts for Injuries Excluding Hand, Intermediate Complexity	~	43	12.4	10
X07C Skin Grafts for Injuries Excluding Hand, Minor Complexity	~	53	6.1	4
X40A Injuries, Poisoning and Toxic Effects of Drugs W Ventilator Support, Major Comp	0	31	20.8	13
X40B Injuries, Poisoning and Toxic Effects of Drugs W Ventilator Support, Minor Comp	0	62	6.3	4
X60A Injuries, Major Complexity	6	1,109	11.3	5
X60B Injuries, Minor Complexity	424	3,850	1.7	1
X61A Allergic Reactions, Major Complexity	0	97	2.2	1
X61B Allergic Reactions, Minor Complexity	9	394	1.1	1
X62A Poisoning/Toxic Effects of Drugs and Other Substances, Major Complexity	0	957	7.2	3
X62B Poisoning/Toxic Effects of Drugs and Other Substances, Minor Complexity	69	3,190	1.8	1
X63A Sequelae of Treatment, Major Complexity	24	649	7.5	5
X63B Sequelae of Treatment, Minor Complexity	304	2,083	2.2	1
X64A Other Injuries, Poisonings and Toxic Effects, Major Complexity	~	317	15.9	8
X64B Other Injuries, Poisonings and Toxic Effects, Minor Complexity	7	824	2.1	1
Total	**1,439**	**17,228**	**4.5**	**1**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.24 Total Discharges: MDC 22 Burns: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 22 Burns	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
Y01Z Vent >=96hrs or Trach for Burns or OR Procs for Severe Full Thickness Burns	0	11	34.6	29
Y02A Skin Grafts for Other Burns, Major Complexity	0	59	20.7	14
Y02B Skin Grafts for Other Burns, Intermediate Complexity	~	69	8.3	7
Y02C Skin Grafts for Other Burns, Minor Complexity	~	35	6.3	4
Y03A Other OR Procedures for Other Burns, Major Complexity	9	27	4.7	1
Y03B Other OR Procedures for Other Burns, Minor Complexity	~	50	3.8	3
Y60Z Burns, Transferred to Acute Facility <5 Days	0	41	1.1	1
Y61Z Severe Burns	~	48	16.7	3
Y62A Other Burns, Major Complexity	~	83	6.8	4
Y62B Other Burns, Minor Complexity	74	203	2.6	1
Total	**102**	**626**	**7.4**	**2**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.25 Total Discharges: MDC 23 Factors Influencing Health Status and Other Contacts with Health Services: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

MDC 23 Factors Influencing Health Status and Other Contacts with Health Services	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
Z01A Other Contacts W Health Services W OR Procedures, Major Complexity	55	93	31.2	10
Z01B Other Contacts W Health Services W OR Procedures, Minor Complexity	701	223	2.5	1
Z40Z Other Contacts W Health Services W Endoscopy, Sameday	16,370	25	0.5	1
Z60A Rehabilitation, Major Complexity	539	1,437	47.5	31
Z60B Rehabilitation, Minor Complexity	1,179	2,645	25.6	17
Z61A Signs and Symptoms, Major Complexity	25	531	11.6	6
Z61B Signs and Symptoms, Intermediate Complexity	217	869	3.2	1
Z61C Signs and Symptoms, Minor Complexity	1,157	1,411	1.6	1
Z63A Other Follow Up After Surgery or Medical Care, Major Complexity	91	1,425	26.4	15
Z63B Other Follow Up After Surgery or Medical Care, Minor Complexity	1,714	1,714	10.6	3
Z64A Other Factors Influencing Health Status, Major Complexity	3,767	619	10.3	2
Z64B Other Factors Influencing Health Status, Minor Complexity	37,152	1,687	1.4	1
Z65Z Congenital Anomalies and Problems Arising from Neonatal Period	117	58	4.2	2
Z66Z Sleep Disorders	22	469	1.1	1
Total	**63,106**	**13,206**	**16.3**	**4**

Note: a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

TABLE 4.26 Total Discharges: Unassignable to MDC: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

Unassignable to MDC[b]	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
801A OR Procedures Unrelated to Principal Diagnosis, Major Complexity	~	434	55.1	33
801B OR Procedures Unrelated to Principal Diagnosis, Intermediate Complexity	*	569	18.4	14
801C OR Procedures Unrelated to Principal Diagnosis, Minor Complexity	377	378	6.2	4
963Z Neonatal Diagnosis Not Consistent W Age/Weight	0	0	-	-
Total	**425**	**1,381**	**26.6**	**14**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
* Further suppression required to prevent disclosure of five or fewer discharges.
\- Mean and median length of stay cannot be calculated as no in-patients are reported.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.
b As not all discharges can be assigned directly to an MDC, there is a category entitled 'unassignable to MDC'. These cases are always queried by the HPO.
Unrelated OR DRGs: Patients whose OR procedures are unrelated to the patient's principal diagnosis are assigned to one of three OR DRGs: 801A *OR Procedures Unrelated to Principal Diagnosis Major Complexity*, 801B *OR Procedures Unrelated to Principal Diagnosis Intermediate Complexity* or 801C *OR Procedures Unrelated to Principal Diagnosis Minor Complexity*. An example of when this may be assigned is when a patient is admitted for a medical treatment; they develop a complication unrelated to the principal diagnosis and later have an OR procedure performed for the additional diagnoses associated with the complication.
Error DRGs: Episodes that contain clinically atypical or invalid information are assigned to one of three error DRGs: 960Z *Ungroupable*, *961Z Unacceptable Principal Diagnosis* or 963Z *Neonatal Diagnosis Not Consistent W Age/Weight*.
Australian Consortium for Classification Development, 2015, *Australian Refined Diagnosis Related Groups, Version 8.0, Definitions Manual*, Volume 1. Independent Hospital Pricing Authority. p.11.

TABLE 4.27 Total Discharges: Pre-MDC: AR-DRG Version 8.0 by Patient Type (N, In-Patient Length of Stay)

Pre-MDC	Day Patients	In-Patients[a]	In-Patient Length of Stay[a]	
	N	N	Mean	Median
A01Z Liver Transplant	0	62	31.4	20
A03Z Lung or Heart-Lung Transplant	0	38	38.9	27
A05Z Heart Transplant	0	13	81.0	71
A06A Tracheostomy and/or Ventilation >=96hours, Major Complexity	0	239	108.0	67
A06B Tracheostomy and/or Ventilation >=96hours, Intermediate Complexity	0	818	52.8	36
A06C Tracheostomy and/or Ventilation >=96hours, Minor Complexity	0	1,076	28.0	19
A07A Allogeneic Bone Marrow Transplant, Age <=16 Years or Major Complexity	~	57	57.1	44
A07B Allogeneic Bone Marrow Transplant, Age >=17 Years and Minor Complexity	~	64	26.5	30
A08A Autologous Bone Marrow Transplant, Major Complexity	0	129	22.7	21
A08B Autologous Bone Marrow Transplant, Minor Complexity	~	43	6.8	4
A09A Kidney Transplant, Age <=16 Years or Major Complexity	0	37	17.6	15
A09B Kidney Transplant, Age >=17 Years and Minor Complexity	0	116	9.5	9
A10Z Insertion of Ventricular Assist Device	0	10	79.0	50
A11A Insertion of Implantable Spinal Infusion Device, Major Complexity	0	10	139.8	19
A11B Insertion of Implantable Spinal Infusion Device, Minor Complexity	~	~	^	^
A12Z Insertion of Neurostimulator Device	120	94	3.9	2
A40A ECMO, Major Complexity	0	*	^	^
A40B ECMO, Minor Complexity	0	26	22.5	18
Total	**126**	**2,841**	**41.2**	**24**

Notes: ~ Denotes five or fewer discharges reported to HIPE.
* Further suppression required to prevent disclosure of five or fewer discharges.
^ Denotes that length of stay is suppressed where the number of discharges is not reported.
a Based on total in-patients (sameday and overnight in-patients). Excludes day patients.

Annex
2019

Table of Contents

Tables

Figures

ANALYSIS OF HOSPITAL ACQUIRED DIAGNOSIS (HADX) INDICATOR 2017-2019

A.1.1 INTRODUCTION

As noted in Section One, this Annex is designed to highlight particular topics of interest that merit more focused supplementary analysis. The focus of this year's Annex is the Hospital Acquired Diagnosis (HADx) Indicator. With the implementation of Sláintecare and its focus on a patient centred integrated care model[1], it is timely to assess the extent and consistency of coding of the HADx Indicator variable at both national and individual hospital level. The Healthcare Pricing Office (HPO) have carried out additional checks on this variable at a national and hospital level over the last few years, so this analysis looks at the data from 2017-2019 to see how this increased focus has affected the reporting of HADx. This annex also briefly explores a grouping mechanism whereby hospital acquired diagnoses are grouped to one of a finite number of Hospital Acquired Complications (HACs).

A.1.1.1 What is the Hospital Acquired Diagnosis (HADx) Indicator?

The HADx Indicator allows for the identification of diagnoses acquired during the patient's episode of care that were not present prior to admission.[2] It must be clearly documented that the condition is hospital acquired before the HADx flag is used. The importance of chart documentation and the level of coder experience cannot be overemphasised and will have an impact on the reporting of HADx.

Hospital Acquired Diagnosis (HADx) Indicator in HIPE

The HADx indicator variables have been collected in HIPE since 2011. The purpose of these variable is to collect information that can be used as an indicator of quality of care. The HADx indicator will be collected by HIPE for diagnoses that were not present on admission but are acquired by the patient during the current episode of care. A HADx indicator can be ticked for any secondary diagnosis acquired during this episode of care that was not previously present. The indicator can only be assigned to a true hospital acquired condition and not to an exacerbation of a pre-existing condition. The principal diagnosis cannot be assigned this indicator as by definition it will have been present when the patient was admitted. The only exception to this rule is for neonates during the birth episode where the principal diagnosis can be flagged as a HADx.

Source: Irish Coding Standards (ICS) 0048 Version 1.3 2020 -See appendix IX for full extract of this ICS.

1 The Committee defines Integrated Care as the following:
'Healthcare delivered at the lowest appropriate level of complexity through a health service that is well organised and managed to enable comprehensive care pathways that patients can easily access and service providers can easily deliver. This is a service in which communication and information support positive decision-making, governance and accountability; where patients' needs come first in driving safety, quality and the coordination of care.' Committee on the Future of Healthcare – Sláintecare Report, May 2017.

2 See Appendix IX for more information on the HADx indicator based on the Irish Coding Standard 0048 Hospital Acquired Diagnosis (HADx) Indicator.

For the purpose of this annex a HADx discharge is defined as a discharge with at least one diagnosis flagged as being hospital acquired. Many discharges will have more than one hospital acquired diagnosis in the episode of care.

