Variation in day surgery rates across Irish public hospitals[1,2]

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INTRODUCTION

For many common surgical procedures performed in acute hospitals, opting for day surgery instead of in-patient surgery that requires an overnight stay has been shown to provide equal or better outcomes for patients, enhance hospital efficiency, and reduce costs. However, the OECD reports wide variation across countries in the use of day surgery in acute hospitals for various common procedures, with Ireland notably having lower rates of day surgery. Given the large waiting lists, long waiting times and high demand for in-patient beds in the Irish acute public hospital system, this paper aims to provide a clearer understanding of why day surgery rates are low in Ireland and in particular why rates vary across hospitals.

DATA AND METHODS

This study uses patient level administrative data on 13[3] commonly performed elective procedures between 2011 and 2019 which have been deemed clinically appropriate for day surgery both in Ireland and internationally. We analyse day surgery trends for these procedures and examine day surgery rates across key patient characteristics, including age, sex, marital status, admission type (public or private), principal and secondary diagnoses, and number of procedures undertaken. In addition, data on the hospital attended and the surgical team that undertook the procedure allows us to examine variations at the hospital and

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1 This Bulletin summarises the findings from Brick, A., B. Walsh, T. Kakoulidou, and H. Humes (2025). 'Variation in day surgery rates across Irish public hospitals', *Health Policy*. Available at: https://doi.org/10.1016/j.healthpol.2024.105215 Correspondence: aoife.brick@esri.ie

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3 Laparoscopic cholecystectomy, extraction of cataract, myringotomy, excision of lesion of breast (including re-excision), dilation and curettage/hysteroscopy, release of carpal tunnel, removal of metalware, male circumcision, repair of inguinal hernia-unilateral, laparoscopic repair of inguinal hernia-unilateral, tonsillectomy, vaginal hysterectomy, total arthroplasty of hip, unilateral.

surgical team levels using multilevel modelling techniques. We place particular emphasis on laparoscopic cholecystectomy. This procedure is commonly used to assess day surgery performance in Ireland and the UK, and is a key comparative procedure reported by OECD. Statistical methods incorporating all the above-mentioned information are then used to examine the variation in day surgery rates across hospitals.

RESULTS

We find that day surgery rates in Irish public acute hospitals are consistently lower than targets set by Irish and international clinical standards. While day surgery rates improved over time, particularly between 2011 and 2015, progress slowed more recently (2015-2019), and significant variation persists across hospitals. Focusing on laparoscopic cholecystectomy, we observe that the probability of day surgery depends on patient characteristics. Younger patients, those having a single surgery, those with fewer complicating conditions, and those living closer to the hospital are more likely to have day surgery. Importantly, we find that much of the variation in day surgery across hospitals is explained by non-patient level factors, in particular the surgical team.

CONCLUSIONS

Our findings demonstrate that while there has been progress in the use of day surgery in Ireland, there remains extensive scope for improvement. A policy focus on encouraging and incentivising surgical teams to adopt day surgery may be warranted, along with the addition of dedicated resources. The introduction of elective-only facilities, such as surgical hubs and hospitals, should make a difference but will need to be carefully monitored to ensure effectiveness. The challenge of reducing variation across hospitals and surgical teams will also require ongoing monitoring.