

Activity in Acute Public Hospitals in Ireland

2021
ANNUAL REPORT

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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 2021. 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.

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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.

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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.

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Inevitably, a number of individuals have to carry most of the responsibility for producing a report of this type. In this case, Karen Kearns, Paul Lin, 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.

Finally we would like to acknowledge our colleague and friend Deirdre Murphy who was head of the HIPE and NPRS in the HPO before her retirement in July 2022. Deirdre worked with HIPE for over 40 years and made valuable contributions to the development of HIPE during this time. We wish her well in her retirement.

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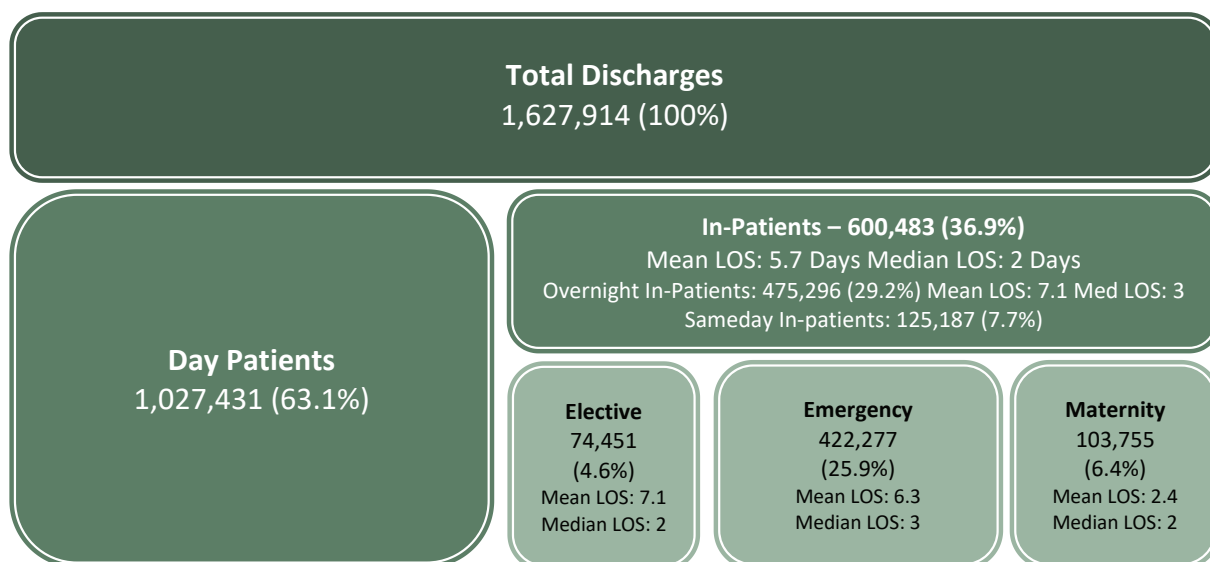
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EXECUTIVE SUMMARY

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 public 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.

The aim of this report is to present an overview of discharge activity in acute public hospitals in Ireland in 2021. From the first quarter of 2020, Coronavirus disease 2019 (COVID-19) affected the ability of hospitals to perform their usual levels of activity. The effect on reported activity from COVID-19 should be considered when comparing against previous years.

TOTAL DISCHARGES, 2021



Discharge Overview

- Over 1.6 million discharges were reported by participating hospitals in 2021, an increase of 8.5 per cent over the period 2020–2021.
- Day patients accounted for 63.1 per cent of total discharges, an increase of 10.4 per cent since 2020.
- In-patients accounted for 36.9 per cent of total discharges, an increase of 5.4 per cent since 2020 and a decrease of 6.4 per cent from 2017–2021.

- Over the period 2017–2021, the number of elective in-patient discharges decreased by 22.5 per cent, maternity in-patients decreased by 6.7 per cent, while emergency in-patients decreased by 2.7 per cent.

Length of Stay

- In-patient average length of stay was 5.7 days in 2021. This has remained the same since 2017 except for a slight increase in 2020 where the average length of stay was 5.8 days.
- Over the period 2017–2021, the average length of stay remained relatively constant for emergency in-patients at 6.3 days. The average length of stay increased for elective in-patients from 6.7 days to 7.1 days, and decreased for maternity in-patients from 2.7 days to 2.4 days over the same period.

Sex

- Similar to previous years, females accounted for 52.9 per cent of total discharges with males accounting for 47.1 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 39.0 per cent of total discharges, representing an increase of 8.4 per cent since 2020 and a slight increase of 0.1 per cent since 2017.
- Discharges aged 65 years and over accounted for 55.4 per cent of total in-patient bed days, an increase of 4.0 per cent since 2020 and a decrease of 3.7 per cent since 2017.

Public/Private Status

- Over 87 per cent of total discharges were treated on a public basis. Private patients accounted for 12.7 per cent of total discharges.
- The 25–34 years age group had the largest proportion of total discharges treated publicly (90.2 per cent) with only 9.8 per cent treated on a private basis.

Hospital Group

- The largest proportion of total discharges were hospitalised in the Ireland East Hospital Group (20.5 per cent).
- Total in-patient discharges were highest in the Ireland East Hospital Group where 21.5 per cent of discharges were hospitalised, while the Dublin Midlands Hospital Group accounted for the highest proportion of day patients (20.8 per cent).

Admission Source

- The majority of total discharges were admitted from home (96.5 per cent).

Discharge Destination

- The majority of total discharges were discharged home (94.8 per cent).
- Of total emergency in-patients, 5.2 per cent were transferred to long stay accommodation, and 6.4 per cent were transferred to another hospital.

Day of Admission

- Just over 60 per cent of elective in-patients were admitted between Monday and Wednesday, with only 6.8 per cent admitted at the weekend.

Day of Discharge

- The proportion of elective in-patients discharged increased throughout the week, from 11.4 per cent on Monday to 22.5 per cent on Friday, falling to 10.1 per cent on Saturday and 4.8 per cent on Sunday.

Month of Discharge

- Emergency in-patient hospital discharges peaked in July (37,273 discharges), while the smallest number of emergency in-patients were discharged in February with 29,269 discharges.

MORBIDITY ANALYSIS

Day Patients

- 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 21.3 and 17.5 per cent of day patient discharges respectively.
- At least one procedure was recorded for 91.9 per cent of day patient discharges.
- The highest principal procedure block reported was *Administration of pharmacotherapy*, accounting for 19.4 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 4.5 per cent of in-patients.
- At least one procedure was recorded for 59.8 per cent of in-patient discharges.
- The highest principal procedure block reported was *Generalised allied health interventions* which accounted for 30.4 per cent of in-patient discharges with at least one procedure recorded.¹

Elective In-Patients

- Elective in-patients with a principal diagnosis of *Coxarthrosis [arthrosis of hip]* accounted for 3.3 per cent of elective in-patient discharges.
- At least one procedure was recorded for 90.5 per cent of elective in-patient discharges.
- The highest principal procedure block reported for elective in-patients was *Generalised allied health interventions*, accounting for 12.5 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 4.3 per cent of emergency in-patient discharges.

¹ This block includes interventions such as physiotherapy, pharmacy, dietetics, occupational therapy, speech pathology, social work and diabetes education. Together, these seven interventions accounted for 97.3 per cent of cases within this procedure block.

- At least one procedure was recorded for 53.1 per cent of emergency in-patient discharges.
- The highest principal procedure block reported for emergency in-patients was *Generalised allied health interventions*, accounting for 44.0 per cent of emergency in-patient discharges who had at least one procedure reported.

Maternity In-Patients – by Delivery Status²

- Delivery discharges with a principal diagnosis of *Single spontaneous delivery* accounted for 45.7 per cent of delivery in-patient discharges.
- For delivery discharges who had a procedure reported, 45.0 per cent reported the principal procedure block *Spontaneous vertex delivery*.
- Non-delivery discharges with a principal diagnosis of *Other maternal diseases classifiable elsewhere in pregnancy; childbirth and the puerperium* accounted for 25.8 per cent of non-delivery in-patient discharges.
- For non-delivery discharges who had a procedure reported, 27.5 per cent reported the principal procedure block *Curettage and evacuation of uterus*.³

² 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.

³ See Appendix VII for an overview of changes from 8th Edition to 10th Edition ICD-10-AM/ACHI/ACS.

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 252,369 discharges or 24.6 per cent of day patients.
 - * *Chemotherapy* (AR-DRG R63Z) accounted for 48.0 per cent of day patients within this MDC, and 11.8 per cent of total day patients; *Other Neoplastic Disorders, Minor Complexity* (AR-DRG R62C) accounted for 35.5 per cent of day patients within this MDC and 8.7 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 17.2 per cent of in-patients.
 - * *Vaginal Delivery* (AR-DRGs O60A, O60B and O60C) accounted for 35.5 per cent of in-patients within this MDC and 6.1 per cent of total in-patient discharges.
 - * *Antenatal and Other Obstetric Admission* (AR-DRGs O66A and O66B) accounted for 34.5 per cent of in-patients within this MDC and 5.9 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

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1.1 INTRODUCTION

This report aims to present an overview of discharge activity in acute public hospitals in Ireland during 2021 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 2021 report. It outlines briefly the background of the HIPE scheme, and highlights other data sources used throughout the report. Given that COVID-19 continues to have an impact on hospitals in 2021, changes to HIPE relating to COVID-19 are briefly discussed in this section, and similar to the 2020 HIPE report, data relating to COVID-19 admissions are analysed in further detail in this year's annex. Following this, 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 2017–2021.²

1.2 BACKGROUND

From 1st January 2014 the Health Research and Information Division at the ESRI and the National Casemix Programme in the HSE became the Healthcare Pricing Office (HPO).³ 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.⁴ 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.⁵

At the start of 2020, the classification used to code clinical information was updated from the 8th Edition to the 10th 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).^{6,7,8} Ireland updates the clinical

¹ See Appendix I for a list of hospitals participating in HIPE in 2021.

² The effect of COVID-19 on hospitals ability to perform their usual levels of activity must be taken into account in both 2020 and 2021 data.

³ From 1990 to 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).

⁴ 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.

⁵ For more information on the work of the HPO please see www.hpo.ie

⁶ Australian Consortium for Classification Development (ACCD) 2017. *The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM)*, and *Australian Classification of Health Interventions (ACHI)* and *Australian Coding Standards (ACS) – ICD-10-AM/ACHI/ACS (10th Ed)* Adelaide: Independent Hospital Pricing Authority (IHPA), Lane Publishing.

⁷ The spelling conventions of ICD-10-AM comply with the Macquarie Dictionary, as recommended by the Australian government style manual.

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 by the Irish Coding Standards (ICS).⁹ The ICS are developed for use with the Australian Classification and Australian 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 2020 onwards compared to previous reports, due to changes in sequencing of codes within a HIPE record, addition of new codes, deletion of codes, and updates to ACS and ICS.¹⁰

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.^{11,12} 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.

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.¹³

1.3 COVID-19

From the first quarter of 2020, COVID-19 had a substantial impact on the ability of hospitals to deliver their normal level of services due to the reconfiguration and re-designation of wards to accommodate COVID-19 discharges. As a result of this, the HSE entered into a Service Level Agreement (“SLA”) with private hospitals to allow some public patients to be treated in private hospitals for the

⁸ HIPE data for 2021 is coded using the 10th edition of ICD-10-AM.

⁹ Irish Coding Standards (ICS) provide guidelines for the collection of HIPE data for all discharges and are to be used in conjunction with 10th Edition ICD-10-AM/ACHI/ACS and the relevant HIPE Instruction Manual. For further information, see www.hpo.ie

¹⁰ See Appendix VII for an overview of changes from ICD-10-AM/ACHI/ACS 8th edition (in use from 2015–2019) to 10th Edition (in use from 1st January 2020).

¹¹ AR-DRG Version 8.0 was first reported on in the HIPE Annual Report in 2016.

¹² See Appendix VIII for an overview of changes between AR-DRG Version 6.0 and Version 8.0.

¹³ Available at www.hpo.ie

duration of the COVID-19 pandemic. New SLA's were signed in 2021 to allow this process to continue. This data is not presented in this report.¹⁴

During 2020 and 2021 the Independent Health and Aged Care Pricing Authority (IHACPA) published guidance on the coding of cases which incorporates guidance from the WHO.¹⁵ The HPO published Irish Coding standard (ICS) 22X2 V1.3 Novel Coronavirus (COVID-19) based on this guidance. There were regular updates to COVID-19 coding guidelines due to the activation of new codes by the WHO. For example, at the beginning of 2021, IHACPA published new guidance on coding for post COVID-19 conditions and a code to identify adverse effects of COVID-19 vaccines in therapeutic use. These are discussed in more detail in this year's annex.

The availability, reliability and coverage of the HIPE dataset during this pandemic continues to be of national and international importance. To prioritise the coding of COVID-19 discharges, in March 2020 the HPO developed a process to facilitate automatic nightly exports of cases with a COVID-19 diagnosis and this process continued throughout 2021. In this manner, the Department of Health, the HSE and other health agencies have access to this important activity data to track, monitor and support the health system.

1.4 DATA SOURCES FOR ANNUAL REPORT 2021

- 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.^{16,17} In 2021, 53 public hospitals in Ireland participated in HIPE (see Appendix I).¹⁸
- Population* Population estimates for 2017–2021 are based on Census 2016
- Estimates:* data published by the Central Statistics Office.

¹⁴ While data is submitted by private hospitals to validate claims for activity performed, this data is deemed not robust for analysis due to non-specificity within the data returned and low levels of coverage. It is also based on a reduced HIPE record and does not form part of the main HIPE dataset. There are different data returns based on new SLA's with private hospitals in 2021 (Safety Net 2 and 3 which were administered by VHI) and this data is not readily usable.

¹⁵ The Independent Hospital Pricing Authority (IHPA) renamed as the Independent Health and Aged Care Pricing Authority (IHACPA) in August 2022. For the purpose of the HIPE Annual Report, references to previous IHPA publications remain unchanged but links directing to IHPA documents have been updated and IHPA is referred to as IHACPA in these instances.

¹⁶ See Appendix II for details of data collected by HIPE, see also the HIPE Data Dictionary 2021 Version 13.0 available at www.hpo.ie

¹⁷ A copy of the HIPE data entry form for 2021 is contained in Appendix III.

¹⁸ For historical reasons, a small number of non-acute hospitals also reported to HIPE in 2021. Discharges from these hospitals have been included in this report.

1.5 STRUCTURE OF ANNUAL REPORT 2021

The remainder of this 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 2021. 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 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 2017-2021 is Version 8.0.¹⁹

Annex

The annex is designed to highlight particular topics of interest that merit further analysis. Similar to 2020, this year's topic of interest is a discussion and analysis of HIPE data relating to admissions with the Coronavirus Disease 2019 (COVID-19) in 2020 and 2021.

Glossary and Abbreviations

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

¹⁹ Further information on AR-DRG Version 8.0 can be found on the IHACPA website <https://www.ihacpa.gov.au/resources/development-australian-refined-diagnosis-related-groups-v80> [Accessed 29th August 2022].

1.6 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 2021 indicate that for day patient and in-patient discharges appropriate for inclusion in the HIPE data set, 99.6 per cent of the discharges reported from hospital systems were coded and returned for inclusion in the national HIPE data set.

1.7 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.²⁰ 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 change 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 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 administered 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.

²⁰ 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 in tables where the number of discharges reported to HIPE is five or fewer. The tables contained in this report have been suppressed 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 ‡ 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.

1.8 DISCHARGES REPORTED TO HIPE, 2017-2021

In 2021, 1,627,914 discharges were reported to HIPE by participating acute public hospitals,²¹ representing a decrease of 5.3 per cent over the period 2017–2021 and an increase of 8.5 per cent over the period 2020–2021. Coronavirus disease 2019 (COVID-19) has affected the ability of hospitals to perform their usual levels of activity in both 2020 and 2021. Therefore, any comparisons with earlier years needs to take this into account.

Table 1.1 and Figures 1.1 to 1.2 show the distribution of discharges over the period 2017–2021 by selected variables. The following points provide a summary of changes over the period 2017–2021:

- The male-female split in 2021 has remained consistent with previous years, with a larger proportion of female discharges (52.9 per cent).
- The 65 years and over age group accounted for the largest proportion of total discharges in 2021 (39.0 per cent), representing an increase of 8.4 per cent for this age group from 2020–2021.
- From 2017–2021 there was a decrease of 2.2 per cent for public discharges and a decrease of 21.9 per cent for private discharges.²²
- The number of day patient discharges decreased from 1,077,014 in 2017 to 1,027,431 in 2021, a decrease of 4.6 per cent.
- The number of in-patient discharges decreased from 641,509 in 2017 to 600,483 in 2021, a decrease of 6.4 per cent.
- Emergency in-patient discharges comprised 67.7 per cent of total in-patient discharges in 2017, increasing to 70.3 per cent of all discharges in 2021.
- Maternity in-patient discharges decreased by 6.7 per cent over the period 2017–2021 from 111,195 to 103,755 discharges.
- Sameday in-patient discharges increased by 2.0 per cent over the period 2017–2021 from 122,753 to 125,187 discharges.
- Over the period 2017–2021, the average length of stay remained relatively constant for emergency in-patients at 6.3 days. The average length of stay increased for elective in-patients from 6.7 days to 7.1 days, and decreased for maternity in-patients from 2.7 days to 2.4 days over the same period.
- Overnight in-patient discharges stayed on average 6.9 days in 2017 which has increased to 7.1 days in 2021, an increase of 2.9 per cent. The median has remained constant at 3 days over the period.

²¹ In 2021 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.

²² 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.

TABLE 1.1 Acute Public Hospital Discharges in HIPE (N, %), 2017-2021

	2017	2018	2019	2020	2021	% Change	% Change
	N (%)	N (%)	N (%)	N (%)	N (%)	2017–2021	2020–2021
Total Discharges	1,718,523 100	1,737,212 100	1,771,022 100	1,499,945 100	1,627,914 100	-5.3	8.5
Discharge Rate^a	358.6	357.7	359.9	301.4	324.8	-9.4	7.8
Sex							
Males	800,443 46.6	817,851 47.1	837,916 47.3	714,171 47.6	767,016 47.1	-4.2	7.4
Females	918,080 53.4	919,361 52.9	933,106 52.7	785,774 52.4	860,898 52.9	-6.2	9.6
Age Group							
Under 15 Years	127,545 7.4	129,137 7.4	124,716 7.0	92,537 6.2	100,912 6.2	-20.9	9.1
15–44 Years	465,383 27.1	456,062 26.3	457,073 25.8	389,864 26.0	425,956 26.2	-8.5	9.3
45–64 Years	490,964 28.6	495,211 28.5	508,747 28.7	431,326 28.8	465,499 28.6	-5.2	7.9
65 Years and Over	634,631 36.9	656,802 37.8	680,486 38.4	586,218 39.1	635,547 39.0	0.1	8.4
Public/Private Status^b							
Public Discharges	1,454,057 84.6	1,488,034 85.7	1,528,698 86.3	1,306,683 87.1	1,421,450 87.3	-2.2	8.8
Private Discharges	264,466 15.4	249,178 14.3	242,324 13.7	193,262 12.9	206,464 12.7	-21.9	6.8
GMS Status							
GMS	953,030 55.5	971,882 55.9	995,063 56.2	790,465 52.7	815,687 50.1	-14.4	3.2
Non-GMS	740,996 43.1	740,522 42.6	723,922 40.9	644,414 43.0	750,073 46.1	1.2	16.4
Unknown	24,497 1.4	24,808 1.4	52,037 2.9	65,066 4.3	62,154 3.8	153.7	-4.5
Hospital Group							
Ireland East ^c	329,543 19.2	338,603 19.5	354,669 20.0	292,944 19.5	333,775 20.5	1.3	13.9
RCSI	258,768 15.1	258,954 14.9	263,641 14.9	230,758 15.4	258,958 15.9	0.1	12.2
Dublin Midlands ^d	319,373 18.6	325,230 18.7	333,923 18.9	286,770 19.1	301,720 18.5	-5.5	5.2
South/South West	331,619 19.3	329,610 19.0	325,579 18.4	283,315 18.9	296,065 18.2	-10.7	4.5
UL	111,771 6.5	113,077 6.5	114,679 6.5	100,268 6.7	109,437 6.7	-2.1	9.1
Saolta	309,209 18.0	312,651 18.0	320,246 18.1	259,591 17.3	280,697 17.2	-9.2	8.1
Children's	53,211 3.1	53,795 3.1	52,404 3.0	42,150 2.8	44,588 2.7	-16.2	5.8
No group ^c	5,029 0.3	5,292 0.3	5,881 0.3	4,149 0.3	2,674 0.2	-46.8	-35.6
Day Patients^c	1,077,014 100	1,086,312 100	1,120,675 100	930,310 100	1,027,431 100	-4.6	10.4
Dialysis/Radiotherapy/ Chemotherapy ^d	396,925 36.9	394,397 36.3	405,990 36.2	388,246 41.7	396,966 38.6	0.0	2.2
Maternity	20,831 1.9	20,601 1.9	22,336 2.0	21,867 2.4	24,334 2.4	16.8	11.3
Other	659,258 61.2	671,314 61.8	692,349 61.8	520,197 55.9	606,131 59.0	-8.1	16.5
In-Patients	641,509 100	650,900 100	650,347 100	569,635 100	600,483 100	-6.4	5.4
Elective	96,100 15.0	96,893 14.9	94,256 14.5	72,426 12.7	74,451 12.4	-22.5	2.8
Emergency ^e	434,214 67.7	443,313 68.1	448,313 68.9	399,609 70.2	422,277 70.3	-2.7	5.7
Maternity	111,195 17.3	110,694 17.0	107,778 16.6	97,600 17.1	103,755 17.3	-6.7	6.3

Contd. overleaf

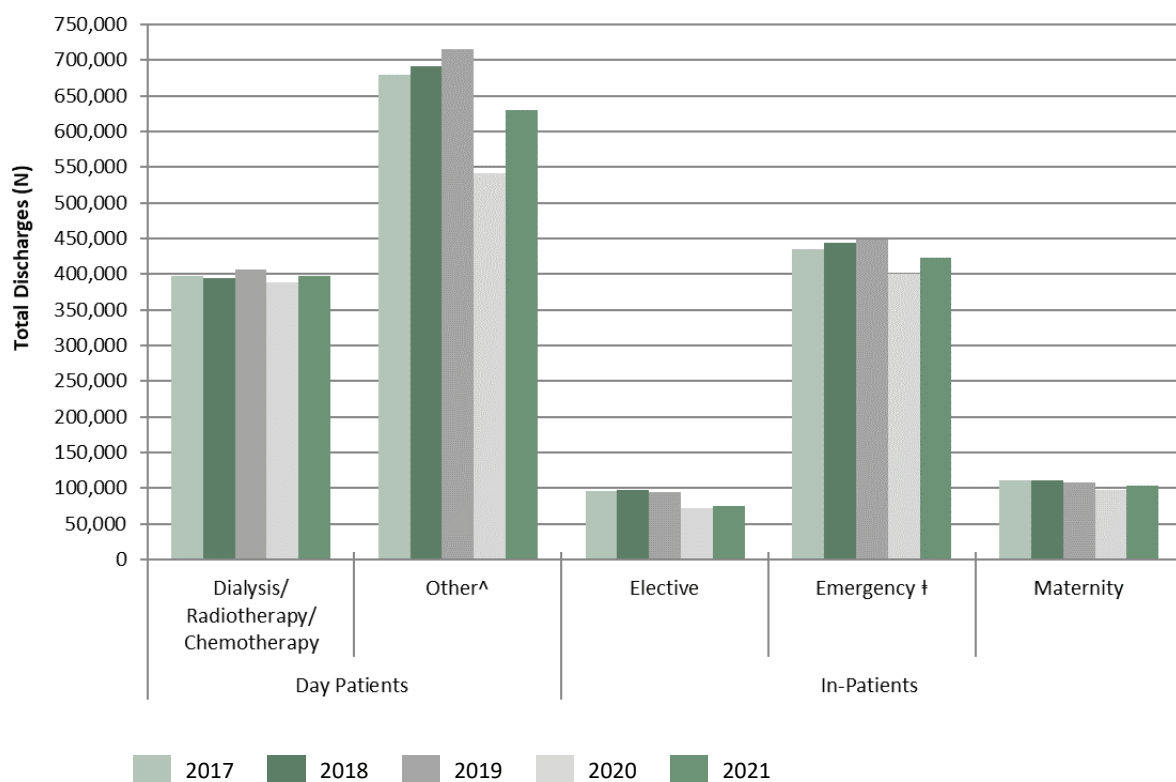
TABLE 1.1 Acute Public Hospital Discharges in HIPE (N, %), 2017–2021 (contd.)

		2017	2018	2019	2020	2021	% Change	% Change
		N (%)	N (%)	N (%)	N (%)	N (%)	2017–2021	2020–2021
Overnight In-Patients		518,756 80.9	522,003 80.2	515,196 79.2	454,123 79.7	475,296 79.2	-8.4	4.7
Sameday In-Patients		122,753 19.1	128,897 19.8	135,151 20.8	115,512 20.3	125,187 20.8	2.0	8.4
In-Patient Length of Stay								
In-Patients	Mean	5.7	5.7	5.7	5.8	5.7	0.0	-1.7
	Median	2	2	2	2	2		
Elective	Mean	6.7	6.8	6.9	7.4	7.1	6.0	-4.1
	Median	2	2	2	2	2		
Emergency ^f	Mean	6.3	6.2	6.3	6.3	6.3	0.0	0.0
	Median	2	2	2	2	3		
Maternity	Mean	2.7	2.6	2.6	2.4	2.4	-11.1	0.0
	Median	2	2	2	2	2		
Overnight In-Patients	Mean	6.9	7.0	7.1	7.1	7.1	2.9	0.0
	Median	3	3	3	3	3		
In-Patient Bed Days^f								
Total In-Patients		3,679,625 100	3,711,417 100	3,727,639 100	3,282,359 100	3,439,323 100.0	-6.5	4.8
Under 15 Years		276,584 7.5	270,757 7.3	254,537 6.8	213,764 6.5	229,478 6.7	-17.0	7.4
15 to 44 Years		709,097 19.3	670,925 18.1	666,872 17.9	576,821 17.6	603,768 17.6	-14.9	4.7
45 to 64 Years		712,827 19.4	720,392 19.4	725,846 19.5	658,253 20.1	699,064 20.3	-1.9	6.2
65 Years and Over		1,981,117 53.8	2,049,343 55.2	2,080,384 55.8	1,833,520 55.9	1,907,014 55.4	-3.7	4.0
Overnight In-Patients		3,556,872 96.7	3,646,968 98.3	3,660,063 98.2	3,224,603 98.2	3,376,729 98.2	-5.1	4.7

Notes: Percentage columns are subject to rounding.

- 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 324.4 per 1,000 population.
- 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.
- In 2021, the National Rehabilitation Hospital (NRH), Dun Laoghaire moved under the management of the Ireland East Hospital Group. This hospital was previously included in 'No Group' which are hospitals that are not under the management of the Acute Hospitals programme.
- 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).
- 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.
- 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 2017–2021 were obtained from HIPE. Population estimates for 2017–2021 were obtained from the Central Statistics Office. <https://data.cso.ie/> (Table PEA01) [Accessed 25th August 2022].

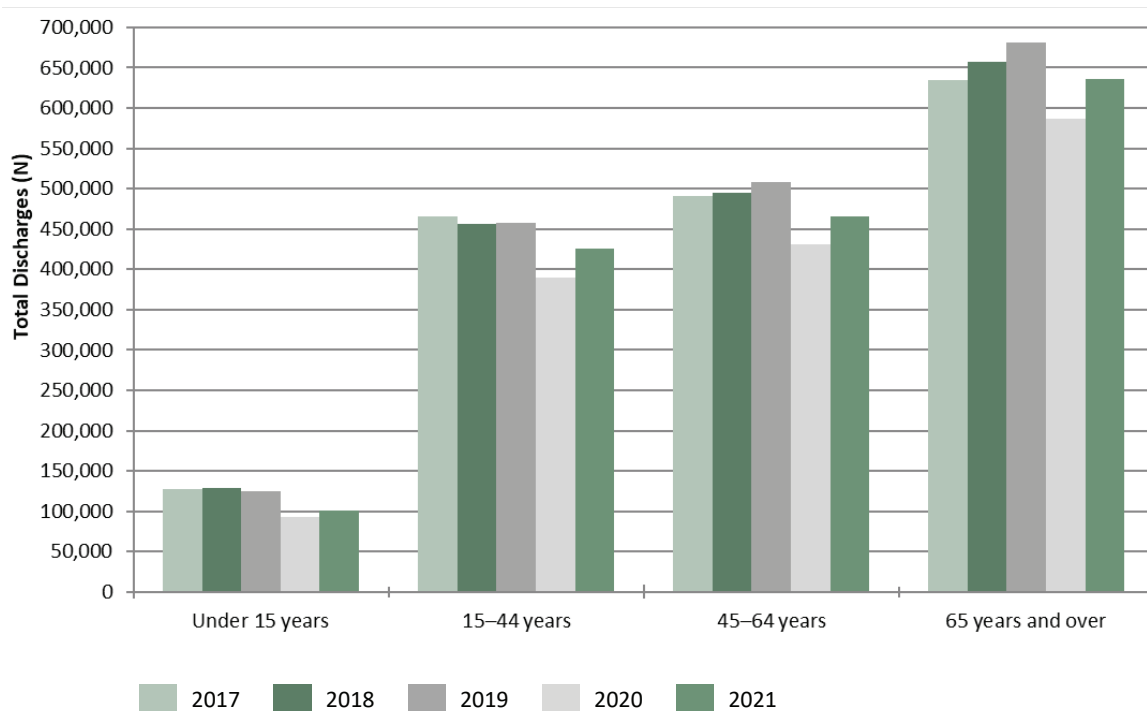
FIGURE 1.1 Total Discharges by Patient Type and Admission Type (N), 2017–2021

Notes: See Appendix I for a list of hospitals that participated in HIPE in 2021.

^ Includes day patient maternity discharges (see Table 1.1).

† 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 2017–2021 were obtained from HIPE.

FIGURE 1.2 Total Discharges by Age Group (N), 2017–2021

Source: Data for 2017–2021 were obtained from HIPE.

Discharge Overview SECTION
2021

TWO

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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 1.7).

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 2021, day patient discharges accounted for 63.1 per cent of total discharges. In-patient discharges accounted for the remaining 36.9 per cent of total discharges with 70.3 per cent of in-patients admitted on an emergency basis, 12.4 per cent admitted on an elective basis and 17.3 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 (19.2 per cent). This age group also accounted for the largest proportion of day patient discharges (22.3 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 34.4 per cent of in-patient discharges and 55.4 per cent of in-patient bed days.

Length of Stay

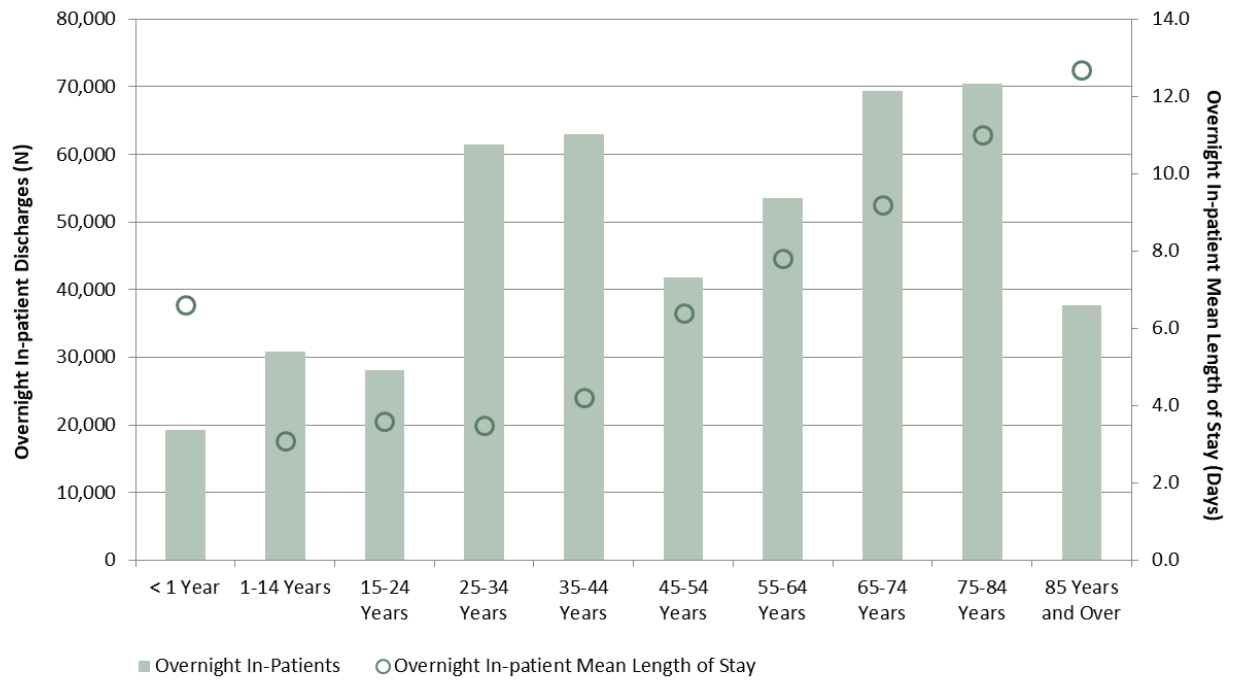
- Discharges aged 25–34 years accounted for 17.3 per cent of total sameday in-patients, the largest amongst all age groups.
- Apart from those aged less than one year, mean length of stay generally increased with age for overnight in-patient discharges rising from 3.1 days for discharges aged 1–14 years to 12.7 days for discharges aged 85 years and over. Median length of stay ranged between 2 to 8 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	2,607	0.3	22,749	3.8	128,324	3.7	25,356	1.6
1–14 Years	34,741	3.4	40,815	6.8	101,154	2.9	75,556	4.6
15–24 Years	37,052	3.6	40,338	6.7	107,653	3.1	77,390	4.8
25–34 Years	67,641	6.6	83,118	13.8	223,346	6.5	150,759	9.3
35–44 Years	114,296	11.1	83,511	13.9	272,770	7.9	197,807	12.2
45–54 Years	149,342	14.5	56,095	9.3	274,136	8.0	205,437	12.6
55–64 Years	192,730	18.8	67,332	11.2	424,928	12.4	260,062	16.0
65–74 Years	229,010	22.3	83,482	13.9	643,576	18.7	312,492	19.2
75–84 Years	159,190	15.5	81,183	13.5	781,948	22.7	240,373	14.8
85 Years and Over	40,822	4.0	41,860	7.0	481,490	14.0	82,682	5.1
Total Discharges	1,027,431	100	600,483	100	3,439,323	100	1,627,914	100

	In-Patient Length of Stay						
	Sameday In-Patients	Overnight In-Patients			Total In-Patients		
	N	N	Mean	Median	N	Mean	Median
< 1 Year	3,564	19,185	6.6	3	22,749	5.6	2
1–14 Years	10,027	30,788	3.1	2	40,815	2.5	1
15–24 Years	12,198	28,140	3.6	2	40,338	2.7	1
25–34 Years	21,719	61,399	3.5	2	83,118	2.7	2
35–44 Years	20,453	63,058	4.2	3	83,511	3.3	2
45–54 Years	14,274	41,821	6.4	3	56,095	4.9	2
55–64 Years	13,811	53,521	7.8	4	67,332	6.3	3
65–74 Years	14,113	69,369	9.2	5	83,482	7.7	4
75–84 Years	10,778	70,405	11.0	6	81,183	9.6	5
85 Years and Over	4,250	37,610	12.7	8	41,860	11.5	7
Total Discharges	125,187	475,296	7.1	3	600,483	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 2021, there were 860,898 female discharges, and of these 14.9 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, 23.1 per cent and 18.5 per cent respectively.
- Discharges aged 65 years and over accounted for 41.6 per cent of male in-patient discharges and 58.5 per cent of male in-patient bed days, while for females (excl. maternity) this group accounted for 41.6 per cent of female in-patient discharges and 61.3 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 (24.3 per cent) and females (excl. maternity) (24.8 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 37.5 per cent of in-patient discharges in this group.

Length of Stay

- Male overnight in-patient discharges had a mean length of stay of 8.1 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, apart from the youngest age group aged less than 1 year, overnight in-patient mean length of stay generally increased with age for both sexes.
- For all age groups aged between 25 and 84 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 2 to 8 days for males and females.
- For maternity discharges, total overnight in-patient mean length of stay was 3.0 days, increasing with age, from 2.7 days for females aged less than 25 years to 3.9 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	1,426	0.3	12,403	4.9	68,637	4.1	13,829	1.8
1–14 Years	19,727	3.8	21,891	8.7	51,475	3.1	41,618	5.4
15–24 Years	17,589	3.4	13,706	5.4	39,538	2.4	31,295	4.1
25–34 Years	24,808	4.8	13,906	5.5	49,094	3.0	38,714	5.0
35–44 Years	43,382	8.4	21,091	8.4	88,876	5.4	64,473	8.4
45–54 Years	65,619	12.7	27,862	11.1	150,580	9.1	93,481	12.2
55–64 Years	101,464	19.7	36,324	14.4	238,758	14.4	137,788	18.0
65–74 Years	131,408	25.5	45,499	18.1	363,628	21.9	176,907	23.1
75–84 Years	88,529	17.2	41,301	16.4	402,738	24.3	129,830	16.9
85 Years and Over	21,143	4.1	17,938	7.1	203,366	12.3	39,081	5.1
Total Discharges	515,095	100	251,921	100	1,656,687	100	767,016	100

	In-Patient Length of Stay						
	Sameday In-Patients	Overnight In-Patients			Total In-Patients		
	N	N	Mean	Median	N	Mean	Median
< 1 Year	1,903	10,500	6.4	3	12,403	5.5	2
1–14 Years	5,640	16,251	3.0	2	21,891	2.4	1
15–24 Years	4,208	9,498	3.9	2	13,706	2.9	1
25–34 Years	4,499	9,407	5.0	2	13,906	3.5	1
35–44 Years	5,871	15,220	5.6	3	21,091	4.2	2
45–54 Years	6,580	21,282	6.9	3	27,862	5.4	2
55–64 Years	6,911	29,413	8.0	4	36,324	6.6	3
65–74 Years	7,174	38,325	9.4	5	45,499	8.0	4
75–84 Years	5,187	36,114	11.1	6	41,301	9.8	5
85 Years and Over	1,767	16,171	12.5	8	17,938	11.3	7
Total Discharges	49,740	202,181	8.1	4	251,921	6.6	3

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	1,181	0.2	10,346	4.2	59,688	3.9	11,527	1.6
1–14 Years	15,013	3.1	18,922	7.7	49,674	3.2	33,935	4.6
15–24 Years	17,423	3.6	15,408	6.3	45,126	2.9	32,831	4.5
25–34 Years	30,699	6.3	16,106	6.6	47,480	3.1	46,805	6.4
35–44 Years	60,979	12.5	23,515	9.6	82,825	5.4	84,494	11.5
45–54 Years	83,499	17.1	27,715	11.3	121,858	8.0	111,214	15.2
55–64 Years	91,266	18.7	31,008	12.7	186,170	12.2	122,274	16.7
65–74 Years	97,602	20.0	37,983	15.5	279,948	18.3	135,585	18.5
75–84 Years	70,661	14.5	39,882	16.3	379,211	24.8	110,543	15.1
85 Years and Over	19,679	4.0	23,922	9.8	278,125	18.2	43,601	5.9
Total Discharges	488,002	100	244,807	100	1,530,102	100	732,809	100

	In-Patient Length of Stay						
	Sameday In-Patients	Overnight In-Patients			Total In-Patients		
	N	N	Mean	Median	N	Mean	Median
< 1 Year	1,661	8,685	6.8	2	10,346	5.8	2
1–14 Years	4,387	14,535	3.3	2	18,922	2.6	1
15–24 Years	4,642	10,766	4.0	2	15,408	2.9	1
25–34 Years	5,433	10,673	4.2	2	16,106	2.9	1
35–44 Years	7,194	16,321	4.9	2	23,515	3.5	1
45–54 Years	7,604	20,111	5.9	3	27,715	4.4	2
55–64 Years	6,900	24,108	7.6	4	31,008	6.0	2
65–74 Years	6,939	31,044	8.9	5	37,983	7.4	4
75–84 Years	5,591	34,291	11.0	6	39,882	9.5	5
85 Years and Over	2,483	21,439	12.9	8	23,922	11.6	7
Total Discharges	52,834	191,973	7.8	4	244,807	6.3	2

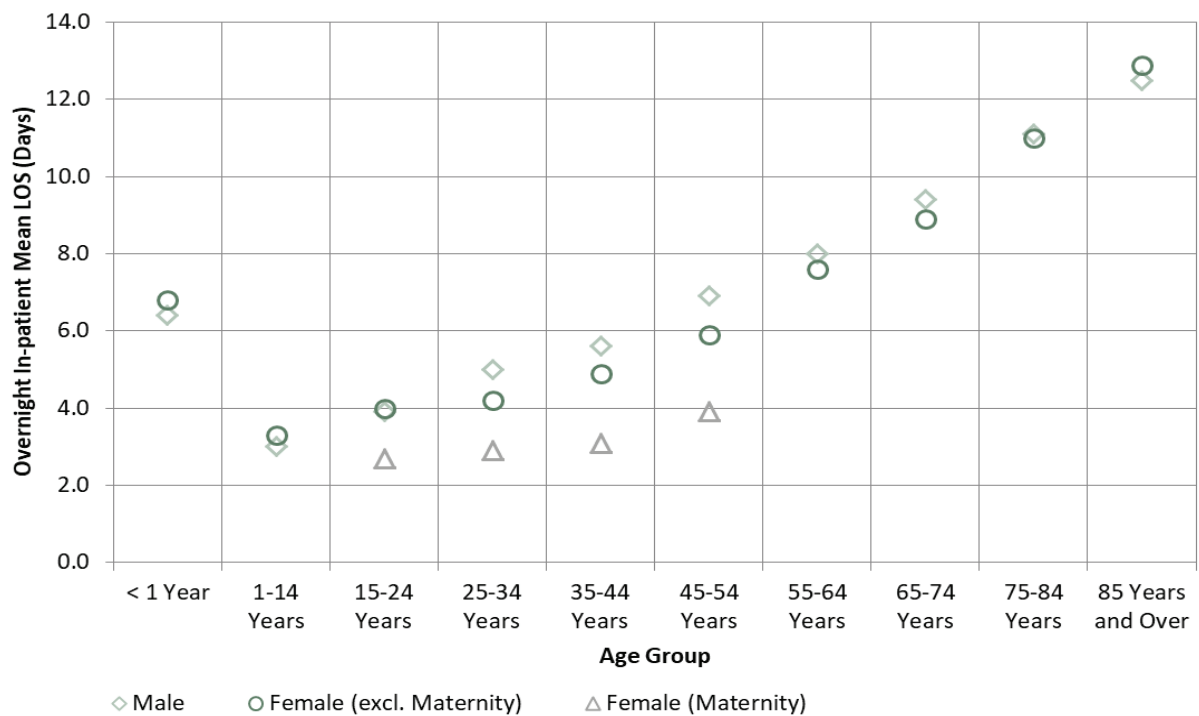
Note: Percentage and bed day columns are subject to rounding.

