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**TO THE EDITOR:** The burden of colorectal cancer can be minimised, firstly, by early and appropriate investigation of symptoms; secondly, by screening those at higher-than-average risk without symptoms; and thirdly, by community-based screening of asymptomatic people aged over 50 years who are at average risk. Major screening programs using faecal-occult-blood testing (FOBT)<sup>1-3</sup> or flexible sigmoidoscopy<sup>4</sup> have not necessarily made this differentiation. These tests lack the sensitivity of colonoscopy, which is generally indicated for those with symptoms or a strong family history of colorectal cancer.

In our recent community-based screening program in which we used virtual colonoscopy, we excluded those at higher than average risk for colon cancer (that is, they were symptomatic or had at least one first-degree relative with colon cancer), as our standard of care for these patients is colonoscopy. They were given verbal and written advice to see their general practitioner, with the expectation that most should have colonoscopy. They were followed up an average of 12 months (range, 6–15 months) later, by letter and telephone, to determine the outcome of this advice.

Of 2000 participants aged 50–69 years who were offered screening, 90

tive results on other investigations. These were FOBT alone in three (two symptomatic, one with family history) and barium enema in one who had bleeding. Common reasons for not consulting their GPs were because of good health (15 participants), resolution of symptoms (12), and perceived lack of need for tests (10).

These data have important implications for CRN screening programs, including recently commenced Australian pilot programs ([www.cancer-screening.gov.au](http://www.cancer-screening.gov.au)). Firstly, there is likely to be an improved yield of advanced CRN when a previously uninvestigated high-risk group is identified within a screening program. Secondly, people identified as having higher-than-average risk for CRN need special attention to ensure there is adherence to advice on appropriate follow-up. Thirdly, procedures are required to ensure colonoscopy is appropriately undertaken when participants do consult their GPs. Accordingly, rather than adopting an exclusion policy within a screening program based on FOBT or flexible sigmoidoscopy, we believe it is appropriate that people at greater risk for

## Socioeconomic disadvantage and use of general practitioners in rural and remote Australia

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**TO THE EDITOR:** Studies investigating the relationship between socioeconomic status (SES) and use of healthcare services suggest that, in metropolitan regions, low-SES groups consult general practitioners more frequently than high-SES groups.<sup>1</sup> The primary reason is their poorer health and hence greater medical need (however, distributional, operational and financial factors associated with the provision of general practice services are also important).

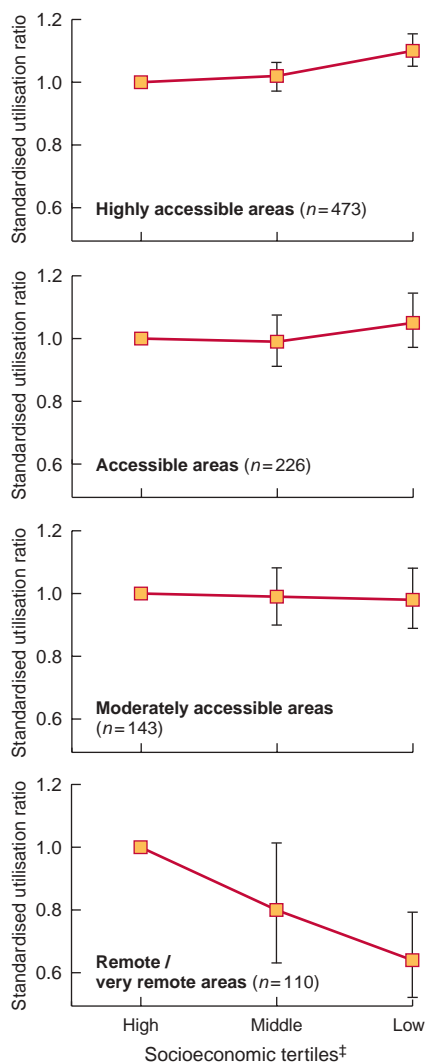
Is a similar relationship found between SES and GP use in non-

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There should be no more than 5 references. The reference list should not include anything that has not been published or accepted for publication. Reference details must be complete, including: names and initials for up to 4 authors, or 3 authors et al if there are more than 4 (see [mja.com.au/public/information/uniform.html#refs](http://www.mja.com.au/public/information/uniform.html#refs) for how to cite references other than journal articles).

