Prevalence and frequency of health service use: associations with occupational prestige and educational attainment

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Abstract: The accessibility of health care services has been suggested to be one factor with the potential to ameliorate the health effects of socioeconomic disadvantage. From a randomly selected sample of households in the Lower Hunter Valley region, 2623 adults were surveyed in 1987–88 to identify their reported use of medical, allied and alternative health services during the previous four weeks. There was a higher prevalence of use of the 'usual' general practitioner and medical services among educationally disadvantaged respondents only. No significant differences were evident between educational or between occupational groups in the prevalence of use of either alternative services or health services generally. Fewer occupationally disadvantaged respondents reported using allied health services. There was no difference in the number of health services more frequently disadvantaged service users reported using any health, medical or general practitioner services more frequently than expected. In contrast, only occupationally disadvantaged service users reported using allied health services (and allied health services other than dentists) more frequently. The lack of consistent differentials in use across health services in favour of disadvantaged respondents suggests that a number of health care services may not be responding to the greater need for health care among disadvantaged members of the community. (*Aust J Public Health* 1995; 19: 512–19)

Throughout the developed world, socioeconomically disadvantaged people have higher than average mortality and morbidity.¹⁻³ Recent data suggest that such differentials are undiminished or are increasing.^{1,2,4-7} Disadvantaged people also have a higher prevalence of risk factors, such as smoking, inadequate exercise and inappropriate diet.^{1,3,8,9}

The provision of health care services is considered to have a limited role in explaining the existence of socioeconomic health status differentials.^{10,11} Despite this, health care providers retain a significant responsibility for ensuring that the provision of care is primarily determined by need. In addition, several studies have suggested that where health care services have addressed such a responsibility, improvements in the health of socioeconomically disadvantaged people have resulted.¹²⁻¹⁵ For example, a randomised controlled trial in the United States suggested that existing socioeconomic differentials in health status could be reduced by reducing the cost of health care. Brook et al. reported that disadvantaged persons provided with free health care significantly improved their health relative to disadvantaged persons who were not provided with free care.¹⁴ In addition, such care did not appear to improve the health of advantaged people, suggesting that improving the accessibility of health services has the potential to not only reduce the effects of disadvantage on health, but to reduce existing differentials in health status.15

Both the prevalence and frequency of selfreported health service use are frequently used measures of accessibility.^{5,16-20} Studies from several countries have reported the ability of some types of health services to provide accessible care to the socioeconomically disadvantaged.²¹⁻²² For example, disadvantaged people in Australia and Canada have reported using medical practitioners at higher absolute rates than advantaged people.^{5,18} Use of these services was essentially the same for both groups, after accounting for differences in health status and demographic characteristics.

Not all services have shown that they can meet the greater health care needs of disadvantaged people. For example, Italian and Dutch studies have reported that those of lower socioeconomic status are less, rather than more, likely to use specialist medical services.²³⁻²⁵ An Australian study reported that privately insured people residing in areas of low socioeconomic status consulted psychiatrists,²⁶ physicians and other medical specialists less often than those residing in high-status areas.²⁷ A similar pattern of differences in the use of specialist medical services was reported in a study based on a random sample of 1976 Medibank health insurance data.28 McClelland reported that a lower level of specialist service use by socioeconomically disadvantaged people may also exist under the current Medicare health insurance arrangements.²⁹

Allied and alternative health care services are frequently used in developed countries.⁵⁰ Data from the United States suggest that providers of unconventional therapy are consulted more than primarymedical-care doctors.³¹ In Australia, allied and alternative health services account for about 45 per cent of all health-related consultations outside hospitals.³² If a broad definition of 'health' (as proposed by the World Health Organization) is applied, a reduction in health status differentials may rest upon improved access to these services also.³³

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Although comprehensive data on use of health services is collected regularly in Australia,³² the extent to which differences between socioeconomic groups exist is unclear. Data from Australia and other developed countries suggest that disadvantaged persons make less use of dentists. However, it is not known whether similar differences apply to services. 5,16,23,34 other care allied health Disadvantaged people in other developed countries also appear to make less use of alternative health services.^{50,31} Although some Australian data suggest a similar pattern, these data are based on select patient samples and hence cannot be generalised to the population.^{55,56}

Given their greater mortality and morbidity, socioeconomically disadvantaged people can be expected to report more use of health services. This study sought to ascertain whether occupationally and educationally disadvantaged people report a higher prevalence and a higher frequency of use of medical, allied and alternative health services, and whether they report using a greater number and variety of health services.

