

**Cost Barriers to Health Care:  
Provisional Analysis from the  
New Zealand Health Survey 2002/03**

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## Executive summary

1. This paper presents data from a provisional analysis of the New Zealand Health Survey 2002/03 on the costs of, and financial barriers to the use of, general practice services.
2. It is intended to serve as part of the baseline against which the impact of the implementation of the New Zealand Primary Health Care Strategy (2001) on fees and access to primary care services can be evaluated.
3. It is been shown that, in 2002, those with less income paid less for health care from General Medical Practitioners.
4. Nevertheless, those with least income report more often that they have foregone GP visits and prescription items thought to be necessary.
5. Māori and Pacific people also report more frequent foregone visits; Māori, but not Pacific people, also report more frequent foregone prescription items.
6. It appears that those with the lowest incomes report fewer visits and foregone services than might be expected.
7. Māori and Pacific providers and, to a lesser extent “other” non-mainstream providers, reduce costs for their client populations.
8. Those with poorer health report more visits, but also report more foregone visits and prescription items.
9. It is concluded that the medical subsidy regime in place in New Zealand during 2002 was insufficient to provide equal access to primary health care for people with lower incomes, Māori and Pacific ethnic affiliation, or poor health.
10. In Canada full public funding of primary medical care appears to remove the relationship between income and visits to the GP when adjustment for the effect of ill-health is made.
11. The Primary Health Care Strategy is intended to address these financial barriers to care and to attract those whose use of health care seems to be inappropriately low.

Note that the opinions expressed herein are those of the author and are not necessarily held by the Ministry of Health.

## 1. Introduction

The Government published *The Primary Health Care Strategy* (the Strategy) in 2001<sup>1</sup> and began implementation in 2002. One of the major thrusts of the Strategy was to increase subsidies for primary care to reduce cost barriers for those in need. It is intended that, with other components of the Strategy such as greater teamwork and more emphasis on preventative health services, this will improve population health, reduce inequities in health status and minimise those hospital admissions susceptible to ambulatory care.

The analysis presented in this report was undertaken, at the request of the Ministry of Health, by the Health Services Research Centre of Victoria University of Wellington. The purpose was to review provisional data from the 2002/03 New Zealand Health Survey (the Survey) concerning barriers, specifically cost barriers, experienced by individuals in accessing primary health care. The analysis will provide a baseline against which to monitor changes resulting from the implementation of the Strategy. Data from the next round of the Health Survey (expected to be in 2005/06) will enable assessment of the extent to which increased subsidies have contributed to an increase in access and a reduction in cost barriers.

At the time that the Health Survey was undertaken a targeted subsidy regime was in place. Primary health care visits by children under six attracted a subsidy equal, or close, to the full cost of care. A smaller subsidy was attracted by older dependent children, and those with a Community Services Card or a High Use Health Card. These cards were available on the basis of income and number of recent visits, respectively; uptake of this benefit was variable and incomplete. In addition to these patient-based subsidies, a number of health care providers had been established over the previous two decades, to provide care for disadvantaged or remote populations. Implementation of the Strategy was at a very early stage.

Under the Strategy further subsidies have been established affecting children aged six to 18 (April 2004), those with chronic ill health (April 2004) and those aged 65 and over (July 2004). Other population groups will be added in the future – those aged 18 to 24 (July 2005), those aged 45 to 64 (July 2006) and those aged 25 to 44 years (July 2007).

While some data is available on the standard charges made by general practitioners, it is not uncommon for fees to be discounted or omitted.<sup>2, 3</sup> It has been estimated that 6.5% of all fees are foregone.<sup>4</sup> This report presents data from the Survey on the self-reported cost of care. Barriers to care are indicated when people forego needed visits or fail to fill prescriptions; data are also presented on the frequency with which this occurs.

## 2. The New Zealand Health Survey

The Survey asked individuals to indicate their actual experience of health care, including the out-of-pocket cost of the most recent general practice (GP) visit and whether a visit perceived as desirable, or an item prescribed, had been foregone over the previous year.

The analysis is based on data from 12,929 adults aged 15 years and over. The sample was stratified, and Māori, Pacific and Asian people were over-sampled to obtain an adequate representation of their experience. Methodological details are available elsewhere.<sup>5</sup> Survey weights, unique to each respondent and adjusted for the probability of selection and differential non-response rates, were used in all analyses to produce nationally representative estimates. The data given in this report are not age standardised.

