HEALTH SERVICES FOR MĀORI:
TOWARDS EQUITY IN ACCESS AND UTILISATION

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EXECUTIVE SUMMARY

This project was commissioned by Te Puni Kokiri as a follow up to report of a hui at Whangaehu Marae in December 1994, "Ma Te Maori E Puri Te Maimoatanga Maori: Managed Care by Maori". At this hui preliminary evidence was presented of markedly low rates of expenditure on and utilisation of primary medical care services by Maori, a fundamental issue influencing the implementation of managed care by Maori.

The project sought to answer the question "Are the low rates of primary medical care and associated services observed at Te Waipuni Health Centre, Whanganui and presented at the hui, also applicable to similar types of services provided for Maori throughout New Zealand, and, if so what action needs to be taken to redress this inequity".

The following are the main findings of this report on the project.

1. A model for analysing the inter-relationships between access, utilisation and equity has been used in the report. It is argued that, in contrast to the traditional definition of equity in access and utilisation as being equal access for equal need, a more forceful definition of equity in health care is that there should be greater access and utilisation for greater need and that achieving equity in outcomes means that priority action be taken to improve the health status of those whose health status is poorest.

2. A preliminary analysis is presented of the literature relating to equity in access and utilisation, both for New Zealand and internationally. For New Zealand, there is no doubt that Maori and low income populations access preventive services at a much lower level than desired and have much higher levels than average of hospital inpatient utilisation. However, the findings relating to primary care utilisation are equivocal. Some studies, such as the New Zealand Health Survey, point to both higher and lower utilisation of some aspects of primary medical care by Maori. Others, particularly local studies, point to lower rates. The international literature reveals similar findings and uncertainties.

3. Over the past two decades a number of initiatives have sought to improve identified gaps in access and utilisation for Maori and low income New Zealanders. These include, in the 1970s, the provision of health centres in underserved areas such as South Auckland and Porirua. The development of union health centres in the 1980s sought to improve access for union members. More recently there have been initiatives to provide primary medical care and related services specifically for Maori. These have sought not only improve financial and geographic access, but also cultural appropriateness. Registrations have grown dramatically in the past two years with numbers now being nearly 40,000. These developments include services such as Hokianga and Te Puia, which are more geographically than iwi-based. This growth in registration indicates the extent to which these services are filling an important felt need in improving access.

4. However, there are major problems facing Maori providers, particularly in their contracting relationships with RHAs. These problems include;
• gaining adequate financial backing including establishment costs;
• the inadequacy of the fee for service GMS payments to meet primary medical care costs for Maori and low income populations;
• an apparent unwillingness to address the question of equity at this operational level; and
• a tendency to purchase fragments of rather than a comprehensive primary health care service.

An overriding concern is the question of tino rangatiratanga, Maori empowerment in health development.

5. In order to establish comparative rates of access, utilisation and expenditure, national data on primary medical care and related expenditure, including GMS, laboratory and pharmaceutical services were obtained from Health Benefits Ltd (HBL), and ACC data from ACC, and related to the national population. Major problems were experienced in obtaining an integrated data set as is described. The overall utilisation rate of primary medical care services was found to be 4.46 consultations per capita for 1994/1995, an increase from 4.10 in 1989/1990. Utilisation and expenditure, total and per capita, is presented.

6. Data on expenditure and utilisation on GMS laboratory, pharmaceutical, ACC services was obtained from eight health centres providing services for Maori and low income New Zealanders. These included specific Maori providers, population-based providers and union services. Utilisation and expenditure rates were calculated based upon the registered populations served by these centres. Overall utilisation rates ranged from a low of 1.67 to 3.27 consultations per capita. In all cases, including the specific GMS categories, the rates were lower, in some cases substantially so, than the national rates. The accuracy of the registered populations as a denominator is considered. This may explain only part of the low utilisation rates observed.

7. Most centres studied were on capitation, some from pre-RHA days and with reasonably favourable contracts by comparison with fee-for-service GMS type payment. Per consultation this payment was, or would have been, well below that required to sustain a general practice especially for patients with major and multiple health problems who tended to consult infrequently and failed to follow up appropriately. ACC and fee income was particularly low. It appears that ACC payments decompensate for the GMS fee advantages of the community services card (CSC). Although fees could be increased, experience showed that this merely lead to an increase in unpaid debts. As a consequence consultation income fell far short of a viable figure and confirming the findings reported in the Whangaehu hui.

8. Actual per capita expenditure on laboratory and pharmaceutical services was substantially lower than expected as calculated from the Gribben cost weights for the age mix of registered practice populations. For laboratory services it was about 50-60% lower and pharmaceutical 30-60% lower. Overall per capita expenditure was
similarly low.

9. These findings point to major problems of inequity in access and utilisation for Maori and low income New Zealanders to primary medical care related services. Despite emerging awareness of these inequities providers of services to these populations were experiencing major problems in improving access and gaining a more equitable contract with RHAs. This problem needs to be explicitly recognised in policy guidelines to RHAs.

10. Information systems were found to be seriously deficient at national, regional and local health centre levels. A major problem appears to be a lack of any national or regional primary care information system strategy to provide nationally integrated information on primary care. This is needed to bring all components of primary care information together, including finance and utilisation in their various categories, to provide a comprehensive overview to support adequate policy development and the monitoring and evaluation of policy implementation.

11. The cost weighting in the Personal Health Funding Formula for Maori appears to be seriously deficient. The CSC weighting fails to address the problem both at a national as well as a local level. Only about 75% of those eligible take up or renew their cards. Furthermore, as this study has showed, the CSC is seriously inadequate as a compensatory measure to provide for adequate access to Maori and low income populations. At the secondary level the Maori special needs adjuster, based upon premature mortality, seriously underestimates Maori needs as Maori mortality is grossly unreported. Furthermore, any factor based on existing utilisation may only perpetuate existing inequities, rather than seeking to address them.

POLICY RECOMMENDATIONS

The following recommendations regarding policy development arise from the above issues.

That Te Puni Kokiri request the Ministry of Health to do the following.

1. Review the present mechanisms for funding and purchasing primary medical services for Maori including the appropriateness of the CSC to ensure that purchasing is based upon the principle of equity in assess and utilisation.

2. Develop a national primary health care information system to provide the framework for regional and local information systems development.

3. Review the Maori cost weighting in the Personal Health Funding Formula for RHA funding to take into account the issues raised in this report.

4. Develop policy guidelines which require RHAs to purchase primary medical care and related services on the basis of equitable, population based financing.

That Te Puni Kokiri undertake the following.
1. Convene a national hui to follow up and discuss the findings of this report and involving providers of primary medical care services for Maori with a view to formulating policy development to assist the further development of Maori health services including moves towards managed care by Maori.

2. Undertake further work in developing policy on primary care information systems for Maori providers.

3. Fund or request the funding of studies into the question as to whether improved access to culturally appropriate primary health care services reduces the need for hospital inpatient services and improves health status.

Acknowledgments

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1. BACKGROUND

Promoting equity in access and utilisation has become a policy goal for the health services in many countries, including New Zealand. Equity is listed as the first of the six principles in the guidelines of the Minister of Health to regional health authorities (RHAs) for 1994/95(1). The policy goal relating to equity is;

- to improve access of New Zealanders to health and disability services in terms of waiting times, geographical accessibility and affordability.

Of particular concern to the Government and New Zealanders generally has been the serious gap between the health status of Maori as compared with non-Maori. The policy goal for Maori health development is;

- to improve Maori health so that in the medium term Maori may enjoy the same level of health as non-Maori.

Health services are recognised to be only one factor in improved health status for Maori. However, there is mounting evidence that inequities in access to and utilisation of health services, particularly at the primary health care level, could be a major factor in limiting gains in health status.

Conversely, improvements in access and utilisation could play a major part in contributing to the Government's policy goal. A hui, organised by Te Puni Kokiri at Whangaehu Marae in December 1994 and "Ma Te Maori E Puri Te Maimoatanga Maori: Managed Care by Maori" considered the question of managed care by Maori(2). It noted that inequities in access and utilisation were a fundamental barrier to achieving progress towards managed care by Maori. It also noted figures from Te Oranganui Iwi Health Authority's Te Waipuna Health Centre at Wanganui that rates of utilisation for primary medical care and related services were well below those of the average New Zealander.

This project was commissioned by Te Puni Kokiri to follow up these preliminary findings. While recent information on this question is available from Te Waipuna Health Centre at Wanganui only limited information has so far been available from other sources. Such information as is available appears to be consistent with the findings of Te Waipuna Health Centre.

However, further policy development depends upon a much broader information base. This project sought to answer the question,

"Are the low rates of primary medical care and associated services observed at Te Waipuna Health Centre, Whanganui and presented at the hui, also applicable to similar types of services provided for Maori throughout New Zealand, and, if so what action needs to be taken to redress this inequity".
2. METHODS USED IN THE STUDY

2.1 Terms of reference

The terms of reference for the study are set out in Annex 1. The study focuses upon the problem of equity in access and utilisation for Maori. However, the data sources and the problems of equity overlap with those of low income New Zealanders. All the services/centres studied, including those specifically established for Maori, were providing services for those who had experienced financial, cultural and other barriers in accessing traditional primary medical care services. Maori service providers also register those who are not Maori and some do not use ethnicity in their registration data. Hence the study considers the equity issues of both Maori as well as low income people as the populations and sources of data cannot be separated.

The terms of reference were substantially fulfilled in this study. The main exception was maternity services which, on further consideration, appeared to be less relevant to the overall aims of the study which focused primarily upon general practice. Also for this reason only limited attention was given to practice nurse utilisation and expenditure.

2.2 An analytical framework and literature review

An analytical framework was used to explore the concepts of access, utilisation and equity and their interrelationships in the provision of health services. A review was undertaken of the literature and published reports on the topic of equity in access and utilisation both for New Zealand and overseas. Unpublished studies known or advised about were also obtained.