Method

Data were collected as part of a community survey of health risks and health-related practices in the Lower Hunter Valley region of New South Wales during 1987–88.

A sampling framework from the Australian Bureau of Statistics was used to obtain a random sample of households.³⁷ A household was defined as individuals who resided permanently at a given address, including residents of caravan parks. Residents of boarding houses, hotels and nursing homes were not included in the study. All household members were eligible to participate if they were 15 years of age or older and capable of completing the study requirements.

Trained interviewers sought consent from eligible household members, who were asked to complete the study at either the time of initial contact or at a later date. Two call-back visits were made for each identified household member not at home or unable to complete the study at the initial contact. The study requirements included the completion of a questionnaire to obtain sociodemographic data and a face-to-face interview about use of health care services. Demographic data were obtained for nonconsenting household members. A calling card was left and two subsequent call-backs were made to each household if no contact was made.

Use of health services

All participants were asked in interview to report whether they had consulted any of 24 types of health service in the previous four weeks, and if they had, the number of times they had done so for their own health. A relatively short (four-week) reporting period was chosen to minimise error due to inaccurate recall. Although previous studies have adopted a two-week reporting period,³ this was considered to be too short to provide sufficient data.

As prevalence and frequency of use are different measures of service accessibility, both were included in the study. Prevalence was determined by all respondents being categorised as either users or nonusers of particular services, based on whether they reported using the service on at least one occasion. The frequency with which each service was used was calculated for those respondents who reported using any health service at least once in the previous four weeks. Three specific health care services and five service categories were analysed for possible differences in the prevalence and frequency of service use:

- 'usual' general practitioners
- medical specialists and dentists
- five categories of aggregated services: medical services (general practitioner, hospital, specialist), allied health services, allied health services other than dentists, alternative health services (for example, chiropractic), any form of health care service.

The number of different services used was calculated for those respondents who reported using at least one service in the previous four weeks. To identify differences in the variety of services used, the prevalence of the different categories of health care service being used with, and without, each other was ascertained for all respondents.

Socioeconomic status

Socioeconomic status was based upon the reported characteristics of individuals, not of households. The common variables used in health-related research to measure socioeconomic status are educational attainment and occupational prestige.³⁸⁻⁴⁰ Although frequently used as interchangeable proxy measures, these variables can represent independent dimensions of socioeconomic circumstance.^{3,39,41} The independence of such measures has been shown in several studies,^{3,42-44} suggesting that more than one measure should be used when investigating the association between socioeconomic status and health status.^{3,39}

Whereas measures of educational attainment are able to classify all members of the population, occupation-based measures cannot classify those who have never worked.⁴⁵ Despite this, occupational prestige scales remain a preferred measure of socioeconomic status,³⁸ as evidenced by the development of new scales.⁴⁶⁻⁵⁰

Composite indices of socioeconomic status, based upon an aggregation of several variables, have also been suggested to differentiate groups.⁵¹ Although offering a capacity to measure the observed variance in health status between socioeconomic groups, such measures may obscure important differences between the component measures that make up an index, and may distort the results because of the assumed homogeneity of individuals within each area. Where individual-based data are available, the association between area-based composite measures of socioeconomic status and health status has been suggested to be explained by individual-based measures.52 Individual-based measures (education and occupational prestige) were the measures adopted for use in this study.

Occupational prestige

Participants were asked in the questionnaire to describe their current or most recent occupation.