### Association between socioeconomic disadvantage and use of general practitioners within ARIA\* categories†



\* ARIA (Accessibility/Remoteness Index of Australia) categories:<sup>4</sup>

- Highly accessible: areas with relatively unrestricted access to a wide range of goods and services and opportunities for social interaction.
- Accessible: areas with some restrictions to accessibility of some goods, services and opportunities for social interaction.
- Moderately accessible: areas with significantly restricted accessibility of goods, services and opportunities for social interaction.
- Remote/very remote: areas with very restricted or very little accessibility of goods, services and opportunities for social interaction.

† Relationship between area disadvantage and GP use is adjusted for number of full-time equivalent GPs per 10 000 population.

‡ Each tertile comprises approximately a third of the statistical local areas (SLAs) in the six Australian states. The high and low tertiles comprise the 33% least and most socioeconomically disadvantaged SLAs, respectively.

metropolitan areas? We investigated this issue using data from the *Social health atlas of Australia* project.<sup>2</sup> We defined “GP use” as unreferred services<sup>3</sup> provided by general and vocationally registered practitioners (not specialist medical practitioners), delivered at a surgery or clinic, a patient’s home, or an institution such as a hostel or nursing home.

Specifically, 952 statistical local areas (SLAs), comprising 98.6% of all SLAs for the six Australian states, were classified into four geographic remoteness categories (see Box) using the Accessibility/Remoteness Index of Australia (ARIA).<sup>4</sup> Within each ARIA category, we grouped SLAs into tertiles of socioeconomic disadvantage based on their Australian Bureau of Statistics’ Socio-Economic Indexes for Areas (SEIFA) score. We then compared the average rates of GP use between tertiles for the 2-year period 1996–1997. Our analysis included a measure of the number of full-time equivalent (FTE) GPs per 10 000 population in each SLA as a test of equity: similar or higher rates of GP use in disadvantaged SLAs independent of GP availability suggest equity of access.

In areas classified as “highly accessible”, rates of GP use were significantly (10%) higher in disadvantaged SLAs after adjusting for GP availability (Box). The reverse was found in “remote/very remote” areas, where rates of GP use were about 36% lower in disadvantaged SLAs. Also, the strength of the relationship between GP availability and GP use differed across the ARIA categories. In “highly accessible” areas, a unit increase in the number of FTE GPs per 10 000 population was associated with a 1% increase in GP use, whereas in “remote/very remote” areas it was associated with a 15% increase (data not shown). This suggests that disadvantaged groups in rural and remote areas experience disproportionate difficulty accessing GP services. These areas are underserved by GPs, who charge more for their services and are less likely to bulk-bill.<sup>5</sup>

It seems that in metropolitan regions the Medicare principle of equity of access to GP services is being realised (ie, people with higher levels of morbidity are making greater use of GP serv-

ices), whereas in remote and very remote areas this is not the case. The findings might also reflect the fact that disadvantaged groups (especially in rural and remote areas) make greater use of emergency departments of local hospitals or other community-based or primary care outreach services — these services are not covered by Medicare and, therefore, are not taken into account in the rates of GP use presented here.

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### The association between licit and illicit drug use and sexuality in young Australian women

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**TO THE EDITOR:** Studies of non-representative population samples show that recreational drug use is more prevalent among non-heterosexual women than heterosexual women.<sup>1</sup> The Australian Longitudinal Study of Women’s Health<sup>2</sup> allowed an examination of the links between sexuality and recreational drug use in a representative sample of 9260 women aged 22–27 years in 2000.

Respondents reported their history of tobacco, alcohol and illicit drug use. Reported frequency and volume of alcohol consumption were recorded according to National Health and Medical Research Council guidelines.<sup>3</sup> Use of illicit drugs in the last year was dichotomised between marijuana and other illicit drugs (see Box). Respondents also indicated whether they had ever injected illicit drugs.