



Te Whare Whakakotahitanga Mo Te Hauora Taiwhenua

**Successful Models of  
Rural Health Service Delivery  
and Community Involvement  
in Rural Health:  
INTERNATIONAL  
LITERATURE REVIEW**

Simon Bidwell  
Centre for Rural Health  
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#### ABOUT THE CENTRE

The Centre for Rural Health was established late 1994. It was funded (initially by the Southern Regional Health Authority, then the Health Funding Authority and finally by the Ministry of Health) for a series of projects to support rural health services and community involvement. The Centre was under the directorship of Martin London and Jean Ross from, respectively, rural general practitioner and rural nurse backgrounds. It was also known as the National Centre for Rural Health. The Centre closed in late 2002, with final publications being completed in 2003. The resources and reports created under the auspices of the Centre were uploaded mid 2003 to be available indefinitely.

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## INTRODUCTION

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This literature review forms part of Project 6, one of the research projects which the National Centre for Rural Health (NCRH) has been funded to carry out. The project's title is Successful Rural Health Services. The intention of the project is to "identify and investigate complementary sources of information in order to develop as detailed a picture as possible of what makes for successful health service delivery in rural communities" (Dawson 2000a).

While it purports to be a review of *international* literature on the aforementioned topics, the material consulted has been, with one or two exceptions, from one of four countries: New Zealand, the United States, Australia, and Canada. The latter three countries were considered to demonstrate broad geo-social similarities to New Zealand, making comparisons possible and pertinent. The literature search from which many of the references in this review are taken was mandated to provide material only from the aforementioned countries.

However, while this may have been an appropriate limit to place on an initial review such as this, it may be that further perspectives might be gained by reviewing experiences from beyond the industrialised, English-speaking "New World".

Faced with a mandate to contain this review to reasonable proportions, the approach has been to provide a general background to issues in rural health, and an overview of initiatives and experiences in the aforementioned countries relevant to the principal inquiries which have motivated the production of this review, namely:

- (1) What are some models of rural health service delivery that have been implemented internationally, and what can be learnt from these experiences?
- (2) What are the ways in which rural communities can be involved in their health services, and what are the issues which affect community involvement?

A treatment with somewhat more depth than breadth has been given these topics. This has been a deliberate choice to allow local detail and colour from particular sources to appear, and to allow the review to proceed as a collection of narratives as much as a list of issues. This concords with the nature of the subject, which is geo-social, rather than technical – rural health is, after all, about people.

There have been repercussions of this approach. Certain topics which may be considered to impact on rural health have not been directly treated here. The recruitment, retention, support, education and training of health professionals, the developing role of rural nurses, and teamwork in rural health care have all been acknowledged as crucial issues. However, they are subjects of separate significant research within the NCRH, and the reader is directed towards appropriate entry points to this research.

Some other topics which are not considered here include the effect of developments in technology and telemedicine on rural health care, the provision of transportation in rural communities, the relationship between health services and other social services such as education, and the sustainable economic, social and infrastructural development of rural communities. Though crucial, these subjects are peripheral to this review's focus on rural health services themselves. Likewise, an analysis of the effect of different models of health care funding on rural health, and a consideration of the place of rural health in a nation's health system would merit more space than is available here.

A significant regret is that there has not been a broader range of material studied from New Zealand. Unfortunately, the sources consulted have not been able to be supplemented by or matched against recently completed surveys of service delivery models in New Zealand (Dawson 2000a, Dawson 2000b), owing to the confidentiality requirements of these surveys. Accordingly, some of the information may be inaccurate or out of date. However, there is further literature on rural health service delivery in New Zealand that, for various reasons, has not been included in this review. A fuller review of literature relating specifically to rural health in New Zealand may well be an appropriate supplement to this review.

## **Reviewer's Acknowledgements**

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## BACKGROUND

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No two rural areas are alike, so there's no cookie-cutter key to success.  
Doug Brunk, *Journal of Contemporary Longterm Care* 1997, 20 (3), p.44

### Rural Health: Introducing the Issues

What marks out *rural* health as a specific area of concern? Literature on rural health often begins with a summation of the health problems of the rural areas of interest to the author(s). However, in a general review like this, it may be useful to demarcate two broad problem categories for health in rural areas in general.

#### *The intrinsic problem*

However "rural" is defined (and there are variations both amongst those who assume a definition and those who attempt to provide one), it should be uncontroversial to state that rural areas are typified by lower population densities and less infrastructure than "non-rural" areas. That is, there are fewer people with greater distances between them. Rurality thus creates diseconomies of scale and extra distribution costs for the production of any good or service, and as authors such as Rosenblatt (1991) note, health services are not immune from this effect. It might be said that health services are *intrinsically more difficult to deliver* in rural areas.

#### *The contingent problems*

In addition to the intrinsic features of rural areas noted above, there are a number of contingent problems that, as a matter of fact, affect rural health in New Zealand, Australia, Canada and the United States.

- ❑ Changes in the world economy over the last 25 years have created "rural downturns" at least to some extent in all of the above countries. This has resulted in demographic change, with outmigration of the young from rural areas in search of opportunity, leading to an ageing of the rural population.
- ❑ This is exacerbated by the environment of economic rationalism which has arisen as governments attempt to be "fiscally responsible" and the private sector responds to the changes mentioned above. The result has been the withdrawal of both public and private sector services (bus services, banks, post offices as well as some health services) from rural areas.
- ❑ Ethnic minorities are represented in higher than average proportions in rural areas in all of the above countries, and in fact may constitute a majority of the population in some specific areas. With few exceptions, ethnic minorities' health and other social indicators are worse than those of the population in general.
- ❑ A combination of the above factors means that, on average, poverty and unemployment are higher in rural than non-rural areas. It is well recognised that socioeconomic disadvantage is the single greatest indicator of poor health.