Responses were categorised using the seven-point Congalton Occupational Prestige Scale, 53,54 and divided into two levels: prestige ratings between 1 and 5 were defined as high prestige (professional, managerial, clerical and skilled occupations), and ratings 6 and 7 as low prestige (semi-skilled and unskilled occupations). To maximise the classification of respondents, those who did not report an occupation and reported that they were either married or living in a de facto relationship were assigned the occupational prestige of the partner. Similarly, the occupation of a parent was used for those aged between 15 and 21 years who did not report an occupation and who resided with their parents.

Educational attainment

Participants were asked by questionnaire to indicate the highest educational qualification they had completed. Those who had not attained a junior high school qualification (Intermediate, School Certificate or equivalent) were classified as low attainment, while those who had attained such a qualification, or a higher qualification (Leaving, Higher School Certificate or equivalent, technical college or university qualification) were classified as high attainment.

Sociodemographic characteristics

Age and sex were obtained from the questionnaire. Respondents were categorised as being: 16 to 29 years, 30 to 59 years and 60 years and over. Respondents were asked whether they held any private health insurance, and were categorised as either privately insured or not privately insured.

Results

A total of 2121 households was approached. Of these, 148 could not be contacted after three visits. The remaining households provided contact with 3759 individuals over the age of 15 years, 115 (3 per cent) of whom did not participate in the study owing to infirmity or not being able to speak English. Of those remaining, 2623 individuals residing in 1380 households agreed to participate, a consent rate of 72 per cent.

Of the respondents who consented, 612 (23.3 per cent) were excluded from some analyses owing to an absence of occupational data, and 60 (2.3 per cent) were excluded from some analyses because educational data were missing.

Fifty-nine per cent of respondents with occupation data (1176) were classified as having high occupational prestige and 41 per cent (835) were classified as having low occupational prestige. Seventy-one per cent of respondents with education data (1827) were classified as having high educational attainment and 29 per cent (736) classified as having low educational attainment. These sample sizes enabled differences of between 3 per cent and 6 per cent to be detected in the prevalence of use of the various services and service categories, assuming a power of 80 per cent.

There were no significant differences in age between those who consented to the study and those who did not. However, females were more likely to consent than males (odds ratio (OR) 1.46, 95 per cent confidence interval (CI) 1.25 to 1.70).

Sociodemographic characteristics

The sociodemographic characteristics of the study participants are shown in Table 1. Comparison of age and sex in the sample with 1986 census data suggested that the sample was representative of that population. The occupational prestige and educational attainment characteristics of the sample were also representative of that population.⁵³

A greater proportion of the study sample (61 per cent) than the the Australian population (52 per cent) had private health insurance, consistent with other data indicating that those in the Hunter region are more likely to hold insurance.⁵⁵

Respondents of low occupational prestige or low educational attainment were significantly less likely to have private insurance than those of high prestige or high attainment ($\chi^2 = 64.4$, 1 df, P < 0.001 and χ^2 = 136.3, 1 df, P < 0.001). This is consistent with similar findings that the socioeconomically disadvantaged are less likely to hold such insurance.⁵⁵

Prevalence of health service use

The prevalence of health service use for the three specific services and the five service categories are shown in Tables 2 and 3. Associations between prevalence of use and occupational prestige and between prevalence and educational attainment were assessed by multivariate analyses accounting for age, sex and health insurance status. All multivariate analyses used the generalised-estimating-equations approach to modelling clustered binary data.⁵⁶⁻⁵⁸ Only significant associations are reported.