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	2,041	8.4	11,226	10.8	22,994	9.1	13,267	10.4
25–34 Years	12,134	49.9	53,106	51.2	126,773	50.2	65,240	50.9
35–44 Years	9,935	40.8	38,905	37.5	101,069	40.0	48,840	38.1
45 Years and Over	224	0.9	518	0.5	1,698	0.7	742	0.6
Total Discharges	24,334	100	103,755	100	252,534	100	128,089	100

	In-Patient Length of Stay						
	Sameday In-Patients	Overnight In-Patients			Total In-Patients		
	N	N	Mean	Median	N	Mean	Median
<25 Years	3,348	7,878	2.7	2	11,226	2.0	1
25–34 Years	11,787	41,319	2.9	2	53,106	2.4	2
35–44 Years	7,388	31,517	3.1	3	38,905	2.6	2
45 Years and Over	90	428	3.9	3	518	3.3	3
Total Discharges	22,613	81,142	3.0	2	103,755	2.4	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)

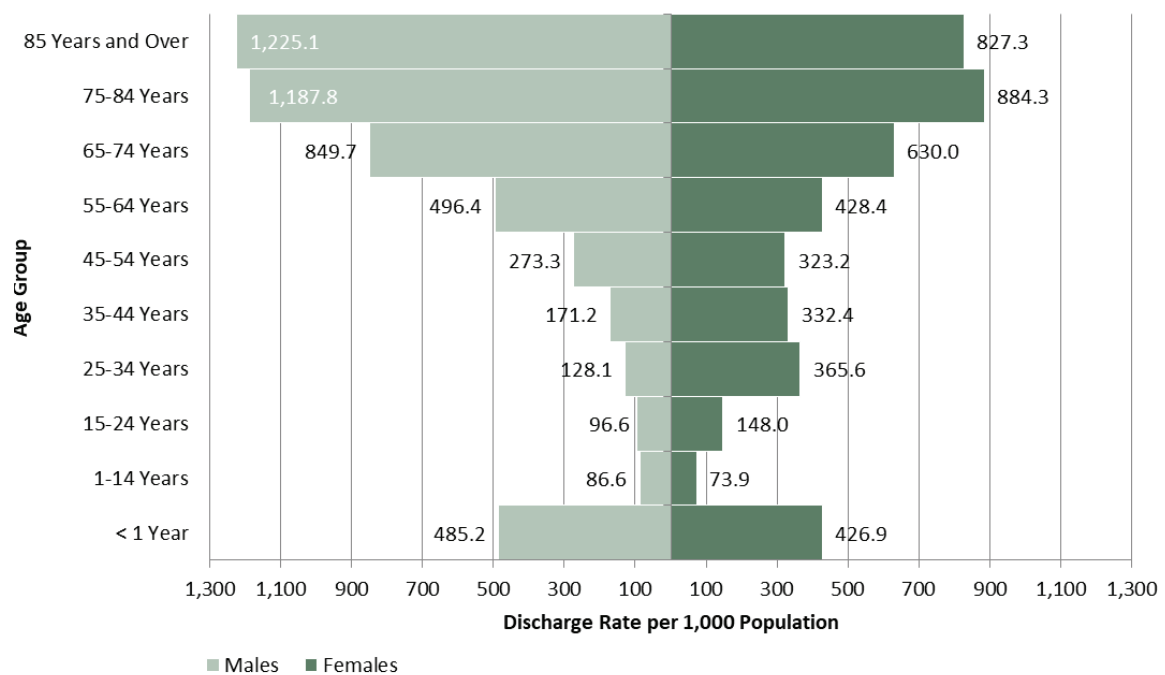
Note: Mean length of stay is not presented for female maternity discharges where there were a small number of discharges reported within a particular age group.

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.

- Males aged 85 years and over recorded the highest discharge rate (1,225.1 per 1,000 population of males), whilst the highest discharge rate for females was amongst those ages 75–84 years (884.3 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 2021 by sex and age group were obtained from the CSO.
<https://data.cso.ie/> [accessed 26th August 2022]

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 47.5 per cent of total discharges.
- Discharges who were widowed accounted for 8.6 per cent of total in-patient discharges, and 14.7 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 5.8 days, compared to 11.2 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	312,207	30.4	247,738	41.3	1,135,955	33.0	559,945	34.4
Married	521,431	50.8	252,375	42.0	1,443,263	42.0	773,806	47.5
Widowed	76,637	7.5	51,396	8.6	504,604	14.7	128,033	7.9
Other*	45,522	4.4	21,768	3.6	157,440	4.6	67,290	4.1
Unknown	52,224	5.1	18,020	3.0	138,357	4.0	70,244	4.3
Divorced	19,410	1.9	9,186	1.5	59,705	1.7	28,596	1.8
Total Discharges	1,027,431	100	600,483	100	3,439,323	100	1,627,914	100

	In-Patient Length of Stay						
	Sameday In-Patients	Overnight In-Patients			Total In-Patients		
	N	N	Mean	Median	N	Mean	Median
Single	57,682	190,056	5.8	3	247,738	4.6	2
Married	51,447	200,928	7.1	4	252,375	5.7	3
Widowed	6,633	44,763	11.2	7	51,396	9.8	5
Other*	3,928	17,840	8.7	4	21,768	7.2	3
Unknown	3,583	14,437	9.5	4	18,020	7.7	3
Divorced	1,914	7,272	8.1	4	9,186	6.5	3
Total Discharges	125,187	475,296	7.1	3	600,483	5.7	2

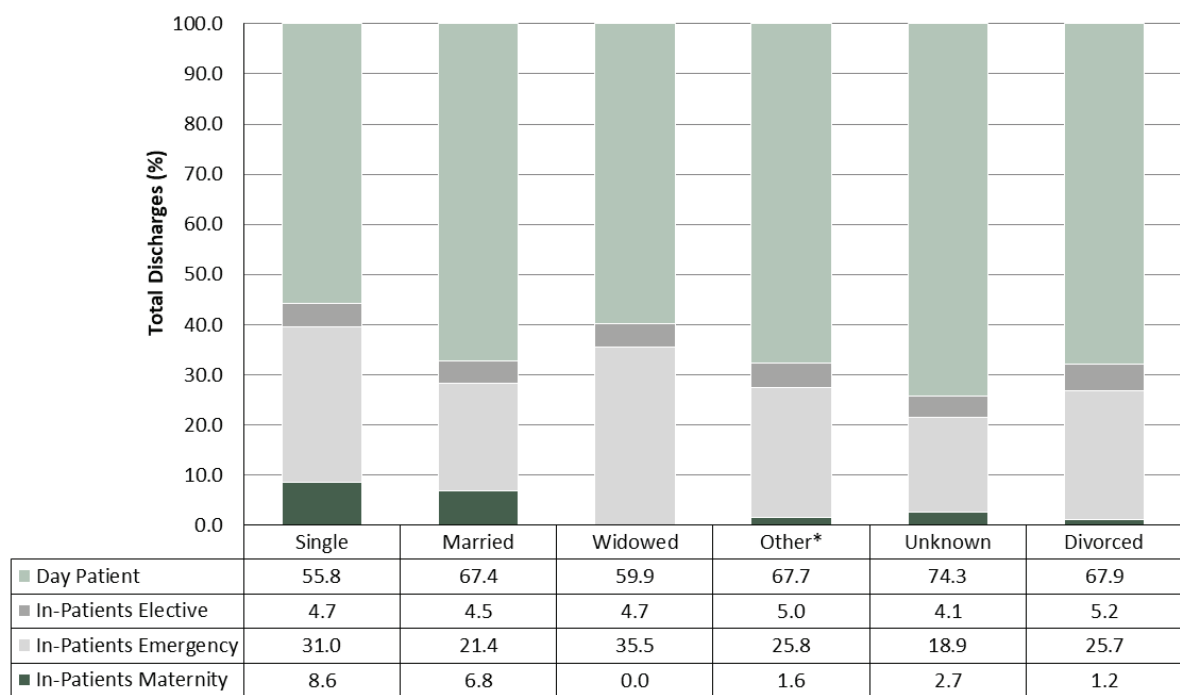
Notes: Percentage and bed day columns are subject to rounding.

* 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 (35.5 per cent and 31.0 per cent respectively).
- Over eight per cent of total discharges with a marital/civil status of single and 6.8 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 (%)

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.

- Over 87 per cent of total discharges were treated on a public basis. Private patients in public hospitals accounted for 12.7 per cent of total discharges.
- The 25–34 years age group and the 15–24 years age group had the largest proportion of total discharges treated publicly (90.2 per cent and 90.0 per cent respectively).
- The 35–44 years age group had the largest proportion of total discharges that were treated on a private basis, accounting for 15.1 per cent of all discharges in this age group.

Length of Stay

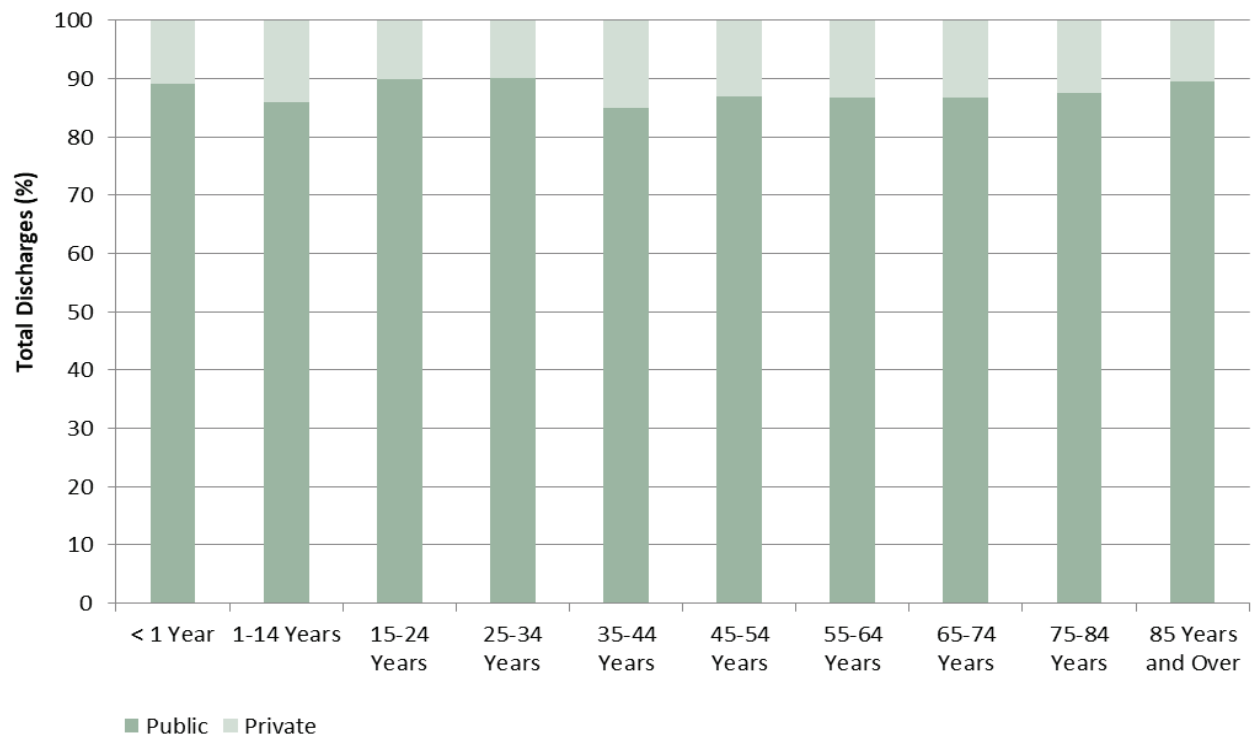
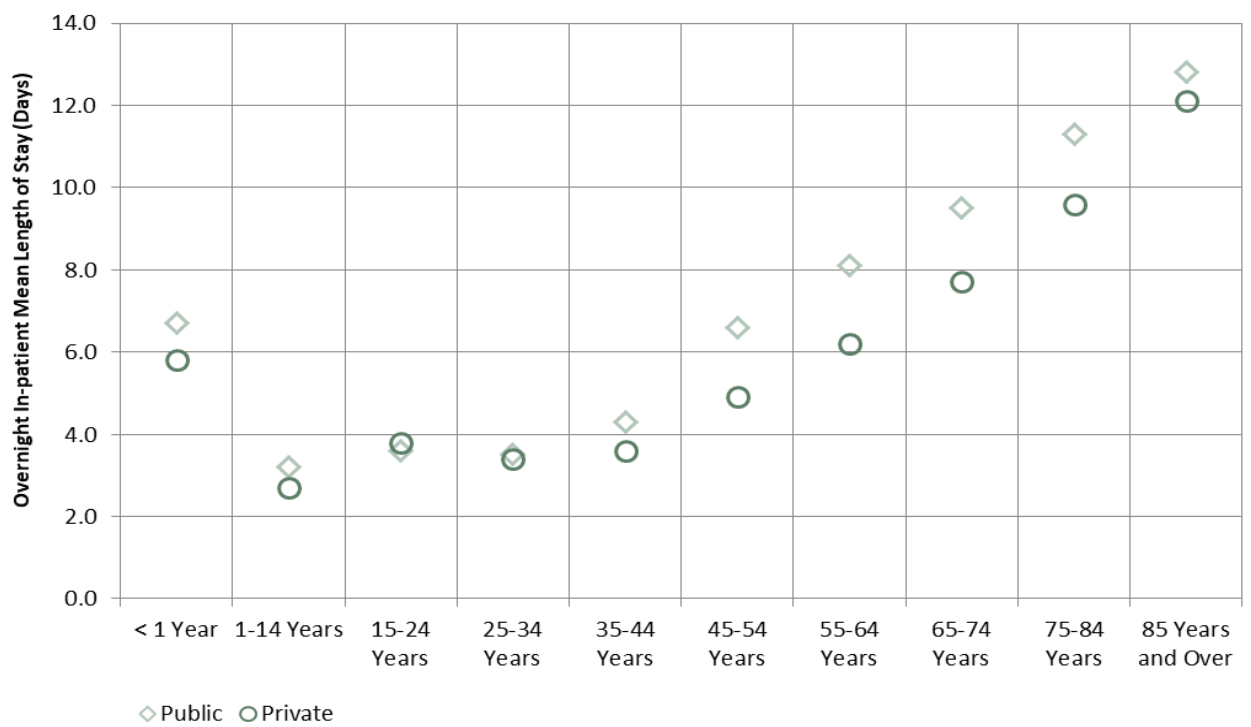
- For the majority of age groups, the public overnight in-patient mean length of stay exceeded the private overnight in-patient mean length of stay. The difference is largest for discharges aged 55–64 years, where public discharges stayed on average 1.9 days longer than their private counterparts (see Table 2.3 and Figure 2.6). Median length of stay for public overnight in-patients in this age group was 4 days; 1 day longer than private overnight in-patients.

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

	Day Patients						Discharges					
	Public			Private			Total In-Patients			Total Discharges		
	N	%		N	%		N	%		N	%	
< 1 Year	2,384	91.4		223	8.6		20,198	88.8		2,551	11.2	
1–14 Years	30,080	86.6		4,661	13.4		34,899	85.5		5,916	14.5	
15–24 Years	32,665	88.2		4,387	11.8		37,003	91.7		3,335	8.3	
25–34 Years	60,778	89.9		6,863	10.1		75,225	90.5		7,893	9.5	
35–44 Years	98,867	86.5		15,429	13.5		69,169	82.8		14,342	17.2	
45–54 Years	129,585	86.8		19,757	13.2		49,150	87.6		6,945	12.4	
55–64 Years	167,678	87.0		25,052	13.0		58,104	86.3		9,228	13.7	
65–74 Years	199,361	87.1		29,649	12.9		71,619	85.8		11,863	14.2	
75–84 Years	140,034	88.0		19,156	12.0		70,625	87.0		10,558	13.0	
85 Years and Over	36,536	89.5		4,286	10.5		37,490	89.6		4,370	10.4	
Total Discharges	897,968	87.4		129,463	12.6		523,482	87.2		77,001	12.8	
										1,421,450	87.3	
										206,464	12.7	

	Sameday In-Patients						In-Patient Length of Stay					
	Public			Private			Overnight In-Patients			Total In-Patients		
	N	%		N	%		N	%		N	%	
< 1 Year	3,328	236		16,870	6.7		2,315	5.8		2	5.3	
1–14 Years	9,021	1,006		25,878	3.2		4,910	2.7		2	2.3	
15–24 Years	11,687	511		25,316	3.6		2,824	3.8		2	3.3	
25–34 Years	20,395	1,324		54,830	3.5		6,569	3.4		3	2.9	
35–44 Years	18,457	1,996		50,712	4.3		12,346	3.6		3	3.2	
45–54 Years	13,423	851		35,727	6.6		6,094	4.9		3	4.4	
55–64 Years	12,887	924		45,217	8.1		8,304	6.2		3	5.6	
65–74 Years	13,185	928		58,434	9.5		10,935	7.7		4	7.1	
75–84 Years	10,188	590		60,437	11.3		9,968	9.6		5	9.1	
85 Years and Over	4,059	191		33,431	12.8		4,179	12.1		7	11.6	
Total Discharges	116,630	8,557		406,852	7.3		68,444	6.1		2	5.4	
										3	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

2.2.4.1 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 (22.7 per cent).
- Apart from those aged less than 25 years, 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 which accounted for 76.9 per cent (excludes unknown GMS status) – see Figure 2.7.

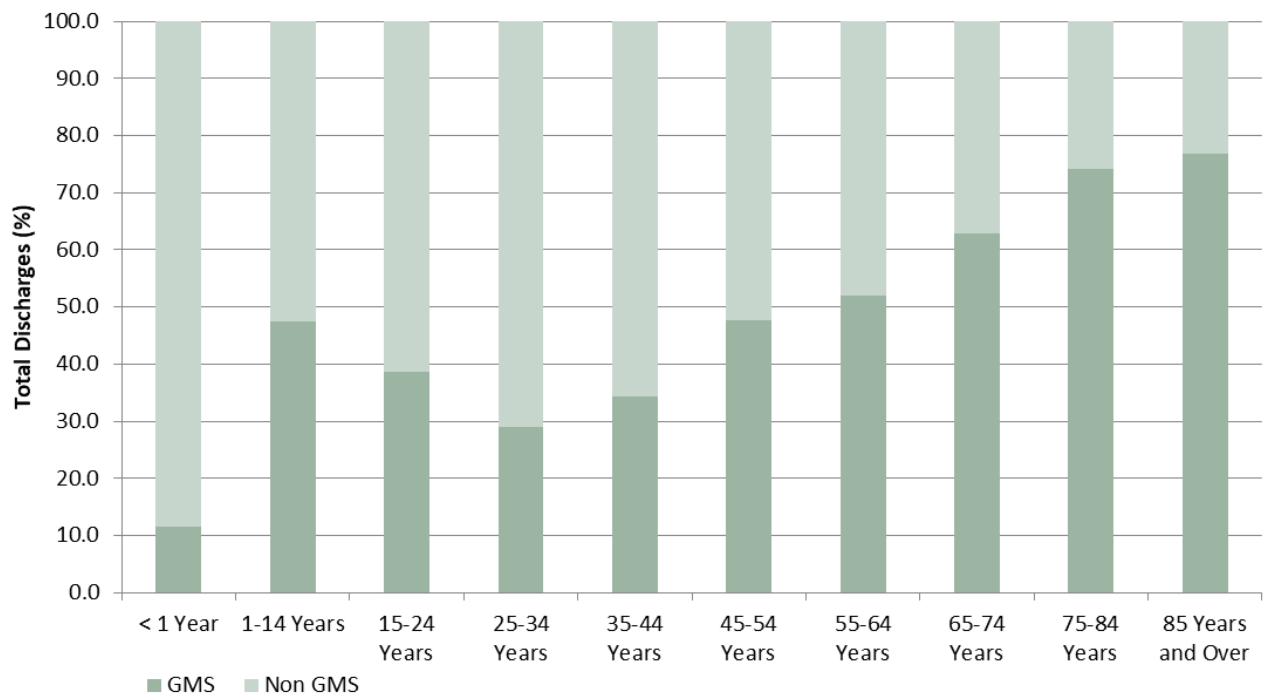
TABLE 2.4 Total Discharges: GMS Status by Age Group (N, %)

	GMS		Non-GMS		Unknown ^a		Total Discharges	
	N	%	N	%	N	%	N	%
< 1 Year	2,920	0.4	22,348	3.0	88	0.1	25,356	1.6
1–14 Years	35,645	4.4	39,470	5.3	441	0.7	75,556	4.6
15–24 Years	29,621	3.6	47,085	6.3	684	1.1	77,390	4.8
25–34 Years	43,272	5.3	105,886	14.1	1,601	2.6	150,759	9.3
35–44 Years	66,007	8.1	126,564	16.9	5,236	8.4	197,807	12.2
45–54 Years	93,510	11.5	102,795	13.7	9,132	14.7	205,437	12.6
55–64 Years	127,803	15.7	118,407	15.8	13,852	22.3	260,062	16.0
65–74 Years	185,213	22.7	109,717	14.6	17,562	28.3	312,492	19.2
75–84 Years	170,298	20.9	59,404	7.9	10,671	17.2	240,373	14.8
85 Years and Over	61,398	7.5	18,397	2.5	2,887	4.6	82,682	5.1
Total Discharges	815,687	100	750,073	100	62,154	100.0	1,627,914	100

Notes: Percentage columns are subject to rounding.

a Relates to discharges for whom GMS status was not known.

² The medical card indicator variable excludes the GP-only card.

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 (20.5 per cent).
- Total in-patient discharges were also highest in the Ireland East Hospital Group where 21.5 per cent of discharges were hospitalised, while the Dublin Midlands Hospital Group accounted for the highest proportion of day patients (20.8 per cent).

Length of Stay

- The overnight in-patient mean length of stay ranged from 5.5 days (Children's) to 7.9 days (Dublin Midlands) – see Figure 2.8.

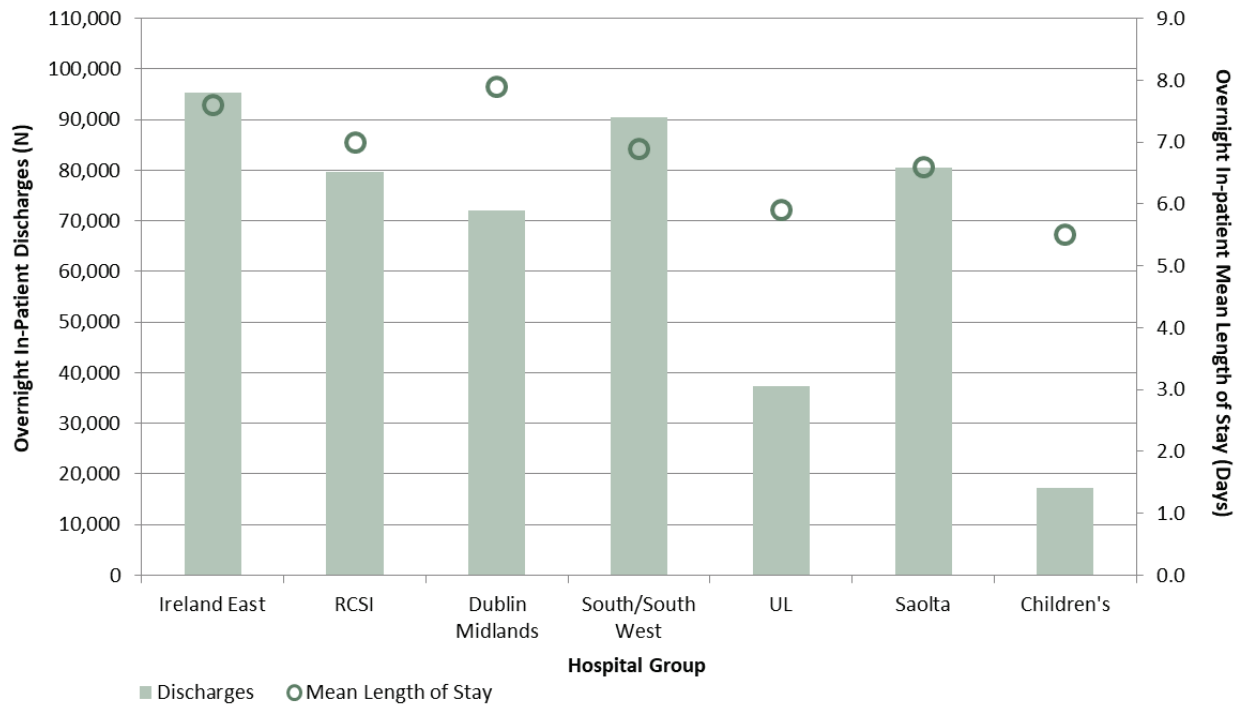
TABLE 2.5 Total Discharges: Hospital Group by Patient Type (N, %, Bed Days, %, and In-Patient Length of Stay)

	Discharges and Bed Days							
	Day Patients		Total In-Patients				Total Discharges	
	N	%	N	%	Bed Days	%	N	%
Ireland East	204,824	19.9	128,951	21.5	737,804	21.5	333,775	20.5
RCSI	165,270	16.1	93,688	15.6	563,937	16.4	258,958	15.9
Dublin Midlands	213,499	20.8	88,221	14.7	574,396	16.7	301,720	18.5
South/South West	188,460	18.3	107,605	17.9	629,817	18.3	296,065	18.2
UL	55,364	5.4	54,073	9.0	230,378	6.7	109,437	6.7
Saolta	175,304	17.1	105,393	17.6	540,568	15.7	280,697	17.2
Children's	24,534	2.4	20,054	3.3	95,372	2.8	44,588	2.7
No group^	176	0.0	2,498	0.4	67,054	1.9	2,674	0.2
Total Discharges	1,027,431	100	600,483	100	3,439,323	100	1,627,914	100

	In-Patient Length of Stay						
	Sameday In-Patients	Overnight In-Patients			Total In-Patients		
	N	N	Mean	Median	N	Mean	Median
Ireland East	33,568	95,383	7.6	3	128,951	5.7	2
RCSI	13,969	79,719	7.0	3	93,688	6.0	3
Dublin Midlands	16,093	72,128	7.9	4	88,221	6.5	3
South/South West	17,151	90,454	6.9	3	107,605	5.9	3
UL	16,733	37,340	5.9	3	54,073	4.3	2
Saolta	24,827	80,566	6.6	3	105,393	5.1	2
Children's	2,835	17,219	5.5	2	20,054	4.8	2
No group^	11	2,487	27.0	21	2,498	26.8	21
Total Discharges	125,187	475,296	7.1	3	600,483	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 2021.

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 Ireland East Hospital Group (22.9 per cent), accounting for 23.5 per cent of total elective in-patient bed days.
- The Ireland East Hospital Group treated the largest proportion of both emergency in-patients (21.1 per cent) and maternity in-patients (22.1 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	%	N	%	Bed Days	%	N	%	Bed Days	%	N	%	Bed Days	%	N	%	N	%
Ireland East	204,824	19.9	17,043	22.9	124,807	23.5	89,006	21.1	562,793	21.2	22,902	22.1	50,205	19.9	333,775	20.5			
RCSI	165,270	16.1	8,474	11.4	52,356	9.9	64,867	15.4	460,614	17.3	20,347	19.6	50,967	20.2	258,958	15.9			
Dublin Midlands	213,499	20.8	9,070	12.2	71,958	13.6	59,149	14.0	460,001	17.3	20,002	19.3	42,437	16.8	301,720	18.5			
South/South West	188,460	18.3	15,970	21.5	88,259	16.6	74,569	17.7	491,507	18.5	17,066	16.4	50,052	19.8	296,065	18.2			
UL	55,364	5.4	5,077	6.8	28,180	5.3	42,473	10.1	181,039	6.8	6,523	6.3	21,159	8.4	109,437	6.7			
Saolta	175,304	17.1	11,276	15.1	74,871	14.1	77,202	18.3	427,982	16.1	16,915	16.3	37,715	14.9	280,697	17.2			
Children's	24,534	2.4	5,058	6.8	23,666	4.5	14,996	3.6	71,706	2.7	0	0.0	–	0.0	44,588	2.7			
No group [†]	176	0.0	2,483	3.3	66,885	12.6	15	0.0	169	0.0	0	0.0	–	0.0	2,674	0.2			
Total Discharges	1,027,431	100	74,451	100	530,980	100	422,277	100	2,655,810	100	103,755	100	252,534	100	1,627,914	100			

Notes: Percentage and bed day columns are subject to rounding

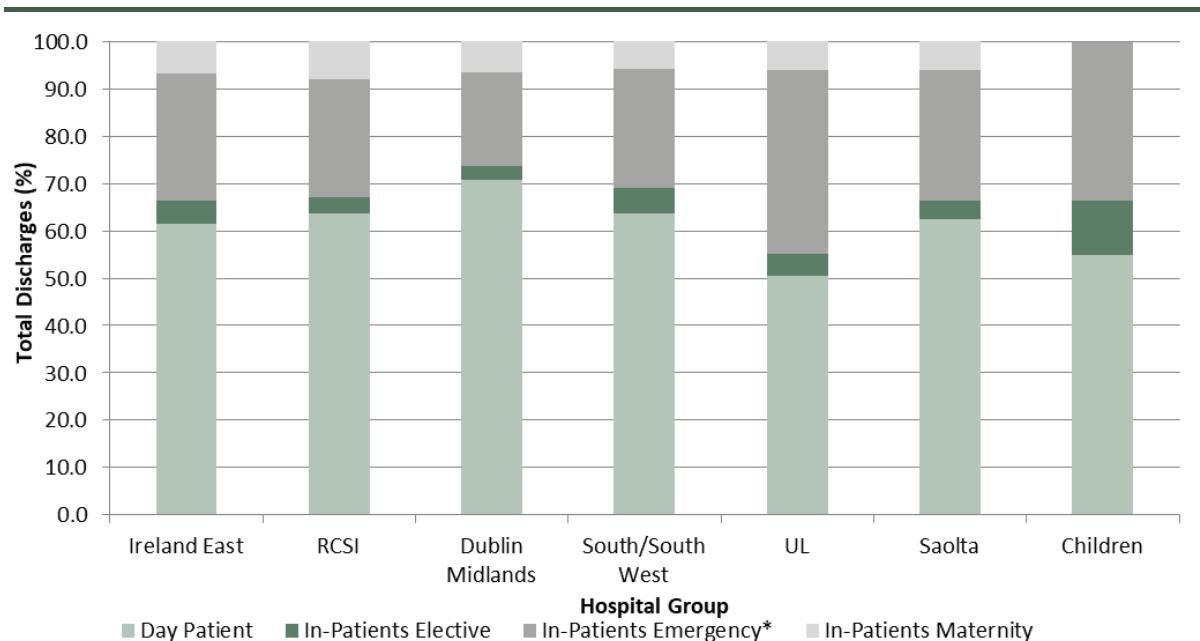
a HIPE includes patients who attended the Emergency Department and were subsequently admitted to hospital. As just a proportion of those attending the Emergency Department will subsequently be admitted to hospital, it is not possible to use emergency admissions reported to HIPE to draw conclusions about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

‡ 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 2021.

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 50.6 per cent in the UL Hospital Group to 70.8 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 UL Hospital Group treated the highest proportion of total discharges as emergency in-patients (38.8 per cent), followed by the Children's Hospital Group (33.6 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 (91.4 per cent), while the UL Hospital Group treated the smallest proportion of total discharges on a public basis (79.5 per cent).
- Over 90 per cent of total day patients were treated as public day patients in the Ireland East and RCSI Hospital Groups. The smallest proportion was in the UL Hospital Group where 74.6 per cent of total day patients were treated on a public basis.
- The proportion of total in-patients treated on a public basis was highest in the Saolta Hospital Group (92.2 per cent) and was lowest in the South/South West Hospital Group (82.4 per cent).

Length of Stay

- Overnight in-patient mean length of stay was 7.3 days for public discharges compared to 6.1 days for private discharges.
- The Dublin Midlands Hospital Group recorded the longest overnight in-patient mean length of stay for both public (8.0 days) and private discharges (7.3 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)

	Day Patients						Discharges					
	Public			Private			Total In-Patients			Total Discharges		
	N	%	N	%	N	%	N	%	N	%	N	%
Ireland East	189,283	92.4	15,541	7.6	112,947	87.6	16,004	12.4	302,230	90.5	31,545	9.5
RCSI	153,402	92.8	11,868	7.2	83,229	88.8	10,459	11.2	236,631	91.4	22,327	8.6
Dublin Midlands	183,017	85.7	30,482	14.3	76,211	86.4	12,010	13.6	259,228	85.9	42,492	14.1
South/South West	153,073	81.2	35,387	18.8	88,614	82.4	18,991	17.6	241,687	81.6	54,378	18.4
UL	41,317	74.6	14,047	25.4	45,723	84.6	8,350	15.4	87,040	79.5	22,397	20.5
Saolta	156,270	89.1	19,034	10.9	97,212	92.2	8,181	7.8	253,482	90.3	27,215	9.7
Children's	21,544	87.8	2,990	12.2	17,317	86.4	2,737	13.6	38,861	87.2	5,727	12.8
No group [†]	62	35.2	114	64.8	2,229	89.2	269	10.8	2,291	85.7	383	14.3
Total Discharges	897,968	87.4	129,463	12.6	523,482	87.2	77,001	12.8	1,421,450	87.3	206,464	12.7

	In-Patient Length of Stay						Total In-Patients					
	Sameday In-Patients			Overnight In-Patients			Public			Private		
	N	Private	N	Public	Mean	Median	N	Mean	Median	N	Mean	Median
Ireland East	30,680	2,888	82,267	7.9	7.0	3	13,116	5.2	3	5.9	2	4.4
RCSI	13,155	814	70,074	7.0	8.0	3	9,645	6.5	4	6.0	3	6.1
Dublin Midlands	14,829	1,264	61,382	8.0	7.0	4	10,746	7.3	4	6.5	3	6.5
South/South West	15,501	1,650	73,113	7.0	7.0	3	17,341	6.3	3	5.9	3	5.8
UL	16,184	549	29,539	6.1	6.6	3	7,801	5.3	3	4.1	1	5.0
Saolta	23,766	1,061	73,446	6.6	5.7	3	7,120	5.7	3	5.1	2	5.1
Children's	2,507	*	14,810	5.7	28.3	3	2,409	4.2	2	4.9	2	3.7
No group [†]	8	~	2,221	28.3	21	266	16.1	8	8	28.2	21	16.0
Total Discharges	116,630	8,557	406,852	7.3	7.3	3	68,444	6.1	3	5.8	2	5.4

Notes: Percentage 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 2021.

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 (96.5 per cent).
- Of total emergency in-patients, 4.8 per cent were transferred in from another hospital.
- Over 13 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	1,020,985	99.4	64,273	86.3	382,763	90.6	102,982	99.3	1,571,003	96.5
Long stay accommodation	1,535	0.1	*	–	9,882	2.3	~	–	11,728	0.7
Transfer from other hospital	4,592	0.4	9,795	13.2	20,156	4.8	651	0.6	35,194	2.2
Other	319	0.0	*	–	9,476	2.2	*	–	9,989	0.6
Total	1,027,431	100	74,451	100	422,277	100	103,755	100	1,627,914	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.
- Percentage not reported where the number of discharges is suppressed.

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, 5.2 per cent were transferred to long stay accommodation, and 6.4 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	
	N	%	Elective		Emergency ^a		Maternity		N	%
			N	%	N	%	N	%		
Home	1,020,352	99.3	66,845	89.8	354,269	83.9	102,117	98.4	1,543,583	94.8
Long stay accommodation	1,978	0.2	*	–	21,842	5.2	*	–	25,666	1.6
Transfer to other hospital	4,831	0.5	4,552	6.1	27,027	6.4	627	0.6	37,037	2.3
Died	0	0.0	*	–	11,522	2.7	~	–	12,210	0.8
Other	270	0.0	532	0.7	7,617	1.8	999	1.0	9,418	0.6
Total Discharges	1,027,431	100	74,451	100	422,277	100	103,755	100	1,627,914	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.

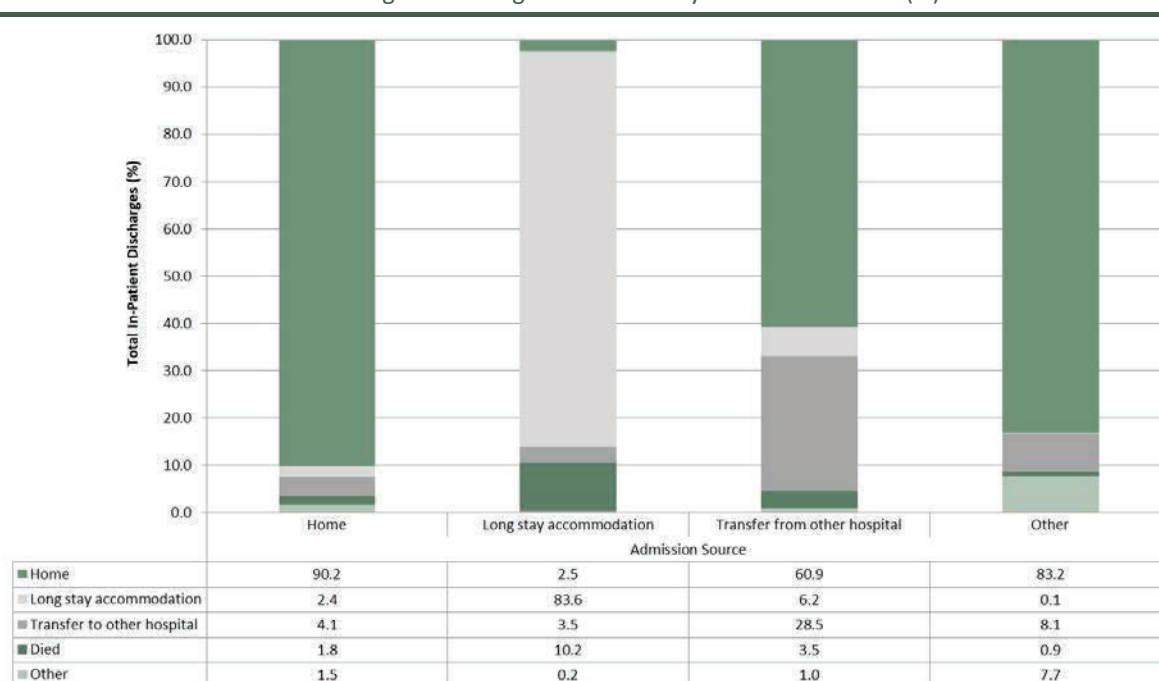
– Percentage not reported where the number of discharges is suppressed.

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, 90.2 per cent were discharged home.
- In-patients admitted from long stay accommodation were primarily discharged back to long stay accommodation (83.6 per cent).
- Over a quarter of in-patients (28.5 per cent) who were admitted from another hospital were transferred to another hospital, while 60.9 per cent were discharged home.

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



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

- Just over 60 per cent of elective in-patients were admitted between Monday and Wednesday, with only 6.8 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 20.3 per cent on Wednesday to 2.8 per cent on Saturday and 1.2 per cent on Sunday.

Length of Stay³

- Mean length of stay for elective in-patients ranged from 6.6 days for those admitted on a Tuesday to 12.2 days for those admitted on a Saturday.
- Mean length of stay for emergency in-patients ranged from 6.0 days for those admitted on a Monday to 6.9 days for those admitted on a Saturday.

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

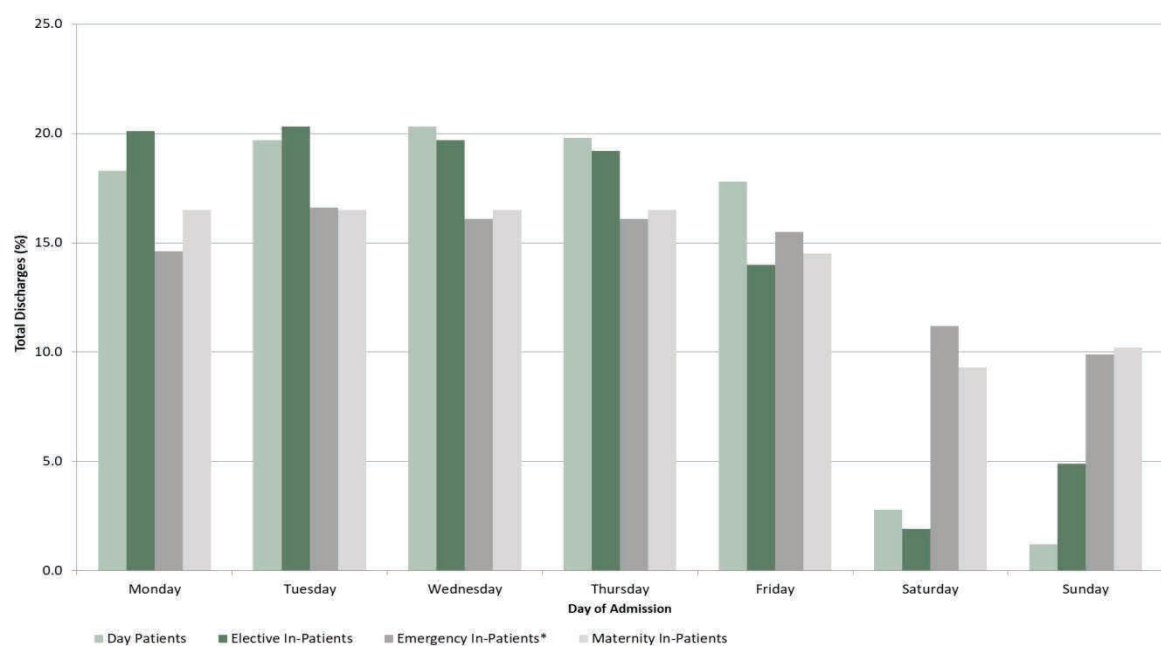
TABLE 2.10 Total Discharges: Patient Type and Admission Type by Day of Admission (N, % and In-Patient Length of Stay)

	Discharges									
	Day Patients		In-Patients						Total Discharges	
			Elective		Emergency ^a		Maternity			
	N	%	N	%	N	%	N	%	N	%
Monday	187,840	18.3	14,958	20.1	61,617	14.6	17,148	16.5	281,563	17.3
Tuesday	202,530	19.7	15,112	20.3	70,237	16.6	17,102	16.5	304,981	18.7
Wednesday	208,697	20.3	14,657	19.7	68,152	16.1	17,148	16.5	308,654	19.0
Thursday	203,939	19.8	14,293	19.2	67,882	16.1	17,085	16.5	303,199	18.6
Friday	182,907	17.8	10,402	14.0	65,498	15.5	15,032	14.5	273,839	16.8
Saturday	28,683	2.8	1,388	1.9	47,211	11.2	9,651	9.3	86,933	5.3
Sunday	12,835	1.2	3,641	4.9	41,680	9.9	10,589	10.2	68,745	4.2
Total Discharges	1,027,431	100	74,451	100	422,277	100	103,755	100	1,627,914	100

	In-Patient Length of Stay								
	Elective		Emergency ^a		Maternity		Total In-Patients		
	Mean	Median	Mean	Median	Mean	Median	N	Mean	Median
Monday	6.7	2	6.0	2	2.5	2	93,723	5.5	2
Tuesday	6.6	2	6.1	2	2.5	2	102,451	5.6	2
Wednesday	6.9	2	6.2	2	2.5	2	99,957	5.7	2
Thursday	6.8	2	6.2	2	2.5	2	99,260	5.7	2
Friday	7.9	3	6.4	3	2.4	2	90,932	5.9	3
Saturday	12.2	4	6.9	3	2.2	2	58,250	6.3	3
Sunday	9.2	4	6.5	3	2.3	2	55,910	5.9	3
In-Patient Discharges	7.1	2	6.3	3	2.4	2	600,483	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 11.4 per cent on Monday to 22.5 per cent on Friday, falling to 10.1 per cent on Saturday and 4.8 per cent on Sunday.
- The largest proportion of emergency in-patients were discharged on Friday (20.6 per cent), with the smallest proportion discharged on Sunday (5.7 per cent).

Length of Stay⁴

- Elective in-patients discharged on a Monday had the longest in-patient mean length of stay (10.2 days).
- Emergency in-patient mean length of stay ranged from 6.7 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)

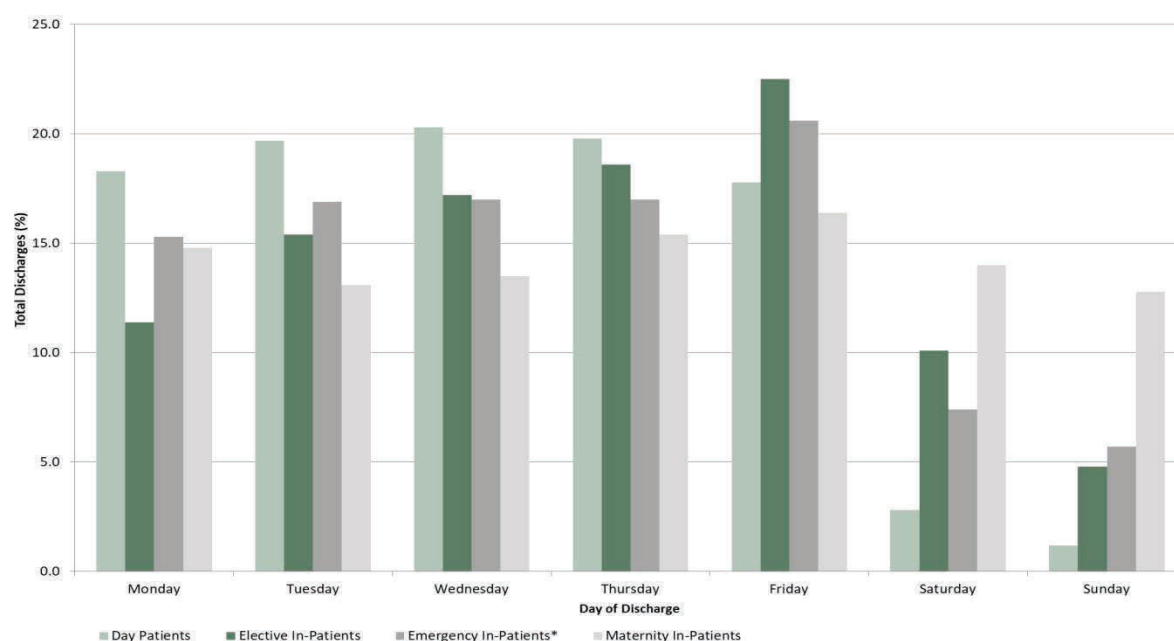
	Discharges									
	Day Patients		In-Patients						Total Discharges	
			Elective		Emergency ^a		Maternity			
	N	%	N	%	N	%	N	%	N	%
Monday	187,840	18.3	8,523	11.4	64,583	15.3	15,348	14.8	276,294	17.0
Tuesday	202,530	19.7	11,463	15.4	71,472	16.9	13,550	13.1	299,015	18.4
Wednesday	208,697	20.3	12,798	17.2	71,834	17.0	14,026	13.5	307,355	18.9
Thursday	203,939	19.8	13,857	18.6	71,799	17.0	15,954	15.4	305,549	18.8
Friday	182,907	17.8	16,747	22.5	87,089	20.6	17,038	16.4	303,781	18.7
Saturday	28,683	2.8	7,511	10.1	31,250	7.4	14,513	14.0	81,957	5.0
Sunday	12,835	1.2	3,552	4.8	24,250	5.7	13,326	12.8	53,963	3.3
Total Discharges	1,027,431	100	74,451	100	422,277	100	103,755	100	1,627,914	100

	In-Patient Length of Stay								
	Elective		Emergency ^a		Maternity		Total In-Patients		
	Mean	Median	Mean	Median	Mean	Median	N	Mean	Median
Monday	10.2	5	6.7	3	2.6	2	88,454	6.3	3
Tuesday	7.7	2	6.7	3	2.4	2	96,485	6.2	3
Wednesday	7.4	2	6.6	3	2.3	2	98,658	6.1	2
Thursday	6.8	2	6.7	2	2.3	2	101,610	6.0	2
Friday	6.8	2	6.3	3	2.4	2	120,874	5.8	2
Saturday	4.2	2	4.6	2	2.5	2	53,274	4.0	2
Sunday	6.2	3	4.0	2	2.6	2	41,128	3.8	2
In-Patient Discharges	7.1	2	6.3	3	2.4	2	600,483	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.