### Key variables

The main purpose of the Survey was to measure the prevalence of chronic disease and risk factors in the population. Questions were asked about subjective health and data were obtained on the respondents' demographic characteristics and on their utilisation of services. The questions selected for the analysis are given in the Appendix; comment on some of the items follows.

**Cost.** Data on the cost of the most recent GP visit was coded in increments of \$10: free, \$1 to \$10, \$11 to \$20, etc. This loses some of the information that might have been available if the actual amount had been recorded. Further, there may have been some distortion if standard charges were not randomly distributed across the range. It is likely that a charge of \$29 was more common than one of \$31. In the tables the median range of costs is presented for each group.

**Cost Barriers.** Individuals were asked if they had foregone a needed doctor's visit and, if so, were asked the reason. In the data presented here, the percentage of respondents who had foregone a visit in the previous year and said that this was because of cost is given. A similar statistic is presented for prescription items not collected because of cost.

**Income.** Data on individual and household income was gathered and coded by \$5,000 to \$10,000 increments. Household income is used here and is presented as low (less than \$10,000), medium low (\$10,000 to \$30,000), medium high (\$30,000 to \$50,000) and high (more than \$50,000).

**Neighbourhood.** The NZDep01 is an index of socio-economic deprivation based on neighbourhood. Decile 1 is the least deprived and decile 10 is the most; quintiles are presented here. The index is calculated from data on nine variables and applied to each electoral mesh bloc. Individuals or households, within the area, may have disparate levels of resource, however, they are affected by the same economic and service environment, including sources of primary care.

**Ethnicity.** Individuals were free to express several ethnic affiliations; the data here is grouped into Māori, Pacific, Asian and European/Other. When multiple affiliations were recorded, priority was given in that order.

**Health care providers.** As mentioned above, a number of primary health care initiatives have sought to provide care to populations otherwise poorly served. These providers were classified as Māori, Pacific and Other; the latter catering to those with low incomes without specific ethnic focus.

**Health status.** The level of health of each respondent was measured in terms of self-reported health and the presence of any chronic disease. The number of primary care visits in the previous year, strongly related to health status, is also used as an indicator.

### 3. Results and analysis

#### Access and Socio-economic status

Table 1 shows the information on access to primary health care by populations defined by social-economic status. Ninety percent of those surveyed indicated that they had a regular GP and this varies little across income groups. However, those living in areas with an NZDep01 of 9 or 10 (the most deprived) are slightly less likely to have a regular GP than other groups.

The average number of visits to GPs in the previous year, for all respondents, was 3.2. Those with high medium and high household incomes reported an average of about 2.4 visits; those with low medium income reported almost 3.9; and those with low incomes reported 3.1. Similarly, the number of visits decreased as socio-economic status, as measured by NZDep01, increased: those in NZDep01 1 and 2 had an average of 2.5 visits while those in NZDep01 9 and 10 had an average of 3.7 visits.

For the whole sample, the median cost of the last GP visit was within the range of \$21 to \$30 but those within the higher two ranges of income, or with a NZDep01 of 1 to 6, reported a median charge in the \$31 to \$40 range.

Of the population, 5.8% indicated that they had foregone, because of cost, a GP visit that they believed was needed, in the previous year. This was higher, at 7.8%, for those below the medium income but not for those in the lowest income category (5.5%); those with a reported income above medium had foregone fewer needed visits (4.7%). Similarly, the percentage of respondents who reported a foregone visit was highest, at 9.0%, for those in NZDep01 areas 9 and 10, and decreased progressively, to 2.5%, for those in NZDep01 areas 1 and 2.

Of the population, 4.6% indicated that they had foregone, because of cost, a drug that had been prescribed in the previous year. This statistic was higher, at 6.2%, for those below the medium income but not for those in the lowest income category (4.4%); those with a reported income above the median had foregone a prescribed item less often, but 3.3% of this group still reported an

uncollected item. Similarly, the percentage of respondents who reported an uncollected item was highest, at 8.8%, for those in NZDep01 areas 9 and 10, and decreased to 2.1%, for those in NZDep01 areas 1 and 2.