2.3 National data sources

In order to make valid comparisons between the utilisation and expenditure on primary medical care and related services for specific health centres and population groups it was necessary to obtain national data for 1994/95 for the following data categories and their sources:

- recent population figures from Statistics New Zealand;
- GMS claims made in the various GMS categories from Health Benefits Ltd (HBL) Christchurch;
- laboratory expenditure from HBL Christchurch;
- pharmaceutical expenditure from HBL Wanganui;
- ACC figures for GP consultations from ACC Wellington.

2.4 Communication with the centres/services studied

In preparation for this study a letter was written to all presenters at the Whangaehu Hui who were providing primary medical care services. This letter set out the aims of the study and
the data required from each centre relating to:

- patient registration data, including CSC and GMS categories and age and some assessment of the accuracy of the register;
- utilisation data, again in GMS and CSC categories for at least six months;
- practice income data, including GMS, ACC and patient fees;
- pharmaceutical and laboratory expenditure, including methods of obtaining these data from HBL.

Subsequently, these health centres, with the exception of Hokianga, were visited for personal discussions with health centre managers and GPs. Te Puia Springs Health Centre was also visited as this serves a predominantly Maori population and, being a relatively isolated community, was thought not to be subject to the problems of the population denominator of urban centres discussed below.

Health Care Aotearoa, an organisation representing a number of both Maori and union health services was also approached for assistance. This national body assists its members with expertise and advice on a number of topics including information systems and contracting with RHAs.

To assist health centres participating in the survey to obtain data on their prescribing and laboratory expenditure a draft letter to Health Benefits Ltd (HBL) Wanganui and Christchurch was sent for health centre managers to sign authorising the supply of these data to Aotearoa Health. These data were readily supplied by HBL on this authorisation.

Despite this attempt to set out explicitly what was required and the means of obtaining it, considerably difficulty was experienced in obtaining the data. This related to a number of factors, including the adequacy of practice registers and the ability of the practice to extract data in an appropriate form. A number of practices were on capitation and therefore did not have readily accessible GMS-type claim data to determine utilisation rates.

Other problems were associated with the pressures on managers of health centres. Two were mayoral candidates in the October local authority elections! Others felt somewhat unsure about releasing data for the study. One centre, although prepared to release data, was not prepared to have their name publicly associated with it. One major centre, due to both pressures on staff as well as problems with computerisation, was unable to supply any data within the time frame of the study. Frequent subsequent telephone discussions were needed to follow up visits for clarification and encouragement to fill gaps in the data required.
3. A FRAMEWORK FOR ANALYSING EQUITY IN ACCESS AND UTILISATION

3.1 Equity

Equity in health care is commonly defined as:

- equal access to available care for equal need;
- equal utilisation for equal need; and
- equal quality of care for all(3).

However, there are problems associated with using the word equal in the context of equity. For example, there are major inequalities in health status between individuals, groups and populations which are inevitable. Ageing for example is inevitably associated with poorer health status. There are biological differences between individuals and even populations in health status. The terms equality and inequality are therefore often seriously confused with the term equity.

Of particular importance is the concept of equity in outcomes essentially a key goal of Maori health policy in New Zealand. Equity in outcomes means narrowing, as far as is possible, the gap in health status between individuals, groups and communities by focusing upon the needs of those whose health status is poorer and seeking to improve it as a matter of priority in health care policy. For Maori it means improving health status by whatever means that are most effective including improving access to health services.

It is therefore suggested that a more forceful way of expressing the concept of equity in health care is that it should lead to services that result in:

- greater access for greater need;
- greater utilisation for greater need;
- the greatest health gains for those whose health status is poorest.

A useful framework for analysing equity in access, utilisation and outcomes is shown in Figure 1. This shows the relationships between the four basic categories of health information. It also shows the links between the related concepts of effectiveness, efficiency, equity and acceptability.

3.2 The denominator population

This is the population base from which trends, events, states, beliefs, values and other factors emerge which influence the shape, direction and requirements of health services. These factors range from biological and demographic at one end of the spectrum to economic and political at the other. While some variables eg. age, sex, etc are independent, other factors are interdependent and interact in a complex way with one another e.g the relationship between ethnicity and social class.

The importance of the denominator population in this study is that all measures of access and utilisation need to be linked back to a national, regional or practice population for
comparative purposes. Thus the establishment of a true denominator is important as well as its characteristics such as age which by which valid comparisons might be made.

3.3 Health status

Health status derives from factors in the denominator population and to some extent from a feedback link with the provision of health services. Indicators of health status range from mortality through major and minor morbidity and disability to self rated health status which more recently has been recognised to be of far greater importance than previously realised. A question about self-rated health status was included in the recent New Zealand Health Survey(4,5).

An example of the relationship between population factors and health status is that a higher proportion of the elderly in a population will reduce the overall health status of that population and therefore in turn increase utilisation.

3.4 Health resources
Health resources (workforce, finance and facilities) derive from a complex of sources which are largely influenced by the political and economic system of a country which may be independent of health status. There is clear evidence of a causal relationship between population factors and health resource availability, eg the wealthier a population the more it can afford to both purchase as well as influence the distribution of health services both nationally as well as locally.

Of importance from the point of view of this study there is evidence that better off populations attract more doctors than poorer populations. In other words health services availability may be influenced more by ability to pay than by need for services especially in a fee-for-service subsidised system.

3.5 Health services utilisation

The fourth information category in this model is utilisation. This variable is influenced more by resource availability factors than health status through what is often referred to as supplier induced demand. More GPs leads to more services being provided independent of the need for such services.

3.6 Outcomes

As shown in Figure 1 there are a number of outcomes from these interactions. The most important desired outcome is that health services are effective in significantly improving health status both of individuals and populations. An increasingly important outcome is that health services should be efficient or cost-effective i.e that what is achieved is at the lowest possible cost. Also of increasing importance is the question of acceptability with increasing consumer concerns and community expectations.

In each of these relationships are questions of equity whether this be equity in resource allocation or access, equity in utilisation and equity in improved health status outcomes. Note again that equity is not equality but fairness. The evidence from a number of studies is that there continue to be serious inequities in New Zealand's health services in each of these dimensions.
4. EQUITY IN HEALTH SERVICES ACCESS AND UTILISATION: AN OVERVIEW

A number of recent studies, both in New Zealand as well as internationally, have contributed to an improved understanding of the problems of inequities in health status and utilisation of health services. This section briefly reviews the main findings of these studies.

4.1 New Zealand studies

The main sources of information for New Zealand as a whole come from the New Zealand Health Survey, the results which were presented initially in "A Picture of Health"(4) and more recently "Patients In Profile: the Use of Healthcare Services in New Zealand"(5). Two further publications also report in detail on health status, including health status of Maori, "Our Health Our Future"(6) for New Zealanders as a whole, and "Hauora: Maori Standards of Health III: A Study of the Years 1970-1991"(7).

However, the two latter publications, while addressing health status and secondary care in detail, present little information on primary care utilisation.

Important publications have also been produced by Te Puni Kokiri eg, "He Kakano: A Handbook of Maori Health Data"(8). However, the only publications which includes comprehensive national information on Maori and low income New Zealanders on the utilisation of primary medical and related services are those deriving from the New Zealand Health Survey. In brief the findings of "Patients in Profile", based on age and gender adjusting, reports;

- 20.1% of Maori having more than 6 GP visits per year compared with 15.1% for non-Maori but little difference for fewer visits;
- 16.5% of Maori being seen by a medical specialist in the previous year for Maori as compared with 24.0% for non-Maori;
- 10.3% hospital emergency and 17.6% inpatient utilisation by Maori as compared with 6.7% and 13.0% respectively for non-Maori;
- 20.6% of Maori with health insurance as compared with 43.6% for non-Maori;
- significantly lower percentages of utilisation of GPs for low income populations and those with a CSC with the exception of more than six visits where rates were much higher for low income and CSC group populations;
- no clear trend for prescribing rates by income or CSC status or between Maori and non-Maori.

A recent analysis by the Ministry of Health (Seeto, personal communication) of these data showed that ethnicity was not a factor in the different rates of general practice consultations,
the difference being explained almost entirely by social class differences.

On the other hand, the New Zealand Health Survey points to marked differences between Maori and non-Maori in self assessed health status(4,5). These differences in self assessed health status are entirely consistent with sources of information from other studies and statistical reports which show much higher mortality differences between Maori and non-Maori(7). An analysis of mortality has indicated that these differences are not explained by social class differences(7).

Other studies have also pointed to higher rates of consultation by Maori as compared with non-Maori, eg, those by Davis, who suggested that although Maori were more likely to consult a GP than non-Maori, the difference "fell far short of the ethnic difference in the burden of ill-health"(9). Maori are more likely to consult for serious conditions than minor ones. These results appear to be consistent with those of the National Health Survey(4,5).

However, not all studies point to consistently higher utilisation for Maori or low income populations. Reference has already been made to the preliminary results reported in "Managed Care By Maori"(2). A study by Dovey et al of a Dunedin general practice, comparing employed with beneficiaries by family structure, found that although smaller beneficiary families had higher rates of primary medical care related expenditure, larger beneficiary families had much lower rates(10). At the same time all beneficiary families, especially larger ones, had much higher rates of expenditure on secondary care services particularly inpatient care.

There is considerable evidence of poorer access to GP services in New Zealand for those in greater need and that the distribution of GP services is influenced more by demand and ability to pay than by need(11,12). Availability of GPs has consistently varied widely throughout New Zealand. For example in 1989/90 there was one GP to 1290 population in Central Auckland compared with only one to 1980 in the poorer South Auckland. GP services to Central Aucklanders were 5.7 per capita per year compared with 3.8 for South Aucklanders(11,12).