Use of any health service: About half of the respondents reported consulting at least one health service in the previous four weeks. Although respondents of low educational attainment appeared more likely to have consulted at least one health service than those of high attainment, multivariate analyses indicated

Table 1: Sociodemographic characteristics of the sample and of the Australian population

	Sample	Australia
Characteristic	%	%
Age		
15 to 24	18	22
25 to 34	19	21
35 to 44	18	18
45 to 54	13	13
55 to 64	15	12
65 and over	17	14
Sex		
Female	55	51
Education		
Tertiary	9	9
Trade	14	10
Other	77	81
Occupational prestige		
High	59	58
Low	41	42
Health insurance		
Privately insured	61	52
Not insured	39	48

Table	2: Prevalence and frequency of health service us	e in
	the past four weeks, by educational attainment	

	High at (n =	tainment 1827)	Low attainment $(n = 736)$			
	Users %	Visits/ user	Users %	Visits/ user	SUR®	CI⁵
Any health service	e ^c 49.2	2.7	57.3	2.9	108	101 to 116
Any medical	38.5	1.9	50.4	2.3	119	108 to 131
Usual general						
practitioner	31.7	1.5	44.6	1.8	121	109 to 134
Specialist	8.8	1.6	8.2	1.7	103	74 to 140
Any allied health	17.0	2.0	14.3	2.1	98	83 to 116
Dentist	7.0	1.4	4.7	1.3	95	66 to 132
Other allied	11.0	2.1	10.1	2.3	95	78 to 116
Any alternative						
héalth	5.4	2.1	4.2	1.9	90	64 to 122

Notes:

(a) SUR = standardised utilisation rate

(b) CI=95% confidence interval

(c) Services and service providers consulted also included other general practitioners, optometrists, chiropodists, physiotherapists, dietitians, psychologists, social or welfare workers, marriage guidance counsellors, drug or alcohol counsellors, chemists (for advice), community nurses, chiropractors, osteopaths, naturopaths, herbalists, masseurs, hypnotherapists, acupuncturists, and hospital, community and rehabilitation services.

that neither respondents of low educational attainment nor low occupational status were significantly more likely to have consulted a health service.

Use of medical services: Consultation with at least one type of medical service in the previous four weeks was reported by approximately 42 per cent of respondents. A trend toward respondents of low educational attainment being more likely to use a medical service was apparent. Multivariate analysis indicated that respondents of low educational attainment were 24 per cent more likely to have done so (OR 1.24, CI 1.03 to 1.50). 'Usual' general practitioners were the most commonly used medical service, with almost one-third of all respondents consulting such a service. A greater proportion of respondents of low educational attainment and low occupational prestige consulted this type of service. Respondents of low educational attainment were 28 per cent more likely to have consulted their usual general practitioner (OR 1.28, CI 1.06 to 1.56). Approximately 8 per cent of respondents (205) reported using medical specialists. No significant difference was evident between occupational prestige groups or between educational attainment groups in prevalence of use.

Use of allied health services: Sixteen per cent of respondents (410) had consulted an allied health service. Respondents with low occupational prestige were 26 per cent less likely to have consulted such a service (OR 0.74, CI 0.57 to 0.96). There were no differences in the prevalence of use of allied health services between educational groups. Approximately 6 per cent of respondents (154) reported attending a dentist. There was a nonsignificant trend towards respondents of low occupational prestige and those of low educational status being less likely to consult a dentist. Approximately 11 per cent of respondents (282) used other allied health services. The proportion of respondents who reported using such services did not differ significantly between groups.

Table	3:	Preval	ence	and fr	equ	ency	of heal	th	service	use	in
	th	e past	four	weeks	by	occu	pationa	al p	orestige		

	High p (n =	prestige 1176)	Low prestige (n=835)				
	Users %	Visits/ user	Users %	Visits/ user	SUR °	C۱۶	
Any health service	49.7	2.8	47.4	2.6	95	88 to 102	
Any medical	37.2	2.0	39.9	1.9	94	85 to 105	
Usual general							
practitioner	29.4	1.6	33.9	1.5	94	85 to 105	
Specialist	9.5	1.5	7.4	1.6	106	82 to 138	
Any allied health	18.6	2.0	13.3	2.5	126	109 to 146	
Dentist	8.1	1.5	5.0	1.5	100	73 to 133	
Other allied	11.5	2.1	9.1	2.8	128	108 to 152	
Any alternative							
health	6.5	2.2	3.8	1.9	88	62 to 120	

Notes:

(a) SUR = standardised utilisation rate

(b) C1=95% confidence interval

(c) Services and service providers consulted also included other general practitioners, optometrists, chiropodists, physiotherapists, dietitians, psychologists, social or welfare workers, marriage guidance counsellors, drug or alcohol counsellors, chemists (for advice), community nurses, chiropractors, osteopaths, naturopaths, herbalists, masseurs, hypnotherapists, acupuncturists, and hospital, community and rehabilitation services.