⁴ Where length of stay is analysed by admission type, a breakdown of same-day and overnight in-patient length of stay is not provided.

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

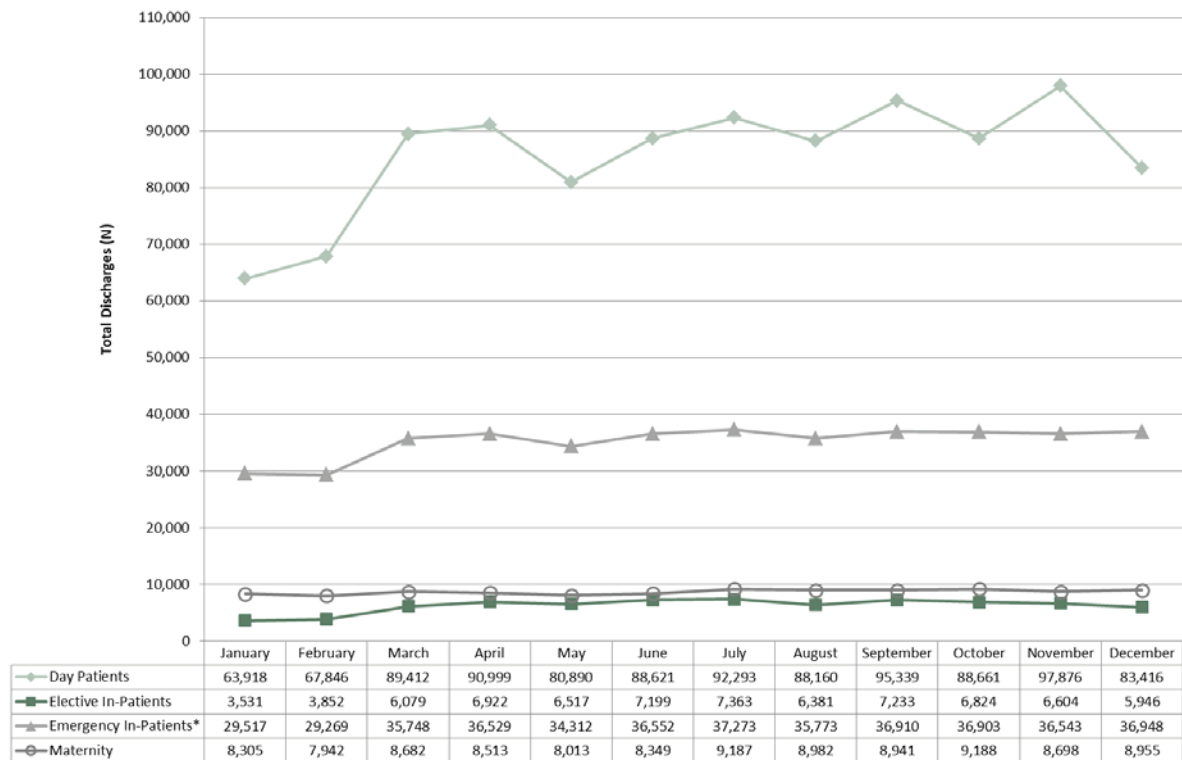
Note: * See note under Table 2.11

2.4.3 Month of Discharge

Figure 2.13 shows total discharges by month of discharge disaggregated by patient type and admission type. The data presented here highlights the fluctuations in discharges that were affected by COVID-19 in 2021.⁵

- Hospital discharges peaked in July for elective in-patients (7,363 discharges), while January recorded the smallest number of elective in-patients with only 3,531 elective in-patients discharged in this month.
- Emergency in-patient hospital discharges peaked in July (37,273 discharges), while the smallest number of emergency in-patients were discharged in February with 29,269 discharges.
- Maternity in-patient discharges were highest in October (9,188 discharges) and lowest in February (7,942 discharges).

⁵ The Annex of this report includes a discussion and analysis of COVID-19 admissions in 2021.

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

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 7,853 discharges admitted prior to 2021 and discharged in 2021.

Morbidity Analysis
2021

SECTION

Three

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3.1 INTRODUCTION

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

- 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 a 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.^{2,3} 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 150 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 include; nursing notes, consultation reports, progress notes, operative reports, pre- and post-operative reports, pathology reports and, more recently, the sepsis

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 1.7).

² There are currently approximately 300 clinical coders working full time and part time across all HIPE hospitals.

³ For further information on training programmes see www.hpo.ie

form. Appendix III shows the HIPE Data Entry Form for 2021, 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.⁴

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.^{5,6}

At the start of 2020, the classification used to code clinical information was updated from the 8th Edition to the 10th 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).^{7,8} 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.⁹

Due to the update in the classification, caution must be exercised when comparing procedure and diagnosis categories presented in reports from 2020 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.¹⁰

⁴ This instruction is covered in ICS 0048: General Abstraction Guidelines, see www.hpo.ie for the current version of the Irish Coding Standards.

⁵ 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

⁶ 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.

⁷ Australian Consortium for Classification Development (ACCD), 2017: *The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM)*, and *Australian Classification of Health Interventions (ACHI)* and *Australian Coding Standards (ACS) – ICD-10-AM/ACHI/ACS (10th Ed)*- Adelaide: Independent Hospital Pricing Authority (IHPA), Lane Publishing.

⁸ The spelling conventions of ICD-10-AM comply with the Macquarie Dictionary, as recommended by the Australian government style manual.

⁹ Irish Coding Standards (ICS) provide guidelines for the collection of HIPE data for all discharges and are to be used in conjunction with 10th Edition ICD-10-AM/ACHI/ACS and the relevant HIPE Instruction Manual. For further information, see www.hpo.ie

¹⁰ See Appendix VII for an overview of changes from ICD-10-AM/ACHI/ACS 8th edition (in use from 2015–2019) to 10th Edition (in use from 1st January 2020).

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			
<p>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.</p> <p>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.</p> <p>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 <i>Neoplasms</i> and Chapter 3 <i>Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism</i>, and the letter H, which is used in both Chapter 7 <i>Diseases of the eye and adnexa</i> and Chapter 8 <i>Diseases of the ear and mastoid process</i>. Four chapters (Chapters 1, 2, 19 and 20) use more than one letter in the first position of their codes.</p> <p>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. Emergency use codes from U00-U99 have been used to identify Covid-19; including, but not limited to, U07.1 <i>Emergency use of U07.1 [COVID-19, virus identified]</i> and U07.2 <i>Emergency use of U07.2 (COVID-19, virus not identified)</i>.</p>			
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: Australian Consortium for Classification Development (ACCD), 2017: Australian Coding Standards (ACS) – ICD-10-AM/ACHI/ACS (10th Ed)- Adelaide: Independent Hospital Pricing Authority (IHPA), Lane Publishing.p. xiv.

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 (NCH) (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:	
<ol style="list-style-type: none"> 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.¹¹ 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: <ul style="list-style-type: none"> • 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: Australian Consortium for Classification Development (ACCD), 2017: Australian Coding Standards (ACS) (10th Ed) - Adelaide: Independent Hospital Pricing Authority (IHPA), Lane Publishing p. xv.
 Australian Consortium for Classification Development (ACCD), 2017: *Australian Classification of Health Interventions (ACHI)* (10th Ed) - Adelaide: Independent Hospital Pricing Authority (IHPA), Lane Publishing. p. iii.

¹¹ HIPE collects data on discharges from, and deaths in, acute public hospitals.

3.2.1 Definition of a Diagnosis

In 2021, 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'.¹²

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.¹³

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 2.8.
- The mean number of diagnoses recorded for in-patient discharges was 4.2, compared to 2.0 for day patients.
- The mean number of diagnoses recorded for in-patient discharges was higher for males (4.4) compared with females (4.0).
- The mean number of diagnoses recorded for in-patient discharges increased with age ranging from 2.9 in the less than 15 years age group to 5.2 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	4.2	2.8
Sex			
Male	2.0	4.4	2.8
Female	2.0	4.0	2.8
Maternity	1.9	4.0	3.6
Non-Maternity	2.0	4.0	2.7
Age Group			
< 15 Years	1.7	2.9	2.4
15–44 Years	1.8	3.6	2.6
45–64 Years	2.1	4.0	2.6
65 Years and Over	2.1	5.2	3.1

¹² Australian Consortium for Classification Development (ACCD), 2017: Australian Coding Standards (ACS) (10th Ed) - Adelaide: Independent Hospital Pricing Authority (IHPA), Lane Publishing. p. 1.

¹³ Australian Consortium for Classification Development (ACCD), op. cit., p. 4.

3.2.2 Definition of a Procedure

In 2021, 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).¹⁴ 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.¹⁵

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.¹⁶ 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.¹⁷

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 1,627,914 total discharges, principal procedures were recorded for 1,303,239 discharges (80.1 per cent).
- 91.9 per cent of day patient discharges had a principal procedure recorded.
- Almost 60 per cent of in-patient discharges had a principal procedure recorded, with 90.5 per cent of elective in-patients, 53.1 per cent of emergency in-patients, and 65.2 per cent of maternity in-patients undergoing a principal procedure.

¹⁴ Australian Consortium for Classification Development (ACCD), 2017: Australian Classification of Health Interventions (ACHI) (10th Ed) - Adelaide: Independent Hospital Pricing Authority (IHPA), Lane Publishing.

¹⁵ Australian Consortium for Classification Development (ACCD), 2017: Australian Coding Standards (ACS) (10th Ed) - Adelaide: Independent Hospital Pricing Authority (IHPA), Lane Publishing.

¹⁶ Australian Consortium for Classification Development (ACCD), 2017: Australian Classification of Health Interventions (ACHI) (10th Ed) - Adelaide: Independent Hospital Pricing Authority (IHPA), Lane Publishing.

¹⁷ 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	1,627,914	1,303,239	80.1
Day Patients	1,027,431	943,940	91.9
In-Patients	600,483	359,299	59.8
Elective In-Patients	74,451	67,355	90.5
Emergency In-Patients	422,277	224,275	53.1
Maternity In-Patients	103,755	67,669	65.2

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.¹⁸

- For those discharges who underwent at least one procedure, in-patient discharges had a mean number of 3.0 procedures recorded, compared to a mean of 1.5 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 1.9 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	1.5	3.0	1.9
Sex			
Male	1.4	3.0	1.8
Female	1.5	3.0	2.0
Maternity	1.4	3.2	3.1
Non-Maternity	1.5	3.0	1.8
Age Group			
< 15 Years	1.9	2.8	2.3
15–44 Years	1.5	2.9	2.0
45–64 Years	1.5	3.0	1.8
65 Years and Over	1.4	3.1	1.9

¹⁸ Includes all anaesthesia except local anaesthesia. See ACS 0031 *Anaesthesia* in Australian Consortium for Classification Development (ACCD), 2017: Australian Coding Standards (ACS) (10th Ed) - Adelaide: Independent Hospital Pricing Authority (IHPA), Lane Publishing p.36.

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 63.1 per cent of total discharges.
- Day patients aged 65 years or over accounted for 41.8 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 21.3 and 17.5 per cent of day patient discharges respectively.

Day Patients – Top 20 Principal Procedure Blocks

- A principal procedure was recorded for 91.9 per cent of day patient discharges (see Table 3.4).
- Procedures from the block *Administration of pharmacotherapy* were reported as a principal procedure for 19.4 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 38.0 per cent of day patient discharges reported to HIPE when analysed by diagnosis related group.¹⁹
- *Haemodialysis* accounted for 17.5 per cent, while *Chemotherapy* and *Other Neoplastic Disorders, Minor Complexity* accounted for 11.8 per cent and 8.7 per cent of day patient discharges respectively.

¹⁹ See Section Four for details of the case mix classification.

TABLE 3.6 Day Patient Activity (N, %)

Top 20 Principal Diagnoses ^a			Day Patients			Top 20 Principal Procedure Blocks ^b		
		N	%				N	%
Z51	Other medical care ^c	218,800	21.3	1,027,431			183,204	19.4
Z49	Care involving dialysis	179,686	17.5				179,576	19.0
H35	Other retinal disorders	33,623	3.3				91,666	9.7
E83	Disorders of mineral metabolism	18,290	1.8	Sex	N	%	40,589	4.3
K50	Crohn's disease [regional enteritis]	15,575	1.5	Male	515,095	50.1	38,931	4.1
K51	Ulcerative colitis	13,067	1.3	Female	512,336	49.9		
C44	Other malignant neoplasms of skin	12,154	1.2					
Z13	Special screening examination for other diseases and disorders	12,018	1.2	Age Group	N	%		
D12	Benign neoplasm of colon, rectum, anus and anal canal	9,846	1.0	< 1 Year	2,607	0.3		
L40	Psoriasis	9,650	0.9	1–14 Years	34,741	3.4		
K29	Gastritis and duodenitis	9,607	0.9	15–24 Years	37,052	3.6		
Z48	Other surgical follow-up care	8,407	0.8	25–34 Years	67,641	6.6		
R10	Abdominal and pelvic pain	8,265	0.8	35–44 Years	114,296	11.1		
M54	Dorsalgia	7,987	0.8	45–54 Years	149,342	14.5		
C50	Malignant Neoplasms of Breast	7,549	0.7	55–64 Years	192,730	18.8		
Z08	Follow-up examination after treatment for malignant neoplasm	7,356	0.7	65–74 Years	229,010	22.3		
G35	Multiple sclerosis	6,989	0.7	75–84 Years	159,190	15.5		
K57	Diverticular disease of intestine	6,976	0.7	85 Years and Over	40,822	4.0		
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	6,921	0.7					
M25	Other joint disorders, not elsewhere classified	6,574	0.6					

Hospital Group	N	%
Ireland East	204,824	19.9
RCSI	165,270	16.1
Dublin Midlands	213,499	20.8
South/South West	188,460	18.3
UL	55,364	5.4
Saolta	175,304	17.1
Children's	24,534	2.4
No group	176	0.0

Top 10 AR-DRGs			N	%
L61Z	Haemodialysis		179,409	17.5
R63Z	Chemotherapy		121,176	11.8
R62C	Other Neoplastic Disorders, Minor Complexity		89,615	8.7
G48B	Colonoscopy, Minor Complexity		45,158	4.4
C03B	Retinal Procedures, Minor Complexity		37,515	3.7
Z64B	Other Factors Influencing Health Status, Minor Complexity		33,370	3.2
G47C	Gastroscopy, Minor Complexity		31,624	3.1
I40Z	Infusions for Musculoskeletal Disorders, Sameday		31,006	3.0
J11B	Other Skin, Subcutaneous Tissue and Breast Procedures, Minor Complexity		29,157	2.8
G64B	Inflammatory Bowel Disease, Minor Complexity		24,579	2.4

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 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 36.9 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 4.5 per cent of in-patient discharges.
- In-patient discharges with a principal diagnosis of *Single delivery by caesarean section* accounted for 3.3 per cent of in-patient discharges while those with a principal diagnosis of *Pain in throat and chest* accounted for 3.0 per cent of in-patient discharges.

In-Patients – Top 20 Principal Procedure Blocks

- A principal procedure was recorded for 59.8 per cent of total in-patient discharges (see Table 3.4).
- Procedures from the block *Generalised allied health interventions* were reported for 30.4 per cent of in-patient discharges with at least one procedure reported.²⁰

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

- The top three AR-DRGs accounted for 9.7 per cent of in-patient discharges when analysed by diagnosis related group.^{21,22}
- *Antenatal and Other Obstetric Admissions, Minor Complexity* accounted for 4.3 per cent of in-patient discharges. *Vaginal Delivery, Intermediate Complexity* and *Chest Pain, Minor Complexity* accounted for 3.0 per cent and 2.5 per cent of in-patient discharges respectively.

²⁰ This block includes interventions such as physiotherapy, pharmacy, dietetics, occupational therapy, speech pathology, social work and diabetes education. Together, these seven interventions accounted for 97.3 per cent of cases within this procedure block.

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

Top 20 Principal Diagnoses ^a		N	%	Mean LOS	Med LOS
O80	Single spontaneous delivery	26,943	4.5	2.3	2
O82	Single delivery by caesarean section	19,614	3.3	4.0	4
R07	Pain in throat and chest	18,193	3.0	1.5	0.5
N39	Other disorders of urinary system	12,560	2.1	8.8	5
O99	Other maternal diseases classifiable elsewhere in pregnancy, childbirth and the puerperium	11,728	2.0	1.2	0.5
J44	Other chronic obstructive pulmonary disease	9,765	1.6	7.6	5
J12	Viral pneumonia, not elsewhere classified	9,356	1.6	12.2	8
R10	Abdominal and pelvic pain	9,127	1.5	1.8	1
R55	Syncope and collapse	8,714	1.5	4.4	2
J18	Pneumonia, organism unspecified	7,676	1.3	10.4	7
O81	Single delivery by forceps and vacuum extractor	7,675	1.3	3.1	3
J22	Unspecified acute lower respiratory infection	7,344	1.2	7.0	4
I50	Heart failure	7,043	1.2	10.1	7
R06	Abnormalities of breathing	6,873	1.1	2.0	1
R51	Headache	6,408	1.1	1.8	0.5
I48	Atrial fibrillation and flutter	6,025	1.0	3.9	2
I21	Acute myocardial infarction	6,013	1.0	5.8	4
K35	Acute appendicitis	5,977	1.0	3.3	2
K80	Cholelithiasis	5,632	0.9	5.3	3
I63	Cerebral infarction	5,501	0.9	15.5	8

In-Patients		N		Mean		Med	
600,483		600,483		5.7		2	
Discharges		N		%		%	
Total		600,483		100		20.8	
Sameday		125,187		79.2			
Overnight		475,296					
Length of Stay		Mean		Median			
Total		5.7		2			
Overnight		7.1		3			
Bed Days		N					
Total		3,439,322					
Overnight		3,376,729					
Top 20 Principal Procedure Blocks ^a		N	%	Mean LOS	Med LOS		
1916	Generalised allied health interventions	109,173	30.4	10.8	6		
1336	Spontaneous vertex delivery ^c	26,565	7.4	2.5	2		
1340	Caesarean section	21,656	6.0	4.5	4		
1920	Administration of pharmacotherapy	8,927	2.5	7.6	4		
1893	Administration of blood and blood products	8,523	2.4	9.6	5		
0570	Noninvasive ventilatory support	8,312	2.3	14.2	10		
1008	Panendoscopy with excision	6,302	1.8	10.9	6		
0926	Appendectomy	6,036	1.7	3.2	2		
1338	Vacuum assisted delivery	5,916	1.6	3.1	3		
0668	Coronary angiography	5,034	1.4	5.0	3		
1489	Arthroplasty of hip	4,556	1.3	10.8	6		
0030	Lumbar puncture	3,923	1.1	10.2	5		
0569	Ventilatory support	3,804	1.1	23.6	12		
0671	Transluminal coronary angioplasty with stenting	3,676	1.0	3.7	2		
1265	Curette and evacuation of uterus	2,666	0.7	1.1	1		
1872	Alcohol and drug rehabilitation and detoxification	2,597	0.7	7.1	4		
1005	Panendoscopy	2,597	0.7	12.7	7		
0965	Cholecystectomy	2,546	0.7	4.0	2		
0911	Fiberoptic colonoscopy with excision	2,494	0.7	9.4	6		
1823	Mental, behavioural or psychosocial assessment	2,213	0.6	7.7	3		

Hospital Group	N	%
Ireland East	128,951	21.5
RCSI	93,688	15.6
Dublin Midlands	88,221	14.7
South/South West UL	107,605	17.9
Saolta Children's	54,073	9.0
No group	105,393	17.6
	20,054	3.3
	2,498	0.4

Sex	N	%
Male	251,921	42.0
Female	348,562	58.0

Age Group	N	%
< 1 Year	22,749	3.8
1–14 Years	40,815	6.8
15–24 Years	40,338	6.7
25–34 Years	83,118	13.8
35–44 Years	83,511	13.9
45–54 Years	56,095	9.3
55–64 Years	67,332	11.2
65–74 Years	83,482	13.9
75–84 Years	81,183	13.5
85 Years and Over	41,860	7.0

Top 10 AR-DRGs		N	%	Mean LOS	Med LOS
O66B	Antenatal and Other Obstetric Admissions, Minor Complexity	25,537	4.3	1.0	0.5
O60B	Vaginal Delivery, Intermediate Complexity	17,857	3.0	2.7	3
F74B	Chest Pain, Minor Complexity	14,840	2.5	1.2	0.5
O60C	Vaginal Delivery, Minor Complexity	14,484	2.4	2.0	2
E62A	Respiratory Infections and Inflammations, Major Complexity	12,687	2.1	10.8	7
O01C	Caesarean Delivery, Minor Complexity	11,989	2.0	3.5	3
O66A	Antenatal and Other Obstetric Admissions, Major Complexity	10,015	1.7	1.8	1
B77B	Headaches, Minor Complexity	8,194	1.4	1.4	0.5
O01B	Caesarean Delivery, Intermediate Complexity	8,151	1.4	4.9	4
F73B	Syncope and Collapse, Minor Complexity	7,657	1.3	2.7	1

Notes: a Percentage columns are subject to rounding.
b ICD-10-AM diagnosis codes are analysed at three-character level.
c ACHI Procedure codes are analysed at block level. The percentage (%) is based on in-patients with principal procedure reported. See Appendix VII for an overview of changes from 8th Edition to 10th Edition ICD-10-AM//ACHI//ACS.

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 4.6 per cent of total discharges and 12.4 per cent of in-patients.
- Elective in-patient bed days accounted for 530,979 in-patient bed days, or 15.4 per cent of total in-patient bed days.
- Elective overnight in-patient discharges accounted for 92.5 per cent of total elective in-patient discharges and had a mean length of stay of 7.7 days.

Elective In-Patients – Top 20 Principal Diagnoses

- Elective in-patients with a principal diagnosis of *Coxarthrosis [arthrosis of hip]* accounted for 3.3 per cent of elective in-patient discharges.
- *Gonarthrosis [arthrosis of knee]* accounted for 2.5 per cent of elective in-patient discharges while *Malignant neoplasms of breast* accounted for 2.3 per cent of elective in-patient discharges.

Elective In-Patients – Top 20 Principal Procedure Blocks

- A principal procedure was recorded for 90.5 per cent of elective in-patient discharges (see Table 3.4).
- The procedure block *Generalised allied health interventions* was reported for 12.5 per cent of elective in-patients who had a principal procedure reported.
- The procedure blocks *Administration of pharmacotherapy* and *Arthroplasty of hip* were reported for 4.5 per cent and 3.7 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 7.2 per cent of elective in-patient discharges reported to HIPE when analysed by diagnosis related group.^{23,24}
- *Hip Replacement, Minor Complexity* and *Knee Replacement, Minor Complexity* accounted for 3.1 per cent and 2.2 per cent of elective in-patient discharges respectively. *Tonsillectomy and Adenoidectomy* accounted for 2.0 per cent of elective in-patient discharges.

²³ See Section Four for details of the case mix classification.

²⁴ 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					Elective In-Patients					Top 20 Principal Procedure Blocks ^b						
		N	%	Mean LOS	Med LOS		N	%	Mean LOS	Med LOS		N	%	Mean LOS	Med LOS	
M16	Coxarthrosis [arthrosis of hip]	2,443	3.3	5.1	3	74,451					1916	Generalised allied health interventions	8,423	12.5	22.1	13
M17	Gonarthrosis [arthrosis of knee]	1,835	2.5	5.4	4						1920	Administration of pharmacotherapy	3,022	4.5	8.3	4
C50	Malignant neoplasms of breast	1,692	2.3	3.1	1						1489	Arthroplasty of hip	2,475	3.7	4.9	3
K80	Cholelithiasis	1,596	2.1	2.6	1						1828	Sleep Study	1,963	2.9	1.3	1
Z48	Other surgical follow-up care	1,498	2.0	14.7	6						0965	Cholecystectomy	1,709	2.5	2.2	1
J35	Chronic diseases of tonsils and adenoids	1,475	2.0	1.1	1	100					1518	Arthroplasty of knee	1,707	2.5	4.8	4
I25	Chronic ischaemic heart disease	1,267	1.7	4.5	2						0412	Tonsillectomy or adenoidectomy	1,560	2.3	1.2	1
G47	Sleep disorders	1,071	1.4	1.5	1						1268	Abdominal hysterectomy	1,275	1.9	4.3	4
Z51	Other medical care	1,048	1.4	24.7	20						1893	Administration of blood and blood products	1,210	1.8	7.5	3
N81	Female genital prolapse	947	1.3	3.0	3						1744	Excision of lesion of breast	922	1.4	1.2	1
R06	Abnormalities of breathing	914	1.2	1.4	1	7.1					0913	Colectomy	900	1.3	9.9	7
C18	Malignant neoplasm of colon	874	1.2	9.4	7						1166	Closed prostatectomy	838	1.2	2.9	3
C34	Malignant neoplasm of bronchus and lung	872	1.2	8.9	6						0990	Repair of inguinal hernia	784	1.2	1.4	1
C67	Malignant neoplasm of bladder	865	1.2	5.4	2						1748	Simple mastectomy	714	1.1	3.0	2
K40	Inguinal hernia	809	1.1	1.5	1						1100	Endoscopic resection of bladder lesion or tissue	673	1.0	3.3	2
C61	Malignant neoplasm of prostate	743	1.0	5.7	3	Median					1620	Excision of lesion of skin and subcutaneous tissue	640	1.0	2.8	1
C83	Non-follicular lymphoma	660	0.9	9.7	5						0671	Transluminal coronary angioplasty with stenting	579	0.9	2.1	1
S52	Fracture of femur	646	0.9	1.9	1						0114	Thyroidectomy	541	0.8	2.6	2
N20	Calculus of kidney and ureter	597	0.8	2.5	1						1283	Repair of prolapse of uterus, pelvic floor or enterocele	527	0.8	2.8	3
C78	Secondary malignant neoplasm of respiratory and digestive organs	592	0.8	6.5	4						1008	Panendoscopy with excision	527	0.8	7.6	3
					N											
Total					530,979											
Overnight					528,169											
Length of Stay					Mean					Median						
Total					7.1					2						
Overnight					7.7					3						
Discharges					N					%						
Total					74,451					100						
Sameday					5,621					7.5						
Overnight					68,830					92.5						

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.²⁵

Emergency In-Patients – Profile

- Emergency in-patient discharges accounted for 25.9 per cent of total discharges and 70.3 per cent of in-patients.
- Emergency in-patient bed days accounted for 2,655,810 in-patient bed days, or 77.2 per cent of total in-patient bed days.
- Over 63 per cent of emergency in-patient discharges were admitted from an Emergency Department, with 5.8 per cent admitted via a medical assessment unit (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 4.3 per cent of emergency in-patients.
- Emergency in-patient discharges with a principal diagnosis of *Other disorders of urinary system* accounted for 2.9 per cent of emergency in-patient discharges.

Emergency In-Patients – Top 20 Principal Procedure Blocks

- A principal procedure was recorded for 53.1 per cent of emergency in-patient discharges (see Table 3.4).
- Procedures from the block *Generalised allied health interventions* were reported for 44.0 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 8.3 per cent of emergency in-patient discharges reported to HIPE when analysed by diagnosis related group.^{26,27}
- *Chest Pain, Minor Complexity* accounted for 3.5 per cent of emergency in-patient discharges. *Respiratory Infections and Inflammations, Major Complexity* and *Headaches, Minor Complexity* accounted for 2.9 per cent and 1.9 per cent of emergency in-patient discharges respectively.

²⁵ 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.

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

Top 20 Principal Diagnoses ^a						Emergency In-Patients					
		N	%	Mean LOS	Med LOS	422,277					
R07	Pain in throat and chest	18,017	4.3	1.5	0.5						
N39	Other disorders of urinary system	12,124	2.9	8.6	5						
J44	Other chronic obstructive pulmonary disease	9,385	2.2	7.5	5						
J12	Viral pneumonia, not elsewhere classified	9,179	2.2	12.1	8						
R10	Abdominal and pelvic pain	8,918	2.1	1.8	1						
R55	Syncope and collapse	8,603	2.0	4.3	2						
J18	Pneumonia, organism unspecified	7,493	1.8	10.3	7						
J22	Unspecified acute lower respiratory infection	7,152	1.7	6.8	4						
I50	Heart failure	6,765	1.6	10.0	7						
R51	Headache	6,304	1.5	1.8	0.5						
R06	Abnormalities of breathing	5,956	1.4	2.1	1						
K35	Acute appendicitis	5,865	1.4	3.3	2						
I21	Acute myocardial infarction	5,698	1.3	5.9	4						
I48	Atrial fibrillation and flutter	5,550	1.3	3.9	2						
I63	Cerebral infarction	5,146	1.2	13.9	8						
S72	Fracture of femur	4,902	1.2	15.8	11						
A09	Other gastroenteritis and colitis of infectious and unspecified origin	4,726	1.1	4.1	2						
M79	Other soft tissue disorders, not elsewhere classified	4,579	1.1	1.5	0.5						
L03	Cellulitis	4,535	1.1	7.1	4						
R00	Abnormalities of heart beat	4,180	1.0	1.6	0.5						
Hospital Group		N	%								
Ireland East		89,006	21.1								
RCSI		64,867	15.4								
Dublin Midlands		59,149	14.0								
South/South West		74,569	17.7								
UL		42,473	10.1								
Saolta		77,202	18.3								
Children's		14,996	3.6								
No Group		15	0.0								
Mode of Emergency Admission		N	%								
Emergency Department		268,743	63.6								
Medical assessment unit - admitted as in-patient		24,301	5.8								
Medical assessment unit only		52,835	12.5								
Other ^c		76,392	18.1								
Unknown		6	0.0								

Top 20 Principal Procedure Blocks ^a					
		N	%	Mean LOS	Med LOS
1916	Generalised allied health interventions	98,580	44.0	9.9	6
0570	Noninvasive ventilatory support	8,031	3.6	14.2	10
1893	Administration of blood and blood products	7,157	3.2	10.1	6
0926	Appendectomy	5,850	2.6	3.2	2
1008	Panendoscopy with excision	5,772	2.6	11.2	7
1920	Administration of pharmacotherapy	5,395	2.4	7.9	4
0668	Coronary angiography	4,526	2.0	5.2	3
0030	Lumbar puncture	3,746	1.7	10.3	5
0569	Ventilatory support	3,663	1.6	23.4	12
0671	Transluminal coronary angioplasty with stenting	3,097	1.4	4.0	2
1872	Alcohol and drug rehabilitation and detoxification	2,541	1.1	6.8	4
1005	Panendoscopy	2,397	1.1	13.0	7
1823	Mental, behavioural or psychosocial psychosocial assessment	2,093	0.9	7.6	3
1489	Arthroplasty of hip	2,081	0.9	17.8	12
0911	Fibreoptic colonoscopy with excision	2,034	0.9	10.4	7
1479	Fixation of fracture of pelvis or femur	1,970	0.9	17.1	12
1539	Open reduction of fracture of ankle or toe	1,701	0.8	4.0	2
1628	Other debridement of skin and subcutaneous tissue	1,611	0.7	7.4	2
0560	Application, insertion or removal procedures on chest wall, mediastinum or diaphragm	1,534	0.7	14.1	10
1429	Open reduction of fracture of radius	1,521	0.7	2.3	1
Top 10 AR-DRGs					
F74B	Chest Pain, Minor Complexity	14,734	3.5	1.1	0.5
E62A	Respiratory Infections and Inflammations, Major Complexity	12,402	2.9	10.7	7
B77B	Headaches, Minor Complexity	8,077	1.9	1.4	0.5
F73B	Syncope and Collapse, Minor Complexity	7,578	1.8	2.6	1
L63B	Kidney and Urinary Tract Infections, Minor Complexity	7,095	1.7	4.3	3
I82Z	Other Sameday Treatment for Musculoskeletal Disorders	6,806	1.6	0.5	0
G66B	Abdominal Pain and Mesenteric Adenitis, Minor Complexity	6,686	1.6	1.3	1
L63A	Kidney and Urinary Tract Infections, Major Complexity	6,616	1.6	12.1	7
G70B	Other Digestive System Disorders, Minor Complexity	6,523	1.5	1.9	1
G70A	Other Digestive System Disorders, Major Complexity	6,148	1.5	5.7	3

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 an ASAU, 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'.²⁸ 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 any listed diagnosis of *Z37 Outcome of Delivery*. 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 6.4 per cent of total discharges and 17.3 per cent of in-patients.
- Of maternity in-patient discharges, 56.9 per cent reported a diagnosis of *Outcome of delivery* i.e. delivery discharges; while 43.1 per cent were non-delivery discharges.
- Single deliveries accounted for 98.2 per cent of delivery discharges.
- Over 38 per cent of delivery discharges were multiparous deliveries.²⁹
- Of delivery discharges, 34.8 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 45.7 per cent of delivery in-patient discharges.
- Non-delivery discharges with a principal diagnosis of *Other maternal diseases classifiable elsewhere in pregnancy, childbirth and the puerperium* accounted for 25.8 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 65.2 per cent of maternity in-patient discharges (see Table 3.4).
- For delivery discharges who had a procedure reported, 45.0 per cent reported the principal procedure block *Spontaneous vertex delivery*.³⁰
- For non-delivery discharges who had a procedure reported, 27.5 per cent reported the principal procedure block *Curettage and evacuation of uterus*.

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

- The top three AR-DRGs accounted for 55.8 per cent of maternity in-patient discharges reported to HIPE when analysed by diagnosis related group.^{31,32}
- *Antenatal and Other Obstetric Admissions, Minor Complexity* accounted for 24.6 per cent of maternity in-patient discharges.

²⁸ See Hospital In-Patient Enquiry Scheme (HIPE) Data Dictionary 2021 Version 13.0 available at www.hpo.ie.

²⁹ See Table 3.10 notes for definition of multiparous deliveries.

³⁰ See Appendix VII for an overview of changes from 8th Edition to 10th Edition ICD-10-AM/ACHI/ACS.

³¹ See Section Four for details of the case mix classification.

³² 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)

Maternity In-Patients				
103,755				
Delivery				
Top 10 Principal Diagnoses ^a				
	N	%	Mean	Med
O80 Single spontaneous delivery	26,943	45.7	2.3	2
O82 Single delivery by caesarean section	19,614	33.2	4.0	4
O81 Single delivery by forceps and vacuum extractor	7,675	13.0	3.1	3
O83 Other assisted single delivery	953	1.6	2.8	3
O83 Multiple delivery	926	1.6	5.1	4
O42 Premature rupture of membranes	738	1.3	6.6	4
O36 Maternal care for other known or suspected fetal problems	624	1.1	6.3	4
O14 Pre-eclampsia	282	0.5	9.7	7
O46 Antepartum haemorrhage, not elsewhere classified	188	0.3	5.0	4
O99 Other maternal diseases classifiable elsewhere in pregnancy, childbirth & the puerperium	182	0.3	7.3	6
O99 Other maternal diseases classifiable elsewhere in pregnancy, childbirth & the puerperium	11,530	25.8	1.1	0.5
O36 Maternal care for other known or suspected fetal problems	4,244	9.5	1.0	0.5
Non-Delivery				
Z36 Antenatal screening	4,175	9.3	0.6	0.5
O47 False labour	3,248	7.3	0.9	0.5
O02 Other abnormal products of conception	1,958	4.4	1.0	1
O21 Excessive vomiting in pregnancy	1,955	4.4	1.5	1
O03 Spontaneous abortion	1,953	4.4	1.2	1
O46 Antepartum haemorrhage, not elsewhere classified	1,897	4.2	1.3	1
O13 Gestational [pregnancy-induced] hypertension	1,190	2.7	1.5	1
O00 Ectopic pregnancy	1,053	2.4	1.7	1

Maternity In-Patients				
103,755				
Delivery				
Top 10 Principal Procedure Blocks ^e				
	N	%	Mean	Med
1336 Spontaneous vertex delivery ^h	26,565	45.0	2.5	2
1340 Caesarean section ⁱ	21,655	36.7	4.5	4
1338 Vacuum assisted delivery	5,916	10.0	3.1	3
1337 Forceps rotation and delivery	2,024	3.4	3.4	3
1344 Postpartum suture	1,314	2.2	2.5	2
1334 Medical or surgical induction of labour	631	1.1	3.1	3
1343 Other procedures associated with delivery ^g	435	0.7	2.8	3
1335 Medical or surgical augmentation of labour	281	0.5	2.3	2
1345 Postpartum evacuation of uterus	80	0.1	3.3	3
1339 Breech delivery and extraction	68	0.1	4.5	3
Non-Delivery				
1265 Curettage and evacuation of uterus	2,384	27.5	1.0	0.5
1916 Generalised allied health interventions	2,162	25.0	3.3	2
1884 Immunisation	696	8.0	1.3	0.5
1256 Procedures for management of ectopic pregnancy	660	7.6	1.7	1
1334 Medical or surgical induction of labour	604	7.0	1.2	1
1920 Administration of pharmacotherapy	509	5.9	0.8	0.5
1274 Application, insertion or removal procedures on cervix	192	2.2	1.7	1
1330 Antepartum application, insertion or removal procedures	188	2.2	1.6	1
1344 Postpartum suture	163	1.9	1.8	2
1893 Administration of blood and blood products	155	1.8	2.6	2
Top 10 AR-DRG's				
O66B Antenatal and Other Obstetric Admissions, MINC	25,518	24.6	1.0	0.5
O60B Vaginal Delivery, Intermediate Complexity	17,857	17.2	2.7	3
O60C Vaginal Delivery, Minor Complexity	14,484	14.0	2.0	2
O01C Caesarean Delivery, Minor Complexity	11,989	11.6	3.5	3
O66A Antenatal and Other Obstetric Admissions, MAJC	10,005	9.6	1.8	1
O01B Caesarean Delivery, Intermediate Complexity	8,151	7.9	4.9	4
O60A Vaginal Delivery, Major Complexity	4,213	4.1	4.2	3
O61B Postpartum and Post Abortion W/O OR Proc, MINC	2,482	2.4	1.7	1
O05Z Abortion W OR Procedures	2,324	2.2	1.0	0.5
O63B Abortion W/O OR Procedures, Minor Complexity	1,939	1.9	1.1	1

Notes: ~ Percentage columns are subject to rounding.
a Denotes five or fewer discharges reported to HIPE.
b ICD-10-AM diagnosis codes are analysed at three-character level.
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 ACHU 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 100.0 per cent of delivery in-patient discharges and 19.3 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. See Appendix VII for an overview of changes from 8th Edition to 10th Edition ICD-10-AM/ACHI/ACS.

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 29 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.
- 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. The most common principal diagnosis chapters for discharges aged less than 15 years and aged 15-44 years were *Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified* and *Pregnancy, childbirth and the puerperium*, respectively.

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.³³

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

³³ See Section Two for details of discharge destination.

- 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* (11.5 days).³⁴
- For discharges aged less than 15 years, those with a principal diagnosis from the chapter *Mental and behavioural disorders* recorded an in-patient mean length of stay of 8.5 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 (7.1 days). When this diagnosis is analysed by sex, male discharges reported 8.9 days and females reported 6.0 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* (2.3 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 4.5 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 1,129,723 diagnoses, or 24.9 per cent of all-listed diagnoses reported.³⁵
- *Neoplasms* accounted for 572,364 diagnoses or 12.6 per cent of all-listed diagnoses reported for total discharges.

³⁴ HIPE does not collect long stay psychiatric activity in acute hospitals. The National Psychiatric In-Patient Reporting System, supported by the Health Research Board, reports information on all admissions to psychiatric hospitals and units nationally.