Recent studies of Midland's population and its health services have shown a similar variation in access and utilisation(13). Hamilton City has 8.04 GPs per 10,000 population( one GP to 1244) and 6.73 services per capita are supplied. By contrast poorer areas with high Maori populations such as Tairawhiti and King Country are much less well supplied. For example King Country receives only 2.95 services per capita obviously linked to low doctor availability of only 4.87 GPs per 10,000 population (one GP to 2053). Other services such as practice nurses and pharmacists appear also to be inequitably distributed(13).

Two issues appear to be not in doubt with respect to access and utilisation. For Maori and low income people the use of preventive services are universally lower than desired. Secondly there are much higher rates of hospital inpatient services for Maori and low income populations(7).

4.2 Overseas studies

These New Zealand findings appear to be consistent with those of overseas studies. A recent
review by the Kings Fund, "Tackling Inequalities in Health: an Agenda for Action", presents a wide ranging review of inequalities (inequities) in health and action needed to redress these inequalities(14). It noted that there were fundamental policy issues needing to be addressed in relation to such questions as housing, poverty, risk factors such as smoking, education, unemployment and child care, but also health services.

It noted that, while much had been done to redress some of the historical inequities in healthcare provision, further reforms were needed, particularly relating to the allocation of resources to primary medical care services. It noted that there was continuing uncertainty about levels of inequity related to the possible higher use of services by less needy, well-off groups, a point strongly made by Hart in 1972, expressed as the "inverse care law". Again there appears to be no doubt that disadvantaged populations had low uptakes of preventive services including immunisation and higher rates of hospital inpatient utilisation. However, the evidence for a differential use of primary care services was equivocal(14).

Other studies report similar findings, some pointing to higher rates of utilisation of primary medical care services by those less well off, others to lower rates. For example Halfon and Newacak found, in a study of children with asthma in the USA, that although poorer children had higher rates of asthma they had 40% fewer doctor visits but 40% more hospitalisations in the previous year(15). They found that although more than 90% of all children has a usual source of routine, and/or sick care, poor children were more likely to receive routine care in a neighbourhood health centre or hospital based clinic than in a doctor's office and when sick they were more than four times more likely to report an emergency department as a usual source of care. Other studies point to financial barriers for poorer populations as significantly reducing the rate of doctor visits despite poor health status.

A recent publication by Blumenthal et al extensively reviewed the existing literature on the adequacy of primary care with an emphasis on the evaluation of primary care for vulnerable populations(16). It concluded that despite the relative importance being given to primary care the availability of the literature on the topic was incomplete at best.

However, they were able to draw the following conclusions:

- community based interventions that increased the availability of primary care to underserved populations improve access to services and reduce the use of hospital care;
- availability of primary care to vulnerable populations improves patients self perceived health status;
- community based primary care programmes for underserved populations are associated with lower rates of preventable hospitalisations and reduced rates of cardiovascular disease among targeted populations as compared to controls;
- longitudinal care, a critical component of primary care, is associated with improved patient compliance, reduced hospitalisation rates and shorter lengths of stay;
- comprehensive care, also a critical component of primary care, is independently associated with the provision of services that have proven advocacy in improving
health status in underserved and general populations alike(16).

This review concluded that widespread use of primary care services is likely to result in improved patient satisfaction and health status(16). However, the review did not adequately address the question that making primary care available reduces the cost of care for underserved populations that receive it.

4.3 Conclusions from the literature

In conclusion, both New Zealand and international studies clearly indicate that poorer populations have a low use of preventive type services but higher rates of hospitalisation. Some evidence would seem to point to higher rates of primary medical care services for poorer populations. However, the results of a number of studies related to specific locations and populations suggest that this aspect of utilisation is much less clear cut and that there is evidence of serious inequity in access and utilisation.

Not only does there appear to be lower utilisation than expected for poorer health status(4,5). There is evidence that those in greater need receive even less resources than those who are better off and that utilisation is determined more by the demands of the better off than by need(11). This is a fundamental policy issue which must be resolved if the government's social goals are to be met. It could also be of major importance in achieving efficiency and equity in the balance between primary and secondary care. Inadequate access and utilisation of primary care services may be leading to the overuse of more expensive and inappropriate hospital inpatient services.
5. INITIATIVES TO IMPROVE ACCESS FOR MAORI AND LOW INCOME POPULATIONS

5.1 New initiatives in the last two decades

The problem of poor access to GP services for particular areas and populations has been recognised for at least two decades. During the 1970s the then Department of Health established an active health centre programme administered through hospital boards to construct health centres in underserved areas such as Porirua and South Auckland. These health centres were to some extent successful in encouraging GPs to move into these areas often in association with other providers such as practice nurses and physiotherapists. The health centres also provided a base for specialist outpatient services provided by hospital consultants to improve access of these populations to specialist services.

During the 1980s there was a major initiative on the part of unions to improve the access of their members to GP services. As a result some seven union health centres were in operation by the early 1990s in Auckland (Otahuhu, West Auckland and Otara, in Wellington in Newtown and Porirua and more recently in Hutt Valley, in Hamilton and Christchurch).

By 1991 these health centres were serving a population of nearly 55,000 people, mostly low income union members but with high proportions of Maori and Pacific Islanders. However, numbers being served by union health centres appear to have levelled out.

5.2 Maori health initiatives

Recent years have seen the growth of a wide range of initiatives by Maori providers largely motivated by what is felt to be a need to fill serious gaps in service provision. Some of these initiatives, such as Raukura Hauora o Tainui, arose directly from the health care plans proposed in the "Green and White Paper". Others were an extension of Maori initiatives which had been financed through contracts with the previous area health boards eg. the Te Oranganui Iwi Health Authority Te Korimako programme.

Other initiatives have arisen to fill specific gaps in service provision for example health promotion by Te Hauora o Te Taitokerau and Tipu Ora Trust for maternal and child health services. In the case of the Hokianga Health Enterprise Trust, a major motivating factor was the need for the Trust, which evolved from a special area, to continue to provide free pharmaceutical services to the population served by the Trust.

In all cases Maori initiatives have been strongly motivated by a need to improve the serious problem of poor health status through filling major gaps in service provision. Services, whether these were primary medical care, maternity, or health promotion, were seen to be significantly defective in many respects including problems of access such as cost and distance to travel as well as cultural appropriateness and safety. These problems particularly applied to most existing general practitioner services.

Another key factor in all these initiatives was the need for Maori to have a much greater say in the provision of such services. All initiatives which were presented at the Whangaehu hui
stressed community ownership and management. It was felt that such ownership would ensure that community rather than provider priorities would be paramount. These factors are the driving force behind the desire for Maori to form managed care organisations.

5.3 Whangaehu hui reports

At the Whangaehu hui patient enrolment/registration was seen to be an important feature for providers of primary medical care services. The largest registration was for Hokianga Health Enterprise Trust with 9400, the next being Raukura Hauora with 7800. Most presenters commented on the high levels of community service card holders amongst those registered, for example, 88% in Raukura Hauora and 74% in Te Oranganui. Although registration was not limited to Maori they constituted by far the largest proportion in most practices.

Presenters at the hui commented on the high level of serious health problems amongst those registered including asthma, diabetes, disability and mental health problems. Another common feature was the high levels of unemployment, for example, 50% in the Hokianga. The overall picture presented was one of a seriously disadvantaged population, socially and economically. From a health status perspective, health needs appeared to be far greater than those of the average New Zealander.

However, as already noted, despite these greater health needs the rate of utilisation of primary medical care services appeared to be well below that of the average New Zealander. Hui presenters commented on barriers to utilisation including the small but significant part charges which needed to be made and problems of travelling for those with limited transport. All presenters commented on the financial problems being experienced in providing services and difficulties of negotiating improved access with RHAs. In a number of cases substantial capital donations had been provided by iwi or other sources.

Since the hui numbers registered have continued to grow rapidly with 13,500 now registered with Tainui and over 6,000 with Te Waipareira. This growth appears to indicate the importance attached by Maori and low income populations to these services not only better access but also their appropriateness in meeting needs.

5.4 Problems and issues facing Maori providers

Presentations at the Whangaehu hui drew attention to some fundamental problems which providers experienced in establishing their services. In summary these were;

- significant, in some cases, severe problems in gaining adequate financial backing from RHAs. It was felt that little support for Maori was forthcoming from the Transitional Assistance package;

- despite Maori health being an RHA priority it was felt that RHAs had generally been unsupportive in fostering Maori health development particularly comprehensive primary health care with associated general practitioner services;

- where CHEs had been involved there was also generally little support as
Maori providers were seen to be in competition with services provided by CHEs;

- there was little recognition of the need for equitable funding of Maori providers and indications that there had been no real attempt to address equity issues with consequent major underfunding in comparison with better off, more influential populations;

- there was a strong emphasis upon the need for comprehensive services, particularly at the primary health care level, which were holistic and accessible and focused on meeting the major needs of Maori; and,

- *tino rangatiratanga* came through as a major issue of concern to providers most emphasising that this was a fundamental principle of Maori health development.
6. OBTAINING NATIONAL DATA ON UTILISATION AND EXPENDITURE

Reference has already been made above to the methods used to obtain data needed for the study.

6.1 Population figures

Population figures were obtained from two sources. The usually resident populations for New Zealand as at 31 March 1994 and 1995 were obtained from the Department of Statistics, Christchurch and the population at the mid point of the 1994/95 year calculated to be 3,536,250.

Figures for community service card (CSC) categories were obtained from the Personal Health Funding Formula (PHFF), January 1995, Ministry of Health the total population figure being 3,529,844. The PHFF figure was therefore adjusted upwards by a factor of 1.0018 to allow for this slight increase. (More recent unpublished figures were obtained from the Ministry of Health, Forecasting and Modelling Section. The proportions by age and CSC had altered only slightly from the earlier figures obtained. Given the uncertainties relating the data used in this study it was not felt necessary to update the earlier calculations.)