A.1.1.2 Monitoring of HADx

The HADx indicator variables are a very valuable addition to the HIPE dataset. The HPO is actively monitoring these variables in conjunction with a coding quality tool (Performance Indicators of Coding Quality (PICQ)) to assess the data quality of these variables and to better understand variations across hospitals. PICQ was first used on HIPE data in 2018. This tool picks up on inconsistencies in codes or code combinations that should have been prevented by basic edits, or on (lack of) completeness (i.e. missing codes). In addition to a range of general coding quality checks, it contains some checks specific to the HADx variables.

A.1.1.3 Future Uses of HADx

The HADx variables will become much more valuable in monitoring patient care and quality when they are more consistently reported across hospitals, and are analysed for particular clinical areas. While the current focus is on working with hospitals on the reporting of HADx, the future use of these variables as patient care quality indicators will enable the HPO and the wider HSE to monitor particular patient care objectives. The HPO have carried out some preliminary work using the Hospital Acquired Complications classification (HACs) developed in Australia.[3] It is a clinician-driven classification which groups diagnoses based on the presence of the HADx indicator in conjunction with selected (secondary) diagnosis codes. HAC's and their potential uses are covered further in Section A.1.5.

[3] https://www.safetyandquality.gov.au/our-work/indicators/hospital-acquired-complications/development-of-the-hospital-acquired-complications-hacs-list, date last accessed 22 September 2020.

A.1.2 Analysis of discharges with HADx, 2017-2019

Many discharges will have more than one hospital acquired diagnosis in the episode of care. This analysis is conducted at discharge level, i.e. based on discharges with at least one HADx flag, rather than at total diagnosis level.

Different patient profiles, for example, age, sex, patient type (inpatient/daycase) or admission type (elective/emergency/maternity) and the differing mix of conditions being treated in individual hospitals means that direct comparison between all public hospitals without appropriate adjustment for these factors should be avoided.

Table A 1.1 and Figure A 1.1 present HADx discharges as a proportion of total discharges, by hospital model[4], for the years 2017-2019.

- With the exception of maternity hospitals, all hospital types are showing a yearly increase in the rate of HADx discharges. The overall national rate also shows a steady increase each year, increasing from 4.7 per cent in 2017 to 6.8 per cent in 2019. The increasing rates over the years may in part be attributable to the introduction of the (PICQ) coding quality tool.
- Maternity hospitals have the highest HADx discharge rates each year, significantly higher than any other group. This would be expected given that some obstetrics conditions by their nature can arise after admission to hospital.
- Each year Model 3 HADx rates are higher than those of Model 2 or Model 4 hospitals. While there is no clear reason why this might be the case, additional analysis will be carried out in the HPO to look at this further. It should be noted that some Model 3 and Model 4 hospitals have maternity units which could contribute to a higher overall average HADx rate.

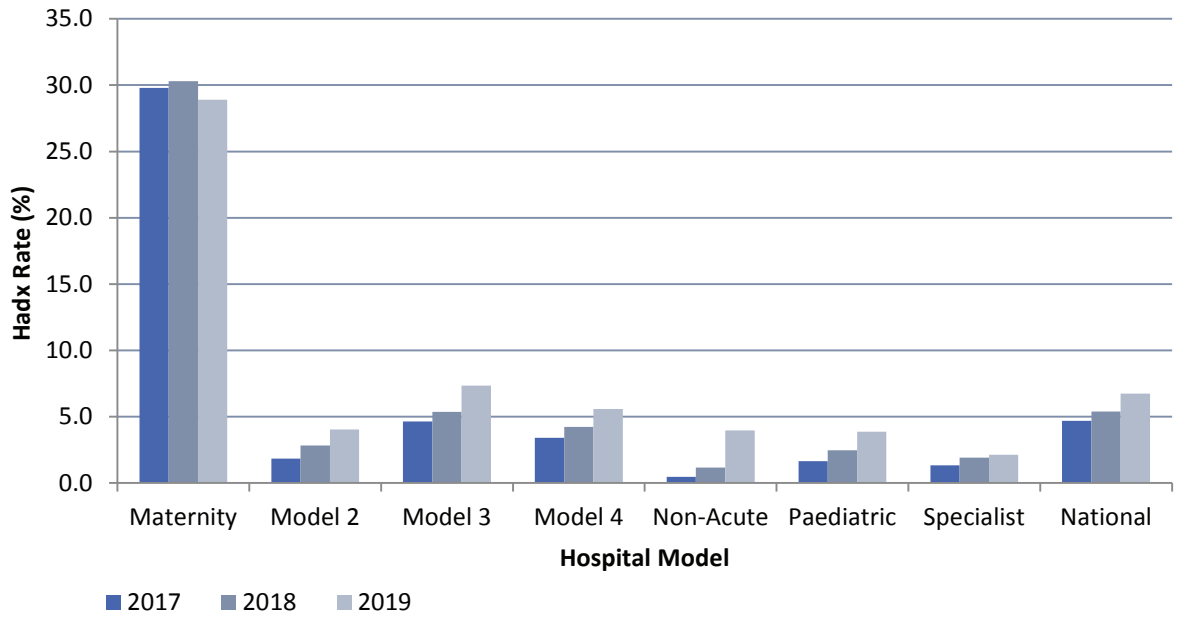
[4] Please see Appendix I for a list of Hospitals and their associated Hospital Model. This was based on information from the HSE- see www.hse.ie

TABLE A 1.1 : Total Discharges by Hospital Model (HADx, Total and %), 2017-2019

Hospital Model	2017			2018			2019		
	HADx	Total	%	HADx	Total	%	HADx	Total	%
Maternity	23,407	78,576	29.8	22,721	74,952	30.3	21,979	75,381	29.2
Model 2	2,567	137,369	1.9	4,022	142,077	2.8	5,893	146,086	4.0
Model 3	25,211	542,351	4.6	29,534	549,101	5.4	41,147	559,313	7.4
Model 4	27,303	799,818	3.4	34,151	806,431	4.2	46,203	820,593	5.6
Non-Acute	24	5,029	0.5	62	5,292	1.2	233	5,881	4.0
Paediatric	877	53,211	1.6	1,330	53,795	2.5	2,022	52,404	3.9
Specialist	1,389	102,169	1.4	2,025	105,564	1.9	2,362	111,364	2.1
National	**80,778**	**1,718,523**	**4.7**	**93,845**	**1,737,212**	**5.4**	**119,839**	**1,771,022**	**6.8**

Notes: HADx columns represent the total number of discharges with at least one diagnosis flagged as HADx.
See Appendix I for a list of Hospitals and their associated Model.

FIGURE A 1.1 HADx discharges by Hospital Model (%), 2017-2019



Note: See notes under Table A 1.1

A.1.3 Analysis of Discharges with HADx by Admission Type, 2017-2019

Table A 1.2 presents HADx discharges, total discharges and the rate of HADx, by Patient Type and Admission Type for the years 2017-2019. Figure A 1.2 gives the percentage of HADx discharges, by Patient Type and Admission Type.

- Overnight in-patients show the highest rates of HADx discharges, rising from 15.0 per cent in 2017 to 21.0 per cent in 2019. These patients, and particularly those with a longer lengths of stay are considered more likely to have a HADx although it should be noted that a HADx will also most likely result in a longer length of stay.

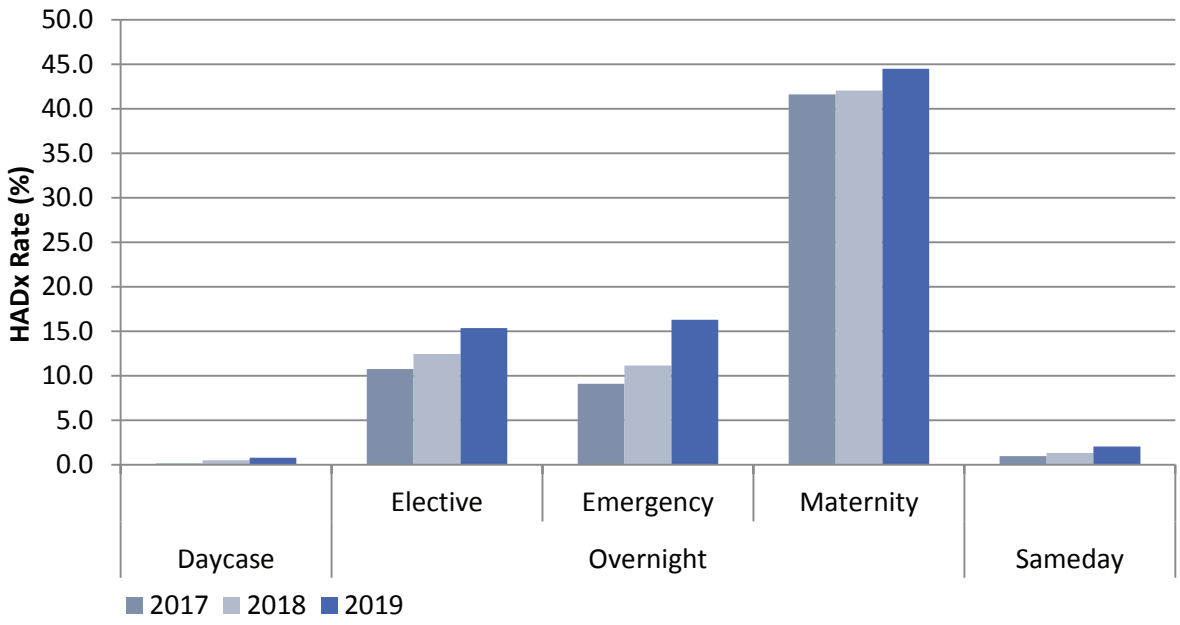
- The highest HADx discharge rates are seen in overnight maternity in-patients, rising from 41.6 per cent in 2017 to 44.5 per cent in 2019. This would be expected given the nature of obstetric care.
- There is a slightly higher increase in the HADx rates for overnight emergency in-patients rising from 9.1 per cent in 2017 to 16.5 per cent in 2019, compared to overnight elective in-patients where the HADx rates rose from 10.8 per cent in 2017 to 15.5 per cent in 2019.