³⁵ 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		55,447	134,482	231,269	345,818	767,016	45,465	291,474	234,230	289,729	860,898	100,912	425,956	465,499	635,547	1,627,914
Certain infectious and parasitic diseases		A00–B99	2,702	1,975	3,061	10,158	2,322	2,557	2,232	3,507	10,618	4,742	5,259	4,207	6,568	20,776
Intestinal infectious diseases (including diarrhoea)		A00–A09	1,117	933	1,197	4,588	1,296	1,528	1,388	1,900	6,112	2,637	2,645	2,321	3,097	10,700
Tuberculosis		A15–A19	~	82	33	134	~	51	18	*	81	~	133	51	*	215
Septicaemia		A40–A41	49	95	342	1,296	66	127	327	1,051	1,571	115	222	669	2,347	3,353
Human imm unodeficiency virus [HIV] disease		B20–B24	~	~	~	~	~	~	~	~	~	~	~	~	~	~
Neoplasms		C00–D48	2,455	6,649	21,263	38,854	69,221	2,726	11,778	23,010	27,238	64,752	5,181	18,427	44,273	133,973
Malignant neoplasms		C00–C96	1,951	3,739	15,252	29,598	50,540	2,161	4,934	15,735	20,592	43,422	4,112	8,673	30,987	93,962
Malignant neoplasms of colon, rectum and anus		C18–C21	~	*	1,606	2,345	4,194	~	~	1,106	1,558	2,883	~	*	2,712	3,903
Malignant neoplasms of trachea, bronchus and lung		C33–C34	0	66	1,062	2,237	3,365	0	71	948	1,845	2,010	0	137	2,010	4,082
Melanoma and other malignant neoplasms of skin		C43–C44	0	364	1,884	6,801	9,049	~	~	1,534	3,709	5,696	~	*	3,418	10,510
Malignant neoplasms of breast		C50	0	~	*	37	49	0	~	*	3,259	9,509	0	1,455	4,807	3,296
Malignant neoplasms of female genital organs		C51–C58	0	0	0	0	~	~	*	1,397	3,197	~	~	1,371	1,371	3,197
Malignant neoplasm of prostate		C61	12	21	1,831	3,685	5,549	0	0	0	0	12	21	1,831	3,685	5,549
Malignant neoplasm of bladder		C67	~	*	363	1,424	1,807	*	*	166	356	570	31	37	529	1,780
Malignant neoplasms of lymphoid, haematopoietic and related tissue		C81–C96	1,239	1,493	3,650	6,353	12,735	1,057	1,159	2,412	4,229	8,857	2,296	2,652	6,062	10,582
In situ neoplasms		D00–D09	~	*	434	1,198	1,704	~	*	966	1,138	2,446	~	*	1,400	2,336
Benign neoplasms and neoplasms of uncertain or unknown behaviour		D10–D48	501	2,841	5,577	8,058	16,977	563	6,504	6,309	5,508	18,884	1,064	9,345	11,886	35,861
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism		D50–D89	1,908	2,586	3,398	7,332	15,224	1,167	4,364	4,103	6,904	16,538	3,075	6,950	7,501	14,236
Endocrine, nutritional and metabolic diseases		E00–E89	1,164	5,506	9,436	7,964	24,070	1,095	3,733	5,575	5,934	16,337	2,259	9,239	15,011	13,898
Diabetes mellitus		E10–E14	284	897	2,146	2,684	6,011	304	714	918	1,318	3,254	588	1,611	3,064	4,002
Cystic fibrosis		E84	152	993	*	~	1,266	158	859	*	*	1,152	310	1,852	244	12
Mental and behavioural disorders		F00–F99	473	1,746	1,527	1,681	5,427	555	1,338	928	1,753	4,574	1,028	3,084	2,455	3,434
Mental and behavioural disorders due to use of alcohol		F10	18	972	1,111	395	2,496	34	296	435	142	907	52	1,268	1,546	537
Mental and behavioural disorders due to use of other psychoactive substance		F11–F19	~	235	41	*	290	~	68	17	*	99	~	303	58	*
Diseases of nervous system		G00–G99	1,693	4,134	4,687	4,893	15,407	1,188	8,237	6,666	4,899	20,990	2,881	12,371	11,353	9,792
Multiple sclerosis		G35	14	1,223	745	89	2,071	0	3,446	1,876	212	5,534	14	4,669	2,621	301
Epilepsy		G40, G41	747	893	497	344	2,481	484	700	352	236	1,772	1,231	1,593	849	580
Transient cerebral ischaemic attacks and related syndromes		G45	0	62	443	1,130	1,635	0	55	357	1,185	1,597	0	117	800	2,315
Diseases of the eye and adnexa		H00–H59	557	2,106	6,393	19,693	28,749	611	2,257	5,442	26,132	34,442	1,168	4,363	11,835	45,825
Cataracts		H25–H26	11	131	1,066	4,338	5,546	9	111	1,122	5,812	7,054	20	242	2,188	10,150
Other retinal disorders		H35	48	669	2,958	11,262	14,937	61	633	2,123	16,145	18,962	109	1,302	5,081	27,407
Diseases of the ear and mastoid process		H60–H95	978	1,134	1,046	974	4,132	769	1,245	1,220	1,075	4,309	1,747	2,379	2,266	2,049
Diseases of the circulatory system		I00–I99	596	3,540	13,607	23,897	41,640	588	3,062	6,979	17,570	28,199	1,184	6,602	20,586	41,467
Hypertensive diseases		I10–I15	22	284	558	370	1,234	21	295	564	803	1,683	43	579	1,122	1,173
Angina pectoris		I20	0	95	883	1,144	2,122	0	24	301	558	883	0	119	1,184	1,702
Acute myocardial infarction		I21–I22	0	237	1,867	2,288	4,392	0	63	457	1,189	1,709	0	300	2,324	3,477
Other ischaemic heart disease		I23–I25	~	*	~	2,766	6,592	~	*	900	1,577	2,549	~	*	3,666	5,193
Pulmonary heart disease and diseases of pulmonary circulation		I26–I28	~	*	423	536	1,132	*	*	348	672	1,260	30	383	771	1,208
Conduction disorders and cardiac arrhythmias		I44–I49	123	600	2,076	4,067	6,866	88	428	891	3,016	4,423	211	1,028	2,967	7,083
Heart failure		I50	9	83	563	3,451	4,106	14	39	249	2,933	3,235	23	122	812	6,384
Cerebrovascular disease		I60–I69	37	346	1,396	3,168	4,947	28	265	787	2,771	3,851	65	611	2,183	5,939
Atherosclerosis (non-coronary)		I70	0	17	239	863	1,119	0	12	97	322	431	0	29	336	1,185
Diseases of the respiratory system		J00–J99	5,947	4,962	8,935	16,816	36,660	4,561	5,675	8,228	14,825	33,289	10,508	10,637	17,163	31,641
Acute upper respiratory infections and influenza		J00–J11	1,900	394	158	96	2,548	1,380	570	186	97	2,233	3,280	964	344	193
Pneumonia		J12–J18	239	1,404	2,950	5,458	10,051	219	1,032	2,012	4,421	7,684	458	2,436	4,962	9,879
Unspecified lower acute respiratory infection		J22	578	319	663	2,380	3,940	488	402	653	2,090	3,633	1,066	721	1,316	4,470
Chronic diseases of tonsils and adenoids		J35	560	232	42	19	853	566	586	57	15	1,224	1,126	818	99	34
Chronic obstructive pulmonary disease and bronchiectasis		J40–J44, J47	23	184	1,217	4,400	5,824	21	193	1,522	4,541	6,277	44	377	2,739	8,941
Asthma		J45–J46	593	610	1,566	760	3,529	332	1,287	1,814	906	4,339	925	1,897	3,380	1,666

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	5,128	25,853	26,421	22,813	80,215	3,677	26,957	25,878	21,981	78,493	8,805	52,810	52,299	44,794	158,708
Diseases of oesophagus, stomach and duodenum	K20-K31	426	4,019	6,137	5,845	16,427	362	4,255	6,483	5,665	16,765	788	8,274	12,620	11,510	33,192
Diseases of appendix	K35-K38	1,101	1,826	426	206	3,559	826	1,662	403	138	3,029	1,927	3,488	829	344	6,588
Inguinal hernia	K40	295	496	1,002	1,017	2,810	77	56	42	94	269	372	552	1,044	1,111	3,079
Noninfective enteritis and colitis	K50-K52	1,003	9,858	5,189	1,697	17,747	568	8,747	4,575	1,964	15,854	1,571	18,605	9,764	3,661	33,601
Diverticular Disease of Intestine	K57	0	624	1,901	2,210	4,735	~	*	2,250	3,135	5,849	~	*	4,151	5,345	10,584
Alcoholic liver disease	K70	0	189	662	265	1,116	0	115	303	111	529	0	304	965	376	1,645
Cholelithiasis	K80	8	452	894	1,647	3,001	15	1,927	1,605	1,465	5,012	23	2,379	2,499	3,112	8,013
Diseases of the skin and subcutaneous tissue	L00-L99	1,210	8,713	7,488	6,989	24,400	1,024	9,185	7,283	6,505	23,997	2,234	17,898	14,771	13,494	48,397
Caruncous abscess, furuncle and carbuncle and cellulitis	L02-L03	251	771	1,012	1,316	3,350	196	523	658	1,312	2,689	447	1,294	1,670	2,628	6,039
Decubitus ulcer and pressure area	L89	~	*	43	71	135	~	*	19	84	115	~	*	62	155	250
Diseases of the musculoskeletal system and connective tissue	M00-M99	1,417	5,754	10,821	10,376	28,368	1,693	7,700	15,536	16,549	41,478	3,110	13,454	26,357	26,925	69,846
Rheumatoid arthritis	M05-M06	0	240	623	706	1,569	0	471	1,497	1,393	3,361	0	711	2,120	2,099	4,930
Coxarthrosis and Gonarthrosis	M16-M17	6	151	1,586	2,041	3,784	~	*	1,850	3,223	5,233	*	*	3,436	5,264	9,017
Intervertebral disc disorders	M50-M51	~	*	553	314	1,329	~	*	710	499	1,777	~	*	1,263	813	3,106
Dorsalgia (back pain)	M54	59	917	1,733	1,238	3,947	58	1,565	2,718	2,412	6,753	117	2,482	4,451	3,650	10,700
Diseases of the genitourinary system	N00-N99	2,718	4,469	6,276	11,279	24,742	1,852	14,102	15,501	11,183	42,638	4,570	18,571	21,777	22,462	67,380
Chronic kidney disease	N18	10	199	269	422	900	14	188	169	207	578	24	387	438	629	1,478
Urolithiasis	N20-N23	65	1,063	1,452	720	3,300	31	649	776	365	1,821	96	1,712	2,228	1,085	5,121
Hyperplasia of prostate	N40	0	53	855	1,918	2,826	0	0	0	0	0	0	53	855	1,918	2,826
Disorders of breast	N60-N64	~	42	14	*	74	18	1,337	1,424	273	3,052	*	1,379	1,438	*	3,126
Inflammatory diseases of female pelvic organs	N70-N77	0	0	0	0	0	32	740	269	95	1,136	32	740	269	95	1,136
Noninflammatory disorders of female genital tract	N80-N98	0	0	0	0	0	206	8,305	9,492	2,652	20,655	206	8,305	9,492	2,652	20,655
Pregnancy, childbirth and the puerperium	O00-O99	0	0	0	0	0	~	109,609	*	0	110,232	~	109,609	*	0	210,232
Pregnancy with abortive outcome	O00-O09	0	0	0	0	0	~	7,449	*	0	7,540	~	7,449	*	0	7,540
Gestational [pregnancy-induced] hypertension	O13	0	0	0	0	0	0	2,653	37	0	2,690	0	2,653	37	0	2,690
Diabetes mellitus in pregnancy	O24	0	0	0	0	0	0	1,591	22	0	1,613	0	1,591	22	0	1,613
Single spontaneous delivery	O80	0	0	0	0	0	~	26,884	*	0	26,943	~	26,884	*	0	26,943
Single delivery by forceps and vacuum extractor	O81	0	0	0	0	0	0	7,658	17	0	7,675	0	7,658	17	0	7,675
Single delivery by caesarean section	O82	0	0	0	0	0	0	19,439	175	0	19,614	0	19,439	175	0	19,614
Other assisted single delivery	O83	0	0	0	0	0	0	*	~	0	953	0	*	~	0	953
Multiple delivery	O84	0	0	0	0	0	0	917	9	0	926	0	917	9	0	926
Certain conditions originating in the perinatal period	P00-P96	5,416	0	0	0	5,416	4,374	0	0	0	4,374	9,790	0	0	0	9,790
Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99	3,598	478	219	70	4,365	2,524	657	225	90	3,496	6,122	1,135	444	160	7,861
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R00-R99	6,135	13,835	18,580	22,718	61,268	5,406	20,343	20,103	21,675	67,527	11,541	34,178	38,683	44,393	128,795
Pain in throat and chest	R07	110	2,980	4,456	3,029	10,575	84	2,832	3,719	2,710	9,345	194	5,812	8,175	5,739	19,920
Abdominal and pelvic pain	R10	694	2,208	1,978	1,295	6,175	882	5,252	3,237	1,846	11,217	1,576	7,460	5,215	3,141	17,392
Injury, poisoning and certain other consequences of external causes	S00-T98	5,554	11,992	7,182	9,383	34,111	4,333	6,893	6,283	12,993	30,502	9,887	18,885	13,465	23,376	64,613
Intracranial injury	S06	128	493	400	686	1,707	74	189	198	629	1,090	202	682	598	1,315	2,797
Other injuries to the head (including skull fracture)	S00-S05, S07-S09	1,317	1,597	662	1,191	4,767	954	545	364	1,359	3,222	2,271	2,142	1,026	2,550	7,989
Fracture of femur	S72	77	138	274	1,401	1,890	45	53	275	3,214	3,587	122	191	549	4,615	5,477
Poisonings by drugs, medicaments and biological substances and toxic effects of substances chiefly nonmedicinal as to source	T36-T65	197	1,019	424	149	1,789	480	1,500	573	222	2,775	677	2,519	997	371	4,564
Factors influencing health status and contact with health services^a	U00-U49, Z00-Z99	6,080	28,323	82,015	137,025	253,443	4,997	51,782	78,418	88,916	224,113	11,077	80,105	160,433	225,941	477,556
Care involving dialysis	Z49	305	14,166	36,546	61,254	112,271	283	11,046	20,968	35,252	67,549	588	25,212	57,514	96,506	179,820
Other medical care (including radiotherapy and chemotherapy sessions)	Z51	2,305	5,875	36,375	62,607	107,162	1,960	16,899	48,438	45,455	112,752	4,265	22,774	84,813	108,062	219,914

Notes: ~ Denotes five or fewer discharges reported to HIPE. * Further suppression required to prevent disclosure of five or fewer discharges.
† 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					<15				
		15-44	45-64	≥65	Total		15-44	45-64	≥65	Total		15-44	45-64	≥65	Total	
Total In-Patient Discharges	Mean	3.5	3.6	3.7	6.6	3.7	3.7	3.7	5.2	5.1	3.6	2.9	5.7	9.2	5.7	5.7
Median	1	1	1	3	5	3	1	2	2	5	2	1	2	2	5	2
Certain infectious and parasitic diseases																
Intestinal infectious diseases (including diarrhoea)	A00-B99	1.9	4.3	9.6	11.6	7.0	1.9	3.8	7.0	10.8	6.4	1.9	4.0	8.2	11.1	6.7
		1	2	5	7	3	1	1	4	6	3	1	2	4	7	3
Tuberculosis	A00-A09	1.6	2.5	6.0	7.7	4.1	1.6	2.6	4.5	8.2	4.6	1.6	2.6	5.1	8.0	4.4
		1	2	3	4	2	1	2	3	5	2	1	2	3	5	2
	A15-A19	^	14.4	26.2	16.8	17.9	-	11.2	37.2	^	21.5	^	13.2	29.1	29.6	19.1
		^	10	15	9	12	-	8	15	^	9	^	9	15	12	10
Septicaemia	A40-A41	6.3	9.3	13.0	13.7	13.1	6.8	9.9	12.5	13.2	12.5	6.6	9.6	12.7	13.4	12.8
		4	7	8	9	8	4	6	7	9	8	4	6	7	9	8
Human immunodeficiency virus [HIV] disease	B20-B24	†	†	†	†	†	†	†	†	†	†	†	†	†	†	27.0
		†	†	†	†	†	†	†	†	†	†	†	†	†	†	11
Neoplasms																
	C00-D48	6.5	8.9	9.7	11.4	10.5	5.2	6.0	8.2	10.2	8.6	5.8	7.1	8.9	10.9	9.5
		2	4	5	6	5	2	3	4	6	4	2	3	4	6	5
Malignant neoplasms	C00-C96	6.1	9.7	10.0	11.8	10.9	5.6	7.5	9.3	10.6	9.6	5.8	8.5	9.6	11.3	10.3
		2	5	5	7	6	3	4	5	7	5	3	4	5	7	6
Malignant neoplasm of colon, rectum and anus	C18-C21	^	9.8	9.6	13.0	11.6	^	8.4	10.6	13.6	12.2	^	9.1	10.0	13.2	11.8
		^	6	7	8	8	^	6	8	9	8	^	6	7	9	8
Malignant neoplasm of trachea, bronchus and lung	C33-C34	-	13.0	10.5	11.2	11.0	-	7.4	10.0	11.9	11.1	-	10.2	10.2	11.5	11.1
		-	9	7	7	7	-	5	7	8	8	-	6	7	8	7
Melanoma and other malignant neoplasms of skin	C43-C44	-	4.9	5.5	6.5	6.2	-	3.3	6.1	6.9	6.4	-	4.1	5.8	6.6	6.3
		-	3	2	2	2	-	1	2	2	2	-	1	2	2	2
Malignant neoplasms of breast	C50	-	^	^	6.9	5.3	-	2.8	4.2	5.0	4.3	-	2.8	4.2	5.0	4.3
		-	^	^	4	2	-	2	2	2	2	-	2	2	2	2
Malignant neoplasms of female genital organs	C51-C58	-	-	-	-	-	^	6.3	9.2	9.5	8.9	^	6.3	9.2	9.5	8.9
		-	-	-	-	-	^	3	5	5	5	^	3	5	5	5
Malignant neoplasm of prostate	C61	^	2.3	4.0	11.2	7.9	-	-	-	-	-	^	2.3	4.0	11.2	7.9
		^	2	3	4	3	-	-	-	-	-	^	2	3	4	3
Malignant neoplasm of bladder	C67	-	3.0	5.9	8.5	7.9	4.8	2.9	6.4	8.1	7.3	4.8	2.9	6.1	8.4	7.8
		-	1	3	4	3	3	2	3	3	3	3	1	3	4	3
Malignant neoplasms of lymphoid, haematopoietic and related tissue	C81-C96	7.4	14.6	12.7	12.9	12.7	6.2	15.0	14.8	12.8	13.2	6.8	14.8	13.5	12.8	12.9
		2	6	6	7	6	3	6	6	7	6	2	6	6	7	6
In situ neoplasms	D00-D09	^	2.6	5.3	4.2	4.4	-	3.1	2.2	3.5	2.7	^	3.0	2.7	3.7	3.1
		^	2	1	2	2	-	2	1	1	1	^	2	1	1	1
Benign neoplasms and neoplasms of uncertain or unknown behaviour	D10-D48	8.4	5.8	7.0	7.6	7.2	3.7	3.8	4.4	7.3	4.8	5.8	4.3	5.2	7.5	5.7
		2	2	3	3	3	2	2	3	4	2	2	2	3	3	3
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D50-D89	3.6	5.0	5.7	5.4	5.2	3.9	3.1	3.8	5.4	4.5	3.8	3.6	4.6	5.4	4.8
		2	3	3	3	3	2	1	2	3	2	2	2	2	3	2
Endocrine, nutritional and metabolic diseases	E00-E89	4.5	5.1	8.4	11.3	8.7	4.8	5.2	6.3	9.0	7.1	4.6	5.2	7.4	10.1	7.9
		3	2	3	6	4	3	2	3	5	3	3	2	3	5	4
Diabetes mellitus	E10-E14	4.2	3.7	9.1	14.3	9.7	4.4	4.8	8.8	12.1	8.2	4.3	4.2	8.9	13.5	9.2
		4	2	4	7	4	4	2	4	6	4	4	2	4	7	4
Cystic fibrosis	E84	9.5	13.5	12.5	^	12.5	10.0	15.6	14.7	^	14.1	9.8	14.4	13.6	^	13.3
		10	13	9	^	13	12	11	15	^	11	11	13	12	^	13
Mental and behavioural disorders																
Mental and behavioural disorders due to use of alcohol	F00-F99	5.8	5.1	7.8	18.7	10.3	9.8	8.1	10.0	18.6	12.8	8.5	6.4	8.6	18.6	11.5
		1	2	3	10	3	4	2	3	9	5	3	2	3	9	4
Mental and behavioural disorders due to use of other psychoactive substance	F10	0.9	3.4	6.5	11.4	6.0	0.9	3.2	8.0	11.2	6.7	0.9	3.4	6.9	11.4	6.2
		1	2	3	6	3	1	2	3	5	3	1	2	3	6	3
	F11-F19	^	4.6	7.8	14.7	5.4	^	6.2	6.6	6.3	6.3	^	5.0	7.4	10.2	5.6
		^	2	4	4	2	^	2	3	4	3	^	2	4	4	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
Diseases of nervous system	G00-G99	4.3	4.9	8.0	10.6	7.7	4.4	3.7	6.5	9.2	6.2	4.4	4.2	7.2	9.9	6.9
Multiple sclerosis	G35	2	1	2	4	2	2	1	2	4	2	2	1	2	4	2
Epilepsy	G40, G41	3.5	3.2	6.4	7.7	4.6	4.4	3.8	7.2	8.7	5.4	3.9	3.4	6.7	8.1	4.9
Transient cerebral ischaemic attacks and related syndromes	G45	-	2.8	3.7	5.2	4.7	-	3.4	3.6	4.7	4.4	-	3.1	3.7	4.9	4.6
Diseases of the eye and adnexa	H00-H59	3.3	2.3	2.8	3.0	2.8	2.7	2.5	2.5	3.0	2.7	3.0	2.4	2.7	3.0	2.8
Cataracts	H25-H26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Other retinal disorders	H35	6.4	1.9	2.7	1.4	2.5	5.5	1.7	1.8	1.6	2.4	5.9	1.8	2.2	1.5	2.5
Diseases of the ear and mastoid process	H60-H95	1.3	1.6	2.7	4.1	2.6	1.6	1.6	1.8	3.2	2.2	1.4	1.6	2.2	3.6	2.3
Diseases of the circulatory system	I00-I99	4.4	5.9	6.3	8.5	7.6	3.8	5.7	6.5	8.9	8.0	4.1	5.8	6.4	8.7	7.8
Hypertensive diseases	I10-I15	1	2	3	5	4	1	2	3	5	4	1	2	3	5	4
Angina pectoris	I20	2	1	1	1	1	3	1	1	1	1	1	2	1	1	1
Acute myocardial infarction	I21-I22	-	2.3	3.6	4.4	4.0	-	4.2	2.7	3.6	3.3	-	2.6	3.3	4.1	3.8
Other ischaemic heart disease	I23-I25	-	1	2	3	2	-	2	2	2	2	-	1	2	2	2
Pulmonary heart disease and diseases of pulmonary circulation	I26-I28	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Conduction disorders and cardiac arrhythmias	I44-I49	4.2	2.6	3.2	4.9	4.2	3.5	3.0	3.1	5.1	4.5	3.9	2.7	3.2	5.0	4.3
Heart failure	I50	2	1	1	3	2	2	1	2	2	2	2	1	1	1	2
Cerebrovascular disease	I60-I69	11.0	8.7	9.5	9.7	9.6	10.7	9.9	9.8	10.8	10.7	10.6	9.1	9.6	10.2	10.1
Atherosclerosis (non-coronary)	I70	9	6	7	7	7	8	8	6	7	7	8	7	6	7	7
Diseases of the respiratory system	J00-J99	16.3	19.7	14.8	15.1	15.4	18.4	19.4	16.0	15.5	15.9	17.2	19.6	15.3	15.3	15.6
Acute upper respiratory infections and influenza	J00-J11	-	10.7	11.7	16.1	15.0	-	7.9	16.1	13.3	13.8	-	9.5	13.0	15.2	14.6
Pneumonia	J12-J18	2.5	5.0	8.9	11.0	8.2	2.5	4.0	7.4	10.6	7.6	2.5	4.5	8.2	10.8	8.0
Unspecified lower acute respiratory infection	J22	1	3	5	7	5	1	1	4	7	4	1	2	5	7	4
Chronic diseases of tonsils and adenoids	J35	1.3	1.7	2.6	4.5	1.5	1.4	1.5	2.4	4.0	1.6	1.3	1.6	2.5	4.3	1.6
Chronic obstructive pulmonary disease and bronchiectasis	J40-J44, J45-J46	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1
Asthma	K00-K93	4.8	7.5	11.3	13.5	11.8	4.6	6.7	9.9	13.4	11.3	4.7	7.2	10.7	13.4	11.6
Diseases of the digestive system	K00-K93	2	5	7	9	7	3	4	7	9	7	2	5	7	9	7
Diseases of oesophagus, stomach and duodenum	K20-K31	2.6	3.5	4.9	9.2	7.1	2.7	2.4	5.2	9.3	6.9	2.6	2.9	5.0	9.3	7.0
		2	2	3	6	4	2	1	3	6	4	2	1	3	6	4
		1.1	1.3	1.1	2.3	1.2	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.2	1.8	1.1
		9.9	4.3	6.1	8.3	7.8	4.2	3.7	5.9	8.2	7.5	7.7	4.0	6.0	8.2	7.6
		3	3	4	6	5	2	2	4	6	5	3	3	4	6	5
		1.8	2.1	3.7	5.0	2.6	1.6	2.4	3.5	5.1	3.0	1.7	2.3	3.6	5.1	2.8
		1	1	1	2	1	1	1	1	1	1	1	1	1	1	1
		3.0	4.2	6.2	8.5	6.2	3.1	3.8	5.9	8.6	6.0	3.0	4.0	6.0	8.6	6.1
		2	2	3	5	3	2	2	3	5	3	2	3	3	5	3
		1.9	3.0	5.0	7.4	5.1	2.3	3.1	3.9	6.6	4.6	2.1	3.0	4.4	7.0	4.8
		1	1	2	4	2	1	1	1	3	2	1	1	2	4	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
Diseases of appendix	K35-K38	3.3	2.8	4.1	6.9	3.3	3.3	2.7	3.7	8.5	3.3	3.3	2.7	3.9	7.6	3.3
Inguinal hernia	K40	2	2	3	2	2	2	2	3	5	2	2	2	3	5	2
		1.7	1.5	1.6	3.5	2.5	1.3	1.5	2.6	4.9	3.5	1.7	1.5	1.6	3.6	2.6
Noninfective enteritis and colitis	K50-K52	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1
		5.6	7.6	7.1	9.4	7.7	4.3	6.5	7.6	9.6	7.4	5.1	7.1	7.4	9.5	7.5
Diverticular disease of intestine	K57	3	4	5	6	5	2	5	5	6	5	3	4	5	6	5
		-	4.2	5.2	6.9	5.6	^	3.6	5.0	7.7	6.2	^	4.0	5.1	7.4	6.0
Alcoholic liver disease	K70	-	3	3	4	3	4	2	3	4	3	^	3	3	4	3
		-	9.7	14.0	15.7	13.6	-	11.2	13.5	15.9	13.5	-	10.3	13.8	15.8	13.5
Cholelithiasis	K80	-	6	8	8	8	-	7	8	10	8	-	6	8	8	8
		5.0	3.3	4.6	8.1	6.4	2.8	3.0	4.1	7.4	4.6	3.5	3.1	4.3	7.8	5.3
Diseases of the skin and subcutaneous tissue	L00-L99	4	2	3	6	4	2	2	2	5	3	3	2	2	2	3
		2.3	2.7	6.5	9.6	6.1	2.3	3.8	5.8	10.8	7.0	2.3	3.1	6.2	10.2	6.5
Cutaneous abscess, furuncle and carbuncle and cellulitis	L02-L03	2	1	3	5	3	2	1	3	5	3	2	1	3	5	3
		2.7	3.2	6.1	8.7	6.3	2.7	3.1	5.8	10.1	7.2	2.7	3.2	6.0	9.4	6.7
Decubitus ulcer and pressure area	L89	2	2	3	5	3	2	2	3	6	4	2	2	3	5	3
		^	18.9	36.2	25.9	27.6	^	149.3	25.2	25.7	34.6	^	64.2	32.5	25.8	30.9
Diseases of the musculoskeletal system and connective tissue	M00-M99	^	2	18	11	11	^	68	18	13	14	^	6	18	12	12
		3.6	2.9	4.5	7.2	5.3	4.3	2.4	3.6	6.9	4.9	4.0	2.7	4.1	7.0	5.1
Rheumatoid arthritis	M05-M06	2	1	2	3	2	2	1	1	3	2	2	1	1	3	2
		-	3.0	3.8	9.5	6.3	-	10.2	5.0	5.4	6.3	-	8.1	4.6	6.7	6.3
Coxarthrosis and Gonarthrosis	M16-M17	-	1	1	5	3	-	2	1	3	2	-	1	1	4	2
		^	3.0	3.6	6.2	5.1	-	3.2	4.0	7.0	5.9	^	3.1	3.8	6.6	5.5
Intervertebral disc disorders	M50-M51	^	3	3	4	3	-	3	3	4	4	^	3	3	4	4
		^	2.8	4.0	8.3	4.6	^	3.4	4.3	8.2	4.9	^	3.1	4.1	8.2	4.8
Dorsalgia (back pain)	M54	^	2	2	4	2	^	2	2	5	3	^	2	2	5	2
		1.9	2.0	3.1	5.0	3.4	1.9	1.7	2.5	6.0	3.5	1.9	1.8	2.8	5.6	3.4
Diseases of the genitourinary system	N00-N99	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1
		2.4	2.5	4.7	9.7	6.4	2.8	2.7	4.2	9.7	5.8	2.6	2.6	4.4	9.7	6.1
Chronic kidney disease	N18	1	1	3	6	3	2	2	2	6	3	2	1	3	6	3
		5.5	6.9	9.0	11.8	10.0	11.4	5.0	7.8	10.1	8.3	9.1	6.0	8.6	11.2	9.4
Urolithiasis	N20-N23	4	6	7	5	6	10	4	6	6	6	6	6	6	6	6
		2.6	1.9	2.4	3.7	2.5	2.4	2.3	3.3	3.9	3.0	2.5	2.0	2.7	3.8	2.7
Hyperplasia of prostate	N40	2	1	2	2	2	2	2	2	2	2	2	1	2	2	2
		-	-	3.1	4.2	3.9	-	-	-	-	-	-	-	3.1	4.2	3.9
Disorders of breast	N60-N64	-	-	3	3	3	-	-	-	-	-	-	-	-	3	3
		-	1.1	1.3	^	1.6	1.7	1.9	1.7	3.6	1.9	1.7	1.8	1.7	3.8	1.9
Inflammatory diseases of female pelvic organs	N70-N77	-	1	1	^	1	2	1	1	2	1	2	1	1	2	1
		-	-	-	-	-	3.8	2.8	3.4	7.1	3.3	3.8	2.8	3.4	7.1	3.3
Noninflammatory disorders of female genital tract	N80-N98	-	-	-	-	-	2	2	2	5	2	2	2	2	5	2
		-	-	-	-	-	2.0	2.0	2.6	3.9	2.5	2.0	2.0	2.6	3.9	2.5
Pregnancy, childbirth and the puerperium	O00-O99	-	-	-	-	-	1	1	2	3	2	1	1	2	3	2
		-	-	-	-	-	^	2.5	3.3	-	2.5	^	2.5	3.3	-	2.5
Pregnancy with abortive outcome	O00-O09	-	-	-	-	-	^	2	3	-	2	^	2	3	-	2
		-	-	-	-	-	^	2.1	2.9	-	2.1	^	2.1	2.9	-	2.1
Gestational [pregnancy-induced] hypertension	O13	-	-	-	-	-	^	1	2	-	1	^	1	2	-	1
		-	-	-	-	-	2.0	1.2	1.5	-	1.2	2.0	1.2	1.5	-	1.2
Diabetes mellitus in pregnancy	O24	-	-	-	-	-	2	1	1	-	1	2	1	1	-	1
		-	-	-	-	-	-	2.1	1.6	-	2.1	-	2.1	1.6	-	2.1
Single spontaneous delivery	O80	-	-	-	-	-	-	1	2	-	1	-	1	2	-	1
		-	-	-	-	-	^	2.3	3.0	-	2.3	^	2.3	3.0	-	2.3
		-	-	-	-	-	^	2	3	-	2	^	2	3	-	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
Single delivery by forceps and vacuum extractor	O81	-	-	-	-	-	-	3.1	3.6	-	3.1	-	3.1	3.6	-	3.1
Single delivery by caesarean section	O82	-	-	-	-	-	-	4.0	4.6	-	4.0	-	4.0	4.6	-	4.0
Other assisted single delivery	O83	-	-	-	-	-	-	2.8	^	-	2.8	-	2.8	^	-	2.8
Multiple delivery	O84	-	-	-	-	-	-	5.1	5.1	-	5.1	-	5.1	5.1	-	5.1
Certain conditions originating in the perinatal period	P00-P96	7.9	-	-	-	7.9	8.5	-	-	-	8.5	8.2	-	-	-	8.2
Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99	6.5	4.6	14.5	8.3	6.7	8.3	3.6	5.1	5.7	7.3	7.3	4.0	9.9	6.7	7.0
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R00-R99	1.8	1.6	2.5	4.9	3.1	1.8	1.6	2.3	4.6	2.8	1.8	1.6	2.4	4.8	2.9
Pain in throat and chest	R07	1.2	1.0	1.4	2.2	1.5	0.9	1.0	1.4	2.2	1.5	1.0	1.0	1.4	2.2	1.5
Abdominal and pelvic pain	R10	1.2	1.5	2.1	3.1	1.9	1.3	1.5	2.0	3.3	1.8	1.3	1.5	2.0	3.2	1.8
Injury, poisoning and certain other consequences of external causes	S00-T98	1.5	3.2	6.3	12.2	6.3	1.6	2.8	5.5	12.8	7.7	1.6	3.0	5.9	12.6	6.9
Intracranial injury	S06	7.1	10.7	10.7	12.5	11.1	3.4	5.2	10.8	11.8	10.0	5.8	9.2	10.7	12.2	10.7
Other injuries to the head (including skull fracture)	S00-S05, S07-S09	1.0	2.0	3.6	8.0	3.6	0.9	1.8	3.4	6.7	3.9	1.0	1.9	3.5	7.3	3.7
Fracture of femur	S72	3.4	9.0	13.0	21.0	18.3	3.0	9.5	12.3	17.6	16.9	3.2	9.2	12.6	18.6	17.3
Poisonings by drugs, medicaments and biological substances and toxic effects of substances chiefly nonmedicinal as to source	T36-T65	1.1	2.9	4.8	10.6	3.8	2.6	2.5	4.3	7.9	3.3	2.1	2.6	4.5	9.0	3.5
Factors influencing health status and contact with health services ^b	U00-U49, Z00-Z99	2.9	6.0	7.6	14.3	9.3	2.7	1.0	5.3	17.3	4.5	2.8	1.3	6.4	15.7	5.9
Care involving dialysis	Z49	^	1.9	2.1	2.6	2.3	-	3.2	1.6	2.1	2.0	^	2.4	1.9	2.5	2.2
Other medical care (including radiotherapy and chemotherapy sessions)	Z51	9.4	28.6	16.1	26.8	23.4	12.0	2.7	20.4	28.4	23.9	10.4	8.8	17.7	27.7	23.7

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.

‡ Denotes that no breakdown is provided.

a Includes length of stay for total in-patients (includes same-day 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	–	55,447	134,482	231,269	345,818	767,016	45,465	291,474	234,230	289,729	860,898	100,912	425,956	465,499	635,547	1,627,914
All Conditions	–	133,135	315,727	616,650	1,076,977	2,142,489	111,976	804,864	592,293	893,790	2,402,923	245,111	1,120,591	1,208,943	1,970,767	4,545,412
Certain infectious and parasitic diseases	A00–B99	7,675	11,372	14,280	24,421	57,748	7,077	13,349	12,043	24,412	56,881	14,752	24,721	26,323	48,833	114,629
Intestinal infectious diseases (including diarrhoea)	A00–A09	1,765	2,064	2,345	3,754	9,928	1,647	3,522	3,184	5,225	13,578	3,412	5,586	5,529	8,979	23,506
Tuberculosis	A15–A19	~	99	51	*	185	~	66	34	*	119	~	165	85	*	304
Septicaemia	A40–A41	115	447	1,535	4,872	6,969	144	566	1,259	3,802	5,771	259	1,013	2,794	8,674	12,740
Human immunodeficiency virus [HIV] disease	B20–B24	†	†	†	†	†	†	†	†	†	†	†	†	†	†	682
Neoplasms	C00–D48	5,334	17,482	92,430	157,788	273,034	5,912	43,123	128,793	121,502	299,330	11,246	60,605	221,223	279,290	572,364
Malignant neoplasms	C00–C96	4,627	13,575	81,588	139,111	238,901	5,159	33,101	114,672	108,396	261,328	9,786	46,676	196,260	247,507	500,229
Malignant neoplasm of colon, rectum and anus	C18–C21	~	*	8,395	10,745	20,003	~	*	5,437	6,219	12,816	~	*	13,832	16,964	32,819
Malignant neoplasm of trachea, bronchus and lung	C33–C34	0	256	5,106	9,578	14,940	0	310	5,018	8,268	13,596	0	566	10,124	17,846	28,536
Melanoma and other malignant neoplasms of skin	C43–C44	~	*	3,283	13,419	17,360	*	*	2,424	6,091	9,185	7	1,321	5,707	19,510	26,545
Malignant neoplasms of breast	C50	0	35	119	147	301	0	11,036	30,796	18,639	60,471	0	11,071	30,915	18,786	60,772
Malignant neoplasms of female genital organs	C51–C58	0	0	0	0	0	~	*	7,962	7,804	18,483	~	*	7,962	7,804	18,483
Malignant neoplasm of prostate	C61	33	46	8,184	22,848	31,111	0	0	0	0	0	33	46	8,184	22,848	31,111
Malignant neoplasm of bladder	C67	~	*	940	3,804	4,782	*	*	415	927	1,421	33	84	1,355	4,731	6,203
Malignant neoplasms of lymphoid, haematopoietic and related tissue	C81–C96	2,981	3,536	10,521	19,745	36,783	2,261	2,713	6,733	13,221	24,928	5,242	6,249	17,254	32,966	61,711
In situ neoplasms	D00–D09	~	*	585	1,939	2,631	~	*	3,752	2,688	7,632	~	*	4,337	4,627	10,263
Benign neoplasms and neoplasms of uncertain or unknown behaviour	D10–D48	704	3,803	10,257	16,738	31,502	751	8,832	10,369	10,418	30,370	1,455	12,635	20,626	27,156	61,872
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D50–D89	2,591	4,112	7,422	17,184	31,309	2,183	10,658	7,816	15,847	36,504	4,774	14,770	15,238	33,031	67,813
Endocrine, nutritional and metabolic diseases	E00–E89	3,108	13,074	44,635	83,708	144,525	2,766	16,142	27,057	63,603	109,568	5,874	29,216	71,692	147,311	254,093
Diabetes mellitus	E10–E14	404	5,467	29,509	60,223	95,603	531	6,476	15,527	38,287	60,821	935	11,943	45,036	98,510	156,424
Cystic fibrosis	E84	196	1,120	143	4	1,463	198	1,120	138	8	1,464	394	2,240	281	12	2,927
Mental and behavioural disorders	F00–F99	2,004	9,364	10,776	16,740	38,884	1,808	7,520	6,299	17,173	32,800	3,812	16,884	17,075	33,913	71,684
Mental and behavioural disorders due to use of alcohol	F10	23	3,903	6,595	3,705	14,226	49	1,490	2,550	1,421	5,510	72	5,393	9,145	5,126	19,736
Mental and behavioural disorders due to use of other psychoactive substance	F11–F19	14	2,569	1,145	127	3,855	10	1,212	386	107	1,715	24	3,781	1,531	234	5,570
Diseases of nervous system	G00–G99	3,168	6,254	8,876	13,195	31,493	2,271	11,155	9,942	12,170	35,538	5,439	17,409	18,818	25,365	67,031
Multiple sclerosis	G35	18	1,277	1,003	263	2,561	0	3,636	2,279	521	6,436	18	4,913	3,282	784	8,997
Epilepsy	G40, G41	1,074	1,241	886	642	3,843	746	1,217	664	527	3,154	1,820	2,458	1,550	1,169	6,997
Transient cerebral ischaemic attacks and related syndromes	G45	0	70	500	1,258	1,828	~	*	408	1,319	1,800	~	*	908	2,577	3,628
Diseases of the eye and adnexa	H00–H59	1,125	3,053	8,244	24,175	36,597	1,114	3,849	7,060	31,377	43,400	2,239	6,902	15,304	55,552	79,997
Cataracts	H25–H26	13	140	1,133	4,580	5,866	11	112	1,183	6,119	7,425	24	252	2,316	10,699	13,291
Other retinal disorders	H35	164	759	3,359	12,402	16,684	156	692	2,414	17,503	20,765	320	1,451	5,773	29,905	37,449
Diseases of the ear and mastoid process	H60–H95	1,410	1,521	1,448	1,627	6,006	1,126	1,708	1,592	1,636	6,062	2,536	3,229	3,040	3,263	12,068
Diseases of the circulatory system	I00–I99	1,245	6,818	30,106	72,523	110,692	1,114	7,637	15,483	55,019	79,253	2,359	14,455	45,589	127,542	189,945
Hypertensive diseases	I10–I15	85	1,014	3,905	7,531	12,535	66	2,189	2,590	7,708	12,553	151	3,203	6,495	15,239	25,088
Angina pectoris	I20	0	111	1,096	1,580	2,787	0	35	377	762	1,174	0	146	1,473	2,342	3,961
Acute myocardial infarction	I21–I22	~	*	2,401	3,373	6,070	~	*	618	1,920	2,622	~	*	3,019	5,293	8,692
Other ischaemic heart disease	I23–I25	~	*	5,826	9,346	15,637	~	*	1,636	3,895	5,687	6	615	7,462	13,241	21,324
Pulmonary heart disease and diseases of pulmonary circulation	I26–I28	41	350	987	1,663	3,041	70	365	771	1,775	2,981	111	715	1,758	3,438	6,022
Conduction disorders and cardiac arrhythmias	I44–I49	224	1,062	4,806	17,984	24,076	158	816	2,057	12,864	15,895	382	1,878	6,863	30,848	39,971

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
Heart failure	I50	47	194	1,553	9,283	11,077	36	119	706	7,999	8,860	83	313	2,259	17,282	19,937
Cerebrovascular disease	I60–I69	87	513	2,179	5,346	8,125	64	421	1,261	4,558	6,304	151	934	3,440	9,904	14,429
Atherosclerosis (non-coronary)	I70	~	*	479	1,693	2,206	0	22	190	797	1,009	~	*	669	2,490	3,215
Diseases of the respiratory system	I00–J99	7,628	7,961	17,185	40,047	72,821	5,947	9,088	14,616	34,469	64,120	13,575	17,049	31,801	74,516	136,941
Acute upper respiratory infections and influenza	J00–J11	2,345	555	267	253	3,420	1,764	934	339	251	3,288	4,109	1,489	606	504	6,708
Pneumonia	J12–J18	298	1,744	4,169	9,398	15,609	279	1,459	2,799	7,640	12,177	577	3,203	6,968	17,038	27,786
Unspecified lower acute respiratory infection	J22	740	629	1,475	5,644	8,488	602	787	1,232	5,014	7,635	1,342	1,416	2,707	10,658	16,123
Chronic diseases of tonsils and adenoids	J35	748	255	54	30	1,087	735	615	77	17	1,444	1,483	870	131	47	2,531
Chronic obstructive pulmonary disease and bronchiectasis	J40–J44, J47	59	327	2,468	9,094	11,948	76	305	2,518	8,782	11,681	135	632	4,986	17,876	23,629
Asthma	J45–J46	730	796	1,794	1,033	4,353	395	1,778	2,122	1,271	5,566	1,125	2,574	3,916	2,304	9,919
Diseases of the digestive system	K00–K93	6,924	41,183	57,248	63,123	168,478	5,039	46,166	55,226	59,451	165,882	11,963	87,349	112,474	122,574	334,360
Diseases of oesophagus, stomach and duodenum	K20–K31	687	9,909	16,936	17,729	45,261	531	10,097	16,985	16,822	44,435	1,218	20,006	33,921	34,551	89,696
Diseases of appendix	K35–K38	1,135	1,879	452	244	3,710	860	1,759	439	165	3,223	1,995	3,638	891	409	6,933
Inguinal hernia	K40	403	509	1,054	1,255	3,221	88	61	44	116	309	491	570	1,098	1,371	3,530
Noninfective enteritis and colitis	K50–K52	1,070	10,563	5,955	2,284	19,872	629	9,623	5,418	2,715	18,385	1,699	20,186	11,373	4,999	38,257
Diverticular Disease of Intestine	K57	0	1,053	4,581	6,736	12,370	~	*	4,627	7,621	13,027	~	*	9,208	14,357	25,397
Alcoholic liver disease	K70	0	532	1,864	894	3,290	0	270	900	350	1,520	0	802	2,764	1,244	4,810
Cholelithiasis	K80	9	516	1,105	2,217	3,847	19	2,224	1,863	2,045	6,151	28	2,740	2,968	4,262	9,998
Diseases of the skin and subcutaneous tissue	L00–L99	1,947	10,104	10,857	16,697	39,605	1,626	11,762	10,203	14,943	38,534	3,573	21,866	21,060	31,640	78,139
Cutaneous abscess, furuncle and carbuncle and cellulitis	L02–L03	331	1,097	1,743	3,041	6,212	272	904	1,109	2,945	5,230	603	2,001	2,852	5,986	11,442
Decubitus ulcer and pressure area	L89	27	148	613	2,915	3,703	22	84	406	2,713	3,225	49	232	1,019	5,628	6,928
Diseases of the musculoskeletal system and connective tissue	M00–M99	2,040	7,858	15,257	18,685	43,840	2,336	14,396	21,108	27,077	64,917	4,376	22,254	36,365	45,762	108,757
Rheumatoid arthritis	M05–M06	0	256	721	937	1,914	0	540	1,710	1,811	4,061	0	796	2,431	2,748	5,975
Coxarthrosis and Gonarthrosis	M16–M17	*	*	1,701	2,448	4,327	~	*	1,993	3,862	6,045	7	361	3,694	6,310	10,372
Intervertebral disc disorders	M50–M51	~	*	741	591	1,877	~	*	938	834	2,494	~	*	1,679	1,425	4,371
Dorsalgia (back pain)	M54	90	1,232	2,355	2,144	5,821	111	3,599	3,550	3,793	11,053	201	4,831	5,905	5,937	16,874
Diseases of the genitourinary system	N00–N99	4,277	16,594	37,587	83,711	142,169	2,990	34,092	39,496	59,054	135,632	7,267	50,686	77,083	142,765	277,801
Chronic kidney disease	N18	387	9,657	25,154	48,891	84,089	368	7,691	13,448	27,355	48,862	755	17,348	38,602	76,246	132,951
Urolithiasis	N20–N23	97	1,335	1,693	1,085	4,210	37	768	913	526	2,244	134	2,103	2,606	1,611	6,454
Hyperplasia of prostate	N40	0	96	1,399	3,904	5,399	0	0	0	0	0	0	96	1,399	3,904	5,399
Disorders of breast	N60–N64	6	55	26	39	126	18	1,885	2,000	544	4,447	24	1,940	2,026	583	4,573
Inflammatory diseases of female pelvic organs	N70–N77	0	0	0	0	0	63	2,539	658	395	3,655	63	2,539	658	395	3,655
Noninflammatory disorders of female genital tract	N80–N98	0	0	0	0	0	307	15,076	14,284	4,661	34,328	307	15,076	14,284	4,661	34,328
Pregnancy, childbirth and the puerperium	O00–O99	0	0	0	0	0	7	263,822	1,565	0	265,394	7	263,822	1,565	0	265,394
Pregnancy with abortive outcome	O00–O09	0	0	0	0	0	~	20,903	*	0	21,162	~	20,903	*	0	21,162
Gestational [pregnancy-induced] hypertension	O13	0	0	0	0	0	0	4,552	67	0	4,619	0	4,552	67	0	4,619
Diabetes mellitus in pregnancy	O24	0	0	0	0	0	0	13,233	136	0	13,369	0	13,233	136	0	13,369
Single spontaneous delivery	O80	0	0	0	0	0	~	27,978	*	0	28,038	~	27,978	*	0	28,038
Single delivery by forceps and vacuum extractor	O81	0	0	0	0	0	0	7,942	19	0	7,961	0	7,942	19	0	7,961
Single delivery by caesarean section	O82	0	0	0	0	0	0	20,775	182	0	20,957	0	20,775	182	0	20,957
Other assisted single delivery	O83	0	0	0	0	0	0	*	~	0	1,015	0	*	~	0	1,015
Multiple delivery	O84	0	0	0	0	0	0	1,036	14	0	1,050	0	1,036	14	0	1,050
Certain conditions originating in the perinatal period	P00–P96	*	~	0	0	15,221	*	0	~	0	12,375	27,594	~	~	0	27,596
Congenital malformations, deformations and chromosomal abnormalities	Q00–Q99	9,240	1,397	1,142	624	12,403	7,380	1,825	1,125	331	10,661	16,620	3,222	2,267	955	23,064

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
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified																	
R00–R99			11,716	27,875	43,240	78,431	161,262	10,676	56,522	44,235	72,096	183,529	22,392	84,397	87,475	150,527	344,791
Pain in throat and chest		R07	162	3,784	5,575	4,284	13,805	139	4,442	4,847	3,977	13,405	301	8,226	10,422	8,261	27,210
Abdominal and pelvic pain		R10	893	3,158	3,033	2,373	9,457	1,146	12,134	4,887	3,223	21,390	2,039	15,292	7,920	5,596	30,847
Injury, poisoning and certain other consequences of external causes		S00–T98	7,236	21,954	15,089	19,855	64,134	5,627	12,109	11,293	23,387	52,416	12,863	34,063	26,382	43,242	116,550
Intracranial injury		S06	198	988	782	1,225	3,193	113	323	391	1,103	1,930	311	1,311	1,173	2,328	5,123
Other injuries to the head (including skull fracture)		S00–S05, S07–S09	1,653	3,485	1,830	3,044	10,012	1,149	1,063	886	3,273	6,371	2,802	4,548	2,716	6,317	16,383
Fracture of femur		S72	80	169	311	1,568	2,128	51	70	302	3,570	3,993	131	239	613	5,138	6,121
Poisonings by drugs, medicaments and biological substances and toxic effects of substances chiefly nonmedicinal as to source		T36–T65	245	2,052	874	349	3,520	629	2,840	1,239	457	5,165	874	4,892	2,113	806	8,685
External causes of morbidity and mortality		U50–Y98	18,308	41,458	30,581	52,262	142,609	14,392	27,114	26,941	61,616	130,063	32,700	68,572	57,522	113,878	272,672
Transport accidents		V01–V99	502	1,578	818	429	3,327	296	756	371	276	1,699	798	2,334	1,189	705	5,026
Factors influencing health status and contact with health services ^a		U00–U49, Z00–Z99	20,939	66,292	170,247	292,181	549,659	18,211	212,827	150,399	198,627	580,064	39,150	279,119	320,646	490,808	1,129,723
Care involving dialysis		Z49	305	14,169	36,552	61,269	112,295	283	11,047	20,970	35,264	67,564	588	25,216	57,522	96,533	179,859
Other medical care (including radiotherapy and chemotherapy sessions)		Z51	2,376	6,252	39,177	69,956	117,761	2,131	17,551	51,276	52,022	122,980	4,507	23,803	90,453	121,978	240,741

Notes: ~ Denotes five or fewer discharges reported to HIPE.
† Denotes that no breakdown is provided.