6.2 General medical services (GMS)

Most GPs claim GMS benefits (subsidies) from HBL. These claims are divided into three age categories: \( Y = 0-4 \) years, \( J = 5-14 \) years, \( A = 15+ \) years. Each of these categories is further subdivided into CSC1 and 3 and Z or high use health card (HUHC). This results in nine GMS categories, each of which attracts a given level of subsidy with the exception of A3 which, since February 1991, was reduced to zero.

Prior to this time, all consultations attracted a GMS claim. However, subsequent to February 1991, many if not most GPs abandoned A3 claims, as a result of which full information ceased to be available beyond the full financial year of 1989/90.

Information on total numbers and expenditure on GMS claims was obtained from HBL for 1994/95. Two methods were used to assess the actual level of A3s. The first of these took data from Pegasus Medical Group GMS claims which covers almost all GPs in Christchurch. Since early 1994 Pegasus has been paying all its members GMS and requires submission of all claim data including A3s. The level of A3s for Pegasus for 1994/95 was 30.0%.

A further source of data is the Department of General Practice Research Unit in the Otago Medical School, Dunedin. This is based upon general practice data bases which for 1993/94 covered a population of 68,790 (Tilyard, personal communication). The proportion of A3s from claims submitted by these participating practices was 36.0%. It was felt that a reasonable compromise would be to take a mid point between these two figures of 33.0%.

However, a further problem with the HBL GMS claim data is that Pegasus data is now excluded from it. This was added to the total HBL figures for 1994/95 excluding the Pegasus A3 data. A further complication is that some 86 GPs are now paid on a capitation
basis and therefore do not make GMS claims(17). An adjustment was made for this by assuming that this group served a population of 120,000 for the 1994/95 year. This figure was therefore used to reduce the denominator population to calculate GMS utilisation rates by a factor of .968 which was adjusted by the population factor 1.0018 above.

These calculations are summarised as follows.

- Derive population for midyear 1994/95 total and by percent in GMS categories Y1, Y3 etc.
- Subtract population served by capitation practices.
- Take total GMS claims for 1994/95 less A3s.
- Add 33% for estimated A3s from Pegasus and Tilyard data.
- Add the total Pegasus GMS claim data to derive total consultations.
- Calculate consultation rates related to population derived above.
- Apply this rate to the total New Zealand population to derive total consultations.

These calculations, inclusive of all consultations including capitation practices, resulted in a total estimated number of consultations for 1994/95 of 15.77 million or 4.46 per capita. This compares with 13.43 in 1989/90 the last year of full GMS claims(11,12) and is consistent with the 1.2% increase in the rate of utilisation annually over the previous decade calculated from the earlier study(11,12).

Expenditure on GMS GST inclusive obtained from HBL for 1994/95, and inclusive of Pegasus and capitation payments, was $169.51 million for 1994/95. The average GMS claim, allowing for all estimated consultations, was $10.97.

6.3 Laboratory expenditure

Laboratory expenditure obtained from HBL, GST inclusive for 1994/95, was $140.39 million, which, divided by the mean population for the 1994/95 financial year gave a per capita figure of $39.70. However, not all of this expenditure is incurred by GPs.

Expenditure on laboratory services was obtained from Pegasus Medical Group. The laboratory budget for the 1994/95 financial year was $8.149 million for an estimated population of 270,000. This gives a per capita expenditure of $30.18 GST inclusive or 76.0% of the total.

6.4 Pharmaceutical expenditure

Pharmaceutical expenditure from HBL Wanganui for 1994/95 financial year was $674.83 million, GST inclusive. This gives an overall figure of $190.85 per capita. However, again only a proportion of all prescriptions are issued by GPs.

Pegasus figures were again obtained to estimate the actual proportion. With a budget of $46.90 million based on 7.0% of the national expenditure, this gives a figure of $173.70 per capita for the estimated population. This is 91.0% of the total pharmaceutical expenditure associated with general practice. This compares with previous estimates of 95.0% from a decade ago.
6.5 ACC expenditure

ACC expenditure obtained from ACC for 1994/95 showed $75.855 million expenditure for 2.785 million services provided by GPs. Based on 15.77 million consultations this indicates that 17.6% of all consultations resulted in an ACC claim at a cost of $4.81 per consultation. GP related ACC expenditure was $21.45 per capita.

6.6 National expenditure on primary medical and related services

Table 1 shows the calculated expenditure on primary medical care and related services for 1994/1995, including total expenditure averaged over all consultations, expenditure per capita and per GP. The overall total expenditure is just less than $1 billion, of which by far the largest component is pharmaceutical.

Expenditure per consultation is $63.07 of which pharmaceuticals is again by far the largest proportion well in excess of the average GMS claims of $10.75. On a per capita basis total expenditure is $281.27. Expenditure per GP, on the assumption that there are 2700 full time equivalent (FTE) GPs in New Zealand, is $368,359. GMS income per GP is $62,781. However, the latter figure relates to total number of active GPs not FTEs the calculation of which can vary widely depending upon self defined FTE or FTE as defined by workload. Using workload figures FTE numbers are likely to be much lower than self defined FTEs.

The figures presented in Table 1 are somewhat lower than those obtained for 1992/1993, which were based upon an estimated 13.0 million consultations per year, but higher proportions of pharmaceutical, and particularly laboratory expenditure being attributed to GPs(11,12). It is felt that the figures presented in Table 1 are more accurate regarding these two latter categories.

In 1992/1993 GMS expenditure per consultation was estimated to be $13.0. This has now fallen significantly now to $10.75 this being only about one third of the "standard" fee of $31. This decline is in accord with the figures showing no increase in GMS expenditure since 1991/1992 and a decline of 9.7% between 1990/91 and 1991/92 with the abolition of payments to A3s and the introduction of the CSC.

Both consultations numbers and rates increased over this period. This would suggest that there has been some decline in the proportion of CSC Categories 1 using primary medical care services. There is little evidence to suggest that the introduction of the CSC improved the utilisation of low income or Maori populations and the quality of the data is such that it is unlikely any reliable assessments could be made of such trends.

What might reasonably be concluded is that, despite increasing utilisation, there has been a significant decline in government expenditure on GP consultations. This is in accord with a recent report by Tilyard et al showing a marked increase in the proportion of GP consultations for which no fee is charged and a decline from 47.0% in 1989 to 34.1% in 1994 of consultations in which a regular fee was charged(18). This reduction was directly related to the ability of patients to pay the regular fee. Excluding consultations in which a maternity or immunisation claim was made 19.4% of consultations in 1993 generated no fee to the patient.
Table 1  National expenditure on primary medical and related services for 1994/95 (GST inclusive) based on a total population of 3,536,250 as at December 1994, an estimated 15.77 million GP consultations and 2700 FTE GPs (the actual FTE figure based on workloads may be much lower)

<table>
<thead>
<tr>
<th>Category</th>
<th>Total expenditure $ million</th>
<th>Expenditure per consultation $</th>
<th>Expenditure per capita $</th>
<th>Expenditure per GP $</th>
</tr>
</thead>
<tbody>
<tr>
<td>GMS</td>
<td>169.51</td>
<td>10.75</td>
<td>47.94</td>
<td>62,781</td>
</tr>
<tr>
<td>ACC</td>
<td>75.86</td>
<td>4.81</td>
<td>21.45</td>
<td>28,086</td>
</tr>
<tr>
<td>Laboratory</td>
<td>106.72</td>
<td>6.77</td>
<td>30.18</td>
<td>39,526</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>614.20</td>
<td>38.95</td>
<td>173.70</td>
<td>227,481</td>
</tr>
<tr>
<td>Practice nurse</td>
<td>28.28</td>
<td>1.79</td>
<td>8.00</td>
<td>10,474</td>
</tr>
<tr>
<td>Total</td>
<td>994.57</td>
<td>63.07</td>
<td>281.27</td>
<td>368,359</td>
</tr>
</tbody>
</table>
6.7 Cost weightings for laboratory and pharmaceutical expenditure

These were obtained from a report by Gribben(18). This report for North Health was based upon the "Micromarket's" survey commissioned by the Health Reforms Directorate and undertaken in late 1993 and early 1994. It was based upon general practitioner data for seven rural communities. The cost weights calculated from the data collected were used to produce tables related to age and gender for consultation rates and expenditure on laboratory and pharmaceutical services.

(More recent data was obtained from the Ministry of Health, October 1995, for these cost weightings. As these did not significantly differ proportionally from the Gribben data, and the totals appear to be very high, the Gribben figures have been retained in the calculations presented in this report).

The Gribben report aggregated cost weights into nine groupings by gender and CSC. For the purposes of this study the cost weights were further aggregated into GMS categories, including the P (> 65 years) category. It was felt that both the variability in the cost weights of the Gribben report, as well as the problems with obtaining data from the health centres studied, did not justify a more refined approach.

Furthermore the Micromarket's survey appeared to significantly under estimate both consultation rates and pharmaceutical and laboratory expenditure. A consultation rate of 3.5 was reported, which contrasts with the overall figure of 4.46 per capita from this study. The Gribben cost weights give a figure of $13.71 per capita contrasted with the national laboratory capital expenditure figure of $30.18, estimated in this study.

The Gribben per capita figure for pharmaceuticals was $89.04, contrasted with the national per capita figure of $173.70 for pharmaceuticals from this study. Therefore the Gribben cost weights were only used as proportions of the age and GMS categories. They were adjusted upwards by a factor of 2.20 for laboratory costs, and 1.95 for pharmaceutical costs.