Use of alternative health services: Approximately 5 per cent of respondents (128) reported consulting an alternative health service. There was a non-significant trend towards those respondents of low occupational prestige being less likely to consult a service in this category.

Number and pattern of services used

Sixty-six per cent of service users reported consulting one of the 24 health services, and 34 per cent reported using two or more services. No significant differences were found between occupational prestige or educational attainment groups in the proportion of respondents reporting using more than one service.

Almost 31 per cent of respondents reported using medical services exclusively during the previous four weeks. As shown in Table 4, a greater proportion of respondents of low occupational prestige, and of those of low educational attainment appeared to use medical services in this way. However, when we controlled for age, sex and insurance status, respondents of low occupational prestige were no more likely to have used these services exclusively (OR 1.18, CI 0.96 to 1.45), whereas those of low educational attainment were 34 per cent more likely to have done so (OR 1.34, CI 1.11 to 1.63).

Approximately 6 per cent of respondents (154) consulted only allied health services, and 2 per cent (51) used only alternative health services. There was a nonsignificant trend of respondents of low occupational prestige and those of low educational attainment being less likely to have used allied health services exclusively. Similarly, respondents of low occupational prestige tended to be less likely to have used only alternative health services, or to have used both a medical and an allied or alternative service.

Frequency of health service use

The mean number of visits made to health services by service users in the previous four weeks are shown

	Educational High n=1827 %	attainment Low n=736 %	Occupation High n=1176 %	nal prestige Low n=835 %
Medical only	27.7	39.8	25.6	31.0
Allied health only	7.1	4.6	8.0	5.4
Alternative only Medical plus an allier	2.3	1.6	2.8	1.3
or alternative	10.8	10.6	11.6	8.9

Table 4: Service category use, by educational attainment and occupational prestige

in Tables 2 and 3. As the frequency of service use was not normally distributed, a utilisation rate standardised for socioeconomic status (SUR) was calculated to provide a readily interpretable means of describing the relative frequency of service use. The rate is the number of consultations reported to have been made by the disadvantaged users of a particular service, divided by the expected number of consultations and multiplied by 100. The expected number of consultations is the number of consultations reported by advantaged service users divided by the number of such users and then multiplied by the number of disadvantaged users of the service.

The standardised rates (and CIs⁵⁹) for service users of low occupational prestige and low educational attainment are shown in Tables 2 and 3. To account for the possible effects of clustering of service use within households,⁵⁶ the intracluster correlation of frequency of use was calculated for each service type and category.⁶⁰ The effective sample size for each service type or category was then calculated,⁵⁶ based upon the correlation coefficient, and the confidence intervals for the standardised rates adjusted accordingly.

Only significant results are reported. For those service types or categories for which the frequency of use differed significantly from that expected, standardised rates were calculated for each age, sex and health insurance subgroup of socioeconomically disadvantaged service users.

Use of any health service: Service users reported an average of almost three consultations with a health service of any type. The frequency of use by those of low educational status was 8 per cent higher than expected. This applied to educationally disadvantaged males (SUR 123, CI 113 to 134) but not to disadvantaged females (SUR 84, CI 73 to 97). Educationally disadvantaged service users with private health insurance reported a significantly greater than expected frequency of consulting health services (SUR 115, CI 103 to 128), whereas the frequency of use among those without insurance was no different from that expected.