* Further suppression required to prevent disclosure of five or fewer discharges.
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 2021, 80.1 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 29.1 per cent of total discharges with a principal procedure reported. Over 38 per cent of discharges aged less than 15 years, 24.5 per cent aged between 15–44 years, 27.5 per cent aged between 45–64 years and 31.8 per cent aged 65 years and over had a procedure from this chapter recorded as a principal procedure.
- Almost 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 16.3 per cent of total discharges with a principal procedure reported.
- Over 30 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 12.4 per cent of total discharges with a principal procedure reported, over 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.³⁶

- At chapter level, *Radiation oncology procedures* reported the longest in-patient mean length of stay at 19.3 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.

³⁶ See Section Two for details of discharge destination.

- The longest in-patient mean length of stay for those aged less than 15 years was reported for the chapter *Procedures on blood and blood-forming organs* at 16.3 days. The longest in-patient mean length of stay for those aged between 15–44 years was reported for the chapter *Procedures on respiratory system* at 14.4 days. The longest in-patient mean length of stay for those aged between 45–64 years was reported for the chapters *Procedures on respiratory system* and *Radiation oncology procedures* at 17.2 days. For those aged 65 years and over the longest in-patient mean length of stay was reported for the chapter *Radiation oncology procedures* at 22.8 days.
- The shortest in-patient mean length of stay was reported for the chapter *Procedures on ear and mastoid process* at 2.3 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 2.4 million procedures were reported for total discharges.
- Procedures within the chapter *Non-invasive, cognitive and other interventions, not elsewhere classified* accounted for 1,119,430 of all-listed procedures or 45.4 per cent of all procedures reported for total discharges.
- Males accounted for 66.2 per cent of procedures from the chapter *Procedures on cardiovascular system*.
- Total discharges aged less than 15 years accounted for 54.2 per cent of procedures from the chapter *Dental Services*.

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	Total	>65	< 15	15–44	45–64	≥65	Total
Total Discharges	-	55,447	134,482	231,269	345,818	767,016	45,465	291,474	234,230	860,898	289,729	100,912	425,956	465,499	535,547	1,627,914
All Principal Procedures	0001–2016	33,087	105,506	195,975	299,791	634,359	25,470	197,790	198,374	668,880	247,246	58,557	303,296	394,349	547,037	1,303,239
Procedures on nervous system	0001–0086	693	2,516	3,750	2,744	9,703	590	3,738	5,393	13,957	4,236	1,283	6,254	9,143	6,980	23,660
Lumbar puncture	0030	469	649	534	456	2,108	394	1,181	736	444	444	863	1,830	1,270	900	4,863
Procedures on endocrine system	0110–0129	17	109	161	143	430	15	410	566	1,277	286	32	519	727	429	1,707
Procedures on eye and adnexa	0160–0256	469	1,857	6,249	18,473	27,048	461	1,500	4,694	30,713	24,058	930	3,357	10,943	42,531	57,761
Extraction of crystalline lens	0200	13	99	852	3,354	4,318	11	92	894	5,411	4,414	24	191	1,746	7,768	9,729
Application insertion or removal procedures on retina choroid or posterior chamber	0209	*	*	3,938	13,162	17,861	~	*	2,710	17,827	21,154	12	1,366	6,648	30,989	39,015
Procedures on ear and mastoid process	0300–0333	877	989	761	724	3,351	682	985	791	3,068	610	1,559	1,974	1,552	1,334	6,419
Myringotomy	0309	281	66	44	28	419	183	66	37	312	26	464	132	81	54	731
Procedures on nose, mouth and pharynx	0370–0422	1,169	2,254	2,275	1,800	7,498	1,019	2,500	2,164	7,010	1,327	2,188	4,754	4,439	3,127	14,508
Tonsillectomy or adenoidectomy	0412	549	214	37	19	819	571	532	51	1,161	7	1,120	746	88	26	1,980
Dental services	0450–0490	1,229	671	222	143	2,265	976	871	220	2,165	98	2,205	1,542	442	241	4,430
Procedures on respiratory system	0520–0572	2,310	1,827	4,365	6,890	15,392	1,793	1,495	3,573	12,059	5,198	4,103	3,322	7,938	12,088	27,451
Bronchoscopy with/without biopsy	0543–0544, 90163-01 [0545]	110	450	1,180	1,576	3,316	101	434	1,082	2,934	1,317	211	884	2,262	2,893	6,250
Procedures on cardiovascular system	0600–0777	757	4,526	13,584	13,239	32,106	689	2,265	7,026	16,906	6,926	1,446	6,791	20,610	20,165	49,012
Coronary angiography	0668	48	422	3,216	3,780	7,466	30	152	1,587	4,068	2,299	78	574	4,803	6,079	11,534
Transluminal coronary angioplasty with/without stenting	0670–0671	~	*	1,617	1,668	3,453	~	*	346	985	609	~	*	1,963	2,277	4,438
CABG	0672–0679	0	*	*	323	545	0	~	*	63	63	92	0	19	232	386
Leg varicose vein ligation	0727–0728	0	253	462	275	990	0	553	704	1,541	284	0	806	1,166	559	2,531
Procedures on blood and blood-forming	0800–0817	114	448	969	1,356	2,887	111	549	951	2,599	988	225	997	2,344	2,446	5,486
Procedures on digestive system	0850–1011	2,261	18,462	29,116	31,114	80,953	1,488	22,337	29,206	80,527	27,496	3,749	40,799	58,322	58,610	161,480
Fibreoptic colonoscopy with/without excision	0905, 0911	54	6,883	12,214	13,115	32,266	43	8,059	12,530	31,972	11,340	97	14,942	24,744	24,455	64,238
Appendectomy	0926	1,050	1,705	356	144	3,255	790	1,581	347	2,828	110	1,840	3,286	703	254	6,083
Procedures for haemorrhoids	0941	~	526	655	*	1,433	0	615	490	1,413	308	~	1,141	1,145	*	2,846
Cholecystectomy	0965	~	*	489	430	1,186	~	*	998	2,581	380	8	1,462	1,487	810	3,767
Division of abdominal adhesions	0986	8	17	46	69	140	7	163	87	367	110	15	180	133	179	507
Repair of inguinal and obstructed hernia	0990, 0997	285	468	983	955	2,691	72	66	84	357	135	357	534	1,067	1,090	3,048
Panendoscopy with/without excision	1005–1008	290	6,280	9,948	10,893	27,411	223	7,884	11,179	10,752	10,752	513	14,164	21,127	21,645	57,449
Procedures on urinary system	1040–1129	637	16,760	42,527	73,039	132,963	448	13,503	25,284	39,866	39,866	1,085	30,263	67,811	112,905	212,064
Haemodialysis	1060	307	14,220	36,822	61,879	113,228	292	11,134	21,123	35,605	35,605	599	25,354	57,945	97,484	181,382
Examination procedures on bladder (includes cystoscopy)	1089	41	1,017	2,723	5,813	9,594	14	983	1,818	2,208	2,208	55	2,000	4,541	8,021	14,617
Procedures on male genital organs	1160–1203	†	†	†	†	†	†	†	†	†	†	†	1,168	2,213	2,172	7,718
Prostatectomy	1166–1167	0	11	487	521	1,019	0	0	0	0	0	0	11	487	521	1,019
Circumcision	30653-00[1196]	870	336	178	150	1,534	0	0	0	0	0	870	336	178	150	1,534
Gynaecological procedures	1240–1299	†	†	†	†	†	†	†	†	†	†	†	83	13,175	10,615	26,647
Oophorectomy and salpingo-oophorectomy	1243, 1252	0	0	0	0	0	8	275	347	101	101	8	275	347	101	731
Salpingectomy	1251	0	0	0	0	0	0	198	*	~	~	0	198	*	~	227
Examination procedures on uterus	1259	0	0	0	0	0	6	2,469	3,934	7,198	789	6	2,469	3,934	789	7,198
Curettage and evacuation of uterus	1265	0	0	0	0	0	0	5,037	2,289	345	345	0	5,037	2,289	345	7,671
Hysterectomy	1268–1269	0	0	0	0	0	0	368	908	1,739	463	0	368	908	463	1,739
Repair of prolapse of uterus, pelvic floor or enterocele	1283	0	0	0	0	0	~	*	240	233	233	~	*	240	233	541
Obstetric procedures	1330–1347	0	0	0	0	0	~	60,510	*	60,797	0	~	60,510	*	0	60,797
Analgesia and anaesthesia during labour and delivery procedure	1333	0	0	0	0	0	0	12	0	12	0	0	12	0	0	12

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	~	1,633	*	0	1,642	~	1,633	*	0	1,642
Medical or surgical augmentation of labour	1335	0	0	0	0	0	0	281	0	0	281	0	281	0	0	281
Spontaneous vertex delivery	1336	0	0	0	0	0	~	26,506	*	0	26,565	~	26,506	*	0	26,565
Forceps rotation and delivery	1337	0	0	0	0	0	0	*	~	0	2,024	0	*	~	0	2,024
Vacuum extraction	1338	0	0	0	0	0	0	5,900	16	0	5,916	0	5,900	16	0	5,916
Breech delivery and extraction	1339	0	0	0	0	0	0	*	~	0	68	0	*	~	0	68
Caesarean section	1340	0	0	0	0	0	0	21,461	195	0	21,656	0	21,461	195	0	21,656
Episiotomy associated with delivery	90472-00[1343]	0	0	0	0	0	0	212	0	0	212	0	212	0	0	212
Postpartum suture	1344	0	0	0	0	0	0	*	~	0	1,484	0	*	~	0	1,484
Procedures on musculoskeletal system	1360–1580	3,535	8,449	8,305	7,783	28,072	2,831	5,174	10,322	13,042	31,369	6,366	13,623	18,627	20,825	59,441
Arthroplasty of hip	1489	~	*	611	1,278	1,975	~	*	574	1,994	2,629	~	*	1,185	3,272	4,604
Arthroplasty of knee	1518–1519	~	*	312	419	743	0	10	342	657	1,009	~	*	654	1,076	1,752
Dermatological and plastic procedures	1600–1718	2,801	11,294	10,425	14,235	38,755	2,272	12,334	10,364	10,558	35,528	5,073	23,628	20,789	24,793	74,283
Excision of lesion of skin and subcutaneous tissue	1620	315	3,312	4,428	7,697	15,752	293	4,654	4,639	5,289	14,875	608	7,966	9,067	12,986	30,627
Other debridement of skin and subcutaneous tissue	1628	184	749	469	352	1,754	115	275	209	231	830	299	1,024	678	583	2,584
Skin graft	1640–1650	15	59	49	83	206	7	29	40	52	128	22	88	89	135	334
Procedures on breast	1740–1759	~	31	26	*	89	*	3,544	4,779	*	10,263	9	3,575	4,805	1,963	10,352
Breast biopsy	1743–1744	0	10	19	23	52	4	2,570	3,361	1,505	7,440	4	2,580	3,380	1,528	7,492
Mastectomy	1747–1748	0	8	~	*	18	0	210	*	*	887	0	218	445	242	905
Radiation oncology procedures	1786–1800	413	2,394	18,843	33,742	55,392	373	7,714	20,767	19,018	47,872	786	10,108	39,610	52,760	103,264
Non-invasive, cognitive and other interventions, not elsewhere classified	1820–1923	12,016	30,422	49,480	88,365	180,283	10,301	43,936	58,990	85,802	199,029	22,317	74,358	108,470	174,167	379,312
Administration of blood and blood products	1893	1,689	1,849	3,076	8,238	14,852	1,068	2,836	3,252	6,698	13,854	2,757	4,685	6,328	14,936	28,706
Conduction anaesthesia	1909	0	~	*	~	18	~	~	~	*	15	~	~	17	10	33
Cerebral anaesthesia	1910	31	8	17	17	73	20	10	22	11	63	51	18	39	28	136
Imaging services ^a	1940–2016	1,624	1,331	2,705	3,797	9,457	1,327	1,248	2,383	3,032	7,990	2,951	2,579	5,088	6,829	17,447
Computerised tomography scan	1952–1966	199	319	726	1,335	2,579	123	230	737	1,041	2,131	322	549	1,463	2,376	4,710
Magnetic resonance imaging	2015	1,132	109	45	81	1,367	846	89	54	57	1,046	1,978	198	99	138	2,413

Notes: ~ Denotes five or fewer discharges reported to HIPE.

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

† Denotes that no breakdown is provided.

a See Appendix V for information on updated Australian Coding Standard (ACS) 0042 Procedures normally not coded in ICD-10-AM 10th 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			3.5	3.6	6.1	9.3	6.6	3.7	2.7	5.2	9.2	5.1	3.6	2.9	5.7	9.2	5.7
Median			1	1	3	5	3	1	2	2	5	2	1	2	2	5	2
All Principal Procedures			5.7	5.5	8.7	12.0	9.4	6.4	3.7	7.8	12.2	7.4	6.0	4.1	8.3	12.1	8.3
			2	2	4	7	5	2	3	4	7	3	2	3	4	7	4
Procedures on nervous system			5.9	6.5	12.0	15.9	10.4	6.2	6.2	9.3	15.6	9.3	6.0	6.3	10.6	15.8	9.8
			4	3	6	9	5	4	3	5	9	5	4	3	5	9	5
Lumbar puncture			5.0	5.9	15.2	23.1	11.5	5.1	5.3	10.0	20.6	9.2	5.0	5.5	12.2	21.8	10.2
			4	4	7	15	5	4	5	13	5	4	4	6	14	5	
Procedures on endocrine system			2.6	5.0	7.9	5.7	6.2	3.5	2.9	3.4	5.0	3.6	3.0	3.3	4.5	5.3	4.3
			1	3	3	3	3	2	2	2	2	2	2	2	2	2	2
Procedures on eye and adnexa			3.3	2.4	2.4	3.4	2.8	3.6	2.6	2.4	3.1	2.8	3.4	2.5	2.4	3.3	2.8
			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Extraction of crystalline lens			1.0	2.0	1.7	3.8	2.9	1.4	1.7	2.0	1.8	1.9	1.2	1.9	1.8	2.8	2.3
			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Application insertion or removal procedures on retina choroid or posterior chamber			^	^	4.0	7.4	6.9	^	^	7.8	6.9	6.0	14.5	3.4	5.9	7.2	6.5
			^	^	1	1	1	1	1	1	3	1	15	1	1	1	1
Procedures on ear and mastoid process			1.1	1.3	2.3	6.8	2.3	1.5	1.8	1.9	5.6	2.3	1.3	1.5	2.1	6.3	2.3
			1	1	1	3	1	1	1	1	3	1	1	1	1	3	1
Myringotomy			1.6	0.8	1.7	11.3	2.9	3.6	7.3	1.2	-	3.6	2.4	3.4	1.4	11.3	3.1
			1	1	1	1	1	3	7	1	-	2	1	1	1	1	1
Procedures on nose, mouth and pharynx			1.4	1.8	5.2	9.9	4.0	1.2	1.9	4.0	6.6	2.7	1.3	1.8	4.7	8.6	3.4
			1	1	1	3	1	1	1	1	2	1	1	1	1	3	1
Tonsillectomy or adenoidectomy			1.2	1.2	1.2	2.4	1.2	1.1	1.1	2.0	0.9	1.2	1.1	1.1	1.7	2.0	1.2
			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dental services			3.6	7.4	9.7	21.2	7.7	2.0	3.1	7.5	6.1	3.6	3.0	4.9	8.7	16.8	5.8
			1	3	3	10	2	1	2	1	4	1	1	2	2	7	2
Procedures on respiratory system			14.2	13.5	17.6	17.4	16.4	15.7	15.7	16.5	16.9	16.4	14.8	14.4	17.2	17.2	16.4
			7	8	11	11	10	7	8	10	11	10	7	8	10	11	10
Bronchoscopy with/without biopsy			20.5	10.6	13.8	15.4	14.8	16.0	11.5	13.4	15.7	14.5	18.9	11.0	13.7	15.5	14.7
			6	9	10	11	10	7	7	10	10	9	6	8	10	10	10
			[0545]														
Procedures on cardiovascular system			12.3	6.2	6.2	8.0	7.4	12.5	8.2	6.7	8.3	8.1	12.4	7.0	6.3	8.1	7.6
			7	3	3	4	4	6	3	3	4	3	7	3	3	4	3
Coronary angiography			5.4	4.3	4.3	5.8	5.1	15.7	4.9	4.1	5.3	4.9	9.3	4.4	4.2	5.6	5.0
			2	3	2	3	3	2	3	2	3	2	2	3	2	3	3
Transluminal coronary angioplasty with/without stenting			^	^	3.2	4.0	3.6	^	^	3.6	4.6	4.2	^	^	3.3	4.2	3.7
			^	^	2	2	2	^	2	2	3	2	^	^	2	2	2
CABG			-	^	^	16.3	15.0	-	^	^	17.5	16.3	-	9.3	13.5	16.5	15.2
			-	^	^	12	11	-	^	^	12	10	-	8	10	12	11
Leg varicose vein ligation			-	1.1	1.1	1.8	1.3	-	1.0	1.2	1.6	1.2	-	1.0	1.1	1.7	1.2
			-	1	1	1	1	-	1	1	1	1	-	1	1	1	1
Procedures on blood and blood-forming organs			16.0	14.9	16.4	16.8	16.3	16.6	12.8	13.3	15.7	14.3	16.3	13.8	14.9	16.4	15.4
			8	9	10	11	10	5	6	5	10	7	7	7	7	10	9
Procedures on digestive system			5.8	5.4	9.2	12.7	9.5	6.0	4.8	9.3	13.4	9.4	5.9	5.1	9.2	13.0	9.5
			2	2	5	7	5	3	3	5	8	5	3	3	5	8	5
Fibreoptic colonoscopy with/without excision			4.5	7.1	8.5	11.8	9.9	3.0	6.4	8.7	10.9	9.3	3.9	6.7	8.6	11.4	9.7
			4	5	5	7	6	2	5	6	7	6	2	5	5	7	6
Appendectomy			3.2	2.8	3.7	6.9	3.2	3.2	2.7	3.4	8.1	3.1	3.2	2.7	3.6	7.4	3.2
			2	2	3	5	2	2	2	2	4	2	2	2	3	4	2
Procedures for haemorrhoids			^	2.3	2.3	^	3.3	-	1.4	3.3	6.5	3.9	^	1.9	2.8	^	3.6
			^	1	1	^	1	-	1	2	3	2	^	1	1	^	2

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		^	^	^	6.6	5.1	^	^	^	3.4	4.9	3.4	4.1	2.9	3.8	5.8	4.0
Division of abdominal adhesions	0986		8.4	7.1	13.5	17.8	14.7	8.1	4.5	6.9	15.5	9.6	9.6	8.3	4.9	9.3	16.4	11.3
Repair of inguinal and obstructed hernia	0990, 0997		3.1	1.8	2.4	4.1	3.2	1.5	2.4	4.2	14.9	9.1	9.1	2.9	1.9	2.6	5.8	4.1
Panendoscopy with/without excision	1005–1008		8.6	5.9	10.2	13.1	11.1	11.2	6.0	10.1	13.6	11.4	11.4	9.8	6.0	10.1	13.3	11.3
Procedures on urinary system	1040–1129		4.8	4.7	6.4	9.9	8.0	7.7	4.9	8.3	10.2	8.3	8.3	5.8	4.7	7.1	10.0	8.1
Haemodialysis	1060		2.0	9.3	12.2	13.5	12.8	11.1	8.6	13.8	15.2	13.9	13.9	8.8	8.9	12.8	14.1	13.2
Examination procedures on bladder (includes cystoscopy)	1089		2.4	5.2	7.0	11.3	9.9	1.0	4.9	5.5	13.8	10.2	10.2	2.2	5.1	6.5	11.8	10.0
Procedures on male genital organs	1160–1203		†	†	†	†	†	†	†	†	†	†	†	1.2	1.8	3.4	5.7	3.3
Prostatectomy	1166–1167		-	4.2	2.9	5.1	4.1	-	-	-	-	-	-	-	4.2	2.9	5.1	4.1
Circumcision	30653-00 [1196]		1.2	0.9	1.3	5.0	1.9	-	-	-	8	4	4	2	3	3	6	5
Gynaecological procedures	1240–1299		1	1	1	2	1	-	-	-	-	-	-	1	1	1	2	1
Oophorectomy and salpingo-oophorectomy	1243, 1252		†	†	†	†	†	†	†	†	†	†	†	2.8	1.7	3.3	5.3	2.6
Salpingectomy	1251		-	-	-	-	-	-	1.9	^	^	1.8	1.8	-	1.9	^	^	^
Examination procedures on uterus	1259		-	-	-	-	-	1.0	1.6	1.6	6.0	2.5	2.5	1.0	1.6	1.6	6.0	2.5
Curettage and evacuation of uterus	1265		-	-	-	-	-	-	1.0	2.0	2.5	1.1	1.1	-	1.0	2.0	2.5	1.1
Hysterectomy	1268–1269		-	-	-	-	-	-	1	1	1	1	1	-	1	1	1	1
Repair of prolapse of uterus, pelvic floor or enterocoele	1283		-	-	-	-	-	-	3.8	4.3	5.7	4.6	4.6	-	3.8	4.3	5.7	4.6
Obstetric procedures	1330–1347		-	-	-	-	-	-	3	3	4	3	3	-	3	3	4	3
Analgesia and anaesthesia during labour and delivery procedure	1333		-	-	-	-	-	^	^	2.6	3.0	2.8	2.8	^	^	2.6	3.0	2.8
Medical or surgical induction of labour	1334		-	-	-	-	-	^	3.3	3	3	3	3	^	3.3	^	3	3
Medical or surgical augmentation of labour	1335		-	-	-	-	-	^	2.2	^	2	2	2	^	2.2	^	2	2
Spontaneous vertex delivery	1336		-	-	-	-	-	^	2.3	-	2	2	2	^	2.3	-	2	2
Forceps rotation and delivery	1337		-	-	-	-	-	^	2.5	^	2	2	2	^	2.5	^	2	2
Vacuum extraction	1338		-	-	-	-	-	^	3	^	3	3	3	^	3	^	3	3
Breech delivery and extraction	1339		-	-	-	-	-	^	3.1	3.8	4	4	4	^	3.1	3.8	4	4

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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Episiotomy associated with delivery [1343]	90472-00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Postpartum suture	1344	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Procedures on musculoskeletal system																
Arthroplasty of hip	1489	1	1	3	7	12	2	2	2	6	11	1	1	2	7	11
Arthroplasty of knee	1518-1519	1	1	3	7	12	5	3	3	8	19	1	1	3	5	10
Dermatological and plastic procedures																
Excision of lesion of skin and subcutaneous tissue	1620	0.7	1.7	2.8	4.9	10.1	1.1	2.9	3.1	6.0	11.1	0.9	2.2	3.0	5.3	9.4
Other debridement of skin and subcutaneous tissue	1628	1.5	3.0	9.3	14.0	27.8	1.7	4.5	8.8	14.3	29.3	1.6	3.5	9.1	14.1	28.5
Skin graft	1640-1650	4.4	7.7	11.0	14.3	37.4	4.2	7.7	9.8	13.3	35.0	4.3	7.7	10.5	13.9	36.4
Procedures on breast																
Breast biopsy	1743-1744	-	0.8	7.0	14.5	22.3	-	1.2	1.4	3.4	6.0	-	1.2	1.5	3.5	6.1
Mastectomy	1747-1748	-	0.9	2.1	1.1	4.1	-	2.7	1.1	3.8	7.6	-	2.7	2.9	3.2	8.8
Radiation oncology procedures																
Non-invasive, cognitive and other interventions, not elsewhere classified	1820-1923	5.2	6.8	8.8	11.9	32.7	5.9	5.2	8.6	12.4	31.1	5.5	5.9	8.7	12.2	32.1
Administration of blood and blood products	1893	3.8	7.3	10.9	10.8	32.8	4.3	4.5	7.9	11.5	38.2	4.1	5.3	9.3	11.1	39.8
Conduction anaesthesia	1909	1	1	1	1	4	1	1	1	1	4	1	1	1	1	4
Imaging services^b																
Computerised tomography scan	1952-1966	3.1	6.0	3.8	5.4	18.3	1.7	2.1	2.5	4.4	11.7	1.1	1.1	1.1	1.1	4.4
Magnetic resonance imaging	2015	10.0	16.7	8.3	20.7	55.7	5.8	2.0	2.8	10.3	28.9	8.1	9.6	4.8	15.2	37.7

Notes: ^ Denotes that length of stay calculation was based on five or fewer discharges.

† 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 same-day and overnight in-patients). Excludes day patients.

b See Appendix V for information on updated Australian Coding Standard (ACS) 0042 Procedures normally not coded in ICD-10-AM 10th 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	-	55,447	134,482	231,269	345,818	767,016	45,465	291,474	234,230	289,729	860,898	100,912	425,956	465,499	635,547	1,627,914
All Procedures	0001–2016	77,450	180,142	342,324	552,041	1,151,957	59,811	435,734	348,884	469,638	1,314,067	137,261	615,876	691,208	1,071,679	2,466,024
Procedures on nervous system	0001–0086	1,691	3,740	5,912	4,483	15,826	1,375	5,462	8,342	6,930	22,109	3,066	9,202	14,254	11,413	37,935
Lumbar puncture	0030	1,215	821	745	727	3,508	964	1,307	889	631	3,791	2,179	2,128	1,634	1,358	7,299
Procedures on endocrine system	0110–0129	26	116	180	181	503	19	418	587	306	1,330	45	534	767	487	1,833
Procedures on eye and adnexa	0160–0256	632	2,481	8,565	24,738	36,416	635	2,097	6,602	32,024	41,358	1,267	4,578	15,167	56,762	77,774
Extraction of crystalline lens	200	16	108	872	3,403	4,399	11	93	906	4,462	5,472	27	201	1,778	7,865	9,871
Application insertion or removal procedures on retina choroid or posterior chamber	0209	21	900	4,527	14,598	20,046	10	723	3,025	19,802	23,560	31	1,623	7,552	34,400	43,606
Procedures on ear and mastoid process	0300–0333	1,126	1,179	881	867	4,053	904	1,137	933	719	3,693	2,030	2,316	1,814	1,586	7,746
Myringotomy	0309	350	87	56	32	525	248	79	42	32	401	598	166	98	64	926
Procedures on nose, mouth and pharynx	0370–0422	1,457	3,071	3,161	2,448	10,137	1,199	3,006	2,779	1,697	8,681	2,656	6,077	5,940	4,145	18,818
Tonsillectomy or adenoidectomy	0412	580	220	44	22	866	592	538	53	9	1,192	1,172	758	97	31	2,058
Dental services	0450–0490	3,209	1,824	480	219	5,732	2,285	1,617	358	146	4,406	5,494	3,441	838	365	10,138
Procedures on respiratory system	0520–0572	3,729	3,058	7,372	10,968	25,127	2,861	2,708	5,724	7,611	18,904	6,590	5,766	13,096	18,579	44,031
0543–0544, Bronchoscopy with/without biopsy	0543–0544, 90163–01[0545]	224	624	1,619	2,169	4,636	190	570	1,402	1,651	3,813	414	1,194	3,021	3,820	8,449
Procedures on cardiovascular system	0600–0777	2,512	5,266	17,645	19,106	44,529	2,058	2,773	8,504	9,356	22,691	4,570	8,039	26,149	28,462	67,220
Coronary angiography	0668	226	611	4,728	5,455	11,020	182	206	1,963	2,943	5,294	408	817	6,691	8,398	16,314
Transluminal coronary angioplasty with/without stenting	0670–0671	~	*	1,871	1,955	4,014	~	*	395	692	1,121	~	*	2,266	2,647	5,135
CABG	0672–0679	0	29	493	740	1,262	0	10	50	140	200	0	39	543	880	1,462
Leg varicose vein ligation	0727–0728	0	312	594	353	1,259	0	671	878	358	1,472	0	983	1,472	711	3,166
Procedures on blood and blood-forming organs	0800–0817	300	673	1,506	2,259	4,738	280	1,179	2,794	2,431	6,684	580	1,852	4,300	4,690	11,422
Procedures on digestive system	0850–1011	2,790	22,693	37,829	41,731	105,043	1,836	29,011	38,107	36,660	105,614	4,626	51,704	75,936	78,391	210,657
Fibreoptic colonoscopy with/without excision	0905, 0911	173	8,608	15,682	17,048	41,511	130	10,224	16,044	14,853	41,251	303	18,832	31,726	31,901	82,762
Appendectomy	0926	1,068	1,722	381	185	3,356	804	1,650	459	190	3,103	1,872	3,372	840	375	6,459
Procedures for haemorrhoids	0941	~	969	1,268	*	2,767	0	1,141	1,009	577	2,727	*	2,110	2,277	*	5,494
Cholecystectomy	0965	~	*	541	497	1,318	*	*	1,057	424	2,710	10	1,499	1,598	921	4,028
Division of abdominal adhesions	0986	66	215	377	438	1,096	36	1,428	665	508	2,637	102	1,643	1,042	946	3,733
Repair of inguinal and obstructed hernia	0990, 0997	312	474	995	984	2,765	74	68	89	157	388	386	542	1,084	1,141	3,153
Panendoscopy with/without excision	1005–1008	327	7,039	11,724	13,578	32,668	251	8,892	13,026	13,065	35,234	578	15,931	24,750	26,643	67,902
Procedures on urinary system	1040–1129	753	17,663	44,522	76,190	139,128	508	14,398	26,964	41,409	83,279	1,261	32,061	71,486	117,599	222,407
Haemodialysis	1060	313	14,378	37,345	62,760	114,796	304	11,285	21,479	36,079	69,147	617	25,663	58,824	98,839	183,943
Examination procedures on bladder (includes cystoscopy)	1089	52	1,069	2,849	6,167	10,137	22	1,087	2,021	2,393	5,523	74	2,156	4,870	8,560	15,660
Procedures on male genital organs	1160–1203	†	†	†	†	†	†	†	†	†	†	†	2,502	1,356	2,403	2,447
Prostatectomy	1166–1167	0	11	511	603	1,125	0	0	0	0	0	0	11	511	603	1,125
Circumcision	30653–00[1196]	935	341	182	160	1,618	0	0	0	0	0	0	935	341	182	1,618
Gynaecological procedures	1240–1299	†	†	†	†	†	†	†	†	†	†	†	114	22,939	19,360	46,731
Oophorectomy and salpingo-oophorectomy	1243, 1252	0	0	0	0	0	0	9	338	396	896	9	338	396	153	896
Salpingectomy	1251	0	0	0	0	0	~	1,072	53	*	1,135	~	1,072	53	*	1,135
Examination procedures on uterus	1259	0	0	0	0	0	7	4,665	6,454	1,117	12,243	7	4,665	6,454	1,117	12,243
Curettag and evacuation of uterus	1265	0	0	0	0	0	0	~	6,710	4,471	11,952	~	6,710	4,471	*	11,952
Hysterectomy	1268–1269	0	0	0	0	0	0	0	404	958	1,849	0	404	958	487	1,849
Repair of prolapse of uterus, pelvic floor or enterocele	1283	0	0	0	0	0	~	*	413	410	918	~	*	413	410	918

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	0	149,957	*	*	0	150,470	~	149,957	*	0	150,470
		1333	0	0	0	0	0	0	0	24,491	*	*	0	24,551	~	24,491	*	0	24,551
Medical or surgical induction of labour		1334		0	0	0	0	0	0	21,870	*	*	0	21,953	~	21,870	*	0	21,953
		1335	0	0	0	0	0	0	0	7,923	9	9	0	7,932	0	7,923	9	0	7,932
Medical or surgical augmentation of labour		1336		0	0	0	0	0	0	28,982	64	64	0	29,047	1	28,982	64	0	29,047
		1337	0	0	0	0	0	0	0	*	*	~	0	2,279	0	*	~	0	2,279
Spontaneous vertex delivery		1338		0	0	0	0	0	0	6,803	18	18	0	6,821	0	6,803	18	0	6,821
		1339	0	0	0	0	0	0	0	*	*	~	0	133	0	*	~	0	133
Forceps rotation and delivery		1340		0	0	0	0	0	0	21,509	195	195	0	21,704	0	21,509	195	0	21,704
		90472-00[1343]		0	0	0	0	0	0	9,947	14	14	0	9,961	0	9,947	14	0	9,961
Episiotomy associated with delivery		1344		0	0	0	0	0	0	18,125	39	39	0	18,164	0	18,125	39	0	18,164
		Procedures on musculoskeletal system		4,789	11,331	11,206	10,242	37,568	4,059	7,020	13,722	16,637	41,438	8,848	18,351	24,928	26,879	79,006	79,006
Postpartum suture		1489		~	*	620	1,297	2,008	~	*	582	2,027	2,670	6	146	1,202	3,324	4,678	4,678
		1518–1519		~	*	312	422	746	0	*	342	658	1,010	~	*	654	1,080	1,756	1,756
Arthroplasty of knee		1600–1718		4,234	14,415	14,275	21,825	54,749	3,441	16,496	13,457	14,755	48,149	7,675	30,911	27,732	36,580	102,898	102,898
		1620		352	4,142	5,723	10,487	20,704	344	5,826	5,782	6,670	18,622	696	9,968	11,505	17,157	39,326	39,326
Excision of lesion of skin and subcutaneous tissue		1628		372	1,838	1,429	1,136	4,775	240	2,317	689	821	4,067	612	4,155	2,118	1,957	8,842	8,842
		Skin graft		43	165	253	827	1,288	34	86	177	451	748	77	251	430	1,278	2,036	2,036
Procedures on breast		1740–1759		~	32	28	*	92	*	4,054	5,688	*	11,928	10	4,086	5,716	2,208	12,020	12,020
		1743–1744		0	10	20	23	53	~	2,675	3,578	*	7,865	~	2,685	3,598	*	7,918	7,918
Breast biopsy		1747–1748		0	8	~	*	18	0	213	*	*	899	0	221	452	244	917	917
		Mastectomy		1,075	5,142	39,914	69,449	115,580	948	16,422	40,568	36,165	94,103	2,023	21,564	80,482	105,614	209,683	209,683
Radiation oncology procedures		1786–1800		44,447	84,240	142,028	258,220	528,935	35,447	153,334	150,426	251,288	590,495	79,894	237,574	292,454	509,508	1,119,430	1,119,430
		Non-invasive, cognitive and other interventions, not elsewhere classified		1893	2,865	2,960	6,299	14,573	26,697	2,099	5,546	5,822	11,747	25,214	4,964	8,506	12,121	26,320	51,911
Administration of blood and blood products		1909		412	2,148	3,785	6,530	12,875	254	18,916	4,394	8,782	32,346	666	21,064	8,179	15,312	45,221	45,221
		1910		16,385	31,670	44,990	50,681	143,726	11,482	43,863	51,819	46,445	153,609	27,867	75,533	96,809	97,126	297,335	297,335
Cerebral anaesthesia		1940–2016		2,178	1,864	4,418	6,636	15,096	1,829	1,704	3,458	5,010	12,001	4,007	3,568	7,876	11,646	27,097	27,097
		Imaging services*		1952–1966	241	395	885	1,578	3,099	155	293	912	1,243	2,603	396	688	1,797	2,821	5,702
Computerised tomography scan		1952–1966		241	395	885	1,578	3,099	155	293	912	1,243	2,603	396	688	1,797	2,821	5,702	5,702
		2015		1,475	131	66	112	1,784	1,123	107	76	83	1,389	2,598	238	142	195	3,173	3,173

Notes: ~ Denotes five or fewer discharges reported to HIPE.

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

† Denotes that no breakdown is provided.

a See Appendix V for information on updated Australian Coding Standard (ACS) 0042 Procedures normally not coded in ICD-10-AM 10th edition.

Case Mix Analysis SECTION
2021

FOUR

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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 2021.¹ 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 10th Edition is the coding system used for AR-DRG grouping since 2020.⁶ As all of the data required for AR-DRG classification are available on the HIPE system,

¹ For information on how the DRG system is used in Activity Based Funding see <https://www.hse.ie/eng/services/publications/activity-based-funding-abf-programme-implementation-plan-2021-2023.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.

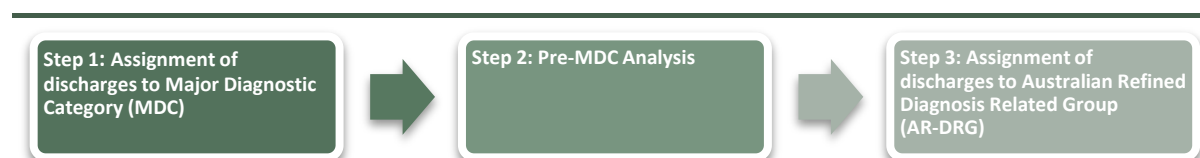
and since diagnoses and procedures are coded with ICD-10-AM/ACHI/ACS, discharges are assigned to the AR-DRG system from this database. AR-DRG Version 6.0 was used in Ireland from 2009-2014.⁷ In 2015, this classification was updated to AR-DRG Version 8.0.⁸

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. For in-patient discharges, 27.4 per cent were assigned to complexity group A '*Highest consumption of resources*', and 57.6 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	30,591	3.0	14,562	11.6	150,017	31.6	164,579	27.4	195,170	12.0
B Second highest consumption of resources	384,707	37.4	91,864	73.4	254,044	53.4	345,908	57.6	730,615	44.9
C Third highest consumption of resources	164,047	16.0	5,294	4.2	54,515	11.5	59,809	10.0	223,856	13.8
D Fourth highest consumption of resources	121	0.0	1,016	0.8	5,352	1.1	6,368	1.1	6,489	0.4
Z No complexity split	447,965	43.6	12,451	9.9	11,368	2.4	23,819	4.0	471,784	29.0
Total Discharges	1,027,431	100	125,187	100	475,296	100	600,483	100	1,627,914	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 2021 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 252,369 discharges or 24.6 per cent of day patients (see Tables 4.2 and 4.19 and Figure 4.3).
 - * *Chemotherapy* (AR-DRG R63Z) accounted for 48.0 per cent of day patients within this MDC, and 11.8 per cent of total day patients; *Other Neoplastic Disorders, Minor Complexity* (AR-DRG R62C) accounted for 35.5 per cent of day patients within this MDC and 8.7 per cent of total day patients.¹⁸
- *Diseases and disorders of the kidney and urinary tract* (MDC 11), with 203,017 discharges, accounted for 19.8 per cent of day patients (see Tables 4.2 and 4.13 and Figure 4.3).
 - * *Haemodialysis* (AR-DRG L61Z) accounted for 88.4 per cent of day patients within this MDC and 17.5 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 102,996 discharges, which accounted for 17.2 per cent of in-patients (see Tables 4.2 and 4.16 and Figure 4.3).
 - * *Vaginal Delivery* (AR-DRGs O60A, O60B and O60C) accounted for 35.5 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 1.7).

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.