Laboratory and pharmaceutical cost weights were also obtained from national figures related to the Personal Health Funding Formula(PHFF). However, these were based on 1991/92 calculations which, when adjusted for growth in pharmaceutical and laboratory expenditure since that time, appear to be 15% higher than the estimates of this study.

6.8 Reliability of the national expenditure and utilisation data

It will be apparent from the above discussion that the figures derived for national comparative purposes are based upon a large number of assumptions and uncertain data sources. While total national population might be reasonably reliable there are major uncertainties about its breakdown into CSC categories. It is well known that entitlement for a CSC based upon income seriously over estimates the level of actual CSC holders. The national figures in the PHFF used in this study are based upon estimated rather than actual CSC holders. For example a Midland Health study showed that whereas nearly 60% of its population were entitled to CSCs, only about 40% had actually taken them up(13).
A further problem with the national denominator is that there is no information on the Z categories by population. Z categories comprise approximately 8% of the total number of claims but for the purposes of this study were combined with the CSC 1 categories to calculate overall rates as Z category GMS payments are equal to CSC 1 payments in all groups.

A number of assumptions and manipulations had to be made with regard to the GMS A3 claims. However the assumption that these comprised 33.0% of the total appears reasonable as it is based on two data sources and the overall rate is consistent with the overall rate of increase in utilisation over the last decade.

However, a serious problem, which as yet has not been fully identified, is the extent of inappropriate or even fraudulent GMS claims. The compliance section in HBL Christchurch is confident that, in at least 10% of claims, the patient was either never seen or a claim was made inappropriately in association with either a GMS or immunisation visit. If this is so, the real utilisation rate could be nearer 4.0 than the 4.46 consultations per person per year found in this study.

There may also be questions about the accuracy of laboratory and pharmaceutical data both in totals and in the cost weights. The revised national PHFF data available appear to be much higher than the estimates from this study and raise doubts about the accuracy of both estimates.
7. OBTAINING DATA FROM THE HEALTH CENTRES/SERVICES STUDIED

The methods as well as the problems of obtaining data from the health centres/services studied have been discussed above in Section 2. This section presents the results.

7.1 Utilisation rates from data obtained from centres

Table 2 shows the rates of utilisation of primary medical care services for the various health services study compared with the national rates. The following clarifications are needed with regard to this Table:

- the rates are based upon the fully registered population of the centre, excluding casuals and is thus as accurate a denominator as it is possible to ascertain;
- six of the eight situations studied were being paid by capitation, and therefore were required by the RHA to maintain accurate and up to date patient registers;
- the Z category figures are reported for completeness and, although they could have been aggregated into CSC 1 category for national comparisons, such aggregation would have made little difference in view of the small numbers in the Z category.

The following findings should be noted with regard to this Table:

- in all GMS categories utilisation rates are below, in some cases markedly, the national rates;
- Z category rates, as expected, are well above the other categories;
- rates for category 1 are generally higher than for category 3 but a notable exception to this is the national rates for J1/J3;
- the overall pattern of utilisation for each of the centres conforms with national rates but at a much lower level.
Table 2  Rate of utilisation of primary medical care services national and in health services studied. The number of consultations listed is only those provided by GPs

<table>
<thead>
<tr>
<th>Service</th>
<th>Regis pop(1)</th>
<th>Annual consult</th>
<th>% CSC</th>
<th>Y1</th>
<th>Y3</th>
<th>YZ</th>
<th>J1</th>
<th>J3</th>
<th>JZ</th>
<th>A1</th>
<th>A3</th>
<th>AZ</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>3,536m</td>
<td>15.77m</td>
<td>47.6*</td>
<td>7.55</td>
<td>7.07</td>
<td>NA</td>
<td>3.37</td>
<td>4.43</td>
<td>NA</td>
<td>6.36</td>
<td>4.08</td>
<td>NA</td>
<td>4.46</td>
</tr>
<tr>
<td>Te Waipuna(2)</td>
<td>4920</td>
<td>10929</td>
<td>78.3</td>
<td>2.75</td>
<td>2.03</td>
<td>-</td>
<td>1.71</td>
<td>0.83</td>
<td>-</td>
<td>2.67</td>
<td>2.02</td>
<td>-</td>
<td>2.22</td>
</tr>
<tr>
<td>Te Waipareira</td>
<td>5894</td>
<td>8563</td>
<td>63.7</td>
<td>3.01</td>
<td>2.43</td>
<td>4.50</td>
<td>1.22</td>
<td>1.00</td>
<td>-</td>
<td>1.60</td>
<td>1.35</td>
<td>8.64</td>
<td>1.67</td>
</tr>
<tr>
<td>Te Puia(2,3)</td>
<td>4405</td>
<td>14400</td>
<td>66.3</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.2</td>
</tr>
<tr>
<td>Otahuhu Union(2,4)</td>
<td>9213</td>
<td>18160</td>
<td>45.1</td>
<td>2.83</td>
<td>3.02</td>
<td>8.00</td>
<td>1.06</td>
<td>1.02</td>
<td>4.00</td>
<td>2.49</td>
<td>1.72</td>
<td>9.32</td>
<td>1.97</td>
</tr>
<tr>
<td>Hutt Valley Union(2)</td>
<td>5076</td>
<td>14522</td>
<td>78.3</td>
<td>5.70</td>
<td>4.11</td>
<td>14.77</td>
<td>1.85</td>
<td>1.34</td>
<td>4.61</td>
<td>2.93</td>
<td>2.01</td>
<td>11.67</td>
<td>3.05</td>
</tr>
<tr>
<td>Christchurch Union(2,5)</td>
<td>6924</td>
<td>13908</td>
<td>43.3</td>
<td>1.76</td>
<td>4.53</td>
<td>-</td>
<td>0.96</td>
<td>3.35</td>
<td>-</td>
<td>1.84</td>
<td>1.98</td>
<td>7.50</td>
<td>2.01</td>
</tr>
<tr>
<td>Whakatohea Health Centre</td>
<td>2900</td>
<td>7924</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.73</td>
</tr>
<tr>
<td>Hokianga(2,3,7)</td>
<td>9500</td>
<td>22413</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.36(6)</td>
</tr>
</tbody>
</table>

* Entitlement only from Personal Health Funding Formula - the actual percentage from the National Health Survey was 32.4% in 1992/93
(1) Registered population excludes casuals  (2) Capitation paid practices
(3) GMS data not available  (4) Includes casuals 36.7% of total but excludes practice nurse consultations 44.8% of total
(5) Excludes practice nurses consultations 15.2% of total
(6) Practice register not available  (7) Excludes practice nurse consultations 43.5% of total
It should be noted that, for a number of centres, particularly those on capitation such as Hokianga and Otahuhu, practice nurse consultations now make up a large proportion of the total consultations. This shift in the mix of consultations has been organised by these centres, not only for reducing costs but also because nurse consultations may well be much more appropriate given the nature of the problems being treated. There is a greater focus in these centres upon patient education and assistance with medication, etc. When these consultations are taken into account the overall consultation rate may well not be very different from the national rate.

7.3 Income from consultations

Table 3 presents the results of calculations relating to the income derived per consultation for primary medical services for the centres studied. A figure of $31 has been assumed for the total income per consultation. This is the standard fee for CHE provided services and, from discussions with GPs, is near to the actual income received at least in better off areas and practices.

The income from GMS relates to the mix of GMS claims. A high proportion of category 1 and children will result in a high average claim. The national claim figure of $10.75 is therefore based on the overall mix of the New Zealand population.

Lower figures occur in health centres such as Otahuhu and Christchurch, particularly the latter, which provides services more for working age patients than families and hence have a higher proportion of A3s and a lower proportion of children to generate higher GMS claims despite a high proportion of CSC patients. The higher figures for Te Waipuna and Hutt Valley Union reflect both high proportions of both CSC and of children.

In contrast to the national ACC figure of $4.81, averaged over all consultations, ACC income per consultations in all centres studied is lower, and in some cases substantially lower. This is related to the proportion of children, particularly Y3 where the ACC claim is only $1.00 for a specific ACC consultation. Thus the advantage of the CSC card in improving access to GP services is substantially decompensated for by the reduction in ACC payments.
Table 3. Income per consultation, GST inclusive, for primary medical care services for centres studied based on GMS schedule (most centres are on capitation)

<table>
<thead>
<tr>
<th>Service</th>
<th>GMS</th>
<th>ACC</th>
<th>Patient fees</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>10.75</td>
<td>4.81</td>
<td>15.44(1)</td>
<td>31.00</td>
</tr>
<tr>
<td>Te Waipuna</td>
<td>16.28</td>
<td>1.25</td>
<td>3.79</td>
<td>21.32</td>
</tr>
<tr>
<td>Te Waipareira</td>
<td>15.60</td>
<td>1.30</td>
<td>4.81</td>
<td>21.71</td>
</tr>
<tr>
<td>Te Puia(2)</td>
<td>NA</td>
<td>1.67</td>
<td>1.11</td>
<td>NA</td>
</tr>
<tr>
<td>Otahuhu Union</td>
<td>10.19</td>
<td>2.44</td>
<td>3.89</td>
<td>16.52</td>
</tr>
<tr>
<td>Hutt Valley Union</td>
<td>16.84</td>
<td>1.15</td>
<td>1.07</td>
<td>19.06</td>
</tr>
<tr>
<td>Christchurch Union</td>
<td>7.55</td>
<td>3.67</td>
<td>8.96</td>
<td>20.18</td>
</tr>
<tr>
<td>Whakatohea</td>
<td>12.76</td>
<td>2.08</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Hokianga</td>
<td>NA</td>
<td>NA</td>
<td>Nil</td>
<td>NA</td>
</tr>
</tbody>
</table>

(1) Based upon an assumed total income per consultation of $31
(2) GMS data not available
Patient fees, with the exception of Christchurch Union Centre, are all relatively insignificant as a proportion of the total income for the consultation. Despite these low fees centres report high levels of unpaid debts and are in universal agreement that any attempt to increase fees would only increase the level of unpaid debts, not practice income.