Use of medical services: Respondents who reported using medical services made an average of two visits to such services. Service users of low educational attainment used medical services 19 per cent more frequently than expected, a pattern that was also evident among the disadvantaged aged between 16 and 29 years (SUR 129, CI 101 to 164) and those aged 30 to 59 years (SUR 139, CI 114 to 170). A greater-thanexpected frequency of visits was apparent among

educationally disadvantaged males (SUR 142, CI 127 to 159) but not among disadvantaged females. Educationally disadvantaged respondents with private health insurance reported a significantly greater frequency of consulting medical services (SUR 129, CI 111 to 150), whereas the frequency did not differ from that expected for those without such insurance. Respondents who reported attending their 'usual' general practitioner had made an average of slightly fewer than two visits. The observed frequency of use of such services among educationally disadvantaged service users was 21 per cent greater than expected. A higher frequency was evident across all age groups and among insured and uninsured disadvantaged service users alike. Educationally disadvantaged males saw their 'usual' general practitioner significantly more frequently than expected (SUR 137, CI 121 to 155), whereas no difference in the frequency of practitioner use was evident among educationally disadvantaged female service users.

Use of allied health services: Users of allied health services reported having made approximately two visits to such services. The frequency of use of these services was 26 per cent greater than expected among service users of low occupational prestige. Occupationally disadvantaged males and those with private health insurance used such services more frequently than expected (SUR 151, CI 126 to 181 and SUR 164, CI 137 to 197). Use was also significantly greater among respondents of low occupational prestige aged 50 years and over (SUR 132, CI 108 to 161). Dentists were no more frequently used by service users of either low occupational prestige or low educational attainment. In contrast, those with low occupational prestige used other allied health services 28 per cent more frequently than expected. This greater frequency was evident among males (SUR 158, CI 129 to 193) but not among females of low occupational prestige. Similarly, a greater-than-expected frequency of use occurred among service users with private health insurance (SUR 176, CI 142 to 218) and among those aged 50 years and over (SUR 141, CI 108 to 183).

Use of alternative health services: Users of alternative health service reported having made approximately two visits to such services. No significant differences were apparent in the expected use of this category of services among service users of low occupational or low educational attainment.

Discussion

Some factors should be considered when interpreting the results of this study. First, contact was made with an estimated 93 per cent of potential respondents, and 72 per cent of eligible respondents consented to participate, results that are comparable with findings from similar household health surveys in Australia.⁶¹ Although women were more likely to participate, the demographic and socioeconomic characteristics of those who consented to participate were consistent with those of the Australian population. It is therefore probable that the reported patterns of use are representative of the population.

Second, some respondents were excluded from analyses because their occupational prestige could not be calculated, despite steps to reduce their number. Excluded respondents were significantly more likely to be male and aged 50 years or over. The effect of such biases on the observed association between occupational prestige and health care use is unknown.

Third, possible differences in use between the most advantaged and disadvantaged respondents may not have been identified owing to the use of relatively insensitive dichotomous classifications of socioeconomic status. It is also possible that the observed differences may underestimate the extent of difference between the most advantaged and disadvantaged respondents.

Fourth, although both prevalence and frequency are commonly used measures,¹⁷ much of the research in Australia has involved analyses of the frequency of health service use.³ These studies have generally assessed frequency without distinguishing between service users and nonusers, and have extrapolated annual patterns from reported use over a two-week period.³ Methods used in this study limit direct comparison with past studies. No previous Australian research has reported on the use of a broad range of health care services using occupational prestige as a measure of socioeconomic status.

Except for a greater use of medical and general practitioner services by educationally disadvantaged respondents, and a greater use of allied health service by occupationally disadvantaged service users, consistent differentials in use of health services in favour of the socioeconomically disadvantaged were not apparent. The results suggest that disadvantaged respondents either had no greater need for these services or that their greater need was not being met. As our sample was broadly representative of the Australian population, the findings suggest that a range of health care services may not be accessible to disadvantaged people. This is illustrated by disadvantaged respondents in this study being no more likely to use specialist medical services, and by their using such services no more frequently than expected. This absence of use differentials is a matter of concern, given their role of specialised diagnosis and treatment of disease, particularly of chronic diseases.