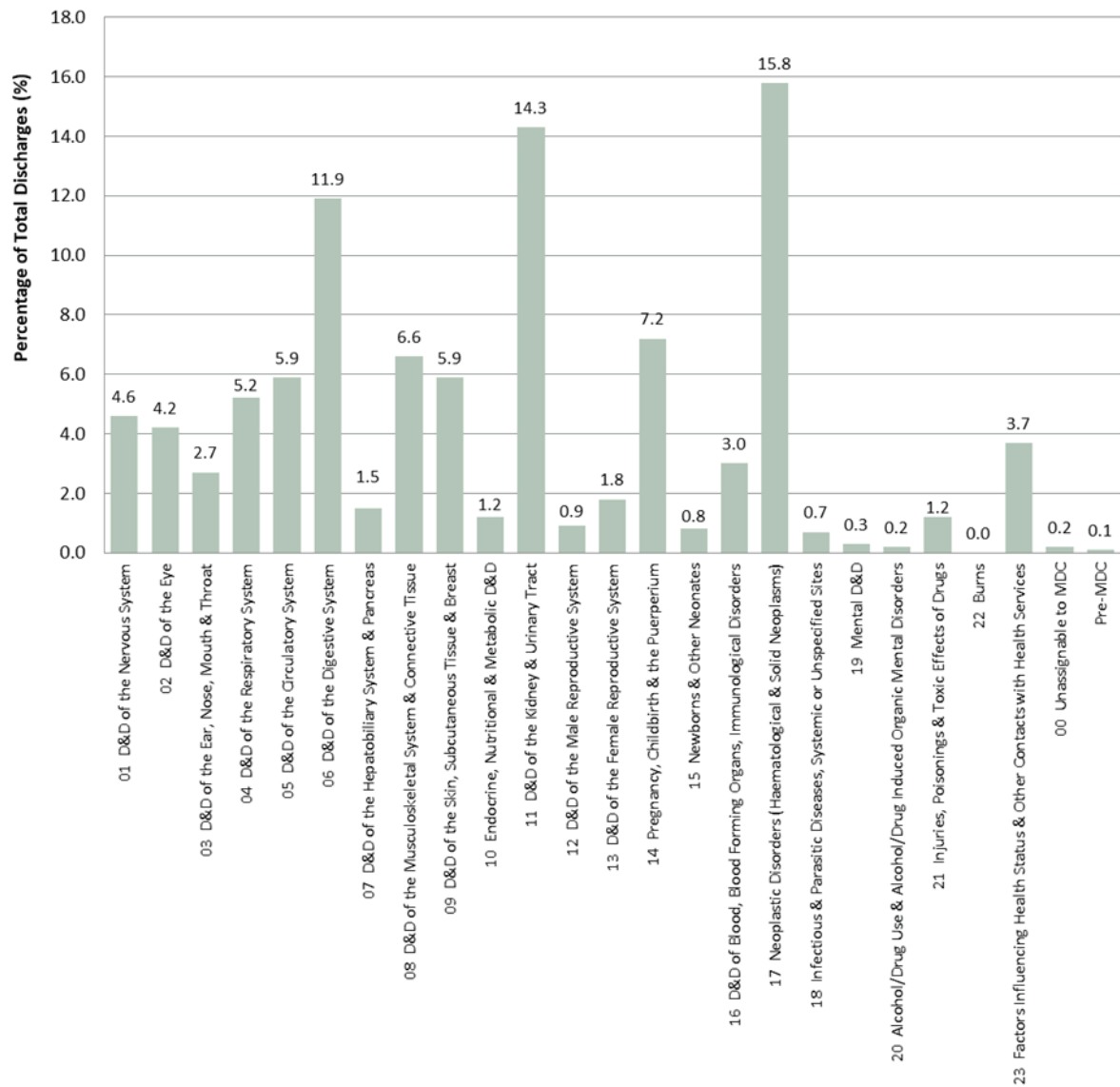
- * *Antenatal and Other Obstetric Admission* (AR-DRGs O66A and O66B) accounted for 34.5 per cent of in-patients within this MDC and 5.9 per cent of total in-patient discharges.
 - * *Caesarean Delivery* (AR-DRGs O01A, O01B and O01C) accounted for 21.1 per cent of in-patients within this MDC, with *Caesarean Delivery, Minor Complexity* (AR-DRG O01C) accounting for the majority of these cases (55.3 per cent).
 - * For *Vaginal Delivery* (AR-DRGs O60A, O60B and O60C), the in-patient mean length of stay ranged from 2.0 days for *Vaginal Delivery, Minor Complexity* (AR-DRG O60C) to 4.2 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 3.5 days for *Caesarean Delivery, Minor Complexity* (AR-DRG O01C) to 9.4 days for *Caesarean Delivery, Major Complexity* (AR-DRG O01A).
- *Diseases and Disorders of the Circulatory System* (MDC 5), with 76,171 in-patient discharges, accounted for 12.7 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 63,906 discharges, accounted for 10.6 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, %)

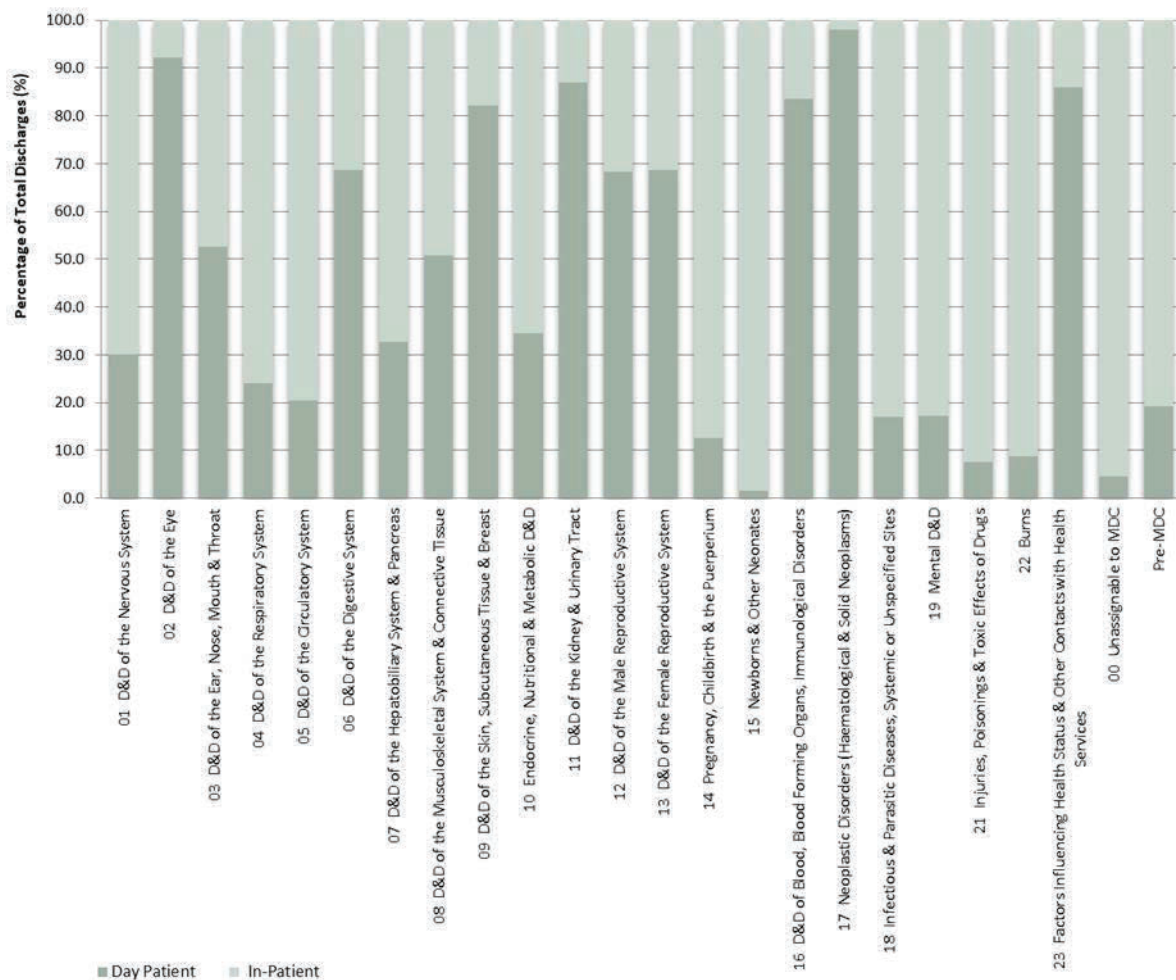
Major Diagnostic Category	Day Patients		In-Patients		Total Discharges	
	N	%	N	%	N	%
01 Diseases and disorders of the nervous system	22,733	2.2	52,961	8.8	75,694	4.6
02 Diseases and disorders of the eye	62,811	6.1	5,414	0.9	68,225	4.2
03 Diseases and disorders of the ear, nose, mouth and throat	23,045	2.2	20,869	3.5	43,914	2.7
04 Diseases and disorders of the respiratory system	20,290	2.0	63,906	10.6	84,196	5.2
05 Diseases and disorders of the circulatory system	19,577	1.9	76,171	12.7	95,748	5.9
06 Diseases and disorders of the digestive system	133,204	13.0	60,837	10.1	194,041	11.9
07 Diseases and disorders of the hepatobiliary system and pancreas	8,144	0.8	16,769	2.8	24,913	1.5
08 Diseases and disorders of the musculoskeletal system and connective tissue	54,053	5.3	52,650	8.8	106,703	6.6
09 Diseases and disorders of the skin, subcutaneous tissue and breast	78,327	7.6	17,002	2.8	95,329	5.9
10 Endocrine, nutritional and metabolic diseases and disorders	6,940	0.7	13,204	2.2	20,144	1.2
11 Diseases and disorders of the kidney and urinary tract	203,017	19.8	30,385	5.1	233,402	14.3
12 Diseases and disorders of the male reproductive system	10,338	1.0	4,806	0.8	15,144	0.9
13 Diseases and disorders of the female reproductive system	20,210	2.0	9,271	1.5	29,481	1.8
14 Pregnancy, childbirth and the puerperium	14,680	1.4	102,996	17.2	117,676	7.2
15 Newborns and other neonates	203	0.0	12,796	2.1	12,999	0.8
16 Diseases and disorders of blood, blood forming organs, immunological disorders	40,855	4.0	8,104	1.3	48,959	3.0
17 Neoplastic disorders (haematological and solid neoplasms)	252,369	24.6	4,993	0.8	257,362	15.8
18 Infectious and parasitic diseases, systemic or unspecified sites	1,906	0.2	9,270	1.5	11,176	0.7
19 Mental diseases and disorders	702	0.1	3,387	0.6	4,089	0.3
20 Alcohol/drug use and alcohol/drug induced organic mental disorders	~	^	*	^	3,489	0.2
21 Injuries, poisonings and toxic effects of drugs	1,456	0.1	17,599	2.9	19,055	1.2
22 Burns	*	^	*	^	629	0.0
23 Factors influencing health status and other contacts with health services	52,067	5.1	8,543	1.4	60,610	3.7
Unassignable to MDC	152	0.0	3,257	0.5	3,409	0.2
Pre-MDC	292	0.0	1,235	0.2	1,527	0.1
Total Discharges	1,027,431	100	600,483	100	1,627,914	100

Notes:

- ~ Percentage columns are subject to rounding.
- * Denotes five or fewer discharges reported to HIPE.
- ^ Further suppression required to prevent disclosure of five or fewer discharges.
- ^ Denotes that the percentage is suppressed where the number of discharges is not reported.

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	30	7.4	4
B01B Ventricular Shunt Revision, Minor Complexity	~	67	4.3	3
B02A Cranial Procedures, Major Complexity	~	216	28.1	19
B02B Cranial Procedures, Intermediate Complexity	28	683	12.6	9
B02C Cranial Procedures, Minor Complexity	34	1,267	7.3	6
B03A Spinal Procedures, Major Complexity	0	56	29.8	20
B03B Spinal Procedures, Intermediate Complexity	14	122	5.5	3
B03C Spinal Procedures, Minor Complexity	17	87	5.5	3
B04A Extracranial Vascular Procedures, Major Complexity	0	37	24.5	13
B04B Extracranial Vascular Procedures, Intermediate Complexity	0	90	10.3	8
B04C Extracranial Vascular Procedures, Minor Complexity	~	185	5.5	4
B05Z Carpal Tunnel Release	1,277	28	2.5	1
B06A Procedures for Cerebral Palsy, Muscular Dystrophy and Neuropathy, Major Comp	~	31	33.0	17
B06B Procedures for Cerebral Palsy, Muscular Dystrophy and Neuropathy, Interm Comp	21	41	9.7	3
B06C Procedures for Cerebral Palsy, Muscular Dystrophy and Neuropathy, Minor Comp	193	72	4.8	1
B07A Cranial or Peripheral Nerve and Other Nervous System Procedures, Major Comp	~	49	24.1	14
B07B Cranial or Peripheral Nerve and Other Nervous System Procedures, Minor Comp	138	335	1.5	1
B40Z Plasmapheresis W Neurological Disease, Sameday	78	0	-	-
B41Z Telemetric EEG Monitoring	~	186	6.8	7
B42A Nervous System Disorders W Ventilator Support, Major Complexity	0	49	22.4	15
B42B Nervous System Disorders W Ventilator Support, Minor Complexity	0	125	7.9	3
B60A Acute Paraplegia and Quadriplegia W or W/O OR Procedures, Major Complexity	0	43	38.6	16
B60B Acute Paraplegia and Quadriplegia W or W/O OR Procedures, Minor Complexity	~	131	28.8	7
B61A Spinal Cord Conditions W or W/O OR Procedures, Major Complexity	~	101	23.3	11
B61B Spinal Cord Conditions W or W/O OR Procedures, Minor Complexity	35	145	9.0	5
B62Z Apheresis	0	~	^	^
B63A Dementia and Other Chronic Disturbances of Cerebral Function, Major Complexity	26	940	37.1	24
B63B Dementia and Other Chronic Disturbances of Cerebral Function, Minor Complexity	123	772	15.8	9
B64A Delirium, Major Complexity	34	1,066	14.5	9
B64B Delirium, Minor Complexity	18	1,111	5.1	3
B65A Cerebral Palsy, Major Complexity	29	20	8.0	5
B65B Cerebral Palsy, Minor Complexity	282	*	^	^
B66A Nervous System Neoplasms, Major Complexity	62	567	18.6	10
B66B Nervous System Neoplasms, Minor Complexity	1,531	737	6.5	4
B67A Degenerative Nervous System Disorders, Major Complexity	45	944	22.6	13
B67B Degenerative Nervous System Disorders, Intermediate Complexity	551	682	5.9	3
B67C Degenerative Nervous System Disorders, Minor Complexity	928	107	4.5	4
B68A Multiple Sclerosis and Cerebellar Ataxia, Major Complexity	293	344	16.2	8
B68B Multiple Sclerosis and Cerebellar Ataxia, Minor Complexity	6,876	416	3.6	2
B69A TIA and Precerebral Occlusion, Major Complexity	~	813	8.9	5
B69B TIA and Precerebral Occlusion, Minor Complexity	31	2,170	3.3	2
B70A Stroke and Other Cerebrovascular Disorders, Major Complexity	0	803	43.6	33
B70B Stroke and Other Cerebrovascular Disorders, Intermediate Complexity	~	2,176	19.1	12
B70C Stroke and Other Cerebrovascular Disorders, Minor Complexity	26	3,695	8.9	6
B70D Stroke and Other Cerebrovascular Disorders, Transferred <5 Days	~	311	1.4	1
B71A Cranial and Peripheral Nerve Disorders, Major Complexity	1,405	1,417	6.7	2
B71B Cranial and Peripheral Nerve Disorders, Minor Complexity	3,040	434	3.6	1
B72A Nervous System Infection Except Viral Meningitis, Major Complexity	~	198	28.3	17
B72B Nervous System Infection Except Viral Meningitis, Minor Complexity	204	235	8.6	6
B73Z Viral Meningitis	~	127	7.1	5
B74A Nontraumatic Stupor and Coma, Major Complexity	14	71	10.3	6
B74B Nontraumatic Stupor and Coma, Minor Complexity	9	137	2.5	1
B75Z Febrile Convulsions	9	398	1.5	1
B76A Seizures, Major Complexity	48	2,120	8.6	4
B76B Seizures, Minor Complexity	885	5,182	2.4	1
B77A Headaches, Major Complexity	88	2,048	3.4	2
B77B Headaches, Minor Complexity	1,290	8,194	1.4	1
B78A Intracranial Injuries, Major Complexity	0	344	27.1	17
B78B Intracranial Injuries, Minor Complexity	7	875	8.1	4
B78C Intracranial Injuries, Transferred <5 Days	0	82	1.5	1
B79A Skull Fractures, Major Complexity	~	173	7.1	3

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	0	187	2.3	1
B80A Other Head Injuries, Major Complexity	~	451	8.4	4
B80B Other Head Injuries, Minor Complexity	15	2,256	1.2	1
B81A Other Disorders of the Nervous System, Major Complexity	50	1,077	17.3	10
B81B Other Disorders of the Nervous System, Minor Complexity	2,856	4,653	4.0	2
B82A Chronic & Unspec Para/Quadriplegia W or W/O OR Proc, Major Complexity	0	103	65.5	36
B82B Chronic & Unspec Para/Quadriplegia W or W/O OR Proc, Intermediate Complexity	9	209	27.2	10
B82C Chronic & Unspec Para/Quadriplegia W or W/O OR Proc, Minor Complexity	79	120	10.2	4
Total	22,733	52,961	8.2	3

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 4.4 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	~	50	3.7	3
C01B Procedures for Penetrating Eye Injury, Minor Complexity	~	55	2.6	2
C02Z Enucleations and Orbital Procedures	32	93	3.2	1
C03A Retinal Procedures, Major Complexity	3,365	994	2.1	1
C03B Retinal Procedures, Minor Complexity	37,515	163	1.4	1
C04A Major Corneal, Scleral and Conjunctival Procedures, Major Complexity	~	58	4.4	2
C04B Major Corneal, Scleral and Conjunctival Procedures, Minor Complexity	14	103	1.6	1
C05Z Dacryocystorhinostomy	59	60	1.1	1
C10Z Strabismus Procedures	655	47	1.1	1
C11Z Eyelid Procedures	810	70	1.2	1
C12Z Other Corneal, Scleral and Conjunctival Procedures	476	77	5.1	5
C13Z Lacrimal Procedures	254	7	4.8	5
C14A Other Eye Procedures, Major Complexity	76	64	4.7	4
C14B Other Eye Procedures, Minor Complexity	1,225	68	1.3	1
C15Z Glaucoma and Complex Cataract Procedures	873	212	1.7	1
C16Z Lens Procedures	9,930	136	1.3	1
C60A Acute and Major Eye Infections, Major Complexity	~	51	10.9	7
C60B Acute and Major Eye Infections, Minor Complexity	35	158	5.0	4
C61A Neurological and Vascular Disorders of the Eye, Major Complexity	156	437	5.6	3
C61B Neurological and Vascular Disorders of the Eye, Minor Complexity	650	568	2.6	2
C62A Hyphaema and Medically Managed Trauma to the Eye, Major Complexity	15	204	8.2	3
C62B Hyphaema and Medically Managed Trauma to the Eye, Minor Complexity	39	384	1.6	1
C63A Other Disorders of the Eye, Major Complexity	109	206	5.7	3
C63B Other Disorders of the Eye, Intermediate Complexity	2,172	964	2.0	1
C63C Other Disorders of the Eye, Minor Complexity	4,341	185	1.1	1
Total	62,811	5,414	2.9	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	~	91	2.3	2
D02A Head and Neck Procedures, Major Complexity	0	75	23.3	11
D02B Head and Neck Procedures, Intermediate Complexity	~	51	7.2	5
D02C Head and Neck Procedures, Minor Complexity	34	111	3.0	2
D03Z Surgical Repair for Cleft Lip and Palate Disorders	17	89	2.2	2
D04A Maxillo Surgery, Major Complexity	22	316	3.2	2
D04B Maxillo Surgery, Minor Complexity	19	213	2.4	2
D05Z Parotid Gland Procedures	10	156	2.4	1
D06Z Sinus and Complex Middle Ear Procedures	382	524	1.7	1
D10Z Nasal Procedures	564	311	1.4	1
D11Z Tonsillectomy and Adenoidectomy	503	1,728	1.3	1
D12A Other Ear, Nose, Mouth and Throat Procedures, Major Complexity	79	159	9.1	5
D12B Other Ear, Nose, Mouth and Throat Procedures, Minor Complexity	1,074	335	2.1	1
D13Z Myringotomy W Tube Insertion	582	30	3.3	1
D14A Mouth and Salivary Gland Procedures, Major Complexity	249	227	3.1	2
D14B Mouth and Salivary Gland Procedures, Minor Complexity	649	67	1.9	1
D15Z Mastoid Procedures	26	193	1.5	1
D40Z Dental Extractions and Restorations	3,843	216	2.2	1
D60A Ear, Nose, Mouth and Throat Malignancy, Major Complexity	44	324	22.9	17
D60B Ear, Nose, Mouth and Throat Malignancy, Minor Complexity	1,074	301	7.3	3
D61A Dysequilibrium, Major Complexity	34	919	4.7	3
D61B Dysequilibrium, Minor Complexity	557	4,437	1.6	1
D62A Epistaxis, Major Complexity	~	109	7.4	5
D62B Epistaxis, Minor Complexity	656	692	2.2	2
D63A Otitis Media and Upper Respiratory Infections, Major Complexity	129	849	3.2	2
D63B Otitis Media and Upper Respiratory Infections, Minor Complexity	1,874	4,150	1.2	1
D64A Laryngotracheitis and Epiglottitis, Major Complexity	~	66	2.0	1
D64B Laryngotracheitis and Epiglottitis, Minor Complexity	14	437	0.9	1
D65A Nasal Trauma and Deformity, Major Complexity	8	136	8.0	4
D65B Nasal Trauma and Deformity, Minor Complexity	704	314	1.3	1
D66A Other Ear, Nose, Mouth and Throat Disorders, Major Complexity	478	491	4.1	2
D66B Other Ear, Nose, Mouth and Throat Disorders, Minor Complexity	8,305	1,535	1.3	1
D67A Oral and Dental Disorders, Major Complexity	57	355	6.4	3
D67B Oral and Dental Disorders, Minor Complexity	1,050	862	1.6	1
Total	23,045	20,869	2.6	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	43	29.1	25
E01B Major Chest Procedures, Intermediate Complexity	0	201	18.1	14
E01C Major Chest Procedures, Minor Complexity	54	533	8.5	7
E02A Other Respiratory System OR Procedures, Major Complexity	~	218	22.3	15
E02B Other Respiratory System OR Procedures, Intermediate Complexity	165	220	7.0	5
E02C Other Respiratory System OR Procedures, Minor Complexity	89	72	1.7	1
E40A Respiratory System Disorders W Ventilator Support, Major Complexity	0	135	16.4	12
E40B Respiratory System Disorders W Ventilator Support, Minor Complexity	0	152	9.2	7
E41A Respiratory System Disorders W Non-Invasive Ventilation, Major Complexity	0	1,466	21.1	15
E41B Respiratory System Disorders W Non-Invasive Ventilation, Minor Complexity	0	2,717	11.7	9
E42A Bronchoscopy, Major Complexity	375	758	15.8	12
E42B Bronchoscopy, Minor Complexity	5,228	393	6.3	5
E60A Cystic Fibrosis, Major Complexity	31	251	14.7	13
E60B Cystic Fibrosis, Minor Complexity	1,943	159	7.2	7
E61A Pulmonary Embolism, Major Complexity	~	854	11.0	8
E61B Pulmonary Embolism, Minor Complexity	23	1,186	4.4	3
E62A Respiratory Infections and Inflammations, Major Complexity	27	12,687	10.8	7
E62B Respiratory Infections and Inflammations, Minor Complexity	33	3,780	5.7	4
E63A Sleep Apnoea, Major Complexity	11	242	3.1	1
E63B Sleep Apnoea, Minor Complexity	52	652	1.2	1
E64A Pulmonary Oedema and Respiratory Failure, Major Complexity	0	202	12.1	8
E64B Pulmonary Oedema and Respiratory Failure, Minor Complexity	~	280	6.2	4
E65A Chronic Obstructive Airways Disease, Major Complexity	57	3,612	10.7	7
E65B Chronic Obstructive Airways Disease, Minor Complexity	1,080	5,603	4.5	3
E66A Major Chest Trauma, Major Complexity	0	299	15.4	9
E66B Major Chest Trauma, Minor Complexity	0	348	4.0	2
E67A Respiratory Signs and Symptoms, Major Complexity	219	3,736	3.2	1
E67B Respiratory Signs and Symptoms, Minor Complexity	1,110	4,831	1.3	1
E68A Pneumothorax, Major Complexity	~	358	7.8	5
E68B Pneumothorax, Minor Complexity	~	437	4.0	3
E69A Bronchitis and Asthma, Major Complexity	33	364	6.0	4
E69B Bronchitis and Asthma, Minor Complexity	5,075	2,361	2.1	1
E70A Whooping Cough and Acute Bronchiolitis, Major Complexity	~	283	4.5	3
E70B Whooping Cough and Acute Bronchiolitis, Minor Complexity	22	2,001	2.4	2
E71A Respiratory Neoplasms, Major Complexity	58	883	13.3	10
E71B Respiratory Neoplasms, Minor Complexity	2,496	1,015	5.6	4
E72Z Respiratory Problems Arising from Neonatal Period	~	36	5.3	2
E73A Pleural Effusion, Major Complexity	0	189	16.0	13
E73B Pleural Effusion, Intermediate Complexity	14	379	8.4	7
E73C Pleural Effusion, Minor Complexity	98	281	4.4	3
E74A Interstitial Lung Disease, Major Complexity	121	547	10.4	7
E74B Interstitial Lung Disease, Minor Complexity	1,128	356	4.3	2
E75A Other Respiratory System Disorders, Major Complexity	47	5,135	8.6	6
E75B Other Respiratory System Disorders, Minor Complexity	631	3,569	2.3	1
E76A Respiratory Tuberculosis, Major Complexity	~	40	27.7	15
E76B Respiratory Tuberculosis, Minor Complexity	48	42	8.3	5
Total	20,290	63,906	7.4	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	68	19.1	16
F01B Implantation and Replacement of AICD, Total System, Minor Complexity	197	222	4.9	2
F02Z Other AICD Procedures	15	23	3.8	2
F03A Cardiac Valve Procedures W CPB Pump W Invasive Cardiac Investigation, Major Comp	0	47	30.0	28
F03B Cardiac Valve Procedures W CPB Pump W Invasive Cardiac Investigation, Minor Comp	~	81	17.6	17
F04A Cardiac Valve Procedures W CPB Pump W/O Invasive Cardiac Invest, Major Comp	0	34	29.6	25
F04B Cardiac Valve Procedures W CPB Pump W/O Invasive Cardiac Invest, Interm Comp	0	172	13.2	11
F04C Cardiac Valve Procedures W CPB Pump W/O Invasive Cardiac Invest, Minor Comp	~	278	7.9	8
F05A Coronary Bypass W Invasive Cardiac Investigation, Major Complexity	0	36	31.7	30
F05B Coronary Bypass W Invasive Cardiac Investigation, Minor Complexity	0	123	17.6	16
F06A Coronary Bypass W/O Invasive Cardiac Investigation, Major Complexity	0	37	19.6	15
F06B Coronary Bypass W/O Invasive Cardiac Investigation, Minor Complexity	0	383	10.1	9
F07A Other Cardiothoracic/Vascular Procedures W CPB Pump, Major Complexity	0	27	18.5	14
F07B Other Cardiothoracic/Vascular Procedures W CPB Pump, Intermediate Complexity	~	44	10.7	9
F07C Other Cardiothoracic/Vascular Procedures W CPB Pump, Minor Complexity	~	78	9.8	8
F08A Major Reconstructive Vascular Procedures W/O CPB Pump, Major Complexity	0	62	30.0	22
F08B Major Reconstructive Vascular Procedures W/O CPB Pump, Intermediate Complexity	0	293	14.6	12
F08C Major Reconstructive Vascular Procedures W/O CPB Pump, Minor Complexity	8	286	8.5	6
F09A Other Cardiothoracic Procedures W/O CPB Pump, Major Complexity	~	26	25.9	10
F09B Other Cardiothoracic Procedures W/O CPB Pump, Intermediate Complexity	7	50	11.0	9
F09C Other Cardiothoracic Procedures W/O CPB Pump, Minor Complexity	18	57	4.8	2
F10A Interventional Coronary Procedures, Admitted for AMI, Major Complexity	0	212	12.4	9
F10B Interventional Coronary Procedures, Admitted for AMI, Minor Complexity	32	1,890	3.2	3
F11A Amputation, Except Upper Limb and Toe, for Circulatory Disorders, Major Comp	0	74	59.6	48
F11B Amputation, Except Upper Limb and Toe, for Circulatory Disorders, Minor Comp	0	91	28.9	24
F12A Implantation and Replacement of Pacemaker, Total System, Major Complexity	~	257	14.8	9
F12B Implantation and Replacement of Pacemaker, Total System, Minor Complexity	381	578	3.8	2
F13A Amputation, Upper Limb and Toe, for Circulatory Disorders, Major Complexity	0	39	19.5	20
F13B Amputation, Upper Limb and Toe, for Circulatory Disorders, Minor Complexity	7	65	13.3	10
F14A Vascular Procedures, Except Major Reconstruction, W/O CPB Pump, Major Complexity	15	140	18.1	12
F14B Vascular Procedures, Except Major Reconstruction, W/O CPB Pump, Interm Comp	17	366	8.5	6
F14C Vascular Procedures, Except Major Reconstruction, W/O CPB Pump, Minor Complexity	145	335	4.1	2
F15A Interventional Coronary Procs, Not Adm for AMI, W Stent Implant, Major Comp	6	295	7.9	5
F15B Interventional Coronary Procs, Not Adm for AMI, W Stent Implant, Minor Comp	506	1,613	2.2	1
F16A Interventional Coronary Procs, Not Adm for AMI, W/O Stent Implant, Major Comp	~	24	8.1	5
F16B Interventional Coronary Procs, Not Adm for AMI, W/O Stent Implant, Minor Comp	29	83	3.0	2
F17A Insertion and Replacement of Pacemaker Generator, Major Complexity	12	22	11.9	9
F17B Insertion and Replacement of Pacemaker Generator, Minor Complexity	353	40	1.9	1
F18A Other Pacemaker Procedures, Major Complexity	~	26	10.2	7
F18B Other Pacemaker Procedures, Minor Complexity	17	29	3.0	2
F19A Trans-Vascular Percutaneous Cardiac Intervention, Major Complexity	19	60	4.6	2
F19B Trans-Vascular Percutaneous Cardiac Intervention, Minor Complexity	75	77	1.9	1
F20Z Vein Ligation and Stripping	2,789	115	1.8	1
F21A Other Circulatory System OR Procedures, Major Complexity	0	35	25.0	20
F21B Other Circulatory System OR Procedures, Intermediate Complexity	12	56	9.2	6
F21C Other Circulatory System OR Procedures, Minor Complexity	13	42	5.5	2
F40A Circulatory Disorders W Ventilator Support, Major Complexity	0	52	16.0	11
F40B Circulatory Disorders W Ventilator Support, Minor Complexity	0	56	5.6	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	~	123	10.7	9
F41B Circulatory Disorders, Adm for AMI W Invasive Cardiac Inves Proc, Minor Comp	26	553	3.6	2
F42A Circulatory Dsrds, Not Adm for AMI W Invasive Cardiac Inves Proc, Major Comp	254	1,082	9.9	7
F42B Circulatory Dsrds, Not Adm for AMI W Invasive Cardiac Inves Proc, Minor Comp	6,087	3,008	2.6	1
F43A Circulatory Disorders W Non-Invasive Ventilation, Major Complexity	0	132	27.2	21
F43B Circulatory Disorders W Non-Invasive Ventilation, Minor Complexity	0	217	14.5	11
F60A Circulatory Dsrds, Adm for AMI W/O Invas Card Inves Proc	~	2,556	6.8	5
F60B Circulatory Dsrds, Adm for AMI W/O Invas Card Inves Proc, Transf <5 Days	~	444	1.7	1
F61A Infective Endocarditis, Major Complexity	~	80	34.0	28
F61B Infective Endocarditis, Minor Complexity	15	77	15.4	11
F62A Heart Failure and Shock, Major Complexity	~	2,339	15.2	11
F62B Heart Failure and Shock, Minor Complexity	224	3,965	6.3	5
F62C Heart Failure and Shock, Transferred <5 Days	~	108	1.7	1
F63A Venous Thrombosis, Major Complexity	~	513	7.1	5
F63B Venous Thrombosis, Minor Complexity	65	1,584	1.7	1
F64A Skin Ulcers in Circulatory Disorders, Major Complexity	0	154	17.3	13
F64B Skin Ulcers in Circulatory Disorders, Intermediate Complexity	20	199	9.0	7
F64C Skin Ulcers in Circulatory Disorders, Minor Complexity	~	51	6.6	5
F65A Peripheral Vascular Disorders, Major Complexity	317	549	14.2	8
F65B Peripheral Vascular Disorders, Minor Complexity	1,448	938	5.2	2
F66A Coronary Atherosclerosis, Major Complexity	16	269	10.0	7
F66B Coronary Atherosclerosis, Minor Complexity	391	1,777	3.4	2
F67A Hypertension, Major Complexity	6	358	6.3	5
F67B Hypertension, Minor Complexity	129	2,292	1.6	1
F68A Congenital Heart Disease, Major Complexity	209	90	4.4	2
F68B Congenital Heart Disease, Minor Complexity	286	57	1.7	1
F69A Valvular Disorders, Major Complexity	34	339	10.1	7
F69B Valvular Disorders, Minor Complexity	685	3,845	1.4	1
F72A Unstable Angina, Major Complexity	~	178	6.8	5
F72B Unstable Angina, Minor Complexity	10	811	3.4	3
F73A Syncope and Collapse, Major Complexity	94	2,724	9.5	6
F73B Syncope and Collapse, Minor Complexity	1,752	7,657	2.7	1
F74A Chest Pain, Major Complexity	44	2,411	3.3	2
F74B Chest Pain, Minor Complexity	529	14,840	1.2	1
F75A Other Circulatory Disorders, Major Complexity	~	326	16.9	12
F75B Other Circulatory Disorders, Intermediate Complexity	26	609	6.6	5
F75C Other Circulatory Disorders, Minor Complexity	571	1,731	3.5	2
F76A Arrhythmia, Cardiac Arrest and Conduction Disorders, Major Complexity	64	2,190	7.7	5
F76B Arrhythmia, Cardiac Arrest and Conduction Disorders, Minor Complexity	1,560	5,896	2.4	1
Total	19,577	76,171	4.6	2

Notes: ~ Denotes five or fewer discharges reported to HIPE.

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

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	89	38.5	31
G01B Rectal Resection, Intermediate Complexity	0	164	22.8	19
G01C Rectal Resection, Minor Complexity	~	695	10.6	8
G02A Major Small and Large Bowel Procedures, Major Complexity	0	259	41.2	31
G02B Major Small and Large Bowel Procedures, Intermediate Complexity	~	763	19.3	15
G02C Major Small and Large Bowel Procedures, Minor Complexity	57	1,545	9.2	7
G03A Stomach, Oesophageal and Duodenal Procedures, Major Complexity	0	139	21.8	16
G03B Stomach, Oesophageal and Duodenal Procedures, Intermediate Complexity	~	208	12.6	10
G03C Stomach, Oesophageal and Duodenal Procedures, Minor Complexity	50	238	6.3	5
G04A Peritoneal Adhesiolysis, Major Complexity	0	83	24.1	17
G04B Peritoneal Adhesiolysis, Intermediate Complexity	~	281	10.0	8
G04C Peritoneal Adhesiolysis, Minor Complexity	56	490	3.8	3
G05A Minor Small and Large Bowel Procedures, Major Complexity	0	58	18.4	14
G05B Minor Small and Large Bowel Procedures, Minor Complexity	14	216	6.1	6
G06Z Pyloromyotomy	0	42	3.0	3
G07A Appendectomy, Major Complexity	~	598	6.8	5
G07B Appendectomy, Minor Complexity	42	5,100	2.6	2
G10A Hernia Procedures, Major Complexity	35	338	8.1	6
G10B Hernia Procedures, Minor Complexity	2,373	1,634	2.1	1
G11A Anal and Stomal Procedures, Major Complexity	42	320	7.1	4
G11B Anal and Stomal Procedures, Minor Complexity	1,154	973	2.3	2
G12A Other Digestive System OR Procedures, Major Complexity	0	88	29.7	22
G12B Other Digestive System OR Procedures, Intermediate Complexity	18	285	11.2	9
G12C Other Digestive System OR Procedures, Minor Complexity	242	276	4.6	3
G46A Complex Endoscopy, Major Complexity	630	1,241	12.2	8
G46B Complex Endoscopy, Minor Complexity	11,777	532	5.0	4
G47A Gastroscopy, Major Complexity	169	1,899	11.2	7
G47B Gastroscopy, Intermediate Complexity	2,149	1,496	4.5	3
G47C Gastroscopy, Minor Complexity	31,624	1,418	3.4	2
G48A Colonoscopy, Major Complexity	2,443	1,494	9.7	7
G48B Colonoscopy, Minor Complexity	45,158	1,303	4.3	3
G60A Digestive Malignancy, Major Complexity	246	771	12.7	8
G60B Digestive Malignancy, Minor Complexity	2,548	648	4.7	3
G61A Gastrointestinal Haemorrhage, Major Complexity	15	692	7.4	5
G61B Gastrointestinal Haemorrhage, Minor Complexity	453	1,157	2.5	1
G64A Inflammatory Bowel Disease, Major Complexity	327	325	8.8	5
G64B Inflammatory Bowel Disease, Minor Complexity	24,579	752	3.5	3
G65A Gastrointestinal Obstruction, Major Complexity	0	466	10.7	7
G65B Gastrointestinal Obstruction, Minor Complexity	9	1,087	3.9	3
G66A Abdominal Pain and Mesenteric Adenitis, Major Complexity	119	2,307	2.6	1
G66B Abdominal Pain and Mesenteric Adenitis, Minor Complexity	696	6,775	1.3	1
G67A Oesophagitis and Gastroenteritis, Major Complexity	58	3,118	6.6	4
G67B Oesophagitis and Gastroenteritis, Minor Complexity	758	5,201	1.9	1
G70A Other Digestive System Disorders, Major Complexity	1,088	6,439	5.8	3
G70B Other Digestive System Disorders, Minor Complexity	4,261	6,834	1.9	1
Total	133,204	60,837	5.1	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	24	66.5	32
H01B Pancreas, Liver and Shunt Procedures, Intermediate Complexity	~	313	7.5	6
H01C Pancreas, Liver and Shunt Procedures, Minor Complexity	19	130	5.4	4
H02A Major Biliary Tract Procedures, Major Complexity	0	96	24.5	18
H02B Major Biliary Tract Procedures, Minor Complexity	65	154	10.7	9
H05A Hepatobiliary Diagnostic Procedures, Major Complexity	10	35	12.6	10
H05B Hepatobiliary Diagnostic Procedures, Minor Complexity	63	41	2.9	1
H06A Other Hepatobiliary and Pancreas OR Procedures, Major Complexity	0	90	24.6	20
H06B Other Hepatobiliary and Pancreas OR Procedures, Intermediate Complexity	12	115	8.8	5
H06C Other Hepatobiliary and Pancreas OR Procedures, Minor Complexity	12	115	2.0	1
H07A Open Cholecystectomy, Major Complexity	0	26	21.9	16
H07B Open Cholecystectomy, Intermediate Complexity	0	20	13.1	12
H07C Open Cholecystectomy, Minor Complexity	22	91	5.3	4
H08A Laparoscopic Cholecystectomy, Major Complexity	20	298	9.0	7
H08B Laparoscopic Cholecystectomy, Minor Complexity	1,180	2,035	2.6	1
H40A Endoscopic Procedures for Bleeding Oesophageal Varices, Major Complexity	0	46	19.2	16
H40B Endoscopic Procedures for Bleeding Oesophageal Varices, Intermediate Complexity	~	40	9.5	8
H40C Endoscopic Procedures for Bleeding Oesophageal Varices, Minor Complexity	10	27	6.7	5
H43A ERCP Procedures, Major Complexity	~	222	18.6	14
H43B ERCP Procedures, Intermediate Complexity	236	395	9.8	8
H43C ERCP Procedures, Minor Complexity	1,652	636	5.7	5
H60A Cirrhosis and Alcoholic Hepatitis, Major Complexity	0	644	19.2	14
H60B Cirrhosis and Alcoholic Hepatitis, Intermediate Complexity	298	678	6.9	5
H60C Cirrhosis and Alcoholic Hepatitis, Minor Complexity	145	89	5.0	3
H61A Malignancy of Hepatobiliary System and Pancreas, Major Complexity	24	539	13.5	11
H61B Malignancy of Hepatobiliary System and Pancreas, Minor Complexity	908	818	6.1	4
H62A Disorders of Pancreas, Except Malignancy, Major Complexity	~	470	13.4	9
H62B Disorders of Pancreas, Except Malignancy, Minor Complexity	416	1,639	5.0	4
H63A Other Disorders of Liver, Major Complexity	21	562	11.6	8
H63B Other Disorders of Liver, Intermediate Complexity	461	746	5.1	3
H63C Other Disorders of Liver, Minor Complexity	1,822	505	2.0	1
H64A Disorders of the Biliary Tract, Major Complexity	119	2,206	8.7	7
H64B Disorders of the Biliary Tract, Minor Complexity	617	2,924	3.7	3
Total	8,144	16,769	7.2	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	103	28.9	8
I01B Bilateral and Multiple Major Joint Procedures of Lower Limb, Minor Complexity	0	27	7.3	4
I02A Microvascular Tissue Transfers or Skin Grafts, Excluding Hand, Major Complexity	0	12	96.5	53
I02B Microvascular Tissue Transfers or Skin Grafts, Excluding Hand, Intermediate Comp	7	66	18.0	14
I02C Microvascular Tissue Transfers or Skin Grafts, Excluding Hand, Minor Complexity	16	26	6.5	2
I03A Hip Replacement, Major Complexity	~	441	27.9	18
I03B Hip Replacement, Minor Complexity	47	3,939	7.8	5
I04A Knee Replacement, Major Complexity	0	105	14.2	8
I04B Knee Replacement, Minor Complexity	~	1,611	4.3	4
I05A Other Joint Replacement, Major Complexity	0	41	10.7	8
I05B Other Joint Replacement, Minor Complexity	11	300	3.5	2
I06Z Spinal Fusion for Deformity	65	199	8.0	6
I07Z Amputation	0	69	36.7	15
I08A Other Hip and Femur Procedures, Major Complexity	6	647	25.2	18
I08B Other Hip and Femur Procedures, Minor Complexity	76	2,152	11.2	8
I09A Spinal Fusion, Major Complexity	~	46	23.0	16
I09B Spinal Fusion, Intermediate Complexity	~	172	9.3	6
I09C Spinal Fusion, Minor Complexity	19	310	4.5	3
I10A Other Back and Neck Procedures, Major Complexity	~	123	12.7	7
I10B Other Back and Neck Procedures, Minor Complexity	966	849	3.1	2
I11Z Limb Lengthening Procedures	~	25	4.1	4
I12A Misc Musculoskeletal Procs for Infect/Inflam of Bone/Joint, Major Complexity	0	121	31.5	24
I12B Misc Musculoskeletal Procs for Infect/Inflam of Bone/Joint, Intermediate Comp	~	228	17.1	12
I12C Misc Musculoskeletal Procs for Infect/Inflam of Bone/Joint, Minor Complexity	104	256	7.2	5
I13A Humerus, Tibia, Fibula and Ankle Procedures, Major Complexity	11	615	11.4	6
I13B Humerus, Tibia, Fibula and Ankle Procedures, Minor Complexity	339	3,793	2.7	2
I15A Cranio-Facial Surgery, Major Complexity	~	42	6.2	3
I15B Cranio-Facial Surgery, Minor Complexity	~	18	5.1	4
I16Z Other Shoulder Procedures	203	514	1.7	1
I17A Maxillo-Facial Surgery, Major Complexity	~	37	4.6	2
I17B Maxillo-Facial Surgery, Minor Complexity	~	43	3.0	2
I18A Other Knee Procedures, Major Complexity	46	265	4.5	3
I18B Other Knee Procedures, Minor Complexity	1,028	208	1.5	1
I19A Other Elbow and Forearm Procedures, Major Complexity	6	212	6.2	4
I19B Other Elbow and Forearm Procedures, Minor Complexity	816	2,891	1.5	1
I20A Other Foot Procedures, Major Complexity	11	134	6.2	3
I20B Other Foot Procedures, Minor Complexity	323	774	1.5	1
I21Z Local Excision and Removal of Internal Fixation Devices of Hip and Femur	58	47	3.0	1
I23A Local Excision & Removal of Internal Fixation Device, Except Hip & Fmr, Maj Comp	121	122	4.5	2
I23B Local Excision & Removal of Internal Fixation Device, Except Hip & Fmr, Min Comp	1,506	290	1.3	1
I24A Arthroscopy, Major Complexity	20	28	7.3	4
I24B Arthroscopy, Minor Complexity	185	45	2.0	1
I25A Bone and Joint Diagnostic Procedures Including Biopsy, Major Complexity	22	60	17.9	10
I25B Bone and Joint Diagnostic Procedures Including Biopsy, Minor Complexity	190	52	5.4	3
I27A Soft Tissue Procedures, Major Complexity	9	143	15.6	9
I27B Soft Tissue Procedures, Minor Complexity	587	644	3.1	1
I28A Other Musculoskeletal Procedures, Major Complexity	~	88	21.2	12
I28B Other Musculoskeletal Procedures, Intermediate Complexity	150	464	3.2	2
I28C Other Musculoskeletal Procedures, Minor Complexity	123	164	1.8	1
I29Z Knee Reconstructions, and Revisions of Reconstructions	49	221	1.4	1
I30Z Hand Procedures	2,238	1,787	1.2	1
I31A Revision of Hip Replacement, Major Complexity	0	56	49.0	44
I31B Revision of Hip Replacement, Intermediate Complexity	0	147	18.4	14
I31C Revision of Hip Replacement, Minor Complexity	0	250	8.7	6
I32A Revision of Knee Replacement, Major Complexity	0	42	21.7	14
I32B Revision of Knee Replacement, Minor Complexity	0	119	9.8	6
I40Z Infusions for Musculoskeletal Disorders, Sameday	31,006	65	0.5	1
I60Z Femoral Shaft Fractures	0	60	15.9	4
I61A Distal Femoral Fractures, Major Complexity	0	25	45.8	22
I61B Distal Femoral Fractures, Minor Complexity	0	60	14.2	9
I63A Sprains, Strains and Dislocations of Hip, Pelvis and Thigh, Major Complexity	0	48	11.2	5

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	85	4.8	2
I64A Osteomyelitis, Major Complexity	0	147	26.6	20
I64B Osteomyelitis, Minor Complexity	0	328	10.6	8
I65A Musculoskeletal Malignant Neoplasms, Major Complexity	0	171	19.0	15
I65B Musculoskeletal Malignant Neoplasms, Minor Complexity	0	635	6.1	4
I66A Inflammatory Musculoskeletal Disorders, Major Complexity	0	94	20.7	15
I66B Inflammatory Musculoskeletal Disorders, Intermediate Complexity	0	198	10.8	8
I66C Inflammatory Musculoskeletal Disorders, Minor Complexity	0	554	5.6	4
I67A Septic Arthritis, Major Complexity	0	75	20.2	15
I67B Septic Arthritis, Minor Complexity	0	95	8.6	6
I68A Non-surgical Spinal Disorders, Major Complexity	0	1,673	16.9	10
I68B Non-surgical Spinal Disorders, Minor Complexity	0	2,345	4.7	3
I69A Bone Diseases and Arthropathies, Major Complexity	0	354	15.3	9
I69B Bone Diseases and Arthropathies, Minor Complexity	0	760	8.2	5
I71A Other Musculotendinous Disorders, Major Complexity	0	571	13.1	6
I71B Other Musculotendinous Disorders, Minor Complexity	0	1,556	4.7	2
I72A Specific Musculotendinous Disorders, Major Complexity	0	196	19.8	10
I72B Specific Musculotendinous Disorders, Minor Complexity	0	534	5.0	3
I73A Aftercare of Musculoskeletal Implants or Prostheses, Major Complexity	0	118	23.3	13
I73B Aftercare of Musculoskeletal Implants or Prostheses, Minor Complexity	0	288	7.7	4
I74A Injuries to Forearm, Wrist, Hand and Foot, Major Complexity	0	355	16.3	10
I74B Injuries to Forearm, Wrist, Hand and Foot, Minor Complexity	0	954	2.3	1
I75A Injuries to Shoulder, Arm, Elbow, Knee, Leg and Ankle, Major Complexity	0	671	20.9	13
I75B Injuries to Shoulder, Arm, Elbow, Knee, Leg and Ankle, Minor Complexity	0	1,325	5.2	2
I76A Other Musculoskeletal Disorders, Major Complexity	0	135	26.5	16
I76B Other Musculoskeletal Disorders, Intermediate Complexity	0	346	8.1	5
I76C Other Musculoskeletal Disorders, Minor Complexity	0	385	4.9	2
I77A Fractures of Pelvis, Major Complexity	0	480	21.3	15
I77B Fractures of Pelvis, Minor Complexity	0	541	10.5	7
I78A Fractures of Neck of Femur, Major Complexity	0	255	36.3	26
I78B Fractures of Neck of Femur, Minor Complexity	0	682	17.0	12
I79A Pathological Fractures, Major Complexity	0	116	24.2	20
I79B Pathological Fractures, Minor Complexity	0	380	9.4	7
I80Z Femoral Fractures, Transferred to Acute Facility <2 Days	0	33	0.8	1
I81Z Musculoskeletal Injuries, Sameday	729	1,804	0.5	1
I82Z Other Sameday Treatment for Musculoskeletal Disorders	12,934	6,970	0.5	1
Total	54,053	52,650	6.9	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 4.11 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	~	^	^
J01B Microvas Tiss Transf for Skin, Subcut Tiss & Breast Dsrds, Minor Complexity	0	136	6.0	5
J06A Major Procedures for Breast Disorders, Major Complexity	41	165	5.4	3
J06B Major Procedures for Breast Disorders, Minor Complexity	974	1,529	1.7	1
J07A Minor Procedures for Breast Disorders, Major Complexity	864	194	2.1	1
J07B Minor Procedures for Breast Disorders, Minor Complexity	986	133	0.7	1
J08A Other Skin Grafts and Debridement Procedures, Major Complexity	~	120	22.5	14
J08B Other Skin Grafts and Debridement Procedures, Intermediate Complexity	52	131	4.6	3
J08C Other Skin Grafts and Debridement Procedures, Minor Complexity	1,297	224	2.5	1
J09Z Perianal and Pilonidal Procedures	444	153	2.1	1
J10A Plastic OR Procs for Skin, Subcutaneous Tissue and Breast Disorders, Major Comp	70	64	5.5	2
J10B Plastic OR Procs for Skin, Subcutaneous Tissue and Breast Disorders, Minor Comp	899	113	1.6	1
J11A Other Skin, Subcutaneous Tissue and Breast Procedures, Major Complexity	1,236	390	8.2	3
J11B Other Skin, Subcutaneous Tissue and Breast Procedures, Minor Complexity	29,157	407	1.7	1
J12A Lower Limb Procedures W Ulcer or Cellulitis, Major Complexity	0	60	33.9	24
J12B Lower Limb Procedures W Ulcer or Cellulitis, Minor Complexity	21	88	8.4	6
J13A Lower Limb Procedures W/O Ulcer or Cellulitis, Major Complexity	15	*	^	^
J13B Lower Limb Procedures W/O Ulcer or Cellulitis, Minor Complexity	161	49	2.5	1
J14Z Major Breast Reconstructions	45	123	3.2	2
J60A Skin Ulcers, Major Complexity	~	199	27.0	17
J60B Skin Ulcers, Intermediate Complexity	13	256	9.2	6
J60C Skin Ulcers, Minor Complexity	613	194	5.0	2
J62A Malignant Breast Disorders, Major Complexity	36	213	13.8	9
J62B Malignant Breast Disorders, Minor Complexity	5,210	279	6.2	3
J63A Non-Malignant Breast Disorders, Major Complexity	182	247	2.5	2
J63B Non-Malignant Breast Disorders, Minor Complexity	3,675	49	1.2	1
J64A Cellulitis, Major Complexity	20	1,978	11.5	7
J64B Cellulitis, Minor Complexity	396	4,131	3.1	2
J65A Trauma to Skin, Subcutaneous Tissue and Breast, Major Complexity	0	627	13.3	8
J65B Trauma to Skin, Subcutaneous Tissue and Breast, Minor Complexity	55	1,168	2.3	1
J67A Minor Skin Disorders, Major Complexity	546	469	5.7	3
J67B Minor Skin Disorders, Minor Complexity	11,605	1,812	1.3	1
J68A Major Skin Disorders, Major Complexity	738	758	4.8	3
J68B Major Skin Disorders, Minor Complexity	940	301	2.2	1
J69A Skin Malignancy, Major Complexity	34	81	18.7	14
J69B Skin Malignancy, Intermediate Complexity	619	74	8.9	5
J69C Skin Malignancy, Minor Complexity	2,513	50	3.9	1
J98Z UV Therapy ^b	14,865	0	-	-
Total	78,327	17,002	5.3	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.