**Table 1. Socio-economic status and visits, costs and foregone services.**

Population		% with regular GP	Mean Number of visits <sup>1</sup>	Cost of last visit <sup>2</sup> (\$)	% cost foregone visits <sup>3</sup>	% cost uncollected scripts <sup>4</sup>
Whole sample		90.7	3.2	21-30	5.8	4.6
Income Low		90.2	3.1	21-30	5.5	4.4
Low medium		91.5	3.9	21-30	7.8	6.2
High medium		90.6	2.5	31-40	4.7	3.3
High		90	2.3	31-40	-	-
NZDep01 9-10		88.8	3.7	21-30	9.0	8.8
7-8		90.9	3.4	21-30	6.7	4.3
5-6		91.2	3.3	31-40	5.5	3.7
3-4		90.4	3.2	31-40	5.2	3.9
1-2		92.3	2.5	31-40	2.5	2.1

1. Number of visits to a GP in the previous year (includes those who reported no visits). 2. Given that only a range was recorded, a mean is not available; the median range is given. 3. Percentage of the population group who had foregone a visit and reported that cost was the reason. 4. Percentage of the population group who had foregone a prescription item and reported that cost was the reason. Data in the other tables were derived in an identical manner.

**Summary.** Lower costs for poorer people suggest that the medical subsidy regime in place during 2002 was appropriately targeted. Nevertheless, poorer people had foregone more needed GP visits and foregone more prescribed medications than those with higher income. It is concluded that the subsidy was not sufficient to generate equal access.

Those with the lowest income reported fewer than average visits; they also reported fewer than expected foregone visits and uncollected prescription items. It may be that those with the lowest incomes can give less priority to medical care, that the level of ill health that justifies a visit to the doctor is higher and that they may have become accustomed to poorer access to primary health care services.

### Access and Demographic Characteristics

Table 2 shows the information on access to primary health care related to populations defined by gender, age and ethnicity. Males were less likely to have a regular GP (88.2% compared to 93.1%), reported fewer GP visits (2.9 compared to 3.7) and they were less likely, on the basis of cost, to have foregone a needed visit (4.8% compared to 6.8%) or a prescribed drug (3.9% compared to 5.2%) in the previous year. Lower utilisation of primary care services by males is well documented and has been related partly to the

absence of child-bearing issues and partly to a higher threshold at which care is sought.

Having a regular GP increased with age, from 83.1% to 97.8%. Those aged 25 to 44 reported the fewest GP visits in the previous year (mean 2.6 visits) and those 65 and over reported the most (mean 5.1 visits); the average for the whole sample was 3.2. Average costs were lower (\$21 to \$30) for the youngest (aged 15 to 24) and oldest (65 and over) age groups.

Visits foregone on the basis of cost were reported most frequently among the young (aged 15 to 24) at 8.2%, and this decreased, particularly after age 44, to 2.3% for those 65 and over. Foregone prescription items (mean 4.6%) were reported frequently among those aged 15 to 24 (5.7%) and 25-44 (6.8%) and was lowest among those aged 65 and over (1.1%).

Asian people were less likely than the sample as a whole to have a regular GP (75.8% compared to 90.7%); they also reported fewer visits in the previous year (2.1 compared to 3.2). Pacific people reported lower fees, while those from the Other ethnic group reported higher ones. Māori and Pacific people reported more cost-based foregone visits than the total sample (11.4% and 8.0% respectively compared to a mean of 5.8%). Māori (13.0%) and Pacific people (8.4%) were more likely, and Asians (3.3%) less likely, than the sample as a whole (4.6%) to forego, on the basis of cost, a prescribed item.

**Table 2. Demographic characteristics and visits, costs and foregone services.**

Population		% with regular GP	Mean Number of visits	Cost of last visit (\$)	% cost foregone visits	% cost uncollected scripts
Whole Sample		90.7	3.2	21-30	5.8	4.6
Male		88.2	2.9	21-30	4.8	3.9
Female		93.1	3.7	21-30	6.8	5.2
Age	Youth 15-24	83.1	2.9	21-30	8.2	5.7
	Adult 25-44	88.4	2.6	31-40	7.6	6.8
	Middle age 45-64	94.8	3.2	31-40	3.7	3.6
	Older 65+	97.8	5.1	21-30	2.3	1.1
Ethnicity.	Asian	75.8	2.1	21-30	6.6	3.3
	Māori	87.1	3.4	21-30	11.4	13.0
	Pacific	92.9	3.2	11-20	8.0	8.4
	Other	92.2	3.3	31-40	5.8	3.8

**Summary.** It is expected that males will have lower use of health services; their fewer foregone visits and prescription items may be related to their presentation of more severe problems when they do feel the need to use services and to their higher income. It is to be expected that older people use health services more frequently; the fact that they have fewer foregone visits

and prescriptions may be related to their access to higher subsidies for care and/or more serious health problems. A similar mechanism may apply to those of Asian affiliation who have low utilisation rates but fewer foregone prescription items. Māori and Pacific people forego more visits than Others despite, in the case of Pacific people, lower fees.