TABLE A 1.2: Total Discharges by Patient Type and Admission Type (HADx, Total and %), 2017-2019

Admission Type	2017			2018			2019		
	HADx	Total	%	HADx	Total	%	HADx	Total	%
Day case	**1,727**	**1,077,014**	**0.2**	**5,552**	**1,086,312**	**0.5**	**8,918**	**1,120,675**	**0.8**
Elective	1,683	1,056,183	0.2	5,529	1,065,711	0.5	8,878	1,098,339	0.8
Maternity	44	20,831	0.2	23	20,601	0.1	40	22,336	0.2
Overnight	**77,807**	**518,756**	**15.0**	**86,563**	**522,003**	**16.6**	**108,110**	**515,196**	**21.0**
Elective	9,851	91,462	10.8	11,406	91,445	12.5	13,706	88,462	15.5
Emergency	30,893	338,226	9.1	38,338	343,000	11.2	56,458	341,527	16.5
Maternity	37,063	89,068	41.6	36,819	87,558	42.1	37,946	85,207	44.5
Sameday	**1,244**	**122,753**	**1.0**	**1,730**	**128,897**	**1.3**	**2,811**	**135,151**	**2.1**
Elective	98	4,638	2.1	302	5,448	5.5	534	5,794	9.2
Emergency	638	95,988	0.7	929	100,313	0.9	1,793	106,786	1.7
Maternity	508	22,127	2.3	499	23,136	2.2	484	22,571	2.1
Total	**80,778**	**1,718,523**	**4.7**	**93,845**	**1,737,212**	**5.4**	**119,839**	**1,771,022**	**6.8**

Note: HADx columns represent the total number of discharges with at least one diagnosis flagged as HADx.

FIGURE A 1.2 HADx discharges by Patient Type and Admission Type (%), 2017-2019



Note: See note under Table A 1.2

A.1.4 Analysis of discharges with HADx, Expected Versus Predicted Rates

Other variables in the HIPE data may also affect the rate of occurrence of HADx in a hospital. To incorporate these variables in the comparison of HADx discharge rates between hospitals, the predicted HADx discharge frequency for each hospital is calculated based on the following variables[5]:

- Patient Type (Day case/Sameday/Overnight)
- Mode of Admission (Elective/Emergency/Maternity)
- Major Diagnostic Category (MDC)
- Age
- DRG Type (Medical/Surgical/Other)
- Hospital Model[6]

The predicted HADx discharge frequency is calculated for each hospital by multiplying the total number of cases for each combination of these variables for that hospital by the overall national HADx rate for that combination of variables, for each year.[7,8,9]

- A ratio close to 1 suggests that the HADx discharge rate is as expected.
- A ratio less than 1 suggests that the rate is lower than expected.
- A ratio greater than 1 suggests that the rate is higher than expected.

High ratios may warrant investigation from a patient care perspective or may be due to over-reporting, while low ratios may warrant investigation from a coding perspective as hospitals may not be recording all of their HADx and may therefore be under-reporting. When HADx rates are more consistent with what would be expected this will allow for investigations to be carried out from a patient care perspective as the data will be deemed to be more reliable.

Table A 1.3 summarises the results of this analysis by anonymised hospital.

- The majority of hospitals show an increase in the number of HADx across the years.
- Some hospitals have persistently low ratios across the three years, while some have higher than expected ratios. Some examples of hospitals with lower or higher than expected ratios are given below:
    - M4-07 (Model 4): 0.3 (2017), 0.3 (2018) and 0.4 (2019).
    - M3-10 (Model 3): 2.2 (2017), 2.2 (2018) and 1.8 (2019).

---

5 The variables being adjusted for are deemed the most obvious variables which may have an effect on the rate of occurrence of HADx. The list should not be taken as exhaustive, nor have the listed variables been examined for statistical significance in determining HADx rates.

6 See Appendix I for a list of hospitals and their associated Model.

7 When looking at actual vs. predicted HADx rates the importance of chart documentation and also the level of coder experience cannot be overemphasised. The default coding position is not to assign a HADx flag unless it is clearly documented that the condition is hospital acquired.

8 Under/over reporting of HADx by some hospitals will influence the estimated values for other hospitals in that group. i.e. the expected HADx rate is a relative measure based on the rates in similar hospitals rather than an absolute measure. For example, if some hospitals are under-reporting their HADx, then other hospitals in that group will have a lower estimated number of cases resulting in a high ratio.

9 It is acknowledged that this model for generating predicted frequencies has not been tested for predictive ability. It is used rather to highlight areas here there are possible reporting or data quality issues.

TABLE A 1.3 : Actual HADx rates vs. Estimated HADx rates, by Hospital Model and Hospital, for the years 2017 - 2019

Admission Type	2017			2018			2019		
	Actual	Estimate	Ratio	Actual	Estimate	Ratio	Actual	Estimate	Ratio
Maternity									
MA-01	7,519	6,799	1.1	7,585	6,732	1.1	6,211	6,394	1.0
MA-02	7,035	6,593	1.1	6,210	5,802	1.1	6,635	5,924	1.1
MA-03	3,187	3,505	0.9	3,229	3,495	0.9	3,093	3,049	1.0
MA-04	5,666	6,510	0.9	5,697	6,692	0.9	6,040	6,612	0.9
Model 2									
M2-01	~	–	–	~	–	–	0	27	0.0
M2-02	445	326	1.4	561	444	1.3	707	651	1.1
M2-03	876	693	1.3	1,154	965	1.2	1,217	1,088	1.1
M2-04	100	274	0.4	192	371	0.5	596	581	1.0
M2-05	314	205	1.5	278	297	0.9	449	489	0.9
M2-06	14	51	0.3	67	121	0.6	101	137	0.7
M2-07	88	134	0.7	314	278	1.1	918	444	2.1
M2-08	144	165	0.9	185	293	0.6	355	471	0.8
M2-09	59	140	0.4	116	252	0.5	195	315	0.6
M2-10	414	231	1.8	528	325	1.6	720	560	1.3
M2-11	69	167	0.4	228	303	0.8	188	522	0.4
M2-12	43	174	0.2	397	350	1.1	447	608	0.7
Model 3									
M3-01	1,283	1,503	0.9	1,725	1,698	1.0	2,629	2,180	1.2
M3-02	2,883	1,847	1.6	2,933	2,022	1.5	3,284	2,832	1.2
M3-03	660	1,574	0.4	990	1,872	0.5	1,531	2,631	0.6
M3-04	4,775	2,966	1.6	3,994	3,365	1.2	4,549	4,435	1.0
M3-05	777	631	1.2	999	803	1.2	1,467	1,276	1.1
M3-06	1,105	1,341	0.8	1,553	1,476	1.1	1,711	2,030	0.8
M3-07	743	1,590	0.5	991	1,825	0.5	3,474	2,582	1.3
M3-08	1,405	1,464	1.0	1,342	1,668	0.8	2,105	2,212	1.0
M3-09	2,048	1,918	1.1	2,717	2,441	1.1	3,682	3,388	1.1
M3-10	950	435	2.2	1,193	536	2.2	1,240	707	1.8
M3-11	1,712	1,867	0.9	2,013	2,187	0.9	2,489	3,085	0.8
M3-12	1,093	1,301	0.8	1,940	1,462	1.3	2,699	2,013	1.3
M3-13	1,978	1,048	1.9	2,367	1,292	1.8	2,187	1,904	1.1
M3-14	1,879	1,620	1.2	1,937	1,891	1.0	1,991	2,533	0.8
M3-15	473	2,299	0.2	631	2,760	0.2	2,109	3,787	0.6
M3-16	342	856	0.4	914	1,126	0.8	2,087	1,725	1.2
M3-17	1,105	951	1.2	1,295	1,108	1.2	1,913	1,828	1.0
Model 4									
M4-01	6,426	7,088	0.9	7,617	8,280	0.9	9,012	9,833	0.9
M4-02	1,100	2,079	0.5	1,611	2,647	0.6	2,402	3,428	0.7
M4-03	1,972	2,429	0.8	2,766	3,227	0.9	4,595	4,855	0.9
M4-04	3,107	2,253	1.4	4,220	2,987	1.4	6,567	4,383	1.5
M4-05	1,884	2,630	0.7	4,218	3,150	1.3	5,771	4,043	1.4
M4-06	7,904	4,613	1.7	7,596	5,619	1.4	7,978	7,275	1.1
M4-07	640	1,995	0.3	854	2,808	0.3	1,792	4,287	0.4
M4-08	1,445	1,614	0.9	1,860	2,092	0.9	2,837	3,166	0.9
M4-09	2,825	2,601	1.1	3,409	3,342	1.0	5,249	4,933	1.1
Non-Acute									
NA-01	24	12	2.0	47	28	1.7	45	36	1.3
NA-02	0	8	0.0	0	19	0.0	0	127	0.0
NA-03	0	2	0.0	0	6	0.0	0	23	0.0
NA-04	0	2	0.0	15	8	1.8	188	48	3.9
Paediatric									
PD-01	497	480	1.0	804	746	1.1	1,202	1,165	1.0
PD-02	300	275	1.1	436	412	1.1	671	610	1.1
PD-03	80	122	0.7	90	172	0.5	149	247	0.6
Specialist									
SP-01	20	129	0.2	66	171	0.4	120	195	0.6
SP-02	0	1	0.0	38	33	1.1	24	36	0.7
SP-03	~	179	0.0	0	178	0.0	47	256	0.2
SP-04	213	233	0.9	304	317	1.0	469	465	1.0
SP-05	259	240	1.1	521	516	1.0	594	591	1.0
SP-06	896	606	1.5	1,088	777	1.4	1,082	780	1.4
SP-07	0	1	0.0	8	33	0.2	26	39	0.7

Note: ~ Denotes five or fewer cases reported to HIPE

A.1.5 Analysis of Hospital Acquired Complications using HADx Flag

As mentioned in the introduction (see section A.1.1.3), HADx can be grouped into the classification called Hospital Acquired Complications (HAC's). A HAC refers to a "patient complication for which clinical risk mitigation strategies may reduce (but not necessarily eliminate) the risk of that complication occurring".[10] This classification is based on the presence of the HADx indicator, in conjunction with selected (additional) diagnosis codes. Given the nature of care e.g. obstetric care conditions by their nature can arise after admission to hospital, some diagnoses would be expected to be recorded as hospital acquired and would not be a concern from a patient safety perspective, therefore not every HADx will fall into a HAC category.

The HAC list has been developed and refined over the years by a joint working group established by the Australian Commission on Safety and Quality in Health Care (the Commission) and the Independent Hospital Pricing Authority, Australia (IHPA). The work undertaken in this analysis has utilised the HAC list Version 2.0 as at July 2019 which contains 16 HAC categories.[11]

The occurrence of HAC episodes over the period 2017-2019 are summarised in Table A 1.4 below. It is useful to note that the HAC column is based on the number of episodes where at least one HAC arises as opposed to the number of HAC's identified within the episode of care, therefore the total HAC's will be less than the sum of the individual HAC's.