The overall income per consultation from all sources, excluding immunisation and maternity consultations which are excluded from the total consultation rates reported above, range around $20. This figure is substantially less than the estimated "standard" $31 for a general practice consultation and appears to be well short of a viable figure for running an ordinary general practice and paying GPs and other staff at competitive rates.

Almost all centres studied indicated that, unless a substantial capitation grant greatly improving upon the level of GMS payments had been negotiated, they were running at a loss, in some cases a substantial loss. This loss, in many cases, does not take into account the subsidies received from unions, in the case of the Union Health Centres to build or buy centres, or in the case of Maori Centres, subsidies and support from sources such as Te Puni Kokiri or Iwi.

It appears almost universal that the GMS form of payment, whether in the form of fee for service or capitated, is quite inadequate to meet the income needs of the centres studied and almost certainly all other centres providing for Maori and low income populations. Some GPs in poorer areas compensated for this in the past by seeing 60 or more patients a day for only a few minutes each. This practice is now largely discredited and would be subject to disciplinary and RHA action.

In the case of Te Oranganui's Te Waipuni Health Centre in Wanganui a capitation grant inclusive of practice nurse, of $75.00 GST inclusive, was negotiated early in 1994. Expressed on a GMS payment basis this increased the income per consultation from $16.0 to $26.8. It enabled the Centre to almost break even, but again with no allowance for the subsidies and support received for both establishment and capital costs.

7.4 Laboratory and pharmaceutical expenditure

Table 4 shows expenditure on laboratory and pharmaceutical services for the health centres studied. The data obtained for laboratory and pharmaceutical expenditure for the most part was for recent months and was analyzed in relation to the registered practice populations. Data were incomplete for a number of reasons or could not be related to the age breakdown of a practice population. The denominator used for the calculations in Table 4 is the actual registered population from the centre.

The Gribben cost weights, adjusted for recent national expenditure figures referred to above, were used to calculate the expected laboratory and pharmaceutical expenditure for each centre based on the centre's registered population in GMS categories including the P category. This in all cases resulted in an increase in the expected expenditure because of the lower proportion of the 65+ age group. Table 4 compares this expected expenditure with the actual annual, or in most cases, annualised expenditure. In all cases, with the exception of the laboratory figures for Whakatohea about which there is some doubt, the actual
Table 4. Annual or annualised expenditure, GST inclusive, on laboratory and pharmaceutical services for the health services studied compared with the expected figure based on national rates adjusted to the registered populations of the services

<table>
<thead>
<tr>
<th>Service</th>
<th>Laboratory expenditure $</th>
<th>Pharmaceutical expenditure $</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expected</td>
<td>Actual</td>
</tr>
<tr>
<td>Te Waipuna</td>
<td>116,314</td>
<td>79,600</td>
</tr>
<tr>
<td>Te Waipareira</td>
<td>138,952</td>
<td>93,418</td>
</tr>
<tr>
<td>Te Puia(2)</td>
<td>108,308</td>
<td>47,938</td>
</tr>
<tr>
<td>Otahuhu Union(2)</td>
<td>220,770</td>
<td>91,027</td>
</tr>
<tr>
<td>Hutt Valley Union</td>
<td>128,260</td>
<td>82,038</td>
</tr>
<tr>
<td>Christchurch Union</td>
<td>205,986</td>
<td>55,848</td>
</tr>
<tr>
<td>Whakatohea</td>
<td>71,303(1)</td>
<td>101,158</td>
</tr>
<tr>
<td>Hokianga</td>
<td>268,684</td>
<td>NA</td>
</tr>
</tbody>
</table>

(1) Practice register not available. Figures based on population proportions for Te Puia.
expenditure is well below, in some cases, dramatically below the expected expenditure, particularly for pharmaceuticals.

7.5 Government expenditure per consultation and per capita

Table 5 presents an analysis of the government expenditure on primary medical services as per GP consultation and per capita for the populations registered with the centres/services studied. The actual expenditure for laboratory and pharmaceuticals has been adjusted upwards to compensate for the age/mix of patients to make the figures comparable with the national data.

It is emphasised that the GMS figures relate only to the GMS income which would be realised if the centres were on fee-for-service payments. Most of the centres are in fact on a higher level of capitation payment, some substantially higher. There are a number of gaps in these figures because of incomplete data as discussed above.

While these appear to be some anomalies in the figures they show in general a lower rate of expenditure per consultation and in all situations a markedly lower expenditure per capita. The Waipara's total expenditure per capita is less than one third of the national average.

It is possible that the method of calculating using the cost weights referred to above, may have overestimated the expected expenditure by not giving due weight to the mix of populations. However, in all cases the proportion of elderly, which in the practices studied was only about 3%, was taken into account.

On the other hand it is possible that the actual expenditure reported is an underestimate. It was not possible to separate laboratory requests and prescriptions issued by the GPs and linked to the NZMC number for usual patients, compared with patients fully registered used as the denominator for fee calculations. A more fundamental question relating to the overall denominator, however, needs to be considered as discussed below.

Again these results would appear to vary substantial underexpenditure on pharmaceutical and laboratory services which is in line with the apparent underexpenditure or underutilisation of primary medical care services generally. The implications of this will be further discussed below.

7.6 Accuracy of the population denominator for the health centres studied

A critical question, an answer to which was sought in all discussions with the practice managers and GPs involved, was "how accurate is the practice register upon which these population calculations needs to be based?" It is clear that some patients who have registered with a particular centre may continue to "shop around" and use services of other general practices. Patients may also have registered with a centre but have moved away subsequently to another area or part of the country.

It is known that patients using the practices studied are much more mobile than the average New Zealander. Patients also use after hours services in other practices which are not included in the total figures for a registered population although it is also known that such numbers are quite small, almost certainly less than 5% of the total.
Table 5  Government expenditure, GST inclusive, on primary medical and related services national and for the health centres/services studied expressed as per GP consultation and per capita with laboratory and pharmaceutical actual expenditure adjusted upwards for the age mix of the practice (the GMS figure is for the expected GMS income based on number of consultations not the actual received under a capitation contract)

<table>
<thead>
<tr>
<th>Service</th>
<th>Per GP consultation $</th>
<th>Per capita $</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GMS</td>
<td>ACC</td>
</tr>
<tr>
<td>National</td>
<td>10.75</td>
<td>4.81</td>
</tr>
<tr>
<td>Te Waipuna</td>
<td>16.28</td>
<td>1.25</td>
</tr>
<tr>
<td>Te Waipareira</td>
<td>15.60</td>
<td>1.30</td>
</tr>
<tr>
<td>Te Puia(1)</td>
<td>NA</td>
<td>1.67</td>
</tr>
<tr>
<td>Otahuhu Union</td>
<td>10.19</td>
<td>2.44</td>
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<tr>
<td>Hutt Valley Union</td>
<td>16.84</td>
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</tr>
<tr>
<td>Christchurch Union</td>
<td>7.55</td>
<td>3.67</td>
</tr>
<tr>
<td>Whakatohea(2)</td>
<td>12.76</td>
<td>2.08</td>
</tr>
<tr>
<td>Hokianga</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

(1) GMS data not available
(2) Estimates based on population proportions for Te Puia
Despite these reservations it is felt that the registered populations presented in this study represent a reasonable approximation to the true figures of those who are available to use the services they have registered with for the following reasons:

- most centres studied are on capitation and RHAs require explicit management standards for capitation practices to avoid "double dipping";
- all practices studied maintain separate registers for fully registered patients for whom they hold patient files as compared with casual patients and only fully registered patients were used for the denominator;
- patients are automatically removed from the permanent to the casual register if they, or a member of their family, has not been seen within two years;
- many practices remove the patients from their lists who have moved away or who have died etc, in their monthly register update;
- patients who are not seen within two years and therefore excluded are likely to be at least 10% of the total population, and therefore a part of the true denominator even though not seen;
- studies of general practice elsewhere suggest that less than 10% of patients "shop around" (Gribben, personal communication);
- it is thought unlikely that those registered with these centres would continue to use other services where a significantly higher charge is made;
- in the case of Te Puia and Hokianga there are few alternative services which patients might use.

Nevertheless, doubts remain as to whether the low rates of utilisation and expenditure can be explained by an "inflated" denominator, a problem which will not be fully resolved until all patients are using a unique identifier such as the national health index (NHI).

Two surveys are being undertaken to attempt to resolve this problem and have been discussed with Te Waipuna and Te Waipareira. This first is a simple survey of the register which it is hoped will be undertaken in these two centres in the near future involving an analysis of the extent to which patients registered in the past continue to use services of the centre over the subsequent months or years or whether there has been a fall off in such utilisation. A fall off would suggest that a proportion of those so registered have moved elsewhere.

The second survey is the follow up of a sample of patients who have been on the register for more than 12 months to determine to what extent they have used services in the previous 12 months, and if so, what services including the services of the centre that they are registered with or other services. However, the results of these studies are not yet available.

An attempt to resolve this problem was made by obtaining the figures on utilisation from two Christchurch practices serving average populations both on capitation and not members of
Pegasus Medical Group. The overall rate of utilisation was 3.5 and 3.8 consultations per capita suggesting that the figures obtained from the specific centres/services studied were in fact genuinely low by comparison.

