

Aboriginal people during the study period, 1998–99 to 2005–06.

Avoidable hospitalisation rates are used nationally and internationally as an indicator of primary health care effectiveness and accessibility. However, debate continues about which conditions to include as “avoidable”, and the potential for errors in allocating and coding the primary diagnosis. Furthermore, serious methodological issues remain regarding the use of avoidable hospitalisation rates as an indicator of primary health care effectiveness and accessibility.

The outcome measure “avoidable hospitalisation” is affected by more than just primary health care. This is acknowledged by Li et al,¹ who identify other factors that affect hospitalisation, including disease prevalence and severity, and geographical remoteness.² If these factors are not controlled for, it is not possible to attribute differences in hospital admissions to differences in quality of primary care. This would only be possible if Indigenous and non-Indigenous populations were similar in health status and residential location (and other important respects).

Aboriginal people in the NT experience far higher rates of diabetes than non-Aboriginal Australians and the age of onset is far younger. For example, there is a 10% prevalence of diabetes in Aboriginal people aged 25–34 years residing in remote areas of the NT. This is 19.5 times the rate of diabetes in a sample of the Australian population of the same age (which will be close to the non-Indigenous rate in the NT), using data from the AusDiab study.³ This young Aboriginal population is also 18 times more likely to have multiple chronic conditions than the AusDiab group of the same age.³ Hospitalisation rates of a population with this health profile should be high, particularly if the primary care system is performing well.

Even though Li and colleagues recognise the complexity of measuring primary health care effectiveness and access,¹ they still attribute higher rates of avoidable hospitalisations to Aboriginal people’s lack of access to effective primary care. This simply cannot be deduced from their analysis, as it fails to adjust for the high and increasing incidence, prevalence and severity of chronic diseases in the NT Aboriginal population compared with the non-Aboriginal population. This type of misinterpretation of data is serious, given the potential policy implications. We agree that the research question is important, but it warrants a sophisticated analysis

that properly adjusts for the most important confounders.

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1 Li SQ, Gray NJ, Guthridge SL, Pircher SLM. Avoidable hospitalisation in Aboriginal and non-Aboriginal people in the Northern Territory. *Med J Aust* 2009; 190: 532-536.

2 Ansari Z, Laditka JN, Laditka SB. Access to health care and hospitalization for ambulatory care sensitive conditions. *Med Care Res Rev* 2006; 63: 719-741.

3 Hoy WE, Kondalsamy-Chennakesavan S, Wang Z, et al; AusDiab Group. Quantifying the excess risk for proteinuria, hypertension and diabetes in Australian Aborigines: comparison of profiles in three remote communities in the Northern Territory with those in the AusDiab study. *Aust N Z J Public Health* 2007; 31: 177-183. □

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IN REPLY: The national and international use of avoidable hospitalisations as an indicator of accessibility and overall effectiveness of primary care¹ has included reporting differences in hospital admissions for different ethnic populations and across different geographical regions to highlight inequities in access to primary care. Avoidable hospitalisation rates are also routinely reported for the Aboriginal and Torres Strait Islander population.² Currently, there is no “gold standard”, but compared with other indicators, such as self-reported data from population surveys, avoidable hospitalisation rates are regarded as an objective and robust measure of primary care.³

Despite the established use, there are well recognised limitations in the interpretation of avoidable hospitalisations, which are outlined in our article,⁴ and also raised in the letter by Gibson and Segal. What our article highlights, using well identified data sources, is the difference in avoidable hospitalisation rates between the Northern Territory Aboriginal and non-Aboriginal populations, as well as the very different trends. There are expectations that current reforms in the delivery of primary care for Aboriginal Australians can be directly monitored by improvements in avoidable hospitalisation rates. Our results highlight the need for caution in interpreting changes in these rates, and the substantial

Avoidable hospitalisation in Aboriginal and non-Aboriginal people in the Northern Territory

Odette R Gibson and Leonie Segal

TO THE EDITOR: Li and colleagues analysed avoidable hospitalisation rates for Aboriginal and non-Aboriginal people in the Northern Territory, examined trends over time, and assessed “the implications for future primary care interventions”.¹ Their study results confirmed that Aboriginal Australians in the NT experience significantly higher rates of avoidable hospitalisations than non-Aboriginal people. They also report a widening gap between avoidable hospitalisation rates of Aboriginal and non-

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risks associated with unrealistic performance benchmarks.

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- 1 Ansari Z, Laditka JN, Laditka SB. Access to health care and hospitalization for ambulatory care sensitive conditions. *Med Care Res Rev* 2006; 63: 719-741.
- 2 Australian Institute of Health and Welfare. Aboriginal and Torres Strait Islander Health Performance Framework 2008 report: detailed analyses. Canberra: AIHW, 2008. (AIHW Cat. No. IHW 22.)
- 3 Ansari Z. The concept and usefulness of ambulatory care sensitive conditions as indicators of quality and access to primary health care. *Aust J Primary Health* 2007; 13 (3): 91-110.
- 4 Li SQ, Gray NJ, Guthridge SL, Pircher SLM. Avoidable hospitalisation in Aboriginal and non-Aboriginal people in the Northern Territory. *Med J Aust* 2009; 190: 532-536. □