- As with HADx, HAC rates are rising over the period 2017-2019. The overall number of HAC epsiodes rose from 17,297 in 2017 to 30,941 in 2019.
- Healthcare associated infections (HAC 3) accounted for over 60 percent of all HAC's for each of the three years.
- Cardiac complications (HAC 14), delirium (HAC 11) and respiratory complications (HAC 6) accounted for the next most frequently reported HAC's in 2019.

[10] https://www.safetyandquality.gov.au/our-work/indicators/hospital-acquired-complications/development-of-the-hospital-acquired-complications-hacs-list (date last accessed 22 September 2020).

[11] https://safetyandquality.govcms.gov.au/publications-and-resources/resource-library/hospital-acquired-complications-hacs-list-specifications-version-30 (date last accessed 22 September 2020).

TABLE A 1.4: Total Discharges by HAC Category, 2017-2019

HAC Category		2017		2018		2019	
		N	%	N	%	N	%
All HAC Categories		**17,297**	**100**	**21,583**	**100**	**30,941**	**100**
1	Pressure Injury	190	1.1	222	1.0	383	1.2
2	Falls resulting in fracture or other intracranial injury	288	1.7	322	1.5	370	1.2
3	Healthcare associated infection	10,781	62.3	13,261	61.4	18,740	60.6
4	Surgical complications requiring unplanned return to theatre	903	5.2	1,018	4.7	1,105	3.6
5	Unplanned intensive care unit admission^	–	–	–	–	–	–
6	Respiratory complications	2,444	14.1	2,796	13.0	3,637	11.8
7	Venous thromboembolism	319	1.8	448	2.1	653	2.1
8	Renal failure	208	1.2	259	1.2	358	1.2
9	Gastrointestinal bleeding	672	3.9	863	4.0	1,345	4.3
10	Medication complications	477	2.8	695	3.2	1,112	3.6
11	Delirium	1,561	9.0	2,398	11.1	4,045	13.1
12	Persistent incontinence	372	2.2	527	2.4	912	2.9
13	Malnutrition	16	0.1	28	0.1	147	0.5
14	Cardiac complications	2,181	12.6	3,447	16.0	5,895	19.1
15	Third and fourth degree perineal laceration during delivery	770	4.5	748	3.5	705	2.3
16	Neonatal birth trauma	161	0.9	134	0.6	173	0.6

Note: ^ Unplanned intensive care unit admission currently cannot be measured from HIPE data. This is because the information that is required to identify an unplanned intensive care unit admission is not collected and thus cannot be identified.

Source: Based on grouper from IHPA, see https://www.safetyandquality.gov.au/publications-and-resources/resource-library/hospital-acquired-complications-hacs-list-specifications-version-30

While the classification in Table A 1.4 is very useful to provide a more meaningful clinical perspective of the HADx diagnoses, additional analysis needs to be carried out to understand the current data and make it more robust, to enable the use of this data to investigate quality of care. The current focus is on increasing reporting and analysis of the HADx variables in HIPE, and will continue to work with hospitals to ensure that any future use as indicators for patient safety and quality of care are based on more robust reporting of these variables. In this manner HIPE can become an even more valuable resource to other stakeholders who can use the HADx data and their subsequent classification into HAC's as one of the tools that can be utilised to monitor patient safety and the quality of clinical care.

Glossary & Abbreviations

GLOSSARY

Acute hospital
An acute hospital provides medical and surgical treatment of relatively short duration (Department of Health and Children, 2001).

Additional diagnosis
This is a condition or complaint either coexisting with the principal diagnosis or arising during the episode of admitted patient care, episode of residential care or attendance at a health care establishment, as represented by a code (Australian Institute of Health and Welfare (2012), National Health Data Dictionary, Version 16, AIHW).

Admission type
The type of admission may generally be classified as a planned or emergency admission. Unlike emergency admissions, planned admissions are arranged in advance by the patient and/or service provider.

Australian Coding Standards
Australian Coding Standards (ACS) is a document developed to provide guidance in the application of ICD-10-AM and ACHI codes. Standards are provided with general guidelines and are categorised by site and/or body system according to the clinical specialty to which a disease or procedure relates.

Case mix
Case mix is a method of quantifying hospital workload taking account of the complexity and resource-intensity of the services provided.

Complications
Complications may arise during the hospital stay.

Comorbidities
Comorbidities are assumed to be prior existing conditions, which were present at the time of admission.

Day patient
A day patient is admitted to hospital for treatment on an elective (rather than an emergency) basis and is discharged alive, as scheduled, on the same day (Department of Health and Children, 2001). Deliveries are not included.

Delivery discharges
Refers to Maternity discharges where the woman had a diagnosis of delivery (ICD-10-AM diagnosis code Z37 *Outcome of delivery*).

Delivery status
Refers to the disaggregation of Maternity discharges into delivery and non-delivery status determined by the presence of a diagnosis of delivery (ICD-10-AM diagnosis code Z37 *Outcome of delivery*).

Diagnosis Related Group (DRG)
DRGs are clusters of cases with similar clinical attributes and resource requirements. In Ireland, Australian Refined Diagnosis Related Group (AR-DRG) have been in use in Ireland since 2005.

Discharge rate
Discharge rate is the ratio of discharges to the corresponding population. The formula for calculating the discharge rate is:

$$\frac{\text{Discharges in group i}}{\text{Population of group i}} \times 1{,}000$$

Age-specific discharge rates are calculated as the number of discharges within a particular age group divided by the population within that particular age group multiplied by 1,000. **Sex-specific discharge rates** are calculated as the number of male (female) discharges divided by the male (female) population multiplied by 1,000.
Age- and sex-specific discharge rates are calculated as the number of male (female) discharges within a particular age group divided by the number of males (females) in the population within that particular age group multiplied by 1,000.

Elective admission
This is an admission or procedure that has been arranged in advance (Department of Health and Children, 2001). This term is generally used to refer to in-patient discharges. The term planned admission may also be used.

Emergency admission
An emergency admission is unforeseen and requires urgent care. This term is used to refer to in-patient discharges.

GMS status

Refers to whether a patient holds a medical card.

Hospital acquired complications (HACs)

Hospital acquired complications (HACs) are complications which occur during a hospital stay and for which clinical risk mitigation strategies may reduce (but not necessarily eliminate) the risk of that complication occurring. (IHPA)

A list of 16 HACs was developed by a Joint Working Party of the Australian Commission on Safety and Quality in Health Care (the Commission) and IHPA. The Commission is responsible for the ongoing curation of the HAC list to ensure it remains clinically relevant.

Hospital Acquired Diagnosis (HADx) Indicator

This indicator will allow the diagnoses acquired during the patient's episode of care that were not present prior to admission, to be identified. (Irish Coding Standards 2020)

Hospital Groups

The organisational structure of public hospitals was revised in 2013 with the establishment of hospital groups on a non-statutory administrative basis.

Hospital In-Patient Enquiry (HIPE)

HIPE is a health information system that collates data on discharges from, and deaths in, acute hospitals in Ireland.

In-Patient

An in-patient is admitted to hospital for treatment or investigation on a planned or emergency basis.
Overnight In-Patient: These discharges are in-patient discharges who stayed at least one night in hospital.
Sameday In-Patient: These discharges are admitted as in-patients and discharged on the same day. They do not meet the criteria to be classified as a day patient. They are assigned a length of stay of 0.5 days

Irish Coding Standards

Irish Coding Standards (ICS) is a document which provides guidance and instruction on all aspects of HIPE data collection by addressing issues specific to the Irish hospital setting. It is revised regularly to reflect changing clinical practice. ICS is designed to complement the Australian Coding Standards. ICS V9B2018 was used in the collection of HIPE data in 2018.

Length of stay

Length of stay refers to the time, expressed in days, between admission to and discharge from hospital. For day patients and same day in-patients where the dates of admission and discharge are the same, length of stay is set equal to 0.5 days.
Mean and median lengths of stay are provided for in-patients only.
Mean length of stay is computed by dividing the number of days stayed by the number of discharges.
The median length of stay is the middle value among the ordered lengths of stay, such that half of the values for length of stay are below the median and half the values for length of stay are above the median.

Major Diagnostic Category (MDC)

The MDC is a category generally based on a single body system or aetiology that is associated with a particular medical specialty. However, records assigned to MDCs 01, 15, 18 and 21 may have principal diagnoses associated with other categories. In AR-DRG Version 8.0, there are 23 MDCs.

Medical Assessment Unit

A medical assessment unit (MAU) also referred to as an Acute Medical Assessment Unit (AMAU) or an Acute Medical Unit (AMU), is a consultant led unit that accepts direct referrals from GPs. It offers priority access to diagnostic facilities.

Maternity discharges

These discharges are admitted in relation to their obstetrical experience (from conception to six weeks post-delivery), that is, they are allocated to Admission Type Maternity.

Non-delivery

Non-delivery discharges are Maternity discharges where the admission was related to their obstetrical experience but who did not deliver during that episode of care.

Parity

HIPE collects the number of previous live births and number of previous stillbirths (over 500g) for all cases with admission type code Maternity.

Primiparous: These are women who have had no previous pregnancy resulting in a live birth or stillbirth.
Multiparous: These are women who have had at least one previous pregnancy resulting in a live birth or stillbirth.

Patient type

A patient may be admitted to hospital as a day patient (which is planned and does not involve an overnight stay), or an in-patient.

Principal diagnosis

This is the diagnosis established after study to be chiefly responsible for occasioning an episode of admitted patient care, an episode of residential care, or an attendance at the health care establishment, as represented by a code (Australian Institute of Health and Welfare (2012), National Health Data Dictionary, Version 16, AIHW).

Principal and additional procedure

A procedure is defined as a clinical intervention that

- is surgical in nature, and/or
- carries a procedural risk, and/or
- carries an anaesthetic risk, and/or
- requires specialised training, and/or
- requires special facilities or equipment only available in an acute care setting.

The order of codes should be determined using the following hierarchy:

- procedure performed for treatment of the principal diagnosis
- procedure performed for treatment of an additional diagnosis
- diagnostic/exploratory procedure related to the principal diagnosis
- diagnostic/exploratory procedure related to an additional diagnosis for the episode of care (NCCC, 2013).

Public/private status

Refers to whether the patient is a public or private patient of the consultant. It does not relate to the type of bed occupied nor is it an indicator of possession of private health insurance.