7.7 Health status problems

Despite reservations about the denominator population the differences in utilisation between the centres studied and the average New Zealand population are stark. This is particular so when it is recognised that the patients being served by these centres are known to have poorer health status and therefore need to be using services more than better-off healthier populations. Almost universally GPs working in the centres described the sorts of patients they were seeing as being:

- those with multiple and complex problems requiring longer than average, including extended, consultations;
- patients who have deferred coming for treatment later than the average New Zealand patient might have come and often with multiple problems "saved up" over a period of delayed attendance;
- patients who did not come back for regular checkups either for the problem for which they consulted or for routine checks on treatment such as for asthma and diabetes.
8. OVERVIEW OF THE FINDINGS

There are many problems associated with the collection and analysis of data relating to utilisation and expenditure on primary medical care and related services for Maori and low income populations. These problems have been discussed above. Studies of such populations are limited by:

- poor information systems, both national and in health centres associated with a lack of standardised data definitions and collections and a lack even of awareness of the need for better information systems to analyse utilisation and expenditure;

- staff in such centres, including managers and health professionals, are working under difficult stressful circumstances. This is in part because of chronic underfunding of their services and the need to operate as efficiently as possible with little time, or even understanding of the need of opportunities for analysing data, producing information and comparing this with other centres working under similar circumstances;

- uncertainties about sharing data associated with a competitive environment, and in some cases, contractual limitations on sharing information relating to more advantageous contracts which an RHA may have awarded, or which may have been given, for example the Union Health Centres, in pre-RHA times;

- a continuing view from some RHAs that competition, supported by the non-sharing of data due to commercial sensitivity, is a way of securing efficiency in service provision, an attitude which is particularly disadvantageous to providers of services for Maori and low income populations.

Despite the problems of obtaining data and analysing the data to produce soundly based findings the results of this study point clearly to the following:

- Maori and low income populations are seriously under served with primary medical care and related services with low, in some cases, very low rates of utilisation despite known poor health status and therefore expected higher rates of utilisation;

- that although some studies indicate higher rates of utilisation for primary care services for low income and disadvantaged populations, other studies point to lower utilisation as might be expected under the "inverse care law", a view which is strongly supported by the findings of this study;

- low utilisation is associated with poor financial access to primary medical care services as shown by the low income from all sources, including patient fees, this income being substantially less than that received by the average practice;

- despite this low income, Maori and low income practices are seeing patients with complicated, multiple problems which require in many cases an extended consultation time;
there is a marked discrepancy between the expected and actual expenditure on laboratory, and particularly pharmaceutical services, with a ratio between actual and expected of only about 44%.

The reasons for this low utilisation and expenditure, however, are far from clear. Barriers to utilisation may be financial, geographic, expectational and cultural. For the most part the practices studied have been set up to improve access to services to Maori and low income people and have significantly reduced the financial barriers present in the average general practice.

The cost barrier may explain low utilisation of pharmaceuticals. Even the $3.00 for a CSC holder may be seen, for example by the GP, as such a problem. Prescribing is limited to the very minimum because it is known that the patient cannot afford, or is not prepared to afford, this additional cost on top of the consultation.

For the most part services for under fives are free. Some services eg, Tainui, not studied in this survey, provides free services to all patients but utilisation rates do not seem to be significantly higher than those reported here as a result of this. Although price is known to have a significant effect on utilisation, particularly for children, it does not appear to be a major factor explaining the low rates of utilisation observed in this study. Nevertheless it remains important because any significant barrier to utilisation which reduces access to services which are needed must be considered.

Geographic barriers are known to be of considerable importance, particularly for those with poor access to public transport services. There must be significant problems for a mother with a sick child, and with other children in the family being looked after, to take the whole family to attend for a general practice consultation. It is known that there are major geographic barriers for more isolated populations, particularly, Maori, eg, in scattered rural settings, such as the Whanganui River. Some patients from Whanganui River are registered with Te Waipuna and this is no doubt a factor in explaining low utilisation.

An important factor, referred to on a number of occasions by health centre managers and GPs, is the relatively low expectations of patients about the benefits of primary medical care. Attendance for problems needing regular supervision tends to be deferred by people who live on a day to day basis coping with financial, social, housing and other problems with high levels of unemployment and other stresses associated with daily living.

Cultural factors are also thought to be important. Some Maori remain suspicious and uncertain about the benefits of modern medicine and have a preference for rongoa practitioners. This use of traditional medicine may also explain the low rates of utilisation. Awareness of this preference has lead, for example, to the employment of a rongoa practitioner in Te Waipuna Health Centre to complement the services provided by the GPs.
9. IMPROVING INFORMATION SYSTEMS

It will be apparent from this study that there are major problems with information systems for primary medical care and related services both at national and regional levels as well as for health centres at the local level.

9.1 National and regional information system issues

The development of the New Zealand Health Information Service (NZHIS) did a great deal to improve the standards, timeliness and general reliability of the data sent relating to hospital inpatients, and more recently, outpatients. The development of the national health index (NHI), a unique number for each New Zealander to link all health events, has been a fundamentally important achievement. Some 85-90% of all New Zealanders now have an NHI.

Despite these developments, which have been largely applied in the secondary care sector, only sporadic and poorly coordinated initiatives have been implemented at any level in the primary care sector.

A major problem has been that HBL has, in the past, seen itself as primarily a benefit/subsidy payment body with data/information being only a by-product of this payment process. More recently, however, HBL has improved the standards, timeliness and quality of its data production, in part stimulated by continuing criticisms of its data output, but also by an increasing number of demands for better and more accurate information related to general practice budget holding.

There have also been demands for improved information from within HBL from the compliance section, a relatively new activity which appears to have had a major impact on reducing inappropriate and fraudulent claims. Reliable information is essential if the compliance section is to effectively carry out its role, including prosecutions.

However, the major problem in improving information systems at the national and regional level appear to be a lack of any agreed policy between RHAs as to how HBL and other related data could be improved and linked. All RHAs appear to have agreed with the use of the NHI. They appear to be increasingly embarrassed by the problems of poor information, for example, to underpin the joint RHA maternity contracting strategy.

Despite this little agreement appears to be emerging as to even the need for a united strategy let alone a way forward to achieve it. North Health has recently indicated its intention to withdraw from HBL. There is widespread criticism from IPAs in North Health about the lack of any alternative information strategy in place to replace HPL’s information output. Requests to RHAs from a number of sources, including IPAs, and other bodies to improve their information systems and to develop a comprehensive information system strategy appear to have gone unheeded.

This lack of an integrated approach is puzzling. Over $1 billion of government money is currently being spent in the primary medical care and related area. Major moves have
occurred towards budget holding and managed care from IPAs, community groups and Maori providers seeking accurate information upon which to base budget holding contracts. However, the reliability of the information for such contracts remains seriously flawed.

9.2 Provider level information systems

Some RHAs have presented detailed demands for information from the providers with whom they contract. However, this appears to be in most cases a relatively ad hoc process with no clear indication as to how the data provided would fit into an overall reporting and management information system within the RHA framework. NZHIS has undertaken some work in the primary medical care and related area but its attention has been largely focused upon clinical rather than management, including utilisation and financial, information.

Thus there appears to be neither an integrated national or regional strategy to develop an appropriate and comprehensive information system to underpin major developments which are occurring in budget holding and managed care. An agreed information system policy for maternity services is being developed to underpin a maternity contracting strategy but it is not clear how this links in with an overall information system strategy, of which maternity services are only a part.

It is not surprising, therefore, that at the local health centre level a wide range of different initiatives have developed, some of which are impressive and can readily produce desired data. Changing patterns of contracting, e.g., towards capitation, however, have led to the inability to produce utilisation figures because the contracts are based upon patients registered rather than patients seen.

A fundamental data problem at the national and regional level is the move towards new contracting relationships. Pegasus Medical Group, for example, now pays its own members GMS and this is not added to, nor appears to be generally available for the national data set. This covers approximately 7% of all consultations. Increasing moves towards capitation payments also mean that information relating to utilisation will become progressively more difficult to obtain. The financial information systems within HBL do not appear to be integrated in such a way as to effectively aggregate data related to aspects of general practice.

For these and other reasons data on expenditure and utilisation on primary medical care and related services for the current financial year will be even more difficult to obtain than for the last year. If the government's policy is to improve access and utilisation for Maori and low income populations, the ability to monitor, measure and evaluate policy implementation will be seriously limited, if not impossible, other than through expensive and limited surveys.
10. THE MAORI COST WEIGHTING IN THE PERSONAL FUNDING FORMULA

The PHFF is currently under review with updated data relating to utilisation at the primary medical care level. It is understood that this review includes an updating of the population including ethnic and CSC group divisions.

Need and access are recognised to be two key elements in the population based funding formula. Age and gender are recognised as the two most important predictors of need. A further weighting for these special needs of each region. Special health needs factors are allowed for through three mechanisms:

- primary care through the proportion of CSC holders and based upon existing levels of utilisation;
- secondary care through the health and equity (HEQ) score, and
- for Maori the higher premature mortality experienced by Maori not explained by social economic differences.

The proportion of CSC holders is clearly related to poor health status and utilisation. From this study CSC holders at both national as well as health centre level, have higher rates of utilisation than those without. The only exception to this was the J3 national group which have a significantly higher utilisation than J1. However, the J category is the healthiest group in the population and, in general, are low users of health services.

A more important question relates to the validity of the CSC as a useful indicator of health status and therefore an adjustment for access. It has already been shown that only about 75% of those entitled to CSC actually hold one. It is possible that those most in need of CSCs are those who are less likely to obtain one.

A more serious problem however relates to its use in cost weighting for primary care. The evidence of this study clearly indicates that although Maori and low income populations have much poorer health status, the use of and expenditure on primary medical care and related services is substantially lower than that of the average New Zealander. Thus any cost weights based upon existing levels of utilisation would merely perpetuate not only at regional, but particularly at the local level, the existing disadvantages suffered by Maori and low income populations.