### Access and Health Service Utilisation.

Respondents who reported more than three visits to a GP in the previous year were more likely to have a regular GP. Those with one to three visits reported higher charges. The percentage of people reporting foregone visits increased from 5.1% for those with one to three visits to 9.6% for those with more than six. There was a similar relationship to foregone prescription items, the number rising from 3.5% to 9.3%.

Respondents were asked to identify the type of provider where their last GP visit had taken place. Ninety five percent of those who had visited a mainstream provider said that they had a regular GP, they reported an average of four visits in the last year, a median fee of \$21 to \$30, and 6.1% of them reported foregone visits and 4.6% foregone prescription items. Users of Māori and Pacific services reported the lowest fees (\$1 to \$10) and users of “other” non-mainstream providers reported fees of \$11 to \$20. Those whose last GP visit was at a Pacific provider of health care reported more visits to the GP (4.9) in the previous year than those seeing a mainstream provider. Users of Māori providers reported relatively few visits foregone due to cost (2.3%) but had foregone more prescription items because of cost (11.6%). Interestingly, users of “other” non-mainstream providers were least likely to have a regular GP (64.7%), had the most foregone visits (9.3%) but few foregone prescription items (1.6%).

**Table 3. Health service utilisation and visits, costs and foregone services.**

Population	% with regular GP	Mean Number of visits	Cost of last visit (\$)	% cost foregone visits	% cost uncollected scripts
Whole Sample	90.7	3.2	21-30	5.8	4.6
Visits					
1-3	92.2	-	31-40	5.1	3.5
4-6	97.1	-	21-30	7.0	4.5
>6	96.5	-	21-30	9.6	9.3
Providers <sup>1</sup>					
Mainstream	95	4	21-30	6.1	4.6
Māori	79.3	3.8	1-10	2.3	11.6
Pacific	89.4	4.9	1-10	-	-
Other	64.7	3.3	11-20	9.3	1.6

1. Those identified as using mainstream, Māori, Pacific and Other (non-mainstream) providers indicated that the last visit to a GP had been in that setting. Since people who had not seen a doctor in the previous year were excluded from the question, the number of visits reported exceeds the average for all respondents.

**Summary.** Despite the High Use Health Card (HUHC) regime, those with frequent usage report more foregone visits. Not all those here with higher visits might qualify for the HUHC and uptake of the card was low. Low fees from Māori and Pacific providers confirm their value in addressing access for their target populations. There remained higher levels of foregone prescription items for those attending Māori providers.

Data from those attending other non-mainstream providers resemble those with the lowest income reported above.

### Access and Health Status

Better health was inversely related to having a regular GP and to indicators of health service utilisation. Those with self reported excellent health status reported 1.9 visits in the previous year while those with self reported poor health reported 11.1 visits. Those with a chronic disease reported 4.2 visits per year, while those with an injury reported 1.9.

Reported costs were higher for the healthy. However, the percentage of people who reported foregone visits, due to cost, increased with worsening health from 2.0% to 16.3%. The percentage of people who reported foregone prescription items, due to cost, increased with worsening health from 2.5% to 16.2%.

Those with a chronic disease reported more than the average number of visits to the GP in the previous year (4.2 compared to 3.2); they also had more often foregone visits, (6.6% compared to 5.8%) and prescription items (5.4% compared to 4.6%) due to cost. Those reporting injury had forgone less visits but more prescription items than the average; this may be related to the greater subsidy available from ACC.