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	50	45.7	41
K01B OR Procedures for Diabetic Complications, Intermediate Complexity	0	110	26.8	18
K01C OR Procedures for Diabetic Complications, Minor Complexity	~	210	13.2	9
K02A Pituitary Procedures, Major Complexity	0	~	^	^
K02B Pituitary Procedures, Minor Complexity	~	65	10.5	8
K03Z Adrenal Procedures	0	69	5.8	4
K05A Parathyroid Procedures, Major Complexity	~	36	6.9	4
K05B Parathyroid Procedures, Minor Complexity	17	161	2.0	1
K06A Thyroid Procedures, Major Complexity	~	54	7.5	4
K06B Thyroid Procedures, Minor Complexity	26	490	2.1	2
K08Z Thyroglossal Procedures	~	43	1.7	1
K09A Other Endocrine, Nutritional and Metabolic OR Procedures, Major Complexity	7	31	35.9	24
K09B Other Endocrine, Nutritional and Metabolic OR Procedures, Minor Complexity	12	62	11.8	10
K10A Revisional and Open Bariatric Procedures, Major Complexity	0	~	^	^
K10B Revisional and Open Bariatric Procedures, Minor Complexity	0	20	1.9	2
K11A Major Laparoscopic Bariatric Procedures, Major Complexity	0	42	2.5	1
K11B Major Laparoscopic Bariatric Procedures, Minor Complexity	0	48	1.8	2
K12A Other Bariatric Procedures, Major Complexity	~	0	-	-
K12B Other Bariatric Procedures, Minor Complexity	0	~	^	^
K13Z Plastic OR Procedures for Endocrine, Nutritional and Metabolic Disorders	7	33	1.5	1
K40A Endoscopic and Investigative Procedures for Metabolic Disorders, Major Comp	33	310	20.4	11
K40B Endoscopic and Investigative Procedures for Metabolic Disorders, Minor Comp	989	108	6.5	6
K60A Diabetes, Major Complexity	~	1,011	13.0	7
K60B Diabetes, Minor Complexity	243	2,985	4.4	3
K61A Severe Nutritional Disturbance, Major Complexity	0	37	31.0	22
K61B Severe Nutritional Disturbance, Minor Complexity	0	29	14.0	9
K62A Miscellaneous Metabolic Disorders, Major Complexity	16	783	13.5	9
K62B Miscellaneous Metabolic Disorders, Intermediate Complexity	111	2,089	5.8	3
K62C Miscellaneous Metabolic Disorders, Minor Complexity	2,187	2,582	2.6	1
K63A Inborn Errors of Metabolism, Major Complexity	225	174	7.8	2
K63B Inborn Errors of Metabolism, Minor Complexity	258	41	2.7	1
K64A Endocrine Disorders, Major Complexity	673	944	8.0	5
K64B Endocrine Disorders, Minor Complexity	2,118	577	1.7	1
Total	6,940	13,204	6.6	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	0	26	13.9	9
L02B Operative Insertion of Peritoneal Catheter for Dialysis, Minor Complexity	56	57	3.5	3
L03A Kidney, Ureter and Major Bladder Procedures for Neoplasm, Major Complexity	0	59	25.4	18
L03B Kidney, Ureter and Major Bladder Procedures for Neoplasm, Intermediate Comp	~	199	11.0	8
L03C Kidney, Ureter and Major Bladder Procedures for Neoplasm, Minor Complexity	8	410	5.2	5
L04A Kidney, Ureter and Major Bladder Procedures for Non-Neoplasm, Major Complexity	~	145	23.4	15
L04B Kidney, Ureter and Major Bladder Procedures for Non-Neoplasm, Intermediate Comp	47	703	7.3	5
L04C Kidney, Ureter and Major Bladder Procedures for Non-Neoplasm, Minor Complexity	851	1,480	2.8	2
L05A Transurethral Prostatectomy for Urinary Disorder, Major Complexity	0	22	29.8	13
L05B Transurethral Prostatectomy for Urinary Disorder, Minor Complexity	~	84	4.5	3
L06A Minor Bladder Procedures, Major Complexity	0	61	25.2	15
L06B Minor Bladder Procedures, Intermediate Complexity	10	110	8.1	6
L06C Minor Bladder Procedures, Minor Complexity	86	133	4.0	3
L07A Other Transurethral Procedures, Major Complexity	6	216	12.5	7
L07B Other Transurethral Procedures, Minor Complexity	624	1,025	2.8	2
L08A Urethral Procedures, Major Complexity	~	9	5.6	3
L08B Urethral Procedures, Minor Complexity	51	58	2.3	2
L09A Other Procedures for Kidney and Urinary Tract Disorders, Major Complexity	0	43	37.8	28
L09B Other Procedures for Kidney and Urinary Tract Disorders, Intermediate Complexity	6	58	14.9	10
L09C Other Procedures for Kidney and Urinary Tract Disorders, Minor Complexity	237	113	2.3	1
L40Z Ureteroscopy	59	104	3.5	3
L41Z Cystourethroscopy for Urinary Disorder, Sameday	10,139	82	0.5	1
L42Z ESW Lithotripsy	692	60	2.4	2
L60A Kidney Failure, Major Complexity	~	524	21.0	15
L60B Kidney Failure, Intermediate Complexity	50	1,717	7.7	5
L60C Kidney Failure, Minor Complexity	702	496	3.7	2
L61Z Haemodialysis	179,409	9	0.9	1
L62A Kidney and Urinary Tract Neoplasms, Major Complexity	22	234	15.3	11
L62B Kidney and Urinary Tract Neoplasms, Minor Complexity	891	331	4.6	3
L63A Kidney and Urinary Tract Infections, Major Complexity	41	6,824	12.3	7
L63B Kidney and Urinary Tract Infections, Minor Complexity	1,129	7,279	4.5	3
L64A Urinary Stones and Obstruction, Major Complexity	83	947	4.6	3
L64B Urinary Stones and Obstruction, Minor Complexity	179	1,827	1.9	1
L65A Kidney and Urinary Tract Signs and Symptoms, Major Complexity	47	690	9.0	6
L65B Kidney and Urinary Tract Signs and Symptoms, Minor Complexity	1,572	1,946	2.7	2
L66Z Urethral Stricture	157	69	2.1	1
L67A Other Kidney and Urinary Tract Disorders, Major Complexity	319	1,073	9.4	6
L67B Other Kidney and Urinary Tract Disorders, Intermediate Complexity	1,977	998	2.9	2
L67C Other Kidney and Urinary Tract Disorders, Minor Complexity	3,557	164	2.0	1
L68Z Peritoneal Dialysis	0	0	-	-
Total	203,017	30,385	7.0	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	46	5.7	4
M01B Major Male Pelvic Procedures, Minor Complexity	~	507	2.7	3
M02A Transurethral Prostatectomy for Reproductive System Disorder, Major Complexity	~	32	10.4	7
M02B Transurethral Prostatectomy for Reproductive System Disorder, Minor Complexity	10	352	3.5	3
M03A Penis Procedures, Major Complexity	20	40	6.6	4
M03B Penis Procedures, Minor Complexity	303	88	1.9	1
M04Z Testes Procedures	1,003	839	1.8	1
M05Z Circumcision	1,299	125	1.3	1
M06A Other Male Reproductive System OR Procedures, Major Complexity	49	44	14.1	12
M06B Other Male Reproductive System OR Procedures, Minor Complexity	82	36	3.0	2
M40Z Cystourethroscopy for Male Reproductive System Disorder, Sameday	1,595	~	^	^
M60A Male Reproductive System Malignancy, Major Complexity	311	382	13.1	6
M60B Male Reproductive System Malignancy, Minor Complexity	3,355	115	6.6	3
M61A Benign Prostatic Hypertrophy, Major Complexity	15	22	7.3	7
M61B Benign Prostatic Hypertrophy, Minor Complexity	1,061	49	2.8	2
M62A Male Reproductive System Inflammation, Major Complexity	11	209	8.5	5
M62B Male Reproductive System Inflammation, Minor Complexity	210	928	2.6	1
M63Z Male Sterilisation Procedures	55	~	^	^
M64A Other Male Reproductive System Disorders, Major Complexity	58	105	4.5	1
M64B Other Male Reproductive System Disorders, Minor Complexity	898	879	1.0	1
Total	10,338	4,806	3.7	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	31	14.7	15
N01B Pelvic Evisceration and Radical Vulvectomy, Minor Complexity	~	49	7.4	7
N04A Hysterectomy for Non-Malignancy, Major Complexity	0	150	7.0	5
N04B Hysterectomy for Non-Malignancy, Minor Complexity	10	1,104	3.5	3
N05A Oophorectomy and Complex Fallopian Tube Procedures for Non-Malignancy, Maj Comp	0	58	6.5	5
N05B Oophorectomy and Complex Fallopian Tube Procedures for Non-Malignancy, Min Comp	148	449	2.3	2
N06A Female Reproductive System Reconstructive Procedures, Major Complexity	~	48	5.6	3
N06B Female Reproductive System Reconstructive Procedures, Minor Complexity	156	614	2.7	3
N07A Other Uterus and Adnexa Procedures for Non-Malignancy, Major Complexity	1,148	943	2.4	2
N07B Other Uterus and Adnexa Procedures for Non-Malignancy, Minor Complexity	2,148	183	1.3	1
N08Z Endoscopic and Laparoscopic Procedures, Female Reproductive System	553	227	2.6	1
N09Z Other Vagina, Cervix and Vulva Procedures	1,820	621	4.3	2
N10Z Diagnostic Curettage and Diagnostic Hysteroscopy	9,556	686	1.9	1
N11A Other Female Reproductive System OR Procedures, Major Complexity	22	104	11.9	7
N11B Other Female Reproductive System OR Procedures, Minor Complexity	8	9	2.3	1
N12A Uterus and Adnexa Procedures for Malignancy, Major Complexity	0	30	18.5	14
N12B Uterus and Adnexa Procedures for Malignancy, Intermediate Complexity	~	145	6.6	6
N12C Uterus and Adnexa Procedures for Malignancy, Minor Complexity	52	360	3.9	3
N60A Female Reproductive System Malignancy, Major Complexity	10	236	17.2	13
N60B Female Reproductive System Malignancy, Minor Complexity	1,065	463	6.2	3
N61A Female Reproductive System Infections, Major Complexity	17	105	6.0	5
N61B Female Reproductive System Infections, Minor Complexity	51	273	2.8	2
N62A Menstrual and Other Female Reproductive System Disorders, Major Complexity	108	488	3.8	2
N62B Menstrual and Other Female Reproductive System Disorders, Minor Complexity	3,333	1,895	1.6	1
Total	20,210	9,271	3.6	2

Notes: ~ Denotes five or fewer discharges reported to HIPE.

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

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	1,541	9.4	6
O01B Caesarean Delivery, Intermediate Complexity	0	8,151	4.9	4
O01C Caesarean Delivery, Minor Complexity	0	11,989	3.5	3
O02A Vaginal Delivery W OR Procedures, Major Complexity	0	175	4.6	4
O02B Vaginal Delivery W OR Procedures, Minor Complexity	0	585	3.2	3
O03A Ectopic Pregnancy, Major Complexity	~	130	2.5	2
O03B Ectopic Pregnancy, Minor Complexity	50	534	1.5	1
O04A Postpartum and Post Abortion W OR Procedures, Major Complexity ^b	~	78	4.9	4
O04B Postpartum and Post Abortion W OR Procedures, Minor Complexity ^b	19	143	2.1	2
O05Z Abortion W OR Procedures ^b	1,222	2,324	1.0	1
O60A Vaginal Delivery, Major Complexity	0	4,213	4.2	3
O60B Vaginal Delivery, Intermediate Complexity	0	17,857	2.7	3
O60C Vaginal Delivery, Minor Complexity	0	14,484	2.0	2
O61A Postpartum and Post Abortion W/O OR Procedures, Major Complexity ^b	131	588	3.6	3
O61B Postpartum and Post Abortion W/O OR Procedures, Minor Complexity ^b	2,166	2,489	1.7	1
O63A Abortion W/O OR Procedures, Major Complexity ^b	10	224	1.8	1
O63B Abortion W/O OR Procedures, Minor Complexity ^b	500	1,939	1.1	1
O66A Antenatal and Other Obstetric Admissions, Major Complexity	1,544	10,015	1.8	1
O66B Antenatal and Other Obstetric Admissions, Minor Complexity	9,035	25,537	1.0	1
Total	14,680	102,996	2.4	2

Notes: ~ Denotes five or fewer discharges reported to HIPE.

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

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 Facility <5Days	0	47	2.5	3
P02Z Cardiothoracic and Vascular Procedures for Neonates	0	48	25.8	18
P03A Neonate, AdmWt 1000-1499g W Significant OR Proc/Vent>=96hrs, Major Complexity	0	68	60.1	60
P03B Neonate, AdmWt 1000-1499g W Significant OR Proc/Vent>=96hrs, Minor Complexity	0	137	32.3	31
P04A Neonate, AdmWt 1500-1999g W Significant OR Proc/Vent>=96hrs, Major Complexity	0	21	56.8	40
P04B Neonate, AdmWt 1500-1999g W Significant OR Proc/Vent>=96hrs, Minor Complexity	0	111	29.3	26
P05A Neonate, AdmWt 2000-2499g W Significant OR Proc/Vent>=96hrs, Major Complexity	0	17	88.6	58
P05B Neonate, AdmWt 2000-2499g W Significant OR Proc/Vent>=96hrs, Minor Complexity	0	104	23.2	19
P06A Neonate, AdmWt >=2500g W Significant OR Proc/Vent>=96hrs, Major Complexity	0	117	48.7	25
P06B Neonate, AdmWt >=2500g W Significant OR Proc/Vent>=96hrs, Minor Complexity	~	256	12.9	10
P07Z Neonate, AdmWt <750g W Significant OR Procedures	~	8	46.9	23
P08Z Neonate, AdmWt 750-999g W Significant OR Procedures	0	13	57.1	55
P60A Neonate W/O Sig OR/Vent>=96hrs, Died/Transfer Acute Facility <5 Days, MajC	0	98	2.3	2
P60B Neonate W/O Sig OR/Vent>=96hrs, Died/Transfer Acute Facility <5 Days, MinC	~	545	1.2	1
P61Z Neonate, AdmWt <750g W/O Significant OR procedure	0	92	55.4	48
P62A Neonate, AdmWt 750-999g W/O Significant OR Procedures, Major Complexity	0	43	60.5	67
P62B Neonate, AdmWt 750-999g W/O Significant OR Procedures, Minor Complexity	0	61	43.1	40
P63A Neonate, AdmWt 1000-1249g W/O Significant OR Proc/Vent>=96hrs, Major Complexity	0	11	46.4	40
P63B Neonate, AdmWt 1000-1249g W/O Significant OR Proc/Vent>=96hrs, Minor Complexity	~	28	31.5	32
P64A Neonate, AdmWt 1250-1499g W/O Significant OR Proc/Vent>=96hrs, Major Complexity	0	25	35.0	35
P64B Neonate, AdmWt 1250-1499g W/O Significant OR Proc/Vent>=96hrs, Minor Complexity	0	89	26.9	26
P65A Neonate, AdmWt 1500-1999g W/O Significant OR Proc/Vent>=96hrs, Extreme Comp	0	45	27.9	29
P65B Neonate, AdmWt 1500-1999g W/O Significant OR Proc/Vent>=96hrs, Major Complexity	0	90	23.0	21
P65C Neonate, AdmWt 1500-1999g W/O Significant OR Proc/Vent>=96hrs, Intermediate Comp	0	319	17.3	16
P65D Neonate, AdmWt 1500-1999g W/O Significant OR Proc/Vent>=96hrs, Minor Complexity	0	150	13.5	13
P66A Neonate, AdmWt 2000-2499g W/O Significant OR Proc/Vent>=96hrs, Extreme Comp	0	98	17.5	16
P66B Neonate, AdmWt 2000-2499g W/O Significant OR Proc/Vent>=96hrs, Major Complexity	0	276	12.4	12
P66C Neonate, AdmWt 2000-2499g W/O Significant OR Proc/Vent>=96hrs, Intermediate Comp	~	630	8.2	7
P66D Neonate, AdmWt 2000-2499g W/O Significant OR Proc/Vent>=96hrs, Minor Complexity	~	484	3.3	2
P67A Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, <37 Comp Wks Gest, Extr Comp	~	90	14.2	12
P67B Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, <37 Comp Wks Gest, Maj Comp	~	186	9.6	8
P67C Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, <37 Comp Wks Gest, Int Comp	~	192	7.0	5
P67D Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, <37 Comp Wks Gest, Min Comp	7	333	4.8	3
P68A Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, >=37 Comp Wks Gest, Ext Comp	~	489	10.3	7
P68B Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, >=37 Comp Wks Gest, Maj Comp	13	1,024	4.8	3
P68C Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, >=37 Comp Wks Gest, Int Comp	48	1,361	3.2	2
P68D Neonate, AdmWt >=2500g W/O Sig OR Proc/Vent>=96hrs, >=37 Comp Wks Gest, Min Comp	107	5,090	1.9	1
Total	203	12,796	7.6	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 4.18 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	~	^	^
Q01B Splenectomy, Minor Complexity	~	*	^	^
Q02A Blood and Immune System Disorders W Other OR Procedures, Major Complexity	~	75	22.0	10
Q02B Blood and Immune System Disorders W Other OR Procedures, Minor Complexity	479	141	4.4	3
Q60A Reticuloendothelial and Immunity Disorders, Major Complexity	385	919	7.0	5
Q60B Reticuloendothelial and Immunity Disorders, Minor Complexity	3,291	426	2.1	1
Q61A Red Blood Cell Disorders, Major Complexity	1,163	2,365	7.3	5
Q61B Red Blood Cell Disorders, Intermediate Complexity	14,612	3,318	2.2	1
Q61C Red Blood Cell Disorders, Minor Complexity	17,268	34	0.6	1
Q62A Coagulation Disorders, Major Complexity	55	309	6.8	5
Q62B Coagulation Disorders, Minor Complexity	3,598	494	2.4	1
Total	40,855	8,104	4.6	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 4.19 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	0	55	24.3	20
R01B Lymphoma and Leukaemia W Major OR Procedures, Minor Complexity	22	59	7.7	6
R02A Other Neoplastic Disorders W Major OR Procedures, Major Complexity	0	27	28.0	18
R02B Other Neoplastic Disorders W Major OR Procedures, Intermediate Complexity	~	68	6.0	5
R02C Other Neoplastic Disorders W Major OR Procedures, Minor Complexity	38	124	3.6	2
R03A Lymphoma and Leukaemia W Other OR Procedures, Major Complexity	0	75	44.3	36
R03B Lymphoma and Leukaemia W Other OR Procedures, Intermediate Complexity	*	94	15.9	12
R03C Lymphoma and Leukaemia W Other OR Procedures, Minor Complexity	215	158	6.5	4
R04A Other Neoplastic Disorders W Other OR Procedures, Major Complexity	41	50	12.8	8
R04B Other Neoplastic Disorders W Other OR Procedures, Minor Complexity	1,016	94	4.2	3
R60A Acute Leukaemia, Major Complexity	153	500	25.0	22
R60B Acute Leukaemia, Minor Complexity	2,951	464	5.4	3
R61A Lymphoma and Non-Acute Leukaemia, Major Complexity	567	1,348	14.7	9
R61B Lymphoma and Non-Acute Leukaemia, Minor Complexity	10,104	1,553	4.6	3
R62A Other Neoplastic Disorders, Major Complexity	747	174	14.3	11
R62B Other Neoplastic Disorders, Intermediate Complexity	5,818	128	6.3	4
R62C Other Neoplastic Disorders, Minor Complexity	89,615	22	4.1	2
R63Z Chemotherapy	121,176	0	-	-
R99Z Oncology Repeat Attendance ^b	19,891	0	-	-
Total	252,369	4,993	11.2	5

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 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	44	27.6	16
S65B Human Immunodeficiency Virus, Intermediate Complexity	~	95	9.5	6
S65C Human Immunodeficiency Virus, Minor Complexity	74	19	5.1	1
T01A Infectious and Parasitic Diseases W OR Procedures, Major Complexity	~	145	36.3	30
T01B Infectious and Parasitic Diseases W OR Procedures, Intermediate Complexity	6	178	16.3	13
T01C Infectious and Parasitic Diseases W OR Procedures, Minor Complexity	21	252	11.3	8
T40Z Infectious and Parasitic Diseases W Ventilator Support	0	32	14.4	11
T60A Septicaemia, Major Complexity	6	387	24.7	17
T60B Septicaemia, Intermediate Complexity	0	1,247	12.3	9
T60C Septicaemia, Minor Complexity	9	1,486	7.7	6
T61A Postoperative and Post-Traumatic Infections, Major Complexity	16	242	11.1	7
T61B Postoperative and Post-Traumatic Infections, Minor Complexity	101	645	4.5	3
T62A Fever of Unknown Origin, Major Complexity	~	416	6.7	4
T62B Fever of Unknown Origin, Minor Complexity	26	1,346	2.7	2
T63A Viral Illnesses, Major Complexity	331	306	7.8	4
T63B Viral Illnesses, Minor Complexity	197	1,983	1.7	1
T64A Other Infectious and Parasitic Diseases, Major Complexity	0	67	24.3	18
T64B Other Infectious and Parasitic Diseases, Intermediate Complexity	~	187	11.7	9
T64C Other Infectious and Parasitic Diseases, Minor Complexity	1,106	193	5.6	4
Total	1,906	9,270	7.8	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 4.21 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	59	0	-	-
U60A Mental Health Treatment W/O ECT, Sameday, Major Complexity	433	404	0.5	1
U60B Mental Health Treatment W/O ECT, Sameday, Minor Complexity	210	641	0.5	1
U61A Schizophrenia Disorders, Major Complexity	0	43	53.5	23
U61B Schizophrenia Disorders, Minor Complexity	0	79	32.3	18
U62A Paranoia and Acute Psychotic Disorders, Major Complexity	0	59	25.4	13
U62B Paranoia and Acute Psychotic Disorders, Minor Complexity	0	168	12.3	7
U63A Major Affective Disorders, Major Complexity	0	61	37.9	18
U63B Major Affective Disorders, Minor Complexity	0	178	21.7	9
U64A Other Affective and Somatoform Disorders, Major Complexity	0	78	15.2	6
U64B Other Affective and Somatoform Disorders, Minor Complexity	0	133	5.3	3
U65A Anxiety Disorders, Major Complexity	0	195	12.9	6
U65B Anxiety Disorders, Minor Complexity	0	412	4.0	2
U66A Eating and Obsessive-Compulsive Disorders, Major Complexity	0	174	28.1	17
U66B Eating and Obsessive-Compulsive Disorders, Minor Complexity	0	351	15.7	10
U67A Personality Disorders and Acute Reactions, Major Complexity	0	99	18.8	9
U67B Personality Disorders and Acute Reactions, Minor Complexity	0	204	5.8	3
U68A Childhood Mental Disorders, Major Complexity	0	58	17.1	4
U68B Childhood Mental Disorders, Minor Complexity	0	50	3.0	2
Total	702	3,387	10.6	2

Notes: - 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 4.22 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	659	9.2	5
V60B Alcohol Intoxication and Withdrawal, Minor Complexity	0	1,417	3.5	3
V61A Drug Intoxication and Withdrawal, Major Complexity	0	22	10.4	5
V61B Drug Intoxication and Withdrawal, Minor Complexity	0	178	4.2	2
V62A Alcohol Use and Dependence, Major Complexity	0	122	15.3	10
V62B Alcohol Use and Dependence, Minor Complexity	0	461	4.6	3
V63Z Opioid Use and Dependence	0	43	16.0	20
V64Z Other Drug Use and Dependence	0	60	6.6	3
V65Z Treatment for Alcohol Disorders, Sameday	~	452	0.5	1
V66Z Treatment for Drug Disorders, Sameday	~	70	0.5	1
Total	~	3,484	5.0	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 4.23 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	16	72.6	71
W01B Vent, Trac & Cran Procs for Mult Sig Trauma, Intermediate Complexity	0	34	52.0	24
W01C Vent, Trac & Cran Procs for Mult Sig Trauma, Minor Complexity	0	37	23.4	17
W02A Hip, Femur and Lower Limb Procedures for Multiple Sig Trauma, Major Complexity	0	34	44.4	31
W02B Hip, Femur and Lower Limb Procedures for Multiple Sig Trauma, Minor Complexity	0	100	21.4	13
W03Z Abdominal Procedures for Multiple Significant Trauma	0	19	25.0	14
W04A Multiple Significant Trauma W Other OR Procedures, Major Complexity	0	20	30.8	21
W04B Multiple Significant Trauma W Other OR Procedures, Minor Complexity	0	49	13.1	9
W60A Multiple Sig Trauma, Died or Transferred to Acute Facility <5 Days, Major Comp	0	37	1.8	1
W60B Multiple Sig Trauma, Died or Transferred to Acute Facility <5 Days, Minor Comp	~	33	2.1	2
W61A Multiple Significant Trauma W/O OR Procedures, Major Complexity	0	117	29.7	17
W61B Multiple Significant Trauma W/O OR Procedures, Minor Complexity	0	159	9.6	7
X02A Microvascular Tissue Transfer and Skin Grafts for Injuries to Hand, Major Comp	~	9	13.2	3
X02B Microvascular Tissue Transfer and Skin Grafts for Injuries to Hand, Minor Comp	11	61	1.5	1
X04A Other Procedures for Injuries to Lower Limb, Major Complexity	0	41	28.7	25
X04B Other Procedures for Injuries to Lower Limb, Minor Complexity	23	180	2.5	1
X05A Other Procedures for Injuries to Hand, Major Complexity	38	246	2.7	1
X05B Other Procedures for Injuries to Hand, Minor Complexity	263	897	0.8	1
X06A Other Procedures for Other Injuries, Major Complexity	~	137	19.6	12
X06B Other Procedures for Other Injuries, Intermediate Complexity	24	182	6.8	4
X06C Other Procedures for Other Injuries, Minor Complexity	218	789	2.1	1
X07A Skin Grafts for Injuries Excluding Hand, Major Complexity	0	14	37.5	17
X07B Skin Grafts for Injuries Excluding Hand, Intermediate Complexity	~	37	15.9	10
X07C Skin Grafts for Injuries Excluding Hand, Minor Complexity	14	50	5.0	2
X40A Injuries, Poisoning and Toxic Effects of Drugs W Ventilator Support, Major Comp	0	45	18.0	13
X40B Injuries, Poisoning and Toxic Effects of Drugs W Ventilator Support, Minor Comp	0	62	6.1	5
X60A Injuries, Major Complexity	9	1,324	11.7	6
X60B Injuries, Minor Complexity	531	3,822	1.6	1
X61A Allergic Reactions, Major Complexity	~	128	2.5	1
X61B Allergic Reactions, Minor Complexity	7	311	1.1	1
X62A Poisoning/Toxic Effects of Drugs and Other Substances, Major Complexity	~	1,101	6.4	3
X62B Poisoning/Toxic Effects of Drugs and Other Substances, Minor Complexity	11	3,489	1.9	1
X63A Sequelae of Treatment, Major Complexity	29	803	7.0	4
X63B Sequelae of Treatment, Minor Complexity	252	1,851	2.1	1
X64A Other Injuries, Poisonings and Toxic Effects, Major Complexity	0	489	14.3	8
X64B Other Injuries, Poisonings and Toxic Effects, Minor Complexity	14	876	3.3	1
Total	1,456	17,599	4.6	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	17	80.0	42
Y02A Skin Grafts for Other Burns, Major Complexity	0	45	24.4	16
Y02B Skin Grafts for Other Burns, Intermediate Complexity	~	58	8.3	7
Y02C Skin Grafts for Other Burns, Minor Complexity	~	35	4.7	4
Y03A Other OR Procedures for Other Burns, Major Complexity	14	20	9.0	8
Y03B Other OR Procedures for Other Burns, Minor Complexity	~	44	3.7	3
Y60Z Burns, Transferred to Acute Facility <5 Days	0	40	1.0	1
Y61Z Severe Burns	~	69	8.3	3
Y62A Other Burns, Major Complexity	~	59	8.6	4
Y62B Other Burns, Minor Complexity	20	187	2.1	1
Total	55	574	8.6	2

Notes: ~ Denotes five or fewer discharges reported to HIPE.

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

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	19	93	18.6	6
Z01B Other Contacts W Health Services W OR Procedures, Minor Complexity	617	177	1.7	1
Z40Z Other Contacts W Health Services W Endoscopy, Sameday	13,167	22	0.5	1
Z60A Rehabilitation, Major Complexity ^b	0	0	-	-
Z60B Rehabilitation, Minor Complexity ^b	0	0	-	-
Z61A Signs and Symptoms, Major Complexity	26	702	11.4	7
Z61B Signs and Symptoms, Intermediate Complexity	159	1,083	3.5	1
Z61C Signs and Symptoms, Minor Complexity	410	1,391	1.7	1
Z63A Other Follow Up After Surgery or Medical Care, Major Complexity	67	1,352	23.0	16
Z63B Other Follow Up After Surgery or Medical Care, Minor Complexity	1,061	1,155	13.8	5
Z64A Other Factors Influencing Health Status, Major Complexity	3,039	891	11.6	2
Z64B Other Factors Influencing Health Status, Minor Complexity	33,370	1,378	1.7	1
Z65Z Congenital Anomalies and Problems Arising from Neonatal Period	102	66	6.1	2
Z66Z Sleep Disorders	30	233	1.2	1
Total	52,067	8,543	9.0	2

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

b The coding of rehabilitation was updated in ICD-10-AM/ACHI/ACS 10th edition. The sequencing was amended to the additional diagnosis position. Therefore, rehabilitation can no longer be assigned as a principal diagnosis. See Appendix VII for an overview of changes from ICD-10-AM/ACHI/ACS 8th edition (in use from 2015–2019) to 10th Edition (in use from 1st January 2020).

- Mean and median length of stay cannot be calculated as no in-patients are reported.

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	0	393	45.4	34
801B OR Procedures Unrelated to Principal Diagnosis, Intermediate Complexity	38	507	17.2	12
801C OR Procedures Unrelated to Principal Diagnosis, Minor Complexity	254	335	5.9	4
963Z Neonatal Diagnosis Not Consistent W Age/Weight	0	0	-	-
Total	292	1,235	23.1	13

Notes: - 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	30	38.9	26
A03Z Lung or Heart-Lung Transplant	0	19	62.8	55
A05Z Heart Transplant	0	7	71.3	58
A06A Tracheostomy and/or Ventilation >=96hours, Major Complexity	0	215	96.6	65
A06B Tracheostomy and/or Ventilation >=96hours, Intermediate Complexity	0	896	50.7	37
A06C Tracheostomy and/or Ventilation >=96hours, Minor Complexity	0	1,530	27.6	21
A07A Allogeneic Bone Marrow Transplant, Age <=16 Years or Major Complexity	0	68	48.5	41
A07B Allogeneic Bone Marrow Transplant, Age >=17 Years and Minor Complexity	~	49	28.6	33
A08A Autologous Bone Marrow Transplant, Major Complexity	0	110	24.6	22
A08B Autologous Bone Marrow Transplant, Minor Complexity	10	68	8.8	5
A09A Kidney Transplant, Age <=16 Years or Major Complexity	0	15	16.0	15
A09B Kidney Transplant, Age >=17 Years and Minor Complexity	0	120	9.3	8
A10Z Insertion of Ventricular Assist Device	0	*	^	^
A11A Insertion of Implantable Spinal Infusion Device, Major Complexity	~	9	50.7	32
A11B Insertion of Implantable Spinal Infusion Device, Minor Complexity	10	~	^	^
A12Z Insertion of Neurostimulator Device	127	60	2.7	2
A40A ECMO, Major Complexity	0	14	50.3	36
A40B ECMO, Minor Complexity	0	36	28.3	17
Total	152	3,257	37.8	25

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 2021

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ANALYSIS OF CORONAVIRUS DISEASE 2019 (COVID-19) ADMISSIONS, 2020 AND 2021

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. Following on from the 2020 Annex, it was decided, given the ongoing pandemic, that the focus of this year's Annex is again admissions to hospital with a diagnosis of Coronavirus disease 2019 (COVID-19), also known as novel coronavirus (COVID-19).¹

This annex examines 2020 and 2021 combined admissions for COVID-19.² It also briefly examines some of the new diagnosis codes introduced in 2021 related to *Post COVID-19 conditions*, *Multisystem inflammatory syndrome associated with COVID-19*, and *COVID-19 vaccines causing adverse effects in therapeutic use*.

A.1.1.1 Criteria for selection of COVID-19 admissions

This annex is based on admissions to hospital between 29th February 2020 and 31st December 2021 inclusive, with a diagnosis of COVID-19.^{3,4} Based on the Irish Coding Standard 22X2 *Novel Coronavirus* (COVID-19) effective from 1st January 2020, the selection of admissions was based on those with any diagnosis of:

- B97.2 *Coronavirus* as the cause of diseases classified to other chapters to identify the infectious agent or B34.2 *Coronavirus infection, unspecified site* and either of the following two codes:
- U07.1 *Emergency use of U07.1 (COVID-19, virus identified)* assigned when COVID-19 has been documented as confirmed by laboratory testing
- U07.2 *Emergency use of U07.2 (COVID-19, virus not identified)* assigned when COVID-19 has been documented as clinically diagnosed COVID-19, including evidence supported by radiological imaging (i.e. where a clinical determination of COVID-19 is made but laboratory testing is inconclusive, not available or unspecified).^{5,6}

¹ More detailed information on the background of COVID-19 and on the different COVID-19 reporting systems in Ireland can be found in the 2020 HIPE Annual Report Annex:

http://www.hpo.ie/latest_hipe_nprs_reports/HIPE_2020/HIPE_Report_2020.pdf

² Includes COVID-19 admissions from 29th February 2020 to 31st December 2021 inclusive.

³ HIPE is a discharge based database, however, to more accurately reflect the trends over time in COVID-19 hospitalisations, basing this analysis on admission date is a more suitable reflection of the changes that occurred during this period.

⁴ A proportion of the admissions included in this annex were discharged in 2022, and only admissions who were discharged up to 31st March 2022 were included. Admissions who were admitted in 2021 and discharged in 2022 are based on provisional 2022 HIPE data and therefore may be subject to change (HIPE_2022_ASOF_0822_V09_PROVISIONAL).

⁵ Full detail of the HIPE coding guidelines for COVID-19 issued to hospitals is available in the Irish Coding Standard 22X2, which is available at http://hpo.ie/hipe/clinical_coding/irish_coding_standards/ICS_2021_V2.0.pdf. This is mainly based on advice from the Independent Hospital Pricing Authority (IHPA) and incorporates guidance from the WHO.

⁶ It is important to note that a patient may or may not have COVID-19 on admission to hospital, so COVID-19 may not be the cause of admission.

A.1.2 OVERVIEW OF 2020 AND 2021 COVID-19 ADMISSIONS

Section A.1.2 provides an overview of COVID-19 admissions in 2020 and 2021 by sex, age group, ICU status and survival status, admission source, discharge destination and area of residence.

A.1.2.1 Total admissions by sex, age group, ICU status and survival status

Table A 1.1 provides information on total admissions by sex, age group, ICU status and survival status. Figure A 1.1 shows total admissions and mean length of stay by age group. A total of 30,275 COVID-19 admissions occurred in 2020 and 2021 with an average length of stay of 16.2 days. There was a greater proportion of male admissions (52.3 per cent) compared to females (47.7 per cent).

- Mean length of stay increased with age, ranging from 3.8 days for those under 15 years to 25.6 days for those aged 85 years and over.
- Just over 11 per cent of total admissions had a stay in ICU. Admissions with an ICU stay had an average length of stay of 32.6 days compared to 14.1 days for admissions without an ICU stay.

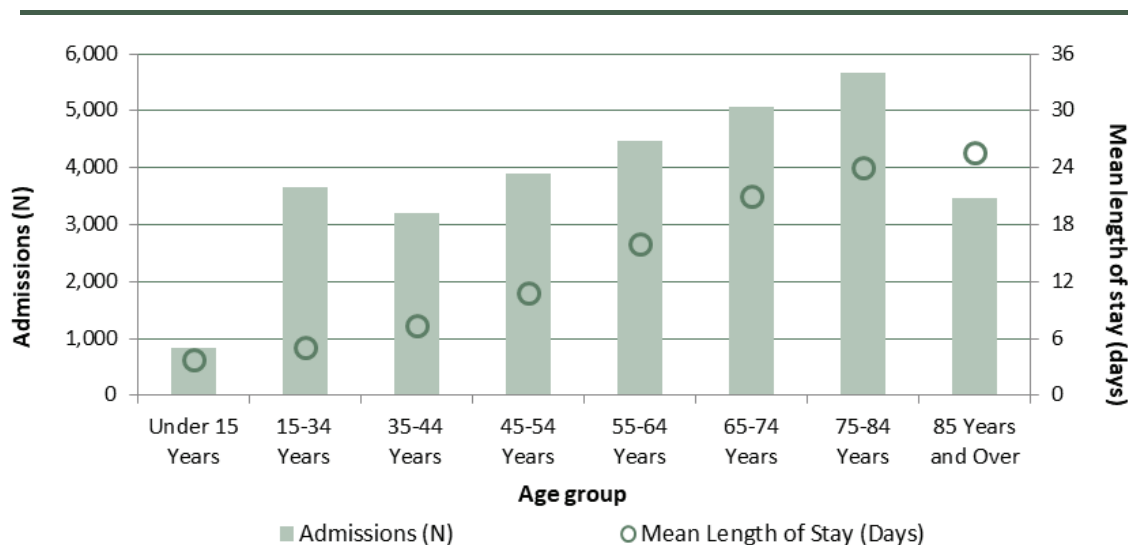
TABLE A 1.1: COVID-19 admissions by sex, age group, ICU status and survival status, 2020-2021 (N, % and In-Patient Length of Stay)

	Total Admissions			
	N	%	Mean LOS	Median LOS
Total	30,275	100	16.2	7
Males	15,837	52.3	17.1	8
Females	14,438	47.7	15.2	6
Age Group				
Under 15 Years	834	2.8	3.8	2
15-34 Years	3,670	12.1	5.0	2
35-44 Years	3,194	10.5	7.4	4
45-54 Years	3,907	12.9	10.9	6
55-64 Years	4,473	14.8	16.0	8
65-74 Years	5,068	16.7	21.0	12
75-84 Years	5,671	18.7	24.0	15
85 Years and Over	3,458	11.4	25.6	17
ICU Visit Status^a				
ICU Visit	3,414	11.3	32.6	21
No ICU Visit	26,861	88.7	14.1	6
Survival Status^b				
Died ^c	3,620	12.0	22.0	15
Survived	26,655	88.0	15.4	7

Notes: a ICU visit status is based on the variable ITU Days having a value of zero days (No ICU visit) or greater than zero days. ITU Days identifies the number of days, or part thereof, the patient spent in an intensive care environment e.g. ICU/ITU/CCU/HDU/NITU.

b Survival Status is based on the HIPE discharge code variable. Patients who died during their episode of care have a discharge code of 6 or 7 (see Appendix II for full list of discharge codes in HIPE). If a patient passed away after discharge due to Covid-19 this is not captured in HIPE.

c HIPE does not identify the cause of death.