The adjustment of secondary care and special health needs through to the HEQ model would appear to offer a major recognition of particular problems of disadvantaged populations, including Maori. The recognition of the special needs of Maori over and above that allowed for in the HEQ formula is based upon the finding that Maori overall premature mortality is 29% higher than that for the general New Zealand population, allowing for social economic differences. However, these calculations are based upon figures which are known to be serious, if not gross, underestimates on Maori mortality. The reason for this is the serious under-reporting of ethnicity in death certification, possibly by a factor of over 80%[7].
While these special health needs, including the Maori health needs adjuster, may compensate for the special health needs of Maori in the secondary care sector, it may perpetuate the apparent serious inequities between the balance of expenditure in primary and secondary care. It is now widely recognised that under-expenditure and utilisation on primary care services may result in higher utilisation of more expensive hospital-based secondary care services, particularly inpatient care. Although no direct link can be concluded from the results of this study the evidence is strongly suggestive that the low utilisation and expenditure on primary care services, observed in the health centres studied, may be leading directly to the higher utilisation of hospital inpatient services for Maori and low income populations.

An exception to this could be in Hokianga where comprehensive well-balanced culturally appropriate and accessible primary health care service appears to have significantly reduced the need for, and therefore cost, of secondary care, especially hospital inpatient services. Furthermore the overall health expenditure on this population from the budget of North Health, is estimated to be $800 of which about $500 is spent locally on what might be broadly called primary care as well as local disability services. While part of this lower expenditure might be explained by the remoteness of Hokianga and therefore problems of access, it would be important to follow up the question, in Hokianga and elsewhere, as to whether improved access and utilisation to appropriate, comprehensive, integrated and culturally appropriate primary health care services will reduce utilisation of secondary hospital inpatient services as appears to be the case in Hokianga.

There appears, therefore, to be a case for a careful rethink of the Maori special health needs adjuster in the personal health funding formula. While overall expenditure does make some compensation for the special problems of access and utilisation for Maori, it appears that there are still serious inadequacies in the formula. While existing utilisation may compensate for current service provision, it fails to recognise the need to greatly improve service provision at the primary care level.

Whether this is done through the formula or through policy guidelines which explicitly require RHAs to address the question of inequities in access and utilisation for Maori and low income people, is a matter for further discussion. Perhaps an interim, and more immediate solution to the problem, would be for the ministerial allocation of ring-fenced funding to RHAs to explicitly address the problems of inequitable access and utilisation identified in this study.
11. POLICY IMPLICATIONS

The findings of this study, together with those of other studies, point to the following policy implications.

11.1 Improvement in equity, access and utilisation for Maori and low income New Zealanders.

There is a need to review the adequacy of the GMS payments for OP services. It is clear from this study that GMS payments are inadequate to meet the necessary costs of consultations for Maori and low income New Zealanders. The average general practice, whose patients have a range of incomes, can subsidise poorer patients through higher charges for those who can afford it. This option is not available to practices with high proportions of low income people.

This problem is being addressed in some RHAs through negotiated capitation contracts which significantly improve financial access. The Midland Health capitation formula is one such attempt, although calculations would suggest that it is just a way of distributing existing GMS expenditure, not increasing it. Some capitation practices have already negotiated what seems to be relatively generous contracts by national standards.

However, this may just increase the inequity between those who have been successful in so doing and others who have so far failed, perhaps through a weaker negotiating stance. The principle of equity would seem to demand that a fair deal should be available to all New Zealanders, which is determined by need, not precedent, historical funding or negotiating skills.

11.2 The inadequacies of the community services card (CSC).

The CSC was an attempt to improve equity and access and hopefully utilisation to lower income populations. While there is no doubt that it has succeeded in redistributing GMS expenditure to some extent in proportion to need, it is falling significantly short in achieving equity in access and utilisation. Low income people appear to be unable to afford, or unwilling to afford, the additional costs of attending even those centres which are seeking to improve access to more needy populations.

While the increase associated with a CSC has some effect on improving access, this is largely offset by a lower income from ACC. The net effect is only an additional $1-2 at most per consultation as far as the practice income is concerned.

Furthermore the CSC card with its rigid cut off means that there are many people who are just above the threshold who have major financial problems in accessing both GP as well as pharmaceutical services. It is this group which is seen to be perhaps the most disadvantaged and would be likely to form a high proportion of the CSC 3 group in a low income or Maori practice.

Another major problem with the CSC is the significant number of those who have either
failed to take up cards or have failed to renew them when they expire. On balance it would appear that the CSC is a significantly flawed mechanism for improving equity in access and utilisation. The findings of this study would suggest that the use of the CSC must be reviewed if utilisation for those most in need is to be significantly improved.

11.3 Section 51 arrangements

The above sections throw major doubt upon the existing non-contractual arrangements for the financing of primary medical care. Although financial barriers could be reduced by increasing GMS levels it is both unlikely and perhaps inappropriate that the government do without contractual obligations being built into any increases.

There is clearly a case for better targeting of GMS but this would probably be best undertaken within a collective accountability and peer review framework as is now emerging with IPAs and alternative providers for Maori and low income populations. These new arrangements must be based upon capitation and a registered population for whom providers are accountable not only for the GMS expenditure but also the associated laboratory, pharmaceutical and referral services with moves towards managed care. This would provide a far better framework for resolving the problems of inequity reported in this study. Section 51 arrangements must therefore be replaced by more comprehensive strategies to improve access and utilisation.

11.4 Laboratory and pharmaceutical expenditure

Low expenditure on pharmaceutical and laboratory services does not necessarily mean that these expenditures should be increased. While low utilisation of primary medical care services is likely to be a significant factor in low expenditure on these services, it may also mean as indicated above, that GPs in such practices are operating within financial constraints that recognise the fundamental limitations on expenditure imposed upon such practices and the patients who attend.

Furthermore, there is a more general view that expenditure on pharmaceutical and laboratory services has remained unconstrained with the fee-for-service non-budgeted system for decades and has grown without the normal constraints which apply within services which have to work within budgetary limits(11). There is considerable evidence of major over expenditure on these services and that savings are being made through budget holding through independent practices, associations, etc. Pegasus Medical Group for example has achieved a savings of 22% in budget holding for laboratory services over the last 18 months which continues to be sustained(20). Similar savings are being achieved in pharmaceutical services.

While some increase in these services might be desirable, a more important question would be whether any increase in expenditure, justified on the grounds of equity, should go into other more appropriate services which might improve both access and utilisation. For example, it was suggested on a number of occasions in discussions with providers that, if additional money became available for these practices, it should be spent firstly on reducing financial access costs, and secondly improving utilisation through the employment of more nurses or community health workers who could follow up those who failed to attend for routine supervision of problems such as asthma, diabetes, heart disease, etc.
11.5 The need for equity in primary medical care expenditure

A fundamental question raised by this study is that of achieving equity and access and utilisation for those most in need. The study appears to bear out once again the finding reported in many other studies of the application of the "inverse care law", those most in need are less likely to use the services they need.

While equity is the first of the Minister's principles in policy guidelines to RHAs there has been little attempt as yet to define equity in operational terms, particularly at the primary care level. If equity and access in utilisation is to mean, as suggested earlier, that those in greater need should have both greater access and greater utilisation, fundamental policy changes are required in the way that RHAs contract with general practices and especially those seeking to serve Maori and low income New Zealanders.

11.6 Information systems

It is apparent that information systems are seriously deficient in their capacity to measure, monitor and evaluate service provision at the primary care level. Action is need to formulate a national policy on a primary care information system, similar to the action taken to establish the national system for secondary care through the NZHIS.

This national framework would then provide the basis for both regional and local information system development. It would provide HBL with a firmer basis for its information activities including an integrated system that brought all data components, utilisation, expenditure etc to produce an overall picture primary care service activity and achievement.
12. POLICY RECOMMENDATIONS

The following recommendations regarding policy development arise from the above issues.

That Te Puni Kokiri request the Ministry of Health to do the following.

1. Review the present mechanisms for funding and purchasing primary medical services for Maori including the appropriateness of the CSC to ensure that purchasing is based upon the principle of equity in assess and utilisation.

2. Develop a national primary health care information system to provide the framework for regional and local information systems development.

3. Review the Maori cost weighting in the Personal Health Funding Formula for RHA funding to take into account the issues raised in this report.

4. Develop policy guidelines which require RHAs to purchase primary medical care and related services on the basis of equitable, population based financing.

That Te Puni Kokiri undertake the following.

1. Convene a national hui to follow up and discuss the findings of this report and involving providers of primary medical care services for Maori with a view to formulating policy development to assist the further development of Maori health services including moves towards managed care by Maori.

2. Undertake further work in developing policy on primary care information systems for Maori providers

3. Fund or request the funding of studies into the question as to whether improved access to culturally appropriate primary health care services reduces the need for hospital inpatient services and improves health status.

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REFERENCES


Annex 1: Terms of reference

1. Review the information available to the Ministry of Health, RHAs and other bodies relevant to equitable access to and utilisation of services for Māori.

2. Obtain information on the utilisation and cost of services provided by Māori, and other providers of services to low income people, especially at the primary medical care level including GMS and practice nurse, pharmaceutical, laboratory, ACC and maternity services as well as fees charged to patients.

3. Compare rates of access to and utilisation of these services and with services provided to New Zealanders generally and to determine, as far as is possible, reasons for variations in rates.

4. Determine the adequacy or otherwise of the current Section 51 provisions for the payment of providers of services to Māori and low income people and alternatives, such as capitation, which have been negotiated by providers or which are being sought.

5. Examine the information systems being used by providers and their adequacy in meeting both provider needs as well as RHA reporting requirements.

6. Recommend policy changes, based on the above findings, for the basis of contracting for primary health care services, information systems and the Māori weighting in the funding formula for RHAs.

7. Recommend any further work, relevant to the above issues, which may need to be done to improve access and utilisation of services by Māori especially at the primary health care level.