**Table 4. Health status and visits, costs and foregone services**

Population	% with regular GP	Mean Number of visits	Cost of last visit (\$)	% cost foregone visits	% cost uncollected scripts
Whole Sample	90.7	3.2	21-30	5.8	4.6
Health excellent	88.9	1.9	31-40	2.0	2.5
very good	90.2	2.5	31-40	4.6	3.6
good	91.7	3.6	21-30	7.0	4.7
fair	93.1	6.3	21-30	16.8	8.6
poor	93.1	11.1	21-30	16.3	16.2
Any chronic disease <sup>1</sup>	93.8	4.2	21-31	6.6	5.4
Injury <sup>2</sup>	88.9	1.9	31-40	2.0	2.5

1. People who answered that they had been told that they had any of a number of chronic conditions. 2. Actual question included "injury and poisoning."

**Summary.** A lower number of visits associated with better health is to be expected. Those with poorer health still report more foregone visits and prescriptions.

#### 4. Discussion

During the survey period, median fees were in the range of \$1 to \$10 only for those attending Māori and Pacific Health providers. It should be noted that less than 11% of Māori and less than 6% of Pacific people reported that their last GP visit was at a Māori or Pacific provider, respectively.

People with least resources, including those with low incomes, the young and old, those making more visits and those with poorer health, reported median charges of \$21 to \$30. This level of charge was also reported by Māori, but the median charge reported by Pacific people was \$11 to \$20. Those with more resources reported a median cost of a visit of \$31 to \$40.

Among those who reported a greater than average (5.8%) frequency of visits foregone because of cost were those below median income (7.8%), those from NZDep01 9 and 10 areas (9.0%), those aged 15 to 24 (8.2%), those aged 25 to 44 (7.6%) Māori (11.4%), Pacific people (8.0%), patients of other non-mainstream providers (9.3%), those with more than six visits in the previous year (9.6%), and those with only fair health (16.8%) or with poor health (16.3%). A similar set of people reported a higher than average (4.6%) frequency of script items foregone. The main differences were that patients of Māori providers, who reported fewer foregone visits, often reported foregone scripts (11.6%). Patients of other providers, reported many foregone visits but few foregone scripts (1.5%).

It is interesting to note that those with household incomes of less than \$10,000 per annum reported fewer visits and fewer foregone visits and prescription items than average. It is possible that under some conditions of deprivation, medical care has reduced salience. If each level of household income below \$10,000 is examined separately, the number of visits decreases progressively with lower income.

It must be concluded that, at the date of the New Zealand Health Survey 2002/03, the subsidy regime was insufficient to allow equal ease of access to health care for poorer people, those of Māori and Pacific ethnicity, and those with poorer health. A similar finding is reported from the New Zealand Health Survey of 1996/7. Scott, et al<sup>6</sup> used a multiple regression model to show that low income and Māori ethnicity are independently related to lower use of GPs when the effect of ill health is controlled. This effect only applied to the chance of having seen the GP, not to the chance of having seen him or her more than six times. By contrast, a paper from Canada using similar methodology,<sup>7</sup> showed a negative relationship between income and GP use; in Canada primary care is free to the consumer at point of contact.

The implication of these findings is that increased subsidisation of costs in New Zealand would decrease barriers to care for those most in need. It is also likely that some amongst the poorest have health needs that they do not always recognise or feel they are able to afford to address and that they may be brought into the public health care system with outreach initiatives. The Primary Health Care Strategy is intended to address both these issues.

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## 6. Appendix

### Questions from the New Zealand Health Survey used in the analysis

Question	Text
Q 44	Do you have a health practitioner or service, for example, a doctor or nurse or other service that you usually first go to see when you are feeling unwell or are injured?
Q 45	What sort of practitioner was this?
Q 67	How many times have you seen a GP in the last 12 months?
Q 71	The last time you saw a GP or family doctor about your own health, where was it?
Q 73	What did the doctor charge for that visit?
Q 78	In the last 12 months, has there been any time when you needed to see a GP or family doctor about your own health, but didn't go to any doctor at all?
Q 79	The last time that happened what was the reason? (Card)
Q 100	In the last 12 months, has there been any time when you got a prescription for yourself, but didn't collect one or more items from the chemist?
Q 101	The last time that happened what was the reason you didn't collect the items? (Card)
Q291	What would be the total income that you yourself got from all sources, before tax or anything was taken out of it, in the last 12 months?
Q 261	Gender
Q 262	In what year were you born?
Q 263	Which ethnic group do you belong to? (Card as per census choices)
Q 48	In the last 12 months, have you seen a health worker from a Māori health organisation?
Q 57	In the last 12 months have you seen a health care worker in a Pacific organisation?
Q 187	In general, how would you say that your health is?