A person's use of medical specialist services is partly dependent on their recognition of a need for such services and their responding to such a need. A person's socioeconomic status and his or her recognition of, and responsiveness to, his or her health care needs have been shown to be associated.⁶²⁻⁶⁵ Use of specialists is also dependent on the response of a general practitioner to a patient's need for care, as general practitioners are the principal gatekeepers to specialist medical services. The extent to which referral to specialist care varies according to the socioeconomic status of patients is not known.

The greater prevalence and frequency of consultations with general practitioners by educationally disadvantaged respondents suggest that such services have a capacity to provide accessible care. However, as data describing the health of respondents and their need for health care were not collected in this study, it is not known whether this greater use was sufficient to satisfy the actual need for such care. Further, although the data suggest that general practitioner services may be accessible to educationally disadvantaged people, this did not apply to occupationally disadvantaged respondents.

One possible mechanism whereby socioeconomic disadvantage may influence use of medical services is the financial cost of such services.^{14,18,21,22,28} In Australia, a universal health insurance scheme (Medicare) is available to eliminate or defray the direct costs of obtaining health care. Although direct costs can be met by Medicare, a copayment by the user may be required if the provider does not directly bill the service to Medicare. Copayments were limited to \$20 per service and \$150 per person per year in 1987–88. Any costs charged by the provider above the schedule fee are also required to be paid by the patient.

A considerable proportion of patients, particularly those obtaining specialist care, were required to make copayments or payments above the schedule fee in 1987–88. Medicare insurance data indicate that about 23 per cent of specialist services were directly charged to Medicare.⁶⁶ In contrast, 62 per cent of general practice services were billed directly. In addition, 36 per cent of specialist and 28 per cent of general practitioner services were charged to the patient at a cost above the schedule fee.

No data were collected on the direct financial cost of consulting particular health care services. The extent to which copayments or additional costs were associated with the use of medical services is not known. Although financial impediments to the use of medical services may be limited by the existence of Medicare, further research is required to assess the effect that payment of such additional costs has on the use of these services. Costs associated with the use of medical services and with the purchase of health aids and appliances represent significant barriers to health service use.⁶⁷ The effects of transport access, scarcity of services, delays in obtaining services and the costs of purchasing medications and treatments are also not known.

Many allied health services other than dentists are provided by state or federal governments at zero or little cost to the user. The absence of differences in use in favour of educationally disadvantaged respondents suggests that factors other than cost may influence the accessibility of these services. However, cost is likely to remain a factor influencing use of private services.

Respondents with low occupational prestige who had private health insurance reported 64 per cent and 76 per cent more frequent use of allied health services, including and excluding dentists, respectively, whereas those without insurance reported rates of use no different from those expected. Despite the relatively insensitive measure of health insurance in this study, those with private health insurance appeared to be more able to use allied health services. Although methodological differences prevent direct comparisons, the observed trends toward lower prevalence of dental service use by disadvantaged respondents are consistent with previous findings.³ As disadvantaged people have poorer dental health,68 our results highlight the need for the development and implementation of policies that facilitate the use of dental services by the disadvantaged.

Alternative health services are used less frequently by socioeconomically disadvantaged people.^{50,31,34,35} Such a pattern could be expected, given the limited availability of insurance to defray the cost of such care, and the relative absence (compared to doctors) of publicly funded alternative care providers. Insofar as alternative health care providers consider equitable access to their services to be a desirable objective of care delivery, these data suggest a need for additional initiatives directed at achieving this to be developed.

Health policy initiatives are required to identify and resolve continuing impediments to the use of a range of health services by socioeconomically disadvantaged people. Such a need appears to exist for both general practitioner and medical specialist services in spite of a universal medical care insurance scheme. Allied and alternative health services may need to modify their provision of health care to more successfully meet the greater health care needs of socioeconomically disadvantaged members of the community.

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