- The existence of specific rural health problems is now recognised. Some of these are related to occupation, with a large number of people in rural areas employed in primary or extractive industries such as fishing, forestry or mining. The associated level of danger in these occupations contributes to the higher rate of accident or injury-related mortality and morbidity in rural areas. The mental health of rural people has also recently come to be considered a particular concern.
- Then there is the question of a “rural attitude”, which stresses self-sufficiency and relates health more to functionality than to well-being (Greenwood, 2000, Humphreys, Mathews-Cowey and Rolley 1996), perhaps making rural people less likely to access primary care or to partake in preventive behaviour.
- A problem so long-standing and pervasive that it might almost be considered intrinsic, is the maldistribution of health care professionals, especially physicians. Over and above the lack of specialists who require a critical mass of population, there are also fewer generalist physicians per head of population in rural than in non-rural areas. In other words, when the population is spread thinly, the doctors are spread even more thinly. This is well documented in Australia, Canada and the United States, and continues despite various efforts to address the problem.

It is not the place of this review to provide detailed evidence or statistics of the above points. However, it may be useful to check the following for information on rural health problems and physician distribution:

*Australia:* Humphreys, Mathews-Cowey and Rolley (1996) Chapters 1-3, Australian Institute of Health and Welfare (1998);

*Canada:* Barer, Wood and Schneider (1999) Government of British Columbia Office of Primary and Rural Health Services, (1998), Watanabe and Casebear/Rural Health Research Summit (1999);

*United States:* Ormond, Wallin and Goldenson (2000), Barger (1994), Rosenblatt (1991), U.S. Congress Office of Technology Assessment (1990);

*New Zealand:* The differences between rural and non-rural do not seem to be as cut and dried in New Zealand as in the other countries, or perhaps are merely not as well documented. The fact that primary industry (farming) still generates a large proportion of the country's wealth may have an effect on the averages. However, New Zealand's most “deprived” areas, specifically Northland, East Coast/South Bay of Plenty/North Hawkes Bay, and to a lesser extent the West Coast of the South Island are all unequivocally rural. See Creech (1999) for some maps and rudimentary statistics. London (2000) provides an excellent background to the trials and tribulations of New Zealand rural practice from the health professional's point of view. Why Look at Models of Service Delivery?

## **SUCCESSFUL MODELS OF RURAL HEALTH SERVICE DELIVERY**

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### **Why look at Models of Service Delivery?**

Attempts to address the problems listed above have historically focused on correcting the under-supply of health professionals, particularly physicians, in rural areas. Indeed, one recent Canadian report titled *Toward Improved Access To Medical Services For Relatively Underserved Populations* (Barer, Wood and Schneider 1999) literally equates the improvement of access with increasing the number of doctors. However, it is increasingly being recognised that this is not a problem that can be treated in isolation, and that there needs to be a re-examination of the whole structure of how health services are delivered in rural areas. This has come about for a number of reasons.

Firstly, as demonstrated by the inadequacy of successive measures to attract and retain health professionals in rural areas, rural practice remains a difficult task. Rural health is now being recognised as a specialist vocation with particular training and educational requirements for doctors, nurses and other professionals. However, above and beyond that, there is consensus that the whole context within which rural health professionals practice may need to be rethought, if issues such as isolation and burnout are to be addressed.

Secondly, medical care has changed greatly in the last fifty years. Rural hospitals once operated as smaller versions of their urban counterparts. Now, given the increasing specialisation and cost of medical care, a small rural hospital may not be able to offer anything like the range of services offered by a full-service urban hospital. Governments have balked at the cost of continuing to support what they see as uneconomical institutions, and many have been threatened with closure. At the same time, changes in health care needs have resulted from some of the aforementioned changes in rural areas, most notably the ageing of the rural population.

Finally, there has been a sea change in the entire way in which health is thought about. The Ottawa Charter (World Health Organisation 1986) is the best-known enunciation of current consensus about health and health care. Health is to be thought about holistically, as residing in the overall well-being of a person and as affected by every aspect of his or her existence. Health promotion is considered to involve “reducing differences in current health status...to enable all people to achieve their fullest health potential” (WHO 1986). Health care is thus mandated to move past a clinical, curative focus and actively improve the health of whole populations.

Given these goals, what Humphreys, Mathews-Cowey and Rolley (1996) call the “pyramid” model of health services, where an individual seeks treatment from a provider and is referred upwards for increasing levels of specialisation, is inadequate. In order for health promotion to occur, health services will need to address obstacles to the improvement of health. Some obstacles which particularly affect rural areas, such as distance and particular population characteristics, are noted in the first section.

For all these reasons, it is pertinent to look for augmentations, reconfigurations, innovations and reconceptualisations of the way in which health services are delivered in rural areas.

## Measuring Success: Access, Outcomes, Sustainability, Security

Since we are to review literature about *successful* models of rural health service delivery, it will be useful to have some idea of what constitutes success in this field. In fact, success in health care is a very difficult concept to cash out, as pointed out in an article in preparation by Sue Dawson and Ron Janes. Dawson and Janes point to the “common confusion between performance indicators and health outcomes”, and the differing expectations of health consumers, providers and purchasers, as undermining the prospect of a single *evaluation*, let alone *measurement*, of the success of health services.

Nevertheless, descriptions and evaluations of rural health services such as those reviewed below do usually assume or explicitly put forward some indicator[s] of the success of those services.

In some cases health outcomes are used as an indicator of success. For instance, Community and Migrant Health Centres in the U.S.A. (described below) are required to report on improvements in the rates of infant mortality and low birth weight in the communities they serve. However, in many cases, health outcomes are not used as the primary indicators of success. The great difficulty in quantifying the complex relationship between the health of an entire community and the manner in which its health services are provided makes it a less than ideal target for the epidemiological, intervention-outcome measurement model. Furthermore, the short time for which some models of health service provision have been in place makes it unlikely that they could have had a measurable impact on a community's health.

Other more easily quantified indicators are sometimes used to measure success in rural health service provision. Governments and other purchasers of health services have become greatly concerned in recent times with the “efficiency” and “cost-effectiveness” of services. If a primary health service can substitute for, or prevent the need for, expensive hospital care, then it is considered successful from these standpoints. Therefore, indicators such as reduction of hospital admission rates, inpatient bed days and “inappropriate” emergency department use are sometimes quoted as demonstrating the success of a health service.

By and large though, qualitative factors are more often cited as indicators of success in the context of rural health service delivery. Prominent among these is the concept of *access*. Access to health care for all persons is often considered to require the provision of health services which are available, affordable, accessible, appropriate and acceptable. These concepts, though perhaps vague and overlapping, might be understood as describing an *absence of barriers* to quality health care, whether those barriers be spatiotemporal, financial, cultural or personal.

As shown by a study carried out by Humphreys, Mathews-Cowey and Weinand (1997), geographical proximity is not the only, or even the most important, factor affecting the accessibility of health care. Participants in this study rated having a doctor with whom they felt comfortable, being able to continue to see the same doctor, and being able to call a doctor any time as more important than spatial proximity. However, responses did vary between demographic groups. People living in more isolated communities attached more importance to the proximity of a doctor, with this becoming the most important factor for men in isolated communities. Reviewing the literature on this topic, Greenwood (2000) notes that rural women have expressed concern about lack of access to female medical practitioners, and have been prepared in some cases to travel up to three hours to access a female practitioner.

Cultural acceptability is generally agreed to be important in ensuring the accessibility of health services. It is considered that health services ought to be sensitive to the cultural needs and values of consumers, and that this is facilitated by the services being provided, wherever possible, from within a consumer's own community.

This is qualified, however, by Scrimgeour (1999). Discussing remote Aboriginal communities in Australia, Scrimgeour maintains that in such areas, community control of health services is less important than ensuring that they are effective and reliable. In towns and cities, he claims, Aboriginal health services can be an alternative to mainstream services, which may not be accessible or appropriate. A remote community, on the other hand, is an “Aboriginal space” in which there is not the same need for Aboriginal people to determine their own space. Some evidence suggests that, for a remote Aboriginal community, biomedical services form part of the “non-Aboriginal domain”, and it is therefore appropriate if they are managed/staffed by non-Aboriginal people. Scrimgeour therefore distinguishes between “core services”, which may be delivered by non-community agencies and services (such as health promotion projects) which should be delivered from within the community.

This fluid ordering of priorities between different groups in different situations thus merely seems to remind us that we may not find cookie-cutter solutions. Where improvement in access is counted as the principal indicator of success, there may be several perspectives on what would count as improvement.

Another concept often suggested as a correlate of success in rural health service delivery is “sustainability”. Again, this can mean different things to different people. On the one hand, what is sustainable may be linked to what is considered “viable”, and may be subject to quantitative measures. For example, the annual report from Clutha Health First (2000) offers graphs of its hospital occupancy rate in relation to a predetermined target, as well as the rates of utilisation and delivery of services such as ultrasound, laboratory and home help in comparison to contracted-for levels. It may be considered that certain levels of utilisation of these services are necessary for them to be sustainable, both by justifying the expenditure invested in them, and by ensuring the activity necessary for health professionals to maintain their expertise in a certain area.

On the other hand, a sustainable service may be one which *does not place excessive stress* on any party or individual. For example, if a service used up a disproportionate part of a funder’s budget, the funder might consider it unsustainable. In another example, a community might consider their health services successful if a doctor was always readily available. However, if this required an excessive on-call schedule for the local doctor[s], threatening them with burnout, it would not be a sustainable service.

Finally, it has been frequently stated that what rural communities demand of health services above all else is that they offer “security” (Humphreys and Weinand 1991, Humphreys, Mathews-Cowey and Rolley 1996, *Symposium on the Delivery of Health Services to Smaller Communities* 1995, Wainer and Strasser 1997). While security is another term that is a little difficult to define, the consensus seems to be that it reflects communities’ perception that professional medical care will be readily available if and when they need it. Wainer and Strasser (1997) studied six Victorian communities that had undergone change in their health services. They found that the “bottom line for all communities” was the belief that a medical emergency would be dealt with competently.

It is well documented how this perception of security is strongly correlated with the presence of a local hospital. It has been noted that for rural communities the “hospital on the hill” can take on an almost mythical protective status. Correspondingly, the loss of the hospital can be a traumatic event. Some participants in Wainer and Strasser’s study from communities that had lost acute care hospital services made comments including: “It was terrible”, “The day of destruction” and “It was like a death in the family”. Similar themes emerge in a discussion of the closure of 52 small rural hospitals in Saskatchewan (James 1999). The comment that “... closing the small hospital is like signing a death certificate for that community” appeared in a regional newspaper (James 1999, quotation from Curren, D. (15 April 1993) “Shocked in the country”. *Regina Leader Post*, p. A1).

It has been questioned whether the security rural communities perceive in the presence of a hospital is “genuine security” (Summary, National Symposium on the Delivery of Health Services to Smaller Communities 1995). However, while health authorities may perceive lack of cost-effectiveness and sustainability, James (1999) points out that:

... population health fails to take into account the meaning ascribed to hospitals. Residents of communities gain a measure of security, identity and economic vitality from their local hospital. It is clear from the reaction of many of the residents that the community hospital contributed more than services but also to local identities.

In Wainer and Strasser’s study, three of the towns had recognised the intentions of the funding authority and “volunteered” for change (authors’ quotation marks), while three had resisted, but had been required to change anyway. While the “volunteered” towns had generally better outcomes from the process, and two out of three retained some acute care facilities, Wainer and Strasser point out that “*No community would have undertaken change of its own accord*” (reviewer’s italics). In each of the required towns plus one of the volunteered towns, anger and feelings of betrayal were expressed by refusal to utilise the new services. Thus, whatever the shortcomings of the old services, their replacements could be considered to be, initially at least, clearly unsuccessful.

## Local Integration: One-Stop Shops

Perhaps the key feature in many of the models of rural health service delivery to be encountered in this review is the concept of *integration*. Integration is increasingly viewed as a means of improving the efficiency and effectiveness of health service delivery. Integrated health services should be able, among other things, to direct people to the most “appropriate” form of care and avoid “costly duplication”. They also fit in with the modern emphasis on primary and preventive care. If a person’s health is viewed holistically, then it follows that it merits coordinated attention, rather than a set of discrete responses to seemingly unrelated ailments. Furthermore, the combination and coordination of resources seems a logical way to overcome the kinds of diseconomies of scale mentioned above, which might otherwise make discrete services unsustainable. In rural areas, therefore, integration is seen at times as taking on the character of a panacea.

But what does, or might, integration actually look like in the context of rural health service delivery? What models of rural health service integration already exist or are being trialled? And how “successful” are they?

The possibility of integrated health services at a local, community level is often equated with the creation of what has been characterised as a “one stop health shop”. The concept of a one stop shop is a loose one, and as we shall see, can range from the simple collocating of health providers under the same roof, to sharing of administration, to pooling of funds. The potential benefits vary according to these different configurations. However, there are some core advantages, which one-stop shops in general might be expected to provide for rural communities.

- ❑ Sharing of resources helps retain the critical mass of facilities and equipment needed to recruit and retain health professionals.
- ❑ Access is improved in the simplest way for consumers because services are spatially and/or logistically integrated – this makes for “easier health shopping”.
- ❑ Certain health services may be de-stigmatised (e.g. sexual health, mental health) by being included as part of the general health centre. Identification by vehicle becomes less of a problem for rural consumers.

We will go on to look at some different permutations of the one-stop health shop in Australia, New Zealand and the United States.

### ▶ **Australia: Multi Purpose Centres/Multi Purpose Services**

Multi Purpose Centres and Multi Purpose Services have been in existence in Australia for over ten years (Snowball 1994). They were developed independently, largely as Commonwealth (Australian) government initiatives. Initially they were conceived of as trial or pilot projects, but have become increasingly prevalent through the years.

The fundamental purpose of the MPC and MPS models is to “deliver a range of local services to small rural and remote communities in a cost-effective way through better co-ordination of services and sharing of limited resources” (Humphreys, Mathews-Cowey and Rolley 1996). In both cases, importance is placed on the involvement of communities in defining their needs, and the forging of a “shared vision” between consumers, providers and governments (Humphreys, Mathews-Cowey and Rolley 1996).

The key component of an MPC is the bringing of at least three different health or aged care services under the same roof to create a literal “one stop health shop”. The Commonwealth (Australian) government provides funding to help set up the MPC. This may include substantial initial costs, such as shared infrastructure or equipment. Any of a range of services may be coordinated under the umbrella of the MPC, depending on the size and location of the community, health needs, and existing services. While there is no single model of MPC operation, these services generally share administration as well as physical location, and are coordinated by the operator of the MPC. However, the services retain the traditional funding they received as stand-alone programmes.

Two case studies of operational MPC are described by Humphreys, Mathews-Cowey and Rolley (1996), residing in the rural communities of Oatlands (Tasmania) and Yeoval (NSW). Although bearing different histories and initial circumstances, the stories of these two communities have a lot in common. In both cases, a reconfiguring of the local hospital served as a basis for the formation of an MPC. In Yeoval as well as in Oatlands a priority was the provision of improved residential aged care facilities. This corresponded with their traditional hospital services being threatened by rationalisation of funding. In Yeoval, the hospital actually closed (in 1988), before being reopened by the Hospital Board as a community cooperative, and subsequently receiving funding to establish an MPC. In both communities, the establishment of the MPC was ultimately experienced as an expansion of services. In Yeoval, the certainty of a hospital-type facility enabled the community to retain the services of a general practitioner.

The Multi Purpose Services (MPS) model might be seen as a somewhat more radical extension of the MPC. According to Humphreys, Mathews-Cowey and Rolley (1996), problems are experienced with the MPC model in trying to coordinate a range of services from different programmes. These problems are the outcome of “different funding cycles, application processes, contractual arrangements ... difficulties for staff working across programs, and different decision making”. The MPS model attempts to address these difficulties by creating a more genuinely integrated “one stop shop” The principal differences from the MPC are as follows:

- While any services can be included in an MPC, MPS must include aged care services. There is an explicit recognition of particular health service priorities. While the MPS model “incorporates some acute hospital services, [it] is essentially based on primary health care [and] aged and community care services” (Queensland Health, 2000).
- There is provision for pooling of all funds received under State/Territory or Commonwealth (Australian) government programmes. This provides for flexible funding arrangements, where funds can be exchanged between programmes according to need, and services more easily coordinated.

The different issues and options for MPS are set out well in a Queensland Health (2000) Discussion Paper. Some alternative configurations are identified under the following headings:

### ***Auspice Arrangements***

The “auspicing body” - the organisation that receives the pooled funds on the behalf of the MPS - may be voluntary or private non-profit incorporated organisations, local government authorities, approved providers, or state/territory government agencies. Queensland Health’s position is that where a Queensland Health service or facility is included in the MPS, Queensland Health shall act as the auspicing agent.

### ***Physical Location***

Early pilot examples of MPS coincided with some funding being made available for capital development. However, according to Queensland Health, it is a “misconception” to suppose that establishing an MPS requires new buildings in which to collocate the services. Collocation is “desirable”, but not “important to the successful operation of the service as a whole”. In addition, there are some “multi-site” MPS, spread over more than one community.

### ***Integration of Services/Funding***

Queensland Health notes the possibility of a range of configurations within the framework of the MPS model. These include:

- ❑ collocation, single management structure and funds pooling;
- ❑ single management structure and funds pooling without collocation;
- ❑ single management structure without funds pooling. While there is emphasis on making services as integrated as possible, Queensland Health recognises that there is often “strong reluctance” on the part of some non-government service providers to pool funds for fear of jeopardising their individual level of funding. It is considered that, given helpful management structures, improved cooperation and coordination between service providers can occur without funds pooling. In this case, we seem to move somewhat back towards an MPC-type model. A variation identified is where some but not all service providers in an MPS agree to pool funds. In this case, Queensland Health considers that the other services could be “contracted in”.
- ❑ Separate management and funding structures with input from a local advisory group. As Queensland Health acknowledges, this seems to rather go against the point of MPS. Although they note that there is “no current example of this approach” in Queensland, a potential example would be where a Queensland Health facility “developed partnerships with other providers”, although funding and management remained separate.

### ***MPS Board Makeup and Function***

Humphreys, Mathews-Cowey and Rolley (1996) identify some alternatives for the composition and structure of MPS boards:

- ❑ based on pre-existing hospital board, with addition of representatives from other key groups;
- ❑ entirely new board, comprising representatives of health services, community and local government;
- ❑ new MPS board alongside existing hospital/hostel board;
- ❑ MPS board as an advisory committee;
- ❑ multi-site MPS – new board comprises representatives of existing hospital boards.

### ***To MPS or Not To MPS***

Queensland Health indicates that in areas where the hospital’s annual budget is less than \$2 million, MPS is “the preferred model for the delivery of health and aged care services.” This is the best indication of a funder-defined critical mass, at which an integrated service becomes the most viable option of health service delivery.

So much for the configurative variations of the MPS model. How well does it work in practice ?

Humphreys, Mathews-Cowey and Rolley (1996) report on two functioning MPS, Braidwood in NSW and Dalwallinu in Western Australia. In both cases, the MPS experience is reported as a positive one. Again, there are a number of similarities across the two instances. In Braidwood the motivation for MPS formation was loss of surgical and obstetrics facilities at the hospital and increasing focus on aged care, while in Dalwallinu discontent with current services on the part of the community coincided with unsustainably low use of individual services and the arrival of a GP interested in integrated services.

In both cases, it is noted that the flexible funding opened up the possibility of new initiatives. Both sites comment that resources were made available for staff development and training in new roles. In Braidwood, it is noted that “staff are communicating across previous service boundaries”. In Dalwallinu, it was possible to obtain a satellite dish, which was “used to train staff....[and] is now available for further use of staff, local GP and the community”.

An independent narrative is provided of the development of an MPS in the Victorian community of Corryong (Dare, Victorian Small Rural Communities Health Conference, 1999). Dare describes the development of Upper Murray Health and Community Services (UMH&CS), which serves a hinterland of 50 kilometres radius from Corryong. The story is a familiar one: hospital and nursing home independently struggling with funding problems and a lack of aged care and community services together precipitating the institution of an MPS. However, it seems that this did not proceed without some controversy. Dare notes that:

In spite of the fact that the hospital was threatened with closure, the decision to participate in the MPS program as a means of maintaining services was made with some difficulty.

In addition, all three of the town’s GPs apparently resigned abruptly in 1998 and left the community, in response to the “issue of the level of surgical procedures that could be performed safely in a small and remote facility”. There are cryptic references from Dare to “significant distortion of the facts in the public and medical media”. Subsequent to the departure of the GPs, UMH&CS took over responsibility for general practice services, and employed three “highly qualified, Australian trained doctors”. However, it appears that, at least in this case, the formation of the MPS proved to be somewhat divisive and controversial.

Wainer and Strasser (1996), in the aforementioned study of six small Victorian towns’ experience of change in health service delivery, note that, while none of the communities would have undertaken change if left to themselves, “several were attracted to the Multi Purpose Service model, and applied for this status”. Only one was apparently successful, but the “outcome ... has been a substantial gain in the range of services provided and funding available”.

### ► **New Zealand: Community Trusts**

The New Zealand equivalent of the health centre or “one stop shop” differs from the Australian version in not being a government-sponsored model, but rather representing a series of discrete efforts to retain local health services in rural areas. Community trusts began to develop in the late 80s in one or two locations in an attempt to retain threatened local maternity services (Barnett and Barnett, submitted for publication). However, the bulk were formed after the 1991 health reforms, in response to the threat of local health services being withdrawn or downsized.

Community trusts have arisen predominantly in the area formerly covered by the Southern Regional Health Authority (RHA), the purchaser of health services in this area up until it was merged with the other three RHA to form the Health Funding Authority (HFA) in 1998. In the Southern region, the withdrawal of base hospital-centred Crown Health Enterprises (CHE) from rural health services and an RHA sympathetic to alternative institutional arrangements precipitated the setting up of community trusts.

Barnett and Barnett (submitted for publication) studied nine community trusts in the Otago/Southland region, and assess the diverse local arrangements and responses to change in health service provision. They note that:

Trusts are diverse in size, organisational arrangements and the services they provide, but all represent a community strategy designed to secure health services for rural areas.

Generally, trusts have formed out of a crystallisation of community resistance to hospital closure/downsizing, and have contracted with the funding authority to receive funds and provide health services on behalf of the community. The first priority was often protection of the community's most visible asset – the hospital. In Tapanui, where the trust was unable to reopen the hospital, it took legal action to prevent the building being sold or used for other purposes.

Most of the trusts have managed to retain some hospital inpatient services, and in many cases the community is now offered an expanded range of services. Many trust facilities have acted as a base for visiting specialists to run outpatient clinics, with one respondent in Barnett and Barnett's study commenting that their trust acted as a "platform" for other services. The need for more efficient use of available resources has meant gravitation towards an integrated, "one stop shop" model of service provision, with nurses operating in multi-skilled roles, and closer links between the hospital and local GPs. Barnett and Barnett note that:

...the pattern of services is now more varied and accessible than previously and most respondents commented that the services are now 'better' than before, and meet a wider range of crucial needs.

There has been some difficulty in providing integrated services though, with many communities finding the contracting process with the funding authority drawn out and problematic. The trusts' desire to institute an integrated, primary care approach at times conflicted with the market-ideology driven desire of the funder to contract for service 'fragments' (authors' quotation marks).

Despite the similarities in circumstances, some trusts have been more successful than others. There is no clear correlation between the current number of hospital beds/range of services and either the area's population or the previous services/bed numbers. For instance, Lawrence, with a population of 1404, has retained 8 of its 13 pre-1993 inpatient beds, while Tapanui, with a census of 2349, no longer has any of its 15 pre-1993 inpatient beds.

Barnett and Barnett found that the following factors were correlated with the success of a community trust:

***Local leadership and capability***

"Skilled", "entrepreneurial", "strong" and "persistent" negotiating teams were able to secure contractual advantages.

***Local commitment***

There was a need to create and sustain fundraising initiatives to help provide and maintain appropriate facilities.

### ***Involvement of local professionals***

The involvement of local GPs as “critical partner[s]” was strongly correlated with success in developing a “comprehensive set of services”. Local nurses and in one case the local pharmacist also took on leadership roles.

### ***Learning from each other***

A Rural Trust Collective has been established to represent the interests of all the trusts in Otago and Southland.

### ***Operational Efficiency***

Staff flexibility, multi-tasking and service coordination were key factors in making the most of limited resources.

Another example of a community trust, operating under quite different circumstances, is provided by Hauora Hokianga or the Hokianga Health Enterprise Trust. According to their web site, the Hokianga trust was formed in 1992, took over the hospital in 1994, and currently provides integrated health services to approximately 9,600 people.

The Hokianga, located in western Northland, is the one of the poorest, most isolated areas in New Zealand. 77% of the active workforce claim the unemployment benefit, and others invalid, sickness or domestic purposes benefits. Housing is below New Zealand standards for about half the population. There are a disproportionate number of people with disabilities, as people unable to work seek a better quality of life outside the cities. The Hokianga is also a popular destination for de-institutionalised psychiatric patients, and “unemployed and demoralised young people...also bring their share of mental health problems” (Hokianga Health Enterprise Trust web site). There are “relatively high levels” of diabetes and heart disease among the Hokianga population, 70% of whom claim Maori descent (Hokianga Health Enterprise Trust web site).

For a combination of the above reasons, the Hokianga has been counted a Special Area since 1947. The Hokianga trust receives funding from the Health Funding Authority (HFA) to provide integrated health services “at no cost to the patient” (Hokianga Health Enterprise Trust web site). The methods of service delivery employed by the trust to meet the health care needs of the population encapsulate some of the strategies and innovations described both above and later in this review.

The health service is centred at the hospital or health centre at Rawene (pop. 700) with nine clinics in outlying areas. The hospital has 10 acute, 4 maternity and 10 long term care beds. Five GPs are employed directly by the trust. They work as medical officers at the hospital, and offer clinics there daily and in outlying clinics on a regular basis. Eight nurses enjoy the designation of Community Health Nurse (CHN). They are generalists, combining the traditional roles of public health nurse, district nurse and practice nurse. They also offer health education and health promotion, with a special focus on Maori health.

Other services run out of the hospital include physiotherapy, radiography and counselling. Visiting specialists from Whangarei and Kaitia hospitals are contracted to offer regular outpatient clinics. Community services include home help, attendant care, day care and community mental health. A mobile service offers preventive and basic dental services, operating alternately from five school dental clinics. A pharmacist in private practice at Rawene works part-time at the hospital and is responsible for the dispatching of scripts from this central location, given the lack of transport access for many people in the outlying areas.

Despite their success in integrating local health services, the Hokianga trust is currently facing a crisis, as the hospital needs to be almost completely rebuilt in order to meet licensing requirements. See the section on Community Involvement in Finance and Fundraising for more information on this.

There are many other community trusts in New Zealand in addition to the ones mentioned, each representing a unique response to local circumstances. Dannevirke is a prominent example of yet a different configuration, with the hospital privately owned by community members, and services delivered in part by the regional Hospital and Health Services (HHS, successor to the CHE). At present, there is something of a paucity of written material on the topic of community trusts, and one awaits more studies with great interest, especially on trusts in the North Island.

A third example of local integrated services in New Zealand is the Taihape Rural Health Centre, described by Manchester (1997). Unlike the above cases, the Taihape centre is not run by a community trust, but is part of Good Health Wanganui, a CHE (later renamed Hospital & Health Services or HHS). Nevertheless, it demonstrates a number of similarities to the aforementioned trusts.

A key feature of the success of the centre has been the retention of a local facility from which a range of providers can work. The hospital had 19 beds at the time of writing, which included acute, maternity and long-term beds. However, it also provided space for Taihape's two GPs and private providers such as a podiatrist and physiotherapist. This arrangement proved symbiotic, as "having the services and expertise of [these providers] so readily available has helped make the centre's future more certain". The existence of the facility has also been an attractive feature to the GPs and other providers, who "may otherwise be reluctant to stay in such a small community".

Also integral to the operation of the centre has been the ability of the nursing staff to fill multi-skilled roles. Staff nurses double as district nurses, and are expected to operate in multiple capacities at the hospital. According to the centre manager, the nurses are "head and shoulders above nurses in urban areas because of their wide variety of skills and motivation for their work".

Once a large maternity hospital, the Taihape centre has seen a significant downsizing of this service, but the service manager states:

I don't believe there's any value in hanging onto a service in excess of what is required or that is not meeting people's needs.

The service has been able to undertake some community-oriented health promotion initiatives. It worked with the Otaihape Maori Health Komiti to appoint a Maori liaison health worker to help make services culturally accessible for the one-third Maori population in the area. The Taihape community health gains project was established through consultation between centre staff, the Maori Health Komiti, the local community health group and a local GP. It focused initially on respiratory problems. At-risk groups were targeted, and "Statistics are now showing that people are accessing primary care earlier with a subsequent drop in acute admissions". At the time of writing, desire was expressed to develop projects relating to diabetes, nutrition, exercise and adolescent health.

## ► United States Part I: Migrant/Community Health Centres

There are substantial qualitative differences in how health care is organised, financed and delivered in the U.S.A. as compared to New Zealand or Australia. However, in our search for “one stop shop” models, we find an American version that has been in existence for over 25 years.

Migrant/Community Health Centres (M/CHC) may be traced back to federal legislation enacted in 1975, which renamed previously existing “Neighbourhood Health Centres”, and described how they should be organised (Christianson and Grogan, 1990). Unlike the Australian MPC/MPS, M/CHC are not generally an “evolved” version of a former rural hospital, and do not generally offer long-term aged care services. The key features of M/CHC are outlined below, derived from Shirley (1995), Christianson and Grogan (1990), Ormond, Wallin and Goldenson (2000) and Weiner/American College of Physicians (1995). These centres:

- ❑ have a “comprehensive, one-stop primary health care” focus;
- ❑ are located in federally designated Health Professional Shortage Areas (HPSA) or Medically Underserved Areas (MUA), which are almost always rural, or inner-city urban;
- ❑ often include several outlying, satellite clinics;
- ❑ generally receive a federal grant;
- ❑ usually employ salaried physicians, often through the National Health Service Corp (NHSC) scheme (scholarship and loan repayment arrangements);
- ❑ make extensive use of nurse practitioners (NPs) and physician assistants (PAs), especially in outlying clinics;
- ❑ must serve all comers regardless of their ability to pay;
- ❑ must be administered by a board with community representation;
- ❑ undergo regular scrutiny from federal authorities regarding cost-effectiveness and quality of care - health centres must report to the U.S. Public Health Service on outcome measures such as low birth weight reduction, immunisation rates, hospital admission and length of stay;
- ❑ must conduct annual needs assessments in their service area.

Because of their long standing as recognised institutions, there is a substantial literature on C/MHC. Christianson and Grogan (1990) review some of the literature themselves, providing an historical overview. The initial legislation relating to CHC divided services into “required” services (curative and preventive health and dental services), and “supplemental” services (health and nutrition education, social services and ‘outreach’). Like most aspects of the U.S. health system, however, CHC have been affected by periodic changes in federal and state health policy and rates of reimbursement under the Medicaid (primarily poor) and Medicare (primarily elderly) programmes. Legislation in the early 80s, for example, had the effect of reducing funding for CHC by 25 percent. This has resulted, according to Christianson and Grogan, in a “scaling back” of services offered to only the “required” services, while many community-based services and community development projects have been dropped.

Christianson and Grogan also summarise a study carried out by Reid, Bartlett and Kozoll (1981), who followed the development of a CHC in rural New Mexico between 1971 and 1978. Initially, a central health centre supplemented by six satellite clinics in outlying areas undertook to provide a comprehensive range of primary care services. It is noted, with stunning insight, that :

Expansions in services or equipment over time apparently were stimulated by increases in funding, while reductions in the amount and type of services generally occurred in response to funding reductions.

Between 1975 and 1978, the CHC was actually able to achieve its aim of “integrating all public health services in the region into a single system for comprehensive health care delivery”. This was a result of stable funding in this period, allied with “strong commitment [by] the medical and administrative policy makers”.

There are a number of qualitative and quantitative studies of CHC reviewed by both Christianson and Grogan, and Shirley (1995), measuring different indicators of their success.

### ***Cost Effectiveness***

- ❑ Deprez, Penell and Libby (1987) studied 36 communities in Maine served by 14 CHC. They found that CHC users had a significantly lower rate of hospital admission than non-users, but length of stay, once admitted, did not vary. Hospital admission rates were also no different in communities with access to a CHC than in communities without access.
- ❑ In 1992, The Washington Community Health Centre Association and Group Health Cooperative of Puget Sound found that CHC patients were 36% less expensive for all services than patients of other primary care providers, and used 31% fewer emergency department services.
- ❑ A report for the Centre for Health Policy Studies in California (1993) found that CHC patients were 33% less expensive over all and their hospital costs were 27% lower than patients of other primary care providers.
- ❑ In New York in 1994, it was found that health centre patients were 22 to 30% less expensive over all, and had 41% lower total inpatient costs than patients of other providers. Diabetic and asthmatic patients who were regular health centre users had 62% and 44% lower inpatient costs respectively.

If there were interest, it could be pertinent to follow up some of these studies in order to ascertain:

- ❑ what defined a patient as a health centre user or non-user? (there must have been at least some people who used more than one source of primary care);
- ❑ what measures were used to determine how “expensive” a patient was ?

### ***Effect on Health Outcomes***

- ❑ In the early years of a health centre’s operation in Bolivar County, Mississippi, infant mortality rates dropped from 70 to 30 per 1000.
- ❑ Infant mortality dropped from 36 to 18 per 1000 among African-Americans in Lee County, Arkansas after the establishment of a health centre there.
- ❑ In Denver, infant mortality dropped by 28% during the first 4 years of an “urban comprehensive community health program”.
- ❑ In North Carolina in 1990, a study found that identification of a health Centre as the usual source of care was highly associated with control of hypertension.

All of the above figures are derived from Shirley (1995).

It may be useful to consider to what extent the effected improvements listed above were related to the particular nature and institutional configuration of the CHC, and to what extent merely the result of the establishment of *some* source of available affordable primary care in the area.

### ***Consumer Satisfaction***

A nationwide study of health centre patients in 1993 and 1994 found that:

- ❑ 96% were very satisfied or satisfied with the quality of their care;
- ❑ 97% would recommend the health centre to their friends and families;
- ❑ 95% took advantage of regular health care services, even when they were not sick;
- ❑ 87% had never had concerns or complaints about the quality of care;

Ormond, Wallin and Goldenson (2000) visited and studied the rural health systems in thirteen counties in five U.S. states (Alabama, Minnesota, Mississippi, Texas and Washington). They found that Community Health Centres continue to play an important part in the delivery of primary health care in rural communities particularly in the poorest, most underserved locations. While all but one of the health centres studied was in a town that had a hospital, many had outlying clinics in areas where they were the only health care provider. They generally had established relationships with the hospital or a nearby urban institution to provide care that was beyond their capacity, but as Ormond, Wallin and Goldenson note : “Finding speciality, diagnostic or inpatient care for their mostly uninsured clients ... was reported as an ongoing problem”.

One CHC in Washington, had “diversified into profitable services”, such as home health and dental care in order to increase revenue, but in other areas a “reluctance to compete with private providers” stalled such initiatives. It is also noted that in nearly all the states CHC were “perceived as unwelcome competition or as federal intervention in a private market”.

The universal difficulty for rural health care providers to attract and retain health professionals is exacerbated, in the case of the CHC, by flat federal funds and diminishing reimbursement from the Medicaid and Medicare programmes, at the same time as health costs increase and the number of uninsured people grow. Shirley (1995) also comments on a general stigma perceived especially by younger physicians in being associated with a “program”, and isolated from the mainstream medical establishment.

### **► United States Part II: Reconfiguring Rural Hospitals**

In the United States, 330 rural hospitals closed between 1980 and 1990 (Shride 1997). The single greatest factor blamed for hospital closures was the shift by Medicare from cost-based reimbursement to the Prospective Payments System (PPS), which reimbursed health providers based on diagnostic groupings (Pirani, Hart and Rosenblatt 1993, Johnson 1994). Many felt that the cost assumptions on which reimbursement was based were unfavourable to rural areas (Pirani, Hart and Rosenblatt 1993), although these inequalities were reduced by later legislation (Shride 1997, Berry and Seavey 1994).

In response, different models have emerged for retaining or reopening small rural hospitals, based on a reconfiguration of the hospital and a local integration of the health services seen as most necessary to the community. Examples of these reconfigurations include both local changes made by individual institutions, and state or federally-sponsored demonstration programmes.

#### ***Local Solutions:***

Sharp (1991) describes some strategies undertaken by hospitals in four small rural communities in Kansas, Colorado and Washington to preserve essential local health services:

- ❑ The St. John Primary Care Hospital in St. John, Kansas was a 24-bed hospital converted (Sharp 1991) into a primary care hospital staffed by two physicians and one nurse practitioner, offering primary and urgent care, observation beds, long-term care, home health, outpatient surgery and an enhanced ambulance system. It established “formal affiliation agreements with the regional referral Centre for secondary care and with a major urban medical Centre for tertiary care” (Sharp 1991).
- ❑ The Silverheels Health Centre in Fairplay, Colorado was converted from a nine-bed hospital into a primary care centre staffed by nonphysician providers. High physician turnover had been experienced and the hospital had closed twice previously. Acute care services were replaced by upgraded primary and emergency services. Formal affiliation was undertaken with a Denver hospital, 95 miles distant.
- ❑ CleLum Family Medicine in Washington grew out of the public hospital which closed in 1976. Three physicians established a group practice and contracted with the hospital district to use the building. They offered emergency and primary care and attended at an adjacent 60-bed nursing home. Some laboratory, x-ray and pharmacy services were offered, but no inpatient care. Sharp reports that the clinic developed a “workable and adequate” referral relationship with a hospital 26 miles away.
- ❑ In Caney, Kansas (pop. 2300), the community raised funds initially for capital improvement in their threatened hospital, and then redirected their efforts to preserving local primary care services. The three local physicians became employees of the new primary care clinic, and other staff up-skilled and generalised their roles. Emergency care and ambulance services were retained, along with a 10-bed sub-acute care unit, staffed 24 hours. Close affiliation was established with a hospital 18 miles away.

#### ***Medical Assistance Facility (Montana):***

Some states have established financial incentives offering more generous reimbursement to institutions which are the sole source of care in a community, given that they conform to certain conditions. The Montana legislature established the Medical Assistance Facility (MAF), with the principal purpose of guaranteeing primary and emergency services to sparsely populated “frontier” areas. A MAF was made subject to the following conditions, which require that it:

- ❑ may provide inpatient care for no longer than 96 hours, or stabilisation of persons prior to transferral;
- ❑ must be located in an area with 6 or fewer persons per square mile, or more than 35 miles to the nearest hospital;
- ❑ has staff which includes at least one physician, and a physician or nurse practitioner must at all times be either on duty or on call at no more than a one hour distance;
- ❑ must offer 24 hour nursing, or if there are no patients the nurse may be no more than 20 minutes distant. (Sharp 1991)

Capalbo, Flaherty and Shreffler (1998) report