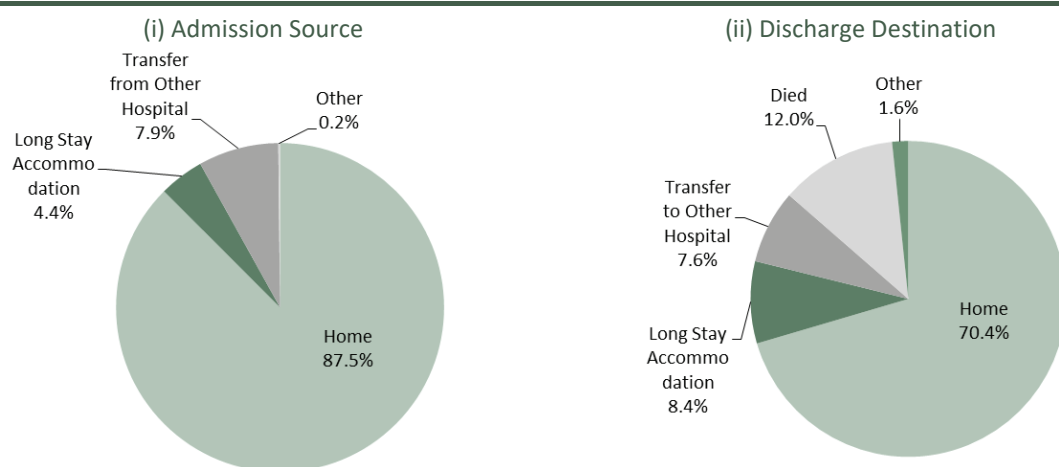
FIGURE A 1.1: Total COVID-19 admissions and mean length of stay, by age group, 2020-2021

Note: See notes under Table A 1.1

A.1.2.2 Total admissions by Admission Source and Discharge Destination

Table A 1.2 and figures A 1.2.1 and A 1.2.2 provide information on COVID-19 admissions by Admission Source and Discharge Destination.

- 87.5 per cent of total admissions were admitted from home (see Figure A 1.2.1). Of these admissions, 75.7 per cent were discharged back home (see Table A 1.2).
- While only 4.4 per cent of total admissions were admitted from long stay accommodation, 32.6 per cent of those admitted from long stay accommodation died during their episode of care.⁷

FIGURE A 1.2.1: Total COVID-19 admissions by (i) Admission Source and (ii) Discharge Destination

Note: Percentages are subject to rounding.

⁷ Admissions from 'Long Stay Accommodation' recorded the highest average age of all admission sources at approximately 79 years. This compares to an overall average age across all COVID-19 admissions in 2020 and 2021 of 59.5 years (see Table A 1.3).

TABLE A 1.2: Total COVID-19 admissions by Admission Source and Discharge Destination, 2020-2021

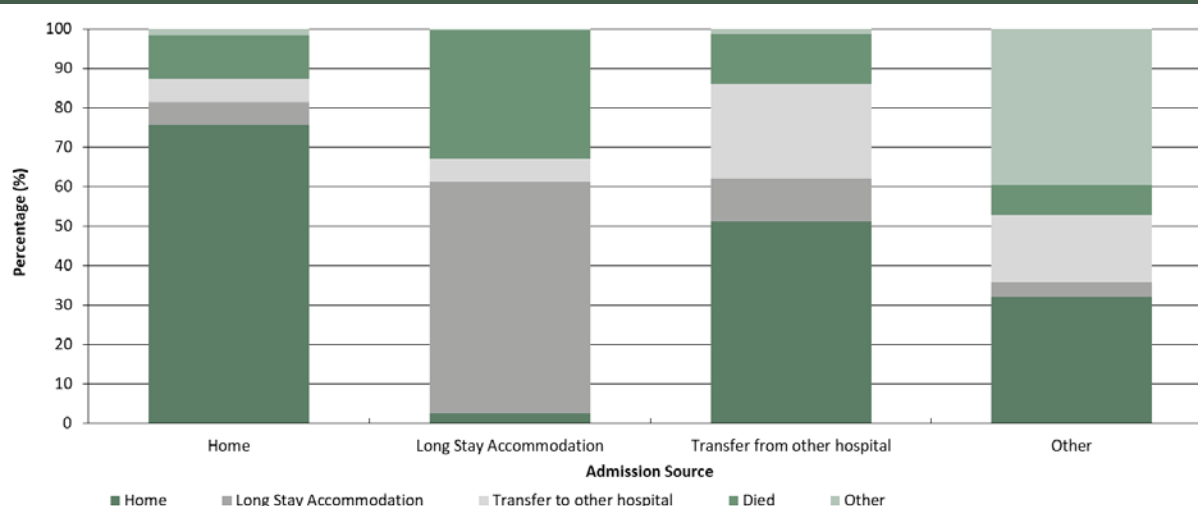
Admission Source		Discharge Destination					Total
		Home	Long Stay Accommodation	Transfer to other hospital	Died	Other	
Home	N	20,050	1,496	1,624	2,873	444	26,487
	%	75.7	5.6	6.1	10.8	1.7	100
Long Stay Accommodation	N	34	*	77	*	~	1,339
	%	2.5	-	5.8	-	-	100
Transfer from other hospital	N	1,227	257	576	307	29	2,396
	%	51.2	10.7	24.0	12.8	1.2	100
Other	N	17	~	9	~	*	53
	%	32.1	-	17.0	-	-	100
Total Admissions		N	21,328	2,542	2,286	3,620	30,275
		%	70.4	8.4	7.6	12.0	100

Notes: See Appendix IV for information on how the HIPE variable 'Admission Source' and 'Discharge Destination' were grouped for this report.

~ Denotes five or fewer discharges reported to HIPE.

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

Percentage columns are subject to rounding.

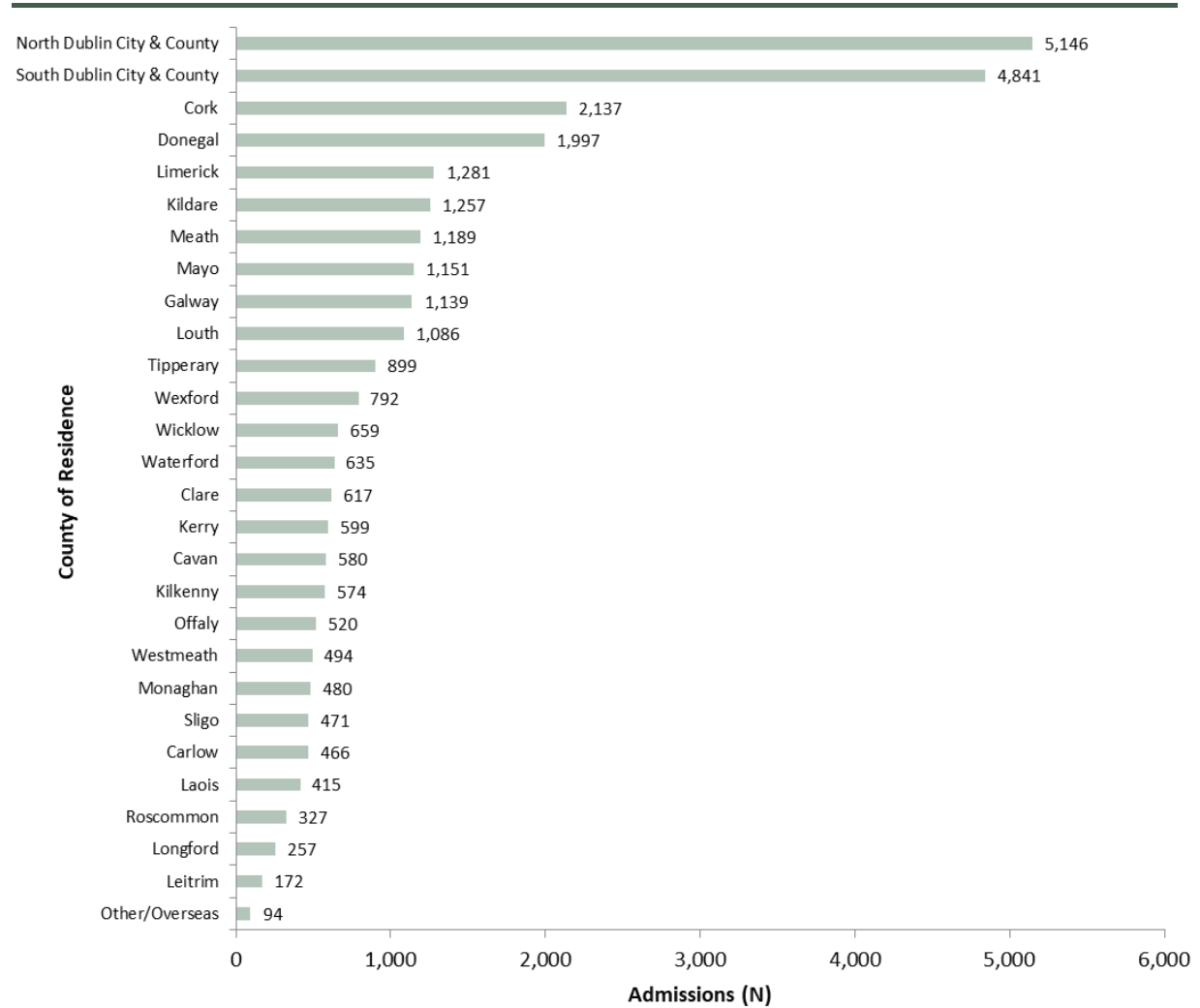
FIGURE A 1.2.2: Total COVID-19 admissions: Discharge Destination by Admission Source, 2020-2021

Note: See note under Table A 1.2

A.1.2.3 Total admissions by Area of Residence

Figure A 1.2.3 provides information on 2020 and 2021 COVID-19 admissions by Area of Residence.

- Dublin North City and County, and Dublin South City and County accounted for almost 33 per cent of total admissions.
- Cork accounted for just over 7 per cent of total admissions while Donegal accounted for approximately 6.6 per cent.

FIGURE A 1.2.3: COVID-19 admissions by Area of Residence, 2020-2021

Note: 'Other' includes area of residence of 'no fixed abode' or those not normally resident in Ireland.

A.1.3 TREND ANALYSIS OF COVID-19 ADMISSIONS

Section A.1.3 examines COVID-19 admissions by month and year of admission, age and length of stay and shows the monthly percentage of admissions with an ICU visit in 2020 and 2021.⁸

TABLE A 1.3: COVID-19 admissions by month and year of admission, length of stay, age and ICU visit status^a

Month of Admission	Admissions (N)	Total Admissions				
		Length of Stay		Age		ICU visit ^a
		Mean	Median	Mean	Median	%
February 2020	~	^	^	^	^	-
March 2020	1,609	18.6	9	61.8	64	15.2
April 2020	2,225	15.2	8	63.1	65	12.3
May 2020	713	17.7	8	65.3	70	7.2
June 2020	142	19.7	8	62.4	66	4.9
July 2020	*	^	^	^	^	-
August 2020	160	40.6	10	58.2	61	13.1
September 2020	389	30.9	11	62.9	67	14.7
October 2020	1,231	19.8	9	62.9	67	11.2
November 2020	944	25.4	12	64.9	70	15.4
December 2020	1,768	27.5	18	67.8	73	12.6
Total 2020	9,265	21.5	10	63.9	68	12.6
January 2021	5,708	14.2	8	63.7	67	11.2
February 2021	2,028	14.2	8	61.5	64	9.1
March 2021	1,074	15.5	8	58.8	62	11.7
April 2021	650	11.0	6	52.1	52	10.8
May 2021	461	10.7	5	48.1	49	11.9
June 2021	286	14.0	4	47.5	47	9.4
July 2021	687	13.5	5	47.4	43	9.5
August 2021	1,435	13.7	5	51.5	51	11.7
September 2021	1,396	15.3	6	55.4	57	12.1
October 2021	1,852	14.4	7	59.3	64	10.9
November 2021	2,399	13.0	6	55.5	59	11.1
December 2021	3,034	13.3	5	52.9	54	8.9
Total 2021	21,010	13.9	6	57.5	60	10.7
Total	30,275	16.2	7	59.5	62	11.3

Notes: a ICU visit status is based on the variable ITU Days having a value of zero days (No ICU Visit) or greater than zero days. ITU Days identifies the number of days, or part thereof, the patient spent in an intensive care environment e.g. ICU/ITU/CCU/HDU/NITU.

~ Denotes five or fewer discharges reported to HIPE.

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

^ Denotes mean and median are suppressed where the number of cases is not reported.

Based on Table A 1.3, Figure A 1.3.1 provides information on total admissions with COVID-19 and mean age by month and year of admission.

- The highest number of monthly admissions occurred in January 2021 with 5,708 admissions.
- The average age of all COVID-19 admissions in 2020 and 2021 was 59.5 years. The average age was 63.9 years in 2020 compared to 57.5 years in 2021.

⁸ February 2020 consisted of just one day of admissions since the data is based on admissions from 29th February 2020.

- The mean length of stay in 2021 was 13.9 days compared to 21.5 days in 2020. The median length of stay in 2021 was 6 days compared to 10 days in 2020 (see Table A 1.3).

FIGURE A 1.3.1: Total COVID-19 admissions and mean age by month of admission

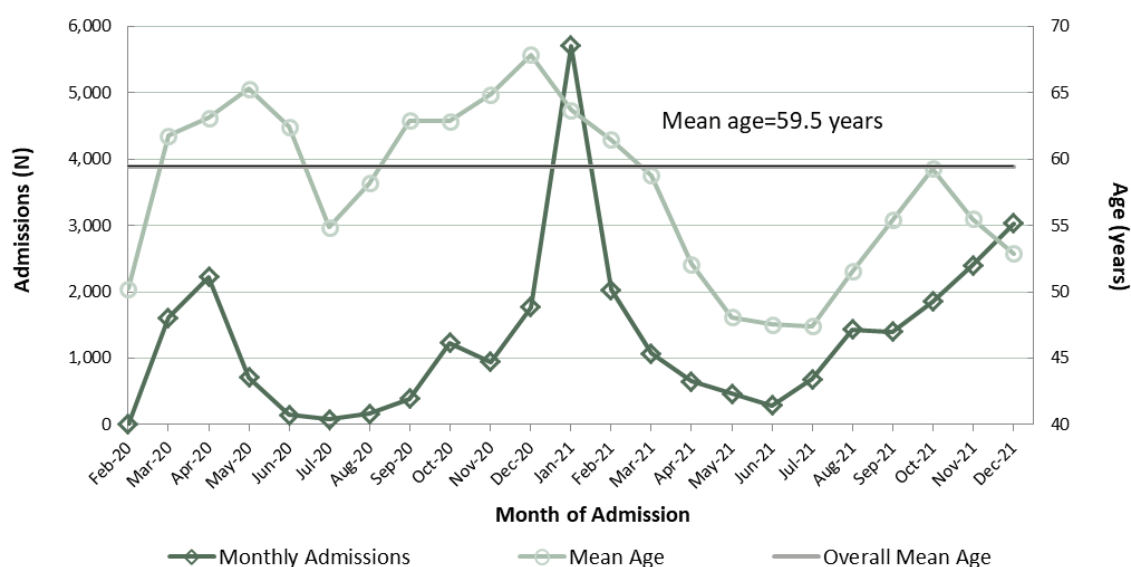
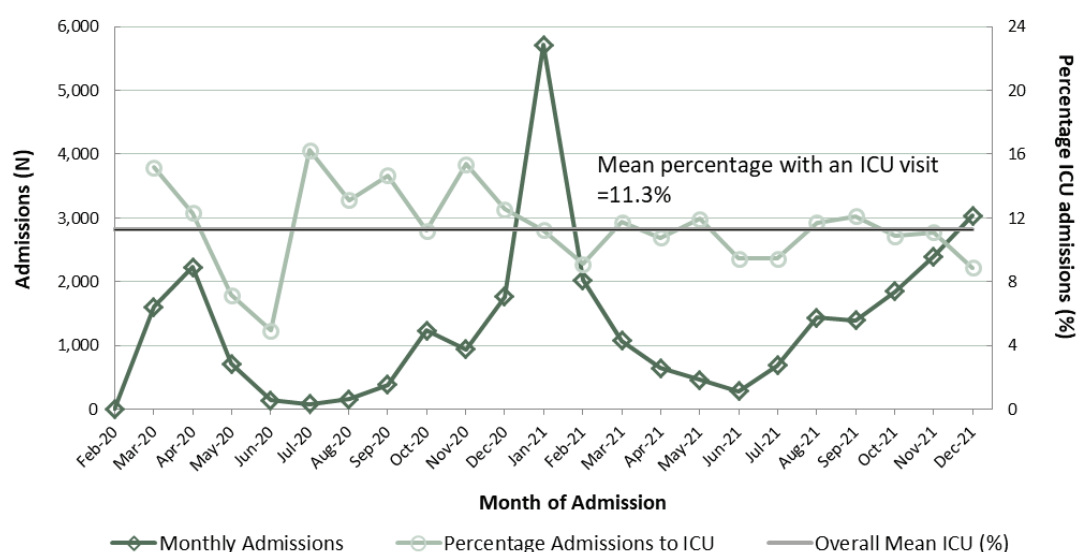


Figure A 1.3.2 provides information on the number of admissions by month of admission, and the percentage of admissions admitted per month that had an ICU visit recorded in their episode of care.

- The proportion of admissions with an ICU visit recorded ranged from a low of 4.9 per cent in June 2020 to a high of 16.3 per cent in July 2020; this variability coincides with relatively low admissions for these months.
- The overall mean percentage of admissions with an ICU visit was 11.3 per cent.

FIGURE A 1.3.2: COVID-19 total admissions and percentage attending ICU by month of admission



Note:

ICU visit status is based on the variable ITU Days having a value of zero days (No ICU Visit) or greater than zero days. ITU Days identifies the number of days, or part thereof, the patient spent in an intensive care environment e.g. ICU/ITU/CCU/HDU/NITU.

A.1.4 NEW DIAGNOSIS CODES RELATED TO POST COVID-19 CONDITIONS, MULTISYSTEM INFLAMMATORY SYNDROME AND VACCINE ADVERSE EFFECTS IN 2021

The World Health Organization has activated emergency use codes relating to *Post COVID-19 condition*, *Multisystem inflammatory syndrome associated with COVID-19*, and *COVID-19 vaccines causing adverse effects in therapeutic use*. These codes are effective for discharges from 1st January 2021, and are outlined below.^{9,10}

- Where clinical documentation clearly indicates a current condition is causally related to previous COVID-19, the code U07.4 *Post COVID-19 condition* is assigned as an additional diagnosis. U07.4 is only assigned when COVID-19 is documented as no longer current.
- To identify multisystem inflammatory syndrome associated with COVID-19, the code U07.5 Emergency use code U07.5 *Multisystem inflammatory syndrome associated with COVID-19* is assigned. U07.5 may occur as a principal diagnosis or as a secondary diagnosis. As per guidance from the Centres for Disease Control and Prevention, multisystem inflammatory syndrome (MIS) is a rare but serious condition associated with COVID-19 in which different body parts become inflamed, including the heart, lungs, kidneys, brain, skin, eyes, or gastrointestinal organs. MIS can affect children (MIS-C) and adults (MIS-A).¹¹
- Where clinical documentation indicates that a patient has experienced an adverse effect due to a COVID-19 vaccination, the code U07.7 Emergency use of U07.7 *COVID-19 vaccines causing adverse effects in therapeutic use* is assigned, in addition to existing external cause codes. U07.7 is not assigned as a principal diagnosis.

Table A 1.4 and Figure A 1.4 outline in-patient admissions with a diagnosis of U07.4 *Post COVID-19 condition*, U07.5 *Multisystem inflammatory syndrome associated with COVID-19* or U07.7 *COVID-19 vaccines causing adverse effects in therapeutic use*.

- In 2021, there were 966 admissions with a condition that was causally related to previous COVID-19 (U07.4 *Post COVID-19 condition*).

⁹ Further details on the new codes introduced in 2021 may be found in Irish Coding Standard 22X2, which is available at: http://hpo.ie/hipe/clinical_coding/irish_coding_standards/ICS_2021_V2.0.pdf

¹⁰ A fourth code also introduced in 2021, U07.3 *Personal history of COVID-19*, is not examined in this annex. This code does not infer a causal relationship between previous COVID-19 and any current diagnosis.

¹¹ MIS-C case definition includes people who are younger than 21 years old, and MIS-A case definition includes people who are 21 years and older Source: <https://www.cdc.gov/mis/about.html>

- While the number of admissions with a diagnosis of U07.5 *Multisystem Inflammatory Syndrome associated with COVID-19* is small, the majority are in the younger age groups, with an overall average age of 13.3 years.
- The majority of admissions with a diagnosis of U07.7 *COVID-19 vaccines causing adverse effects in therapeutic use* were admitted between April and July.

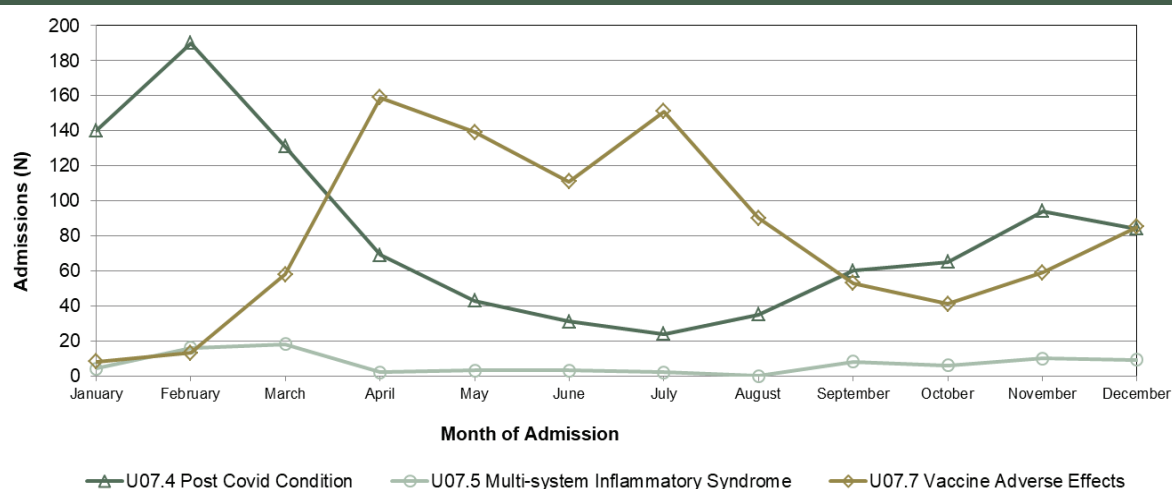
TABLE A 1.4: In-patient admissions with a diagnosis of U07.4 *Post COVID-19 Condition*, U07.5 *Multisystem Inflammatory Syndrome associated with COVID-19* or U07.7 *COVID-19 vaccines causing adverse effects in therapeutic use*, by month of admission, 2021 (N, Age)

Month of Admission	U07.4 Post COVID-19 condition			U07.5 Multisystem inflammatory syndrome associated with COVID-19			U07.7 COVID-19 vaccines causing adverse effects in therapeutic use		
	Admissions (N)	Mean Age	Median Age	Admissions (N)	Mean Age	Median Age	Admissions (N)	Mean Age	Median Age
January	140	51.3	52	~	^	^	8	46.8	40
February	190	55.1	54	16	12.2	8	13	47.3	49
March	131	56.5	54	18	18.6	11	58	50.2	46
April	69	53.0	52	~	^	^	159	57.6	62
May	43	52.6	52	~	^	^	139	58.3	60
June	31	51.8	49	~	^	^	111	48.2	48
July	24	50.0	48	~	^	^	151	40.2	40
August	35	37.5	33	0	-	-	90	30.8	27
September	60	51.8	53	8	17.5	12	53	35.7	31
October	65	50.4	50	6	10.3	9	41	59.3	67
November	94	49.0	49	10	8.9	10	59	52.3	52
December	84	48.7	46	9	10.0	11	85	47.8	49
Total	966	51.9	51	81	13.3	10	967	48.4	47

Notes: ~ Denotes five or fewer discharges reported to HIPE.

^ Denotes that mean and median age are suppressed where the number of discharges is not reported.

FIGURE A 1.4: In-patient admissions with a diagnosis of U07.4 *Post COVID-19 Condition*, U07.5 *Multisystem Inflammatory Syndrome associated with COVID-19* or U07.7 *COVID-19 vaccines causing adverse effects in therapeutic use* in 2021



A.1.5 SUMMARY

The volume and lengths of stay for admissions recording a diagnosis of COVID-19 have had a significant impact on the ability of hospitals to perform their usual activity. The main points of this section are outlined below.

- There were 30,275 admissions with COVID-19 in 2020 and 2021.¹²
- COVID-19 in-patients had a longer length of stay (16.2 days in 2020 and 2021) compared to the overall average in-patient length of stay reported on HIPE in 2021 (5.7 days).
- Just over 52 per cent of COVID-19 admissions were male with just under 48 per cent female.
- 11.3 per cent of total admissions with a diagnosis of COVID-19 had a stay in ICU. These admissions had an average total length of stay of 32.6 days.
- 12.0 per cent of total admissions with a diagnosis of COVID-19 died in hospital.
- 87.5 per cent of COVID-19 admissions were admitted from home. 75.7 per cent of these were discharged back home.
- In 2021, there were over 2,000 admissions with a diagnosis of post COVID-19 conditions, multi system inflammatory syndrome or adverse effects of COVID-19 vaccine.

¹²

COVID-19 may not have been the main reason for admission

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 (ACCD,2017).
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 <i>Outcome of delivery</i>).
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 <i>Outcome of delivery</i>).
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	<p>Discharge rate is the ratio of discharges to the corresponding population. The formula for calculating the discharge rate is:</p> $\frac{\text{Discharges in group } i}{\text{Population of group } i} \times 1,000$ <p>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.</p>
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)	<p>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)</p> <p>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.</p>
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 2021)
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	<p>An in-patient is admitted to hospital for treatment or investigation on a planned or emergency basis.</p> <p>Overnight In-Patient: These discharges are in-patient discharges who stayed at least one night in hospital.</p> <p>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</p>
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 2021 V2.0 was used in the collection of HIPE data in 2021.
Length of stay	<p>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.</p> <p>Mean and median lengths of stay are provided for in-patients only.</p> <p>Mean length of stay is computed by dividing the number of days stayed by the number of discharges.</p> <p>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.</p>
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	<p>HIPE collects the number of previous live births and number of previous stillbirths (over 500g) for all cases with admission type code Maternity.</p> <p>Primiparous: These are women who have had no previous pregnancy resulting in a live birth or stillbirth.</p> <p>Multiparous: These are women who have had at least one previous pregnancy resulting in a live birth or stillbirth.</p>
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 (ACCD, 2017).
Principal and additional procedure	<p>A procedure is defined as a clinical intervention that</p> <ul style="list-style-type: none"> • 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. <p>The order of codes should be determined using the following hierarchy:</p> <ul style="list-style-type: none"> • 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 (ACCD, 2017).
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 and procedures see Australian Consortium for Classification Development (ACCD) 2017. The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM), and Australian Classification of Health Interventions (ACHI) and Australian Coding Standards (ACS) – ICD-10-AM/ACHI/ACS (10th Ed)- Adelaide: Independent Hospital Pricing Authority (IHPA), Lane Publishing.
 Further information on AR-DRG Version 8.0 can be found on the IHPA website <https://www.iacpa.gov.au/resources/development-australian-refined-diagnosis-related-groups-v80> [Accessed 29th August 2022].

ABBREVIATIONS

ACCD	Australian Consortium for Classification Development
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
AMAU	Acute Medical Assessment Unit
AMI	Acute Myocardial Infarction
AR-DRG	Australian Refined Diagnosis Related Group
ASAU	Acute Surgical Assessment Unit
CABG	Coronary Artery Bypass Graft
CC	Complication and/or Comorbidity
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
IHPA	Independent Hospital Pricing Authority
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
NCCH	National Centre for Classification in Health
N	Number of Observations/Discharges
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

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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
National Rehabilitation Hospital (NRH), Dun Laoghaire ^a	Dublin	Specialist	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 ^b	Dublin	Specialist	Non-Voluntary
St. James's Hospital, Dublin	Dublin	Model 4	Voluntary
Coombe Women & Infants University Hospital	Dublin	Maternity	Voluntary
Tallaght University Hospital ^c	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 ^c	Dublin	Paediatric	Voluntary
No group			
Peamount Hospital	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 2021: 53

- a In 2021, the National Rehabilitation Hospital (NRH), Dun Laoghaire moved under the management of the Ireland East Hospital Group. This hospital was previously included in 'No Group' which are hospitals that are not under the management of the Acute Hospitals programme.
- b 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.
- c 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), 10th Edition, July 2017.
	Twenty-nine additional diagnoses	Uses the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM), 10th Edition, July 2017.
	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), 10th Edition, July 2017.
	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), 10th Edition, July 2017.
	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 of admitted or non-admitted patient from hospital or COVID-19 facility in hospital code list or transfer from <i>any</i> acute hospital not specified in hospital code listing, transfer from other non-acute hospital, transfer from hospice, 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, emergency transfer to hospital in hospital code listing or transfer to <i>any acute</i> hospital not specified in hospital code listing, non-emergency transfer to hospital in hospital code listing, or COVID-19 facility, or transfer to <i>any acute</i> hospital not specified in hospital code listing, transfer to psychiatric hospital/unit, died with post-mortem, died without post-mortem, emergency transfer to non-acute hospital, non-emergency transfer to non-acute hospital, transfer to 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	Number of days patient spent in a private bed
	Days in a semi-private bed	Number of days patient spent in a semi-private bed
	Days in a public bed	Number of days patient spent in a public bed
	Parity	Parity: Live births Mandatory for all cases with admission type maternity. Parity: Still births
	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.
	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 2021 Version 13.0.
Source: HIPE Data Dictionary 2021 Version 13.0, available at www.hpo.ie

APPENDIX III: HIPE DATA ENTRY FORM

FIGURE III.1 HIPE Data Entry Form, 01.01.2021

For use with HIPE on ALL DISCHARGES FROM 01.01.2021

Patient's Hospital of Discharge [] [] []		Type (priority) of Admission []		FOR LOCAL COLLECTION ONLY *Name: _____ *Address: _____ _____ Affix Label	
MRN [] [] [] [] [] []	W/List If Type=1-2 []	Type of Elective Adm If Type=1-2 []	Mode If Type=4,5,7 []		
Sex [] Date of Birth [] [] [] [] [] []					
Admission Date [] [] [] [] [] []					
Admission Time [] [] : [] []	IF TRANSFER IN: Tick if this a transfer of a non-admitted patient []				
Discharge Date [] [] [] [] [] []	Admission Source []	Duration of continuous ventilatory support (hours) Cumulative [] [] []			
Discharge Time [] [] : [] []	Discharge Code []	Lab-Confirmed COVID-19 Past or Present []			
Area of Residence [] [] []	Admitting Ward [] [] [] [] []	Day Case []	Day Ward []		
*Eircode [] [] [] [] [] []	Discharge Ward [] [] [] [] []	Day Ward ID [] [] [] [] []			
Marital/Civil Status []	Transfer from [] [] [] []	Days in ITU/ICU [] Where status on discharge is "Private" also enter: Days in Single Occupancy ITU/ICU [] Days in multiple occupancy ITU/ICU []			
Medical Card []	Transfer to [] [] [] []				
Health Insurer [] [] [] [] [] []	Temp Leave Days []				
Parity [] Still [] + Live []	Date of Transfer to rehab/PDU [] [] []	Number of Days by Bed Type: Private Bed [] Semi Private Bed [] Public Bed []			
Infant Admit Weight (grams) [] [] [] [] []	Days in a Critical Care Bed []	Number of Days by Room Type: Single Room Bed [] Multiple Room Bed []			
Discharge Status []					
Admitting Consultant [] [] []	Intensive Care Consultant [] [] []	Discharge Consultant [] [] []	Medical Discharge Date [] [] []		
Primary Consultant [] [] []	Up to 10 Intensive Care consultants may be recorded	Specialty of Discharge Consultant [] [] []			

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 diagnosis codes may be entered.		[] [] [] []	

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

ase 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

For use on all discharges from 01.01.2021

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 of admitted or non-admitted patient from hospital or Covid -19 facility in hospital code list or transfer from <i>any</i> acute hospital not specified in hospital code listing'	3	'Transfer from other hospital' (3,4,6)
4	'Transfer from non-acute hospital'	4	'Other' (7, 8, 9, 0)
5	'Transfer from hospice'		
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	'Emergency transfer to hospital in hospital code listing or transfer to <i>any</i> <u>acute</u> hospital not specified in hospital code listing'	4	'Died' (06, 07)
04	'Non Emergency transfer to hospital in hospital code listing, or Covid-19 facility, or transfer to <i>any</i> <u>acute</u> hospital not specified in hospital code listing'	5	'Other' (00, 12, 13, 14, 15)
05	'Transfer to psychiatric hospital/unit'		
06	'Died with post mortem'		
07	'Died no post mortem'		
08	'Emergency transfer to non-acute hospital'		
09	'Non Emergency transfer to non-acute hospital'		
10	'Transfer to rehabilitation facility'		
11	'Hospice'		
12	'Prison'		
13	'Absconded'		
14	'Other (e.g. Foster care)'		
15	'Temporary Place of Residence'		

Note:

For further information on all variables collected by HIPE see HIPE Data Dictionary 2021 Version 13.0 available at www.hpo.ie

APPENDIX V: AUSTRALIAN CODING STANDARD 0042

Australian Coding Standard 0042 Procedures normally not coded¹

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 (e.g. elderly patients, those who live in remote locations).

1. Application of plaster
2. Bladder washout via indwelling catheter
Exception(s): code:
 - endoscopic irrigation for removal of blood clot (36842-00 [1092])
 - endoscopically controlled hydrodilation of bladder (36827-00 [1108])
3. Cardiopulmonary resuscitation (mechanical or non-mechanical)

¹ Australian Consortium for Classification Development (ACCD) 2017. The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM), and Australian Classification of Health Interventions (ACHI) and Australian Coding Standards (ACS) – ICD-10-AM/ACHI/ACS (10th Ed)- Adelaide: Independent Hospital Pricing Authority (IHPA), Lane Publishing.

4. Cardiotocography (CTG) except internal fetal monitoring (eg fetal scalp electrodes) (16514-00 [1341])
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 diseases and interventions related to the sick neonate*)
 - urinary except if suprapubic
6. Doppler recordings
7. Dressings (eg autologous platelet-rich plasma (PRP) dressing), except vacuum (VAC) dressings (90686-01 [1628], 90686-00 [1627])
8. Drug treatment/pharmacotherapy/prescription of drugs (eg parental nutrition (TPN))
 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 0534 *Specific interventions related to mental health care services*, ACS 0943 *Thrombolytic therapy*, ACS 1316 *Cement spacer/beads* and ACS 1615 *Specific diseases and interventions related to the sick neonate*)
9. Electrocardiography (ECG) except patient-activated implantable cardiac event monitoring (loop recorder) (11722-00 [1854])
10. Electromyography (EMG)
11. Imaging services – all codes in ACHI Chapter 20 *Imaging services* and block [451] *Dental radiological examination and interpretation* except:
 - endoscopic ultrasound (EUS) (30688-00 [1949])
 - transoesophageal echocardiogram (TOE) (55118-00 [1942])
12. Monitoring: cardiac, electroencephalography (EEG), vascular pressure except radiographic/video EEG monitoring ≥ 24 hours (92011-00 [1825])
13. Nasogastric intubation, aspiration and feeding, except nasogastric feeding in neonates (96202-07 [1920]) (see ACS 1615 *Specific diseases and interventions related to the sick neonate*)
14. Primary suture of surgical and traumatic wounds
 Code only for traumatic wounds which are not associated with an underlying injury (see ACS 1217 *Repair of wound of skin and subcutaneous tissue*)
15. Stress test
16. 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 as outlined below 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. 2021 relates to discharges reported for 2021). 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 8TH EDITION TO 10TH EDITION ICD-10-AM/ACHI/ACS

VII.1 Introduction

Ireland updated to the 10th edition of ICD-10-AM/ACHI/ACS for all discharges from 1st January 2020. 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 9th and the 10th Edition of ICD-10-AM/ACHI/ACS. Extensive training on the update to 10th edition ICD-10-AM/ACHI/ACS was held for all HIPE staff throughout the country in a series of regional training workshops in 2019. Additional training on the update was also held in 2020.

A summary of the changes from the 8th edition to the 10th edition are outlined below.

- Number of codes in 10th Edition

Number of valid disease codes: 16,953

Number of ACHI Codes: 6,248

- Number of codes added and removed

Code Set	Added	Removed
Diagnosis from 8th to 10th	363	78
Procedures from 8th to 10th	178	317

- Number of Australian Coding Standards added and deleted

17 New ACS

36 Deleted ACS

The following lists include the areas in the classification and coding standards where the main changes occurred with some detail provided for illustration. For example, in 10th edition there were major changes to the coding of Obstetrics in terms of diagnosis codes, procedure codes and coding guidelines; also changes to the coding guidelines for Rehabilitation will impact the sequencing of codes. This is not an exhaustive list and if further details are required, these are available on application to the HPO.

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

ICD-10-AM Diagnoses

- Obstetrics
 - There were extensive changes to the coding of diagnoses in Obstetrics.
 - Examples of changes:
 - The term *complicating pregnancy* has been replaced by *in pregnancy* particularly for conditions not exclusive to the pregnant state—that is, non-obstetric conditions.
 - Many of the changes provide clarification for clinical coders.
 - Example: *O24.0 Pre-existing diabetes mellitus, type 1, in pregnancy* now contains an instructional note; *code also diabetes mellitus (E10.-)*. Therefore, an appropriate code from E10 *Type 1 diabetes mellitus* must be assigned with *O24.0 Pre-existing diabetes mellitus, Type 1, in pregnancy* to indicate the severity of the type 1 diabetes, including E10.9 *Type 1 diabetes mellitus without complication* if the pregnant patient does not have a diabetes complication.
 - Removal of *Excludes* notes that support single condition coding rather than multiple condition coding.
 - Some four character codes have been removed and there is addition of a *Code also* instruction at the 3-character code.
 - Example: *O10 Pre-existing hypertension in pregnancy, childbirth and the puerperium* is now a standalone code and is followed by an instructional note; *Code also specific type of hypertension (I10 – I15), if known*.
- Procedural complications
 - There are 160 new codes added throughout the classification for the coding of procedural complications in addition to amendments in existing codes and code titles and changes in the terminology.
- Sepsis
- Cystic fibrosis
- Chronic pain
- Pressure injuries
- Rehabilitation
 - ACS 2104 Rehabilitation
 - Amended sequencing of rehabilitation to additional diagnosis position
 - *Z50.9 Care involving use of rehabilitation procedure, unspecified* should never be assigned as a principal diagnosis. For admitted episodes of rehabilitation care, the principal diagnosis should reflect the underlying condition requiring rehabilitation (see ACS 0001 *Principal diagnosis*).
- Same day endoscopies
- Allergen Challenges

ACHI Procedures

- Ophthalmology interventions
 - Extensive revision of codes and code titles for ophthalmology procedures
 - Codes with similar procedural concepts have been combined into a single code
 - Certain codes have been deleted as the procedural concepts are already present in other codes or due to the low volume of assignment of the codes
 - Addition or amendment of *Instructional* notes
 - Deletion of old terminology e.g. “magnetic” vs “nonmagnetic”
 - Amendment of code titles for consistency within the classification
 - Review of cataract procedure codes in blocks [193] to [201] revealed that the codes were overly granular with many overlapping concepts
 - Coding of cataract procedures will now require a code from block [200] *Extraction of crystalline lens* to specify the type of lens extraction **and** assignment of a code from block [193] *Insertion of intraocular prosthesis* to specify the lens insertion
- Obstetrics
 - Block 1336 *Spontaneous vertex delivery*: Previously this code was not required for all spontaneous vertex deliveries as the delivery was assumed to be normal when there is an absence of procedure codes for interventions such as Caesarean Section etc. This has been updated and this code is now required for all spontaneous vertex deliveries.
 - Caesarean Section: Change in guidance on when to assign emergency and elective caesarean section codes. Note added at block 1340 to state that assignment of emergency or elective caesarean section is based on documentation of these terms in the clinical record.
- Cardiovascular interventions
- Ventilatory support
- Respiratory interventions e.g. bronchoscopy

Australian Coding Standards (ACS)

- Revision of conventions e.g. *code also* notes
- ACS 0042 *Procedures normally not coded*
- ACS 0002 *Additional Diagnoses*
- ACS 0943 *Thrombolytic Therapy*
- Obstetrics:
 - 3 new Australian Coding Standards

- ACS 1500 *Diagnosis sequencing in delivery episodes of care*
- ACS 1505 *Delivery and assisted delivery codes*
 - Provides guidelines regarding the assignment of ACHI delivery (or other) intervention codes with O80-O84 *Delivery*
 - This standard requires a corresponding ACHI code to be assigned for all episodes of delivery.
- ACS 1552 *Premature rupture of membranes, labour delayed by therapy*
- 15 Australian Coding Standards have been deleted
 - The guidelines are now included within the classification or within the general Australian Coding Standards.
- 4 Australian Coding Standards have undergone major changes
 - ACS 1506 *Fetal presentation, disproportion and abnormality of maternal pelvic organs*
 - ACS 1511 *Termination of pregnancy*
 - ACS 1521 *Conditions and injuries in pregnancy*
 - ACS 1548 *Puerperal/Postpartum condition or complication*
- ACS 1904 Procedural Complications
 - Extensive revision of coding guidance in ACS 1904 Procedural complications including:
 - Clarification on qualifying terms
 - Intraoperative/postoperative medical conditions
 - Causal relationship must be clearly documented
 - Examples of common conditions listed
 - Routine postoperative care
 - Care beyond routine
 - New flow chart
 - 29 coding examples

Irish Coding Standards (ICS 2020 V1)

Five new Irish Coding Standards:

- ICS 0003 *Supplementary codes for chronic conditions* – supplementary codes for chronic conditions will not be collected in Ireland.
- ICS 0049 *Disease codes that must never be assigned* – code R65.0 SIRS of infectious origin without acute organ failure can be assigned in Ireland in accordance with ICS 0110 SIRS, Sepsis, Severe Sepsis and Septic Shock.
- ICS 0110 *SIRS, Sepsis, Severe Sepsis and Septic Shock* provides guidance on the coding of SIRS in Ireland in 10th edition.
- ICS 2116 *Palliative Care* – palliative care has been moved to Chapter 21 in 10th edition and also the content of the standard has changed. Palliative care

can only be coded when there is documented evidence that the patient has been provided with palliative care.

- ICS 22X1 *Vaping Related Disorder* – advice issued by the WHO/IHPA instructs that code U07.0 *Emergency Use of U07.0* be used when there is documentation of vaping related disorders.
- Additionally, 3 Irish coding standards were updated and 4 were deleted.

COVID-19

ICD-10-AM diagnosis codes were introduced during 2020 following instruction from the WHO and IHPA. Initially code U07.1 *Emergency use of U07.1 (COVID-19 Virus identified)* was introduced to capture cases with laboratory confirmed COVID-19. The codes and associated guidance for capturing COVID-19 data expanded throughout the year.

The following resources relating to COVID-19 are available in the 2021 Irish Coding Standards (available at www.hpo.ie).

- ICS 22X2 Novel Coronavirus (COVID-19)
- Supplementary Guidance for classifying COVID-19
- HPO Coding Advisory: Unspecified pneumonia in COVID-19 cases
- Guidelines for Administrative Data: XII. Laboratory Confirmed COVID 19 Past or Present – Flag

The following resources relating to COVID-19 are also available.

- HPO's quarterly newsletter: Coding Notes – see articles in Coding Notes on COVID-19 (available at www.hpo.ie)
- Independent Hospital Pricing Authority (IHPA) COVID-19 Guidance (available at <https://www.ihipa.gov.au/what-we-do/how-to-classify-covid-19>)
- WHO classification of COVID-19
<https://www.who.int/standards/classifications/classification-of-diseases/emergency-use-icd-codes-for-covid-19-disease-outbreak>

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 IHACPA website <https://www.ihacpa.gov.au/resources/development-australian-refined-diagnosis-related-groups-v80> [Accessed 29th August 2022].

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.ihacpa.gov.au/sites/default/files/2022-01/Review%20of%20the%20AR-DRG%20Complexity%20Process.pdf> [Accessed 29th August 2022]

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