Sources: The above definitions are taken directly from, or based on, those provided in the following:
Department of Health and Children, 2001. Quality and Fairness a Health System for You: Health Strategy. Dublin: The Stationery Office.
'Hospital Services – Introduction': Citizen's Information; date consulted: 9 December 2011. www.citizensinformation.ie/categories/health/hospital-services/hospital_services_introduction
For further information on the definitions of diagnoses see National Casemix and Classification Centre (NCCC), 2013: *Australian Coding Standards* (ACS) *(8th Ed)*: NCCC, Australian Health Services Research Institute, University of Wollongong. General Standards for Diseases.p 1-14.
For further information on the definitions of procedures see National Casemix and Classification Centre (NCCC), 2013: *Australian Coding Standards* (ACS) *(8th Ed)*: NCCC, Australian Health Services Research Institute, University of Wollongong. General Standards for Interventions. P 21-36
For further information on AR-DRG Version 8.0 see Australian Consortium for Classification Development website https://www.accd.net.au/ArDrg.aspx?page=2 [Accessed 26th July 2018].

ABBREVIATIONS

Adm	Admission
Admwt	Admission Weight
ACHI	Australian Classification of Health Interventions
ACS	Australian Coding Standards
ADRG	Adjacent Diagnosis Related Groups
AICD	Automatic Implantable Cardioverter-Defibrillator
AMI	Acute Myocardial Infarction
AR-DRG	Australian Refined Diagnosis Related Group
CABG	Coronary Artery Bypass Graft
CC	Complication and/or Comorbidity
CDE	Common Bile Duct Exploration
Circ	Circulatory
Comp	Complexity
CPB	Cardiopulmonary Bypass
Cran	Cranial
CSO	Central Statistics Office
D&D	Diseases and Disorders
CPB pump	Cardiopulmonary bypass pump
Dsrds	Disorders
DoH	Department of Health
DRG	Diagnosis Related Group
EEG	Electroencephalography
ECMO	Extra corporeal membrane oxygenation
ECT	Electroconvulsive therapy
ENT	Ear, Nose and Throat
ERCP	Endoscopic Retrograde Cholangio Pancreatography
ESRI	Economic and Social Research Institute
ESW	Extracorporeal Shock Waves
excl	Excluding
Ext	Extreme
Fmr	Femur
Gest	Gestation
GI	Gastro-intestinal
g	Grams
GMS	General Medical Services
GP	General Practitioner
HAC	Hospital Acquired Complications
HADx	Hospital Acquired Diagnosis
HIPE	Hospital In-Patient Enquiry
HIV	Human Immunodeficiency Virus
HPO	Healthcare Pricing Office
HSE	Health Service Executive
ICD-10-AM	Tenth Revision of the International Classification of Diseases, Australian Modification

ICS	Irish Coding Standards
Incl	Including
Infect/inflam	Infection/inflammation
Inhal	Inhalation
Int/Interm	Intermediate
Inves/Invest	Investigative
IT	Information Technology
LOS	Length of Stay
Maj	Major
MAJC	Major Complexity
MDC	Major Diagnostic Category
Med	Median
Microvas	Microvascular
Min	Minor
MINC	Minor Complexity
misc	Miscellaneous
Mod	Moderate
Mult	Multiple
n/a	Not applicable
NCCC	National Casemix and Classification Centre
NCCH	National Centre for Classification in Health
N	Number of Observations/Discharges
Non-malig	Non-malignant
NPRS	National Perinatal Reporting System
NTPF	National Treatment Purchase Fund
Obs	Obstetric
OR	Operating Room
PICQ	Performance Indicators of Coding Quality
Pr/Proc(s)	Procedure(s)
Psych	Psychiatric
RCSI	Royal College of Surgeons in Ireland
Sev	Severe
Sig	Significant
TIA	Transient Ischaemic Attack
Tiss	Tissue
Tfr/Transf	Transfer
Trac	Tracheostomy
UL	University of Limerick Hospital Group
URI	Upper Respiratory Infection
Vent	Ventilation
WHO	World Health Organisation
W	With
W/O	Without

Appendices

Table of Contents

APPENDIX I: HIPE HOSPITALS

TABLE I.1 Listing of Hospitals Participating in the HIPE Scheme by Hospital Group

Hospital Name	County	Hospital Model	Hospital Type
Ireland East Hospital Group			
St. Columcille's Hospital	Dublin	Model 2	Non-Voluntary
Mater Misericordiae University Hospital	Dublin	Model 4	Voluntary
St. Vincent's University Hospital	Dublin	Model 4	Voluntary
Cappagh National Orthopaedic Hospital	Dublin	Specialist	Voluntary
St. Michael's Hospital, Dun Laoghaire	Dublin	Model 2	Voluntary
Royal Victoria Eye and Ear Hospital, Dublin	Dublin	Specialist	Voluntary
National Maternity Hospital, Holles St, Dublin	Dublin	Maternity	Voluntary
St. Luke's General Hospital, Kilkenny	Kilkenny	Model 3	Non-Voluntary
Wexford General Hospital	Wexford	Model 3	Non-Voluntary
Midland Regional Hospital, Mullingar	Westmeath	Model 3	Non-Voluntary
Our Lady's Hospital, Navan	Meath	Model 3	Non-Voluntary
RCSI Hospital Group			
Connolly Hospital, Blanchardstown	Dublin	Model 3	Non-Voluntary
Beaumont Hospital, Dublin	Dublin	Model 4	Voluntary
Rotunda Hospital, Dublin	Dublin	Maternity	Voluntary
St. Joseph's Hospital, Raheny	Dublin	Model 2	Voluntary
Our Lady of Lourdes Hospital, Drogheda	Louth	Model 3	Non-Voluntary
Cavan General Hospital	Cavan	Model 3	Non-Voluntary
Louth County Hospital, Dundalk	Louth	Model 2	Non-Voluntary
Monaghan Hospital	Monaghan	Model 2	Non-Voluntary
Dublin Midlands Hospital Group			
Naas General Hospital	Kildare	Model 3	Non-Voluntary
St. Luke's Hospital, Rathgar[a]	Dublin	Specialist	Non-Voluntary
St. James's Hospital, Dublin	Dublin	Model 4	Voluntary
Coombe Women & Infants University Hospital	Dublin	Maternity	Voluntary
Tallaght University Hospital[b]	Dublin	Model 4	Voluntary
Midland Regional Hospital, Tullamore	Offaly	Model 3	Non-Voluntary
Midland Regional Hospital, Portlaoise	Laois	Model 3	Non-Voluntary
South/South West Hospital Group			
University Hospital Waterford	Waterford	Model 4	Non-Voluntary
Kilcreene Orthopaedic Hospital	Kilkenny	Specialist	Non-Voluntary
South Tipperary General Hospital, Clonmel	Tipperary	Model 3	Non-Voluntary
Bantry General Hospital	Cork	Model 2	Non-Voluntary
Mercy University Hospital, Cork	Cork	Model 3	Voluntary
South Infirmary Victoria University Hospital	Cork	Model 2	Voluntary
Mallow General Hospital	Cork	Model 2	Non-Voluntary
Cork University Hospital	Cork	Model 4	Non-Voluntary
University Hospital Kerry	Kerry	Model 3	Non-Voluntary

TABLE I.1 Listing of Hospitals Participating in the HIPE Scheme by Hospital Group (contd.)

Hospital Name	County	Hospital Model	Hospital Type
University of Limerick Hospital Group			
University Maternity Hospital Limerick	Limerick	Maternity	Non-Voluntary
University Hospital Limerick	Limerick	Model 4	Non-Voluntary
Croom Orthopaedic Hospital, Limerick	Limerick	Specialist	Non-Voluntary
St. John's Hospital, Limerick	Limerick	Model 2	Voluntary
UL Hospitals, Ennis Hospital	Clare	Model 2	Non-Voluntary
UL Hospitals, Nenagh Hospital	Tipperary	Model 2	Non-Voluntary
Saolta Hospital Group			
Roscommon County Hospital	Roscommon	Model 2	Non-Voluntary
Portiuncula Hospital, Ballinasloe	Galway	Model 3	Non-Voluntary
Galway University Hospitals	Galway	Model 4	Non-Voluntary
Mayo University Hospital	Mayo	Model 3	Non-Voluntary
Letterkenny University Hospital	Donegal	Model 3	Non-Voluntary
Sligo University Hospital	Sligo	Model 3	Non-Voluntary
Children's Hospital Group			
Our Lady's Children's Hospital, Crumlin	Dublin	Paediatric	Voluntary
Temple Street Children's University Hospital	Dublin	Paediatric	Voluntary
Tallaght University Hospital[b]	Dublin	Paediatric	Voluntary
No group			
Peamount Hospital	Dublin	Non-Acute	Voluntary
National Rehabilitation Hospital (NRH), Dun Laoghaire	Dublin	Non-Acute	Voluntary
Incorporated Orthopaedic Hospital, Clontarf	Dublin	Non-Acute	Voluntary
St. Finbarr's Hospital	Cork	Non-Acute	Non-Voluntary

Notes: Total number of hospitals participating in 2019: 53

a Includes St. Luke's Radiation Oncology Network centres located in Beaumont and St. James's Hospitals. These centres are operational since 2011 but activity has only been included in HIPE from 2015.

b For reporting purposes, discharges aged 17 years and older from Tallaght University Hospital are included in the Dublin Midlands Hospital Group, while discharges aged less than 17 years from Tallaght University Hospital are included in the Children's Hospital Group.

APPENDIX II: HIPE DATA COLLECTED

TABLE II.1 Data Collected by HIPE*

Type of Data	Parameters	Notes
Demographic Data	Date of birth	Full date of birth not exported outside the hospital.
	Sex	
	Marital/Civil status	Values include single, married, widowed, other (including separated), unknown, divorced, civil partner, former civil partner or surviving civil partner.
	Infant admission weight	Weight in whole grams on admission is collected for neonates (0–27 days old) and infants up to 1 year of age with admission weight of less than 2,500 grams.
	Area of residence by county or country	If resident in Ireland but outside Dublin, captures county of residence. If resident in Dublin, captures postal code. If usually resident outside Ireland, captures country of residence.
Clinical Data	One principal diagnosis	Uses the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM), 8th Edition, July 2013.
	Twenty-nine additional diagnoses	Uses the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM), 8th Edition, July 2013.
	One principal procedure	Uses the Australian Classification of Health Interventions (ACHI) of the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM), 8th Edition, July 2013.
	Nineteen additional procedures	Uses the Australian Classification of Health Interventions (ACHI) of the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM), 8th Edition, July 2013.
	Hospital Acquired Diagnosis	Condition not present prior to admission to hospital.
Administrative Data	Patient name	Is not exported outside the hospital.
	Hospital number	
	Chart number	Is unique to hospital of discharge.
	Admission and discharge dates	
	Dates of procedures	Collected for each procedure.
	Day case indicator	
	Day ward indicator	Indicates if a day case patient was admitted to a dedicated named day ward.
	Day ward identifier	If the answer to day ward indicator is 'Yes', the day ward identifier must be entered to identify where the patient was treated.
	Type of admission	Values include elective, elective readmission, emergency, emergency readmission, maternity, or newborn.
	Waiting list indicator	Indicates if an elective admission case is funded by the National Treatment Purchase Fund (NTPF).
	Mode of emergency admission	Indicates where the patient with admission codes emergency, emergency readmission, or newborn was treated prior to being admitted to the hospital as an in-patient, or when the patient was treated only in a registered Medical Assessment Unit (MAU). Values include Emergency Department of the admitting hospital, AMAU admitted as in-patient, other, unknown, AMAU only, Local Injury Unit ASAU admitted as in-patient and ASAU only.

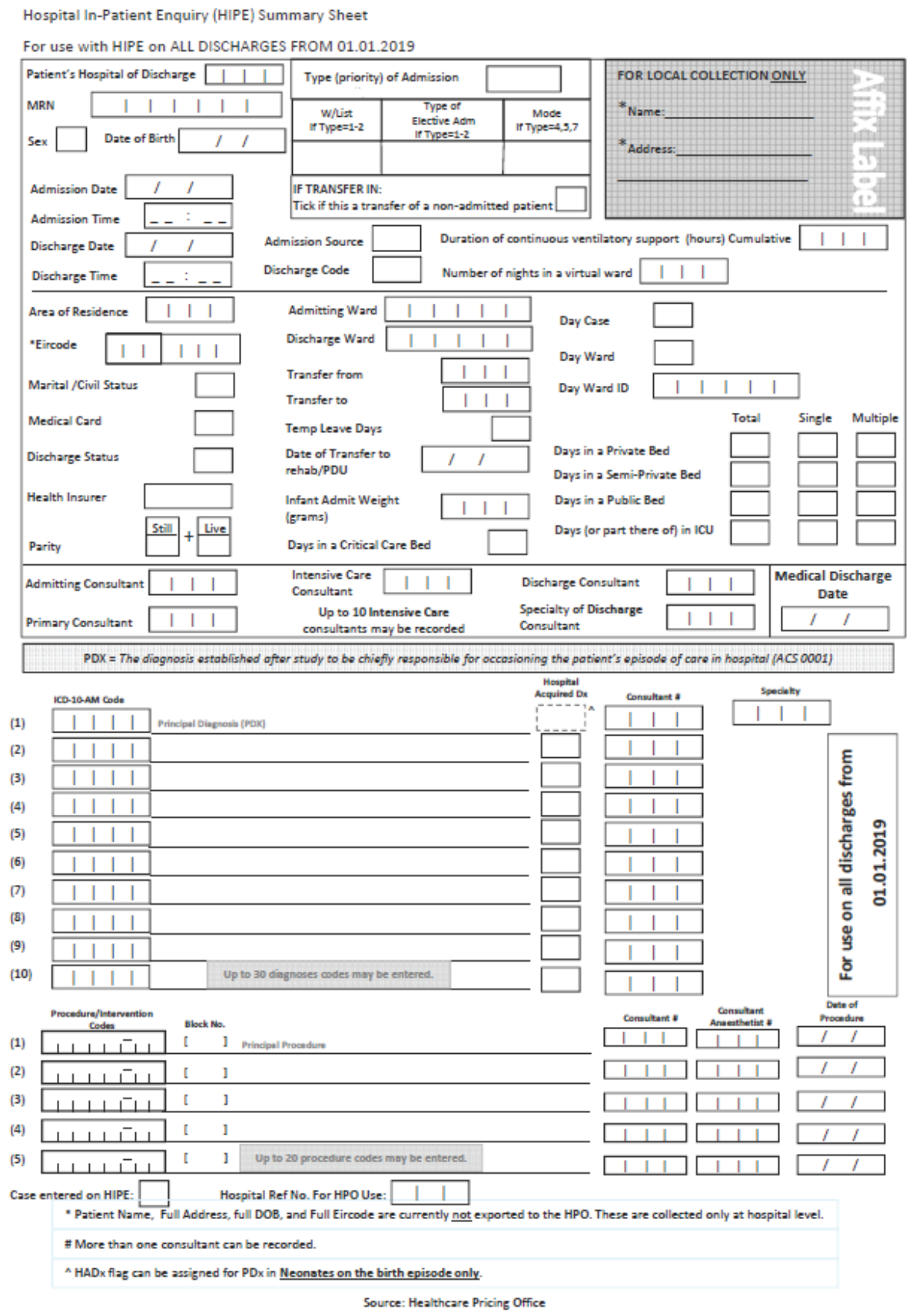
Data Collected by HIPE (contd.)

Type of Data	Parameters	Notes
	Source of admission	Values include home, transfer from nursing home/convalescent home or other long stay accommodation, transfer from hospital (in HIPE), transfer from other hospital (not in HIPE), transfer from hospice (not in HIPE), transfer from psychiatric hospital/unit, newborn, temporary place of residence, prison, or other.
Administrative Data (contd.)	Discharge destination	Values include self discharge, home, nursing home, convalescent home or long stay accommodation, transfer to hospital (in HIPE) as emergency, transfer to hospital (in HIPE) as non-emergency, transfer to psychiatric hospital/unit, died with post-mortem, died without post-mortem, transfer to other hospital (not in HIPE) as emergency, transfer to other hospital (not in HIPE) as non-emergency, rehabilitation facility, hospice, prison, absconded, other, or temporary place of residence (e.g. hotel).
	Discharge status	Refers to the public/private status of the patient on discharge and not to the type of bed occupied.
	Health Insurer	Collected where discharge status of the patient is private.
	General Medical Service status	Refers to whether the patient is a medical card holder.
	Days in an intensive care environment	
	Days in a private bed	Single Occupancy Multiple Occupancy
	Days in a semi-private bed	Single Occupancy Multiple Occupancy
	Days in a public bed	Single Occupancy Multiple Occupancy
	Parity	Parity: Live births Parity: Still births Mandatory for all cases with admission type maternity.
	Specialty	Refers to specialty of consultant associated with the principal diagnosis and is assigned locally based on a list provided by the Department of Health and Children.
	Primary consultant	Encrypted.
	Anaesthetist	Encrypted. Collected for each procedure performed under anaesthetic.
	Intensive care consultant	Encrypted. Up to ten may be recorded.
	Admitting consultant	Encrypted.
	Discharge consultant	Encrypted.
	Consultant responsible for each diagnosis	Encrypted.
	Consultant responsible for each procedure	Encrypted.
	Date of transfer to a pre-discharge unit	Date may be collected to identify when a patient was transferred to a pre-discharge unit prior to being discharged as planned. This is an optional variable collected since 2004.
	Ward Identification	Admitting ward: The ward to which the patient was admitted. Discharge ward: The ward from which the patient was discharged.
	Temporary leave days	Refers to the number of days the patient was absent from the hospital during an episode of care.

Note: * For details of all variables collected by HIPE see HIPE Data Dictionary 2019 Version 11.1.
Source: HIPE Data Dictionary 2019 Version 11.1, available at www.hpo.ie

APPENDIX III: HIPE DATA ENTRY FORM

FIGURE III.1 HIPE Data Entry Form, 2019



Hospital In-Patient Enquiry (HIPE) Summary Sheet

For use with HIPE on ALL DISCHARGES FROM 01.01.2019

Patient's Hospital of Discharge | | | |
MRN | | | | | | | |
Sex | | Date of Birth / /
Admission Date / /
Admission Time _ _ : _ _
Discharge Date / /
Discharge Time _ _ : _ _
Type (priority) of Admission
W/List If Type=1-2 | Type of Elective Adm If Type=1-2 | Mode If Type=4,5,7
IF TRANSFER IN: Tick if this a transfer of a non-admitted patient
FOR LOCAL COLLECTION ONLY
*Name:
*Address:
Affix Label
Admission Source | | Discharge Code | |
Duration of continuous ventilatory support (hours) Cumulative | | |
Number of nights in a virtual ward | | |
Area of Residence | | |
*Eircode | | | | | |
Marital /Civil Status | |
Medical Card | |
Discharge Status | |
Health Insurer | |
Parity Still + Live
Admitting Ward | | | | | |
Discharge Ward | | | | | |
Transfer from | | |
Transfer to | | |
Temp Leave Days | |
Date of Transfer to rehab/PDU / /
Infant Admit Weight (grams) | | |
Days in a Critical Care Bed | |
Day Case | |
Day Ward | |
Day Ward ID | | | | | |
Total | Single | Multiple
Days in a Private Bed
Days in a Semi-Private Bed
Days in a Public Bed
Days (or part there of) in ICU
Admitting Consultant | | |
Primary Consultant | | |
Intensive Care Consultant | | |
Up to 10 Intensive Care consultants may be recorded
Discharge Consultant | | |
Specialty of Discharge Consultant | | |
Medical Discharge Date / /

PDX = *The diagnosis established after study to be chiefly responsible for occasioning the patient's episode of care in hospital (ACS 0001)*

	ICD-10-AM Code	Principal Diagnosis (PDX)	Hospital Acquired Dx	Consultant #	Specialty
(1)			^		
(2)					
(3)					
(4)					
(5)					
(6)					
(7)					
(8)					
(9)					
(10)		Up to 30 diagnoses codes may be entered.			

For use on all discharges from 01.01.2019

	Procedure/Intervention Codes	Block No.	Principal Procedure	Consultant #	Consultant Anaesthetist #	Date of Procedure
(1)	_	[ ]				/ /
(2)	_	[ ]				/ /
(3)	_	[ ]				/ /
(4)	_	[ ]				/ /
(5)	_	[ ]	Up to 20 procedure codes may be entered.			/ /

Case entered on HIPE: | Hospital Ref No. For HPO Use: | |

* Patient Name, Full Address, full DOB, and Full Eircode are currently not exported to the HPO. These are collected only at hospital level.

More than one consultant can be recorded.

^ HADx flag can be assigned for PDx in **Neonates on the birth episode only**.

Source: Healthcare Pricing Office

APPENDIX IV: DERIVED VARIABLES

For some of the categorical administrative variables, aggregation of categories has been necessary to ensure confidentiality. Table IV.1 shows how the categories for these variables have been aggregated. For example, the admission type variables have been reduced from six categories to three categories.

TABLE IV.1 Derived Variables

HIPE Variable		Derived Variable for Report	
Admission Type			
1	'Elective'	1	'Elective' (1, 2)
2	'Elective Readmission'	2	'Emergency' (4, 5, 7)
4	'Emergency'	3	'Maternity' (6)
5	'Emergency Readmission'		
6	'Maternity'		
7	'New born'		
Admission Source			
1	'Home'	1	'Home' (1)
2	'Transfer from nursing home/convalescent home or other long stay accommodation'	2	Long stay accommodation (2, 5)
3	'Transfer from hospital - in HIPE listing'	3	'Transfer from other hospital' (3,4,6)
4	'Transfer from other hospital - not in HIPE listing'	4	'Other' (7, 8, 9, 0)
5	'Transfer from hospice - not in HIPE listing'		
6	'Transfer from psychiatric hospital/unit'		
7	'New born'		
8	'Temporary place of residence'		
9	'Prison'		
0	'Other'		
Discharge Destination			
00	'Self discharge'	1	'Home' (01)
01	'Home'	2	'Long stay accommodation' (02, 11)
02	'Nursing home, convalescent home or long stay accommodation'	3	'Transfer to other hospital' (03, 04, 05,08, 09, 10)
03	'Transfer to hospital – in HIPE Hospital Listings – Emergency '	4	'Died' (06, 07)
04	'Transfer to hospital – in HIPE Hospital Listings – Non Emergency'	5	'Other' (00, 12, 13, 14, 15)
05	'Transfer to psychiatric hospital/unit'		
06	'Died with post mortem'		
07	'Died no post mortem'		
08	'Transfer to other hospital – not in HIPE Hospital Listings – Emergency'		
09	'Transfer to other hospital – not in HIPE Hospital Listings – Non Emergency'		
10	'To rehabilitation facility – not in HIPE Hospital Listings'		
11	'Hospice – not in HIPE Hospital Listings'		
12	'Prison'		
13	'Absconded'		
14	'Other – example Foster care'		
15	'Temporary Place of Residence'		

Note: For further information on all variables collected by HIPE see HIPE Data Dictionary 2019 Version 11.1 available at www.hpo.ie

APPENDIX V: AUSTRALIAN CODING STANDARD 0042

Australian Coding Standard 0042 Procedures normally not coded[1]

These procedures are normally not coded because they are usually routine in nature, performed for most patients and/or can occur multiple times during an episode. Most importantly, the resources used to perform these procedures are often reflected in the diagnosis or in an associated procedure. That is, for a particular diagnosis or procedure there is a standard treatment which is unnecessary to code. For example:

- X-ray and application of plaster is expected with a diagnosis of Colles' fracture
- Intravenous antibiotics are expected with a diagnosis of septicaemia/sepsis
- Cardioplegia in cardiac surgery is performed routinely

Note:

- Some codes on this list may be required in certain standards elsewhere in the Australian Coding Standards. In such cases, the standard overrides this list and the stated code should therefore be assigned as described in the relevant standard.
- The listed procedures should be coded if cerebral anaesthesia is required in order for the procedure to be performed (see ACS 0031 *Anaesthesia*).
- These procedures should be coded if they are the principal reason for admission in same-day episodes of care. This includes patients who are admitted the day before or discharged on the day after a procedure because a same-day admission is not possible or practicable for them (eg elderly patients, those who live in remote locations).

1. Application of plaster
2. Bladder washout via indwelling catheter
3. Cardioplegia when associated with cardiac surgery
4. Cardiotocography (CTG) except fetal scalp electrodes
5. Catheterisation:
   - arterial or venous (such as Hickman's, PICC, CVC, Swan Ganz) except cardiac catheterisation (blocks [667] and [668]), surgical catheterisation (block [741]) or catheterisation in neonates (see ACS 1615 *Specific interventions for the sick neonate*)
   - urinary except if suprapubic

[1] Extracted from NCCC eBook, July 2013, General Standards for Interventions.

6. Doppler recordings

7. Dressings

8. Drug treatment/pharmacotherapy
Drug treatment should not be coded except if:
   - the substance is given as the principal treatment in same-day episodes of care
   - drug treatment is specifically addressed in a coding standard (see ACS 0044 *Chemotherapy*, ACS 1316 *Cement spacer/beads* and ACS 1615 *Specific interventions for the sick neonate*)

9. Electrocardiography (ECG) except patient-activated implantable cardiac event monitoring (loop recorder)

10. Electrodes (pacing wires) – temporary: insertion of temporary trans-cutaneous or transvenous electrodes when associated with cardiac surgery; adjustment, repositioning, manipulation or removal of temporary electrodes

11. Electromyography (EMG)

12. Hypothermia when associated with cardiac surgery

13. Imaging services – all codes in ACHI Chapter 20 *Imaging services* and block [451] *Dental radiological examination and interpretation* except:
   - transoesophageal echocardiogram (TOE) (55118-00 [1942])
   - when instructed to do so

14. Monitoring: cardiac, electroencephalography (EEG), vascular pressure except radiographic/video EEG monitoring ≥ 24 hours

15. Nasogastric intubation, aspiration and feeding, except nasogastric feeding in neonates (see ACS 1615 *Specific interventions for the sick neonate*)

16. Perfusion when associated with cardiac surgery

17. Primary suture of surgical and traumatic wounds
Code only for traumatic wounds which are not associated with an underlying injury (e.g. suture of lacerated forearm would be coded if there is no other associated injury repair) (see ACS 1217 *Repair of wound of skin and subcutaneous tissue*)

18. Procedure components (see also ACS 0016 *General procedure guidelines*)

19. Stress test

20. Traction if associated with another procedure

APPENDIX VI: FURTHER INFORMATION ON HIPE SCHEME

Previously published reports can be downloaded at **www.hpo.ie**.

Documentation relating to the operation of the HIPE scheme is available online at **www.hpo.ie**.

- *Coding Notes:* This quarterly bulletin is distributed to all coders nationally. It contains important updates on coding queries, changes in coding practice and any other relevant information including the scheduling of training courses.

- *HIPE Data Dictionary:* This dictionary provides definitions and codes for data collected within HIPE as of a specified year (e.g. 2019 relates to discharges reported for 2019). It provides standard definitions for variables with the objective of ensuring that consistency and data quality are maintained.

- *HIPE Instruction Manual:* This manual which is updated annually provides instruction on the capture of administrative and demographic data for each HIPE discharge record. Clinical data are captured in accordance with the classification and associated standards.

- *Irish Coding Standards:* Irish Coding Standards (ICS), which are updated annually, apply to activity coded in HIPE and provide guidance and instruction on all aspects of HIPE data collection by addressing issues relevant to the Irish hospital setting. ICS are developed to complement the Australian Coding Standards (ACS) and are revised regularly to reflect changing clinical practice.

APPENDIX VII: OVERVIEW OF CHANGES FROM 6TH EDITION TO 8TH EDITION ICD-10-AM/ACHI/ACS

VII.1 Introduction

Ireland updated to the 8th edition of ICD-10-AM/ACHI/ACS for all discharges from 1st January 2015. For practical reasons Ireland does not update each time the classification is updated in Australia therefore on this occasion Ireland has adopted updates from both the 7th and the 8th Edition of ICD-10-AM/ACHI/ACS. Extensive training was held for all HIPE staff throughout all hospitals in a series of training sessions in 2014 and 2015 to ensure understanding of and compliance with the update.

In summary in the 8th Edition there were diagnosis codes (ICD-10-AM) and procedure codes (ACHI) added and there was a general review of grammar to ensure consistency throughout the classification. Sixty-three Australian Coding Standards were deleted and the information from these has been replaced with index entries or tabular instructional notes in the classifications. Two new ACS were created; ACS 0742 *Orbital and periorbital cellulitis* and ACS 2114 *Prophylactic surgery*.

There were changes to the ACS 0001 *Principal Diagnosis*, particularly with regard to the dagger and asterisk (Aetiology and Manifestation) sequencing rules. There were also major enhancements to the coding of Obstetrics and Diabetes Mellitus. The following lists include the areas in the classifications and standards where the main changes occurred with some detail provided for illustration. Further details are available on application to the HPO.

VII.2 Main Changes in ICD-10-AM/ACHI/ACS 8th edition

ICD-10-AM Diagnoses

- Obstetrics
- Diabetes
- Cystic Fibrosis
- Sepsis
- Sunburn
- MRSA
- Appendicitis
- Respiratory Failure Types
- Anaemia in chronic diseases
- Neoplasm update – cancer of unknown primary

New codes

C79.9 *Secondary malignant neoplasm, unspecified site*
C80.0 *Malignant neoplasm, primary site unknown, so stated*
C80.9 *Malignant neoplasm, unspecified*

- Appendicitis
- Respiratory Failure Types
- Anaemia in chronic diseases
- Neoplasm update – leukaemia & lymphoma
- Respiratory failure, type I and type II
- Sunburn
- Atrial fibrillation
- Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)
- Duration of pregnancy
- Haemorrhoids
- Hernia
- Resistance to antimicrobial and antineoplastic drugs
- Viral Hepatitis

ACHI Procedures

- Minimally invasive procedures proceeding to open procedure

New generic codes

90343-00 [1011] *Endoscopic procedure proceeding to open procedure*
90343-01 [1011] *Laparoscopic procedure proceeding to open procedure*
90613-00 [1579] *Arthroscopic procedure proceeding to open procedure*

ACS 0019 *Procedures not completed or interrupted* expanded to provide guidelines

- Change in Standard: ACS 0020 *Bilateral/Multiple Procedures*

- Change in Standard: ACS 0042 *Procedures normally not coded*

A major review of ACS 0042 *Procedures normally not coded* was undertaken due to the many queries received as to what components should or should not be coded in major surgeries. As a result the following instruction has been added to ACS 0042

Imaging services – all codes in ACHI Chapter 20 *Imaging services* and block [451] *Dental radiological examination and interpretation* **except:**

- transoesophageal echocardiogram (TOE) (55118-00 [1942])
- when instructed to do so

- Insertion of seeds/fiducial markers into prostate
- Percutaneous heart valve replacement
- Laparoscopic colectomy & ileocolic resection
- Coronary artery procedures
- Transcatheter thrombectomy of intracranial arteries
- Endoluminal fundoplication (ELF)
- Procedures for obesity - New ACHI Block 889 with 27 new procedure codes for treatment of obesity
- Sacral nerve stimulation (SNS)
- Sentinel lymph node biopsy (SLNB)

Australian Coding Standards (ACS)

- Conventions
- ACS 0001 *Principal diagnosis* – dagger/asterisk
- ACS 0001 *Principal diagnosis* – obstetrics
- ACS 0401 *Diabetes mellitus and intermediate hyperglycaemia*
- ACS 0402 *Cystic fibrosis*
- ACS 1615 *Specific interventions for the sick neonate*
- ACS 0042 *Procedures normally not coded*
- ACS 0020 *Bilateral/multiple procedures* – skin lesions
- ACS 0104 *Viral hepatitis*
- ACS 0110 *Sepsis, severe sepsis and septic shock*
- ACS 0111 *Healthcare associated Staphylococcus Aureus bacteraemia*
- ACS 2114 *Prophylactic surgery* (New)

Irish Coding Standards (ICS) (V8.0 January 2016)

- New standard ICS 01X0 *Zika virus* provides guidance on the WHO alert on the coding of Zika virus and the use of U06.9 *Emergency use of U06.9* for same.

APPENDIX VIII: OVERVIEW OF CHANGES BETWEEN VERSION 6.0 AND VERSION 8.0 OF THE AR-DRG CLASSIFICATION SYSTEM

VIII.1 Introduction

Ireland updated to Version 8.0 of the Australian Refined Diagnosis Related Group (AR-DRG) classification system in 2015.[2] A number of changes took place during this update; the largest change was the complete revision of the case complexity methodology within the AR-DRG classification.[3] This appendix gives a brief outline of the major changes in AR-DRG Version 8.0 compared to Version 6.0.

VIII.2 Summary

VIII.2.1 Revision of ADRG Splitting

The number of Diagnosis Related Groups (DRGs) has increased from 698 in AR-DRG Version 6.0 to 807 in AR-DRG Version 8.0, while the number of Adjacent Diagnosis Related Groups (ADRGs) has increased from 399 in AR-DRG Version 6.0 to 406 in AR-DRG Version 8.0.

In AR-DRG Version 8.0, 14 ADRGs were added and 7 ADRGs were removed; while 194 splits were added and 22 splits were removed. Table VIII.1 outlines the increase in splits in AR-DRG Version 8.0 compared to AR-DRG Version 6.0. This increase results in greater granularity in AR-DRG Version 8.0.

TABLE VIII.1 Changes in ADRG splits

ADRG Splitting	Number of ADRGs	
	Version 6.0	Version 8.0
No Split (Z)	156	85
Two Levels (A,B)	192	246
Three Levels (A,B,C)	46	70
Four Levels (A,B,C,D)	5	5
Total ADRGs	399	406

[2] AR-DRG Version 8.0 was first reported on in the HIPE Annual Report in 2016.

[3] Further information on AR-DRG Version 8.0 can be found on the Australian Consortium for Classification Development website https://www.accd.net.au/ArDrg.aspx?page=2 [Accessed 26th July 2018].

VIII.2.2 ADRGs Added and Removed in Version 8.0 of the AR-DRG Classification System

There were 14 ADRGs added in AR-DRG Version 8.0 (see Table VIII.2). These include a number of musculoskeletal codes, bariatric codes, neonate codes, alcohol and drug sameday, and sleep disorders.

TABLE VIII.2 ADRGs Added in Version 8.0 of the AR-DRG Classification System

ADRG	ADRG Description
I40	Infusions for Musculoskeletal Disorders, Sameday
I80	Femoral Fractures, Transferred to Acute Facility <2 Days
I81	Musculoskeletal Injuries, Sameday
I82	Other Sameday Treatment for Musculoskeletal Disorders
K10	Revisional and Open Bariatric Procedures
K11	Major Laparoscopic Bariatric Procedures
K12	Other Bariatric Procedures
K13	Plastic OR Procedures for Endocrine, Nutritional and Metabolic Disorders
P07	Neonate, AdmWt <750g W Significant OR Procedure
P08	Neonate, AdmWt 750-999g W Significant OR Procedure
P68	Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, >=37 Completed Wks Gestation
V65	Treatment for Alcohol Disorders, Sameday
V66	Treatment for Drug Disorders, Sameday
Z66	Sleep Disorders

There were 7 ADRGs removed in AR-DRG Version 8.0 (see Table VIII.3). These include peptic ulcer codes, obesity procedures, false labour, radiotherapy, and HIV, sameday. Some of the cases previously grouped to these DRGs have grouped to pre-existing DRGs, while some have grouped to new DRGs. For example, all cases previously grouped to R64 *Radiotherapy* have grouped to R62 *Other Neoplastic Disorders* in AR-DRG Version 8.0; the majority of these have grouped to R62C *Other Neoplastic Disorders, Minor Complexity*.

TABLE VIII.3 ADRGs Removed in Version 8.0 of the AR-DRG Classification System

ADRG	ADRG Description
G62	Complicated Peptic Ulcer
G63	Uncomplicated Peptic Ulcer
K04	Major Procedures for Obesity
K07	Obesity Procedures
O64	False Labour
R64	Radiotherapy
S60	HIV, Sameday

VIII.2.3 Naming Convention of AR-DRGs

The terminology used to name AR-DRGs has been updated. The descriptive terms mild, moderate, severe and catastrophic CC have been replaced with minor, intermediate, major and extreme complexity. An example of this is shown in Table VIII.4 below which compares the naming of ADRG B02 *Cranial Procedures* in both versions of the classification system.

TABLE VIII.4 Example of change in naming convention between AR-DRG Version 6.0 and Version 8.0

Version 6.0	Version 8.0
B02A Cranial Procedures W Catastrophic CC	B02A Cranial Procedures, Major Complexity
B02B Cranial Procedures W Severe CC	B02B Cranial Procedures, Intermediate Complexity
B02C Cranial Procedures W/O Catastrophic or Severe CC	B02C Cranial Procedures, Minor Complexity

VIII.2.3 Changes in Complexity Split

All AR-DRG splits have been revised using the Episode Clinical Complexity (ECC) Model.[4] As a result, an ADRG may have the same description in both versions but may have different DRG splits. For example, O60 *Vaginal Delivery* is present in both Version 6.0 and Version 8.0, with a different number of splits in each. AR-DRG Version 6.0 has no split (O60Z *Vaginal Delivery*) whereas AR-DRG Version 8.0 has three end classes:

- O60A *Vaginal Delivery, Major Complexity*
- O60B *Vaginal Delivery, Intermediate Complexity*
- O60C *Vaginal Delivery, Minor Complexity*

[4] Further information on the ECC Model in AR-DRG Version 8.0 can be found at https://www.ihpa.gov.au/sites/g/files/net636/f/publications/review_of_the_ar-drg_case_complexity_process.pdf [Accessed 26th July 2018]

APPENDIX IX: IRISH CODING STANDARD 0048

ICS 0048 Hospital Acquired Diagnosis (HADx) Indicator

This indicator will allow the diagnoses acquired during the patient's episode of care that were not present prior to admission, to be identified. In Ireland the variable will be called the Hospital Acquired Diagnosis (HADx) Indicator. This variable has been collected from January 2011. The purpose of this variable is to collect information that can be used as an indicator of quality of care. It does not aim to collect information on the profile of chronic disease progression.

The 'Hospital Acquired Diagnosis' indicator will be collected by HIPE for diagnoses that were not present on admission but are acquired by the patient during the current episode of care. The guidelines contained in ACS 0048 *Condition Onset Flag* may serve as a useful guide.

An indicator can be ticked for any secondary diagnosis acquired during this episode of care that was not previously present. The indicator can only be assigned to a true hospital acquired condition and not to an exacerbation of a pre-existing condition.

The principal diagnosis cannot be assigned this indicator as by definition it will have been present when the patient was admitted[5]. The only exception to this rule is for neonates during the birth episode where the principal diagnosis can be flagged as a Hospital Acquired Diagnosis (HADx).

Coders may find it helpful to refer to the information in ACS 0048 which states

"*The principal diagnosis code is always assigned COF 2* (in Ireland this translates as not a Hospital Acquired Diagnosis). *The exception to this is neonates in their admitted birth episode in that hospital, where codes sequenced as the principal diagnosis may be assigned COF 1* (in Ireland this translates as a Hospital Acquired Diagnosis) *if appropriate*.

HADX for neonates at risk of sepsis
Neonates admitted within the birth episode and observed for risk of sepsis will not have a HADx flag applied to the codes for this condition. In such cases, as the sepsis is not an established diagnosis it cannot be flagged as a hospital acquired diagnosis.

If in doubt please do not assume a condition is Hospital Acquired. This must be clearly documented before the flag is used.

5 *"The diagnosis established after study to be chiefly responsible for occasioning an episode of admitted patient care, an episode of residential care or an attendance at the health care establishment, as represented by a code."* (Health Data Standards Committee (2006), *National Health Data Dictionary*, Version 13, AIHW).

Example 1:
Patient admitted with back pain. Investigations found that patient had prostatic carcinoma and bony mets to the pelvis.

Dx	Code	HADx
Primary neoplasm of prostate	C61	-
Secondary Neoplasm of bone	C79.5	-

Example 2:

Patient admitted with shortness of breath and difficulty breathing found to have acute exacerbation of COPD. Patient found to be MRSA+ on nasal swab on day 5 of admission – previous nasal swabs during the admission were negative

Dx	Code	HADx
COPD with acute Exacerbation	J44.1	-
Carrier of other specified bacterial disease	Z22.3	✓ Yes
Methicillin resistant agent	Z06.52	✓ Yes

Example 3:
Obstetrics patient admitted with prolonged pregnancy. The following day the patient was induced with oxytocin and delivered a healthy infant via forceps delivery with 2nd degree perineal laceration.

Dx	Code	HADx
Single delivery by forceps & vacuum extractor	O81	
Prolonged pregnancy	O48	-
2nd Degree Perineal laceration	O70.1	✓ Yes
Outcome of delivery: single live birth	Z37.0	-

Example 4:
Type II diabetic patient admitted with diabetic foot, during the admission the patient developed acute renal failure.

Dx	Code	HADx
Diabetic Foot	E11.73	-
Acute kidney failure	N17.9	✓ Yes
Diabetes with other specified kidney complication	E11.29	-

Example 5
Patient admitted with abdominal pain. Investigations suggested appendicitis. Patient underwent appendicectomy and during the procedure adhesions were noted and divided. Histology report documents acute appendicitis. Postoperative course was normal but patient developed rash on left arm with no cause found. The patient was reviewed by the dermatologist and given an appointment for dermatology Out-Patients Clinic.

Dx	Code	HADx
Acute Appendicitis Other & unspecified	K35.8	-
Peritoneal Adhesions	K66.0	-
Rash	R21	✓ Yes

Effective From:	From 1st January 2011 HADx indicator will be collected.
Reason For Standard:	To identify those conditions that are acquired during the episode of care
Standard Updated:	Name and content of ICS 0048 updated to state that the Hospital Acquired Diagnoses Indicator is collected from January 2011
Standard Updates	Standard updated for 8th edition ICD-10-AM/ACHI/ACS as the HADx flag can be assigned for neonates on the birth episode. Examples also updated to reflect code changes in 8th edition.
Further Update:	January 2018 ICS V9B2018 standard updated to advise that where a neonate has a risk of sepsis a HADX flag is not assigned.

Healthcare Pricing Office (HPO)
Brunel Building
Heuston South Quarter
Dublin 8
D08 X01F
Ireland
www.hpo.ie
ISBN 978-1-78602-160-1

Building a Better Health Service | Seirbhís Sláinte Níos Fearr á Forbairt

Healthcare Pricing Office