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Should hospital funding be linked to socioeconomic status?

Exploring how much disadvantaged patients access healthcare and the implications for hospital funding reforms.

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Socioeconomic status and healthcare needs

Do patients with a chronic disease from a low socioeconomic background make greater use of hospital services than others? The answer has direct implications for government policy affecting access to care by disadvantaged patients and the reform of hospital funding policy in relation to chronic diseases.

Socioeconomic status reflects a person's absolute and relative position in society. It captures a combination of access to material and social resources, as well as relative status (prestige or rank related characteristics). It is reflected in a broad range of factors including educational attainment, financial and occupational position.

Evidence suggests that socioeconomic status is a strong predictor of a person's health, including their morbidity and mortality risks. The vast literature on the relationship between health, income and education affirms this relationship. Although socioeconomically disadvantaged patients tend to have greater healthcare needs due to generally poorer health, this does not necessarily translate into greater use of the healthcare system. Access to healthcare can be hampered by funding constraints, a lack of health insurance, the existence of co-payments, and non-financial barriers such as waiting times.

Defining socioeconomic status and hospital use

Our study defines socioeconomic status using Victorian Department of Health and Human Services records. Patients are classified into four socioeconomic groups according to their use of health and human services, which may include disability support, family assistance (such as family violence and child protection), low-income assistance (such as concessions for financial hardship including energy and water bills), and housing assistance (low income housing support and crisis accommodation).

Hospital use is measured by the cost of care provided, length of stay, and number of admissions during a one-year spell (period) of the disease. This study also examines whether socioeconomic status is associated with in-hospital adverse incidents, including unplanned re-admissions, hospital-acquired complications and potentially preventable hospitalisation.

Important principles underlying equity of access to healthcare

Equity of access is an important guiding principle of the Australian healthcare system. For the purpose of our study, two notions of equity are relevant.

1. The principle of horizontal equity: patients with the same health needs should receive the same level of care, regardless of socioeconomic background.
2. The principle of vertical equity: patients of different healthcare needs should have different, but equitable, levels of care.

In practice, the notion of vertical equity is difficult to achieve since it requires a normative notion of which levels of care are equitable or inequitable. Most of the studies in the related literature attempt to account for differences in need by controlling for the morbidity of patients, but this approach is not always satisfactory.

An alternative approach

Our study uses an alternative approach which involves identifying patients at different stages of disease progression (in so far as the data allow), and only comparing patients in the same stage of disease progression to ensure adherence to the principle of horizontal equity.

Given that healthcare use can differ widely as a chronic disease progresses, it is crucial that the stage of disease progression is taken into account when comparing usage and outcomes of patients of different socioeconomic backgrounds. Our approach identifies chronic disease spells using a one year 'look-back' period to identify the start of a chronic disease spell. We then measure healthcare use and adverse outcomes for a one-year period from the start of the disease spell. Since patients are put on a similar disease-progression timeline, the principle of horizontal equity suggests they should have similar levels of hospital use. This approach, unlike studies which control for health needs using morbidity information, avoids the difficulty associated with vertical equity.

Hospital funding policy

This Research Insight explores whether socioeconomic differences of patients should be accounted for in hospital funding policy. The issue is particularly relevant for hospital funding reforms that aim to better serve the needs of chronic disease patients. Proposals to replace the current episode-based case mix funding with capitation funding (i.e. hospitals are paid an annual lump sum for every patient they enrol in the program) highlight the importance of accounting for socioeconomic status in the funding policy.

Key Insights

1 Socioeconomic disadvantage significantly impacts hospital use

Our study shows that socioeconomic disadvantage has statistically significant and material effects on hospital use by chronic disease patients. Patients experiencing moderate and high socioeconomic disadvantage use hospital care by about 20 per cent more than people who are not disadvantaged.

2 Adverse outcomes explain higher hospital use

Differences in hospital use across socioeconomic groups can be partially explained by the incidence of adverse outcomes and their association with socioeconomic status. We find that socioeconomically disadvantaged patients have up to 80 per cent more adverse in-hospital incidents (unplanned re-admissions, hospital acquired complications and potentially preventable admissions) than patients with the same disease profile who are not disadvantaged. Disadvantaged patients can consequently be expected to have a greater number of admissions and longer stays, hence incur higher hospital costs, than non-disadvantaged patients.

Look to socioeconomic status when triaging funding

Our findings that socioeconomically disadvantaged patients tend to make greater use of hospital services and have more in-hospital adverse events (than those who are not disadvantaged) imply that socioeconomic differences of patients should be accounted for in hospital funding policy.

Current funding in Victoria provides additional payments in the form of loadings to hospitals for treating Indigenous patients, but not in relation to other socioeconomically disadvantaged groups within society. This means that hospitals in areas with a high number of socioeconomically disadvantaged patients may be underfunded. Such underfunding will be exacerbated by capitation-based funding reforms under consideration for the funding of chronic disease patients. In the long-term, affected hospitals will have reduced capacity to supply services. In extreme cases, hospitals may have incentives to turn away or transfer disadvantaged patients elsewhere. This would further exacerbate access to hospital services by disadvantaged patients. The linking of hospital funding to socioeconomic status has taken on even greater importance under the current environment, with COVID-19 adversely impacting economic activities and the health of the population. Early evidence suggests that the impact is disproportionately borne by the socioeconomically disadvantaged, whose health needs can be expected to rise over time. Future funding reforms ought to provide for the anticipated increase in demand from the disadvantaged population.

Further Information

Further reading

Yong, J. and Yang, O. Does socio-economic status affect hospital utilisation and adverse outcomes of chronic disease patients? Unpublished Manuscript, Melbourne Institute: Applied Economic & Social Research, University of Melbourne, April 2019.

Datasets

Linked administrative data on hospital admissions, healthcare and human services use, maintained by the Victorian Department of Health and Human services (DHHS). Data consist of 237,743 patients diagnosed with one of 12 chronic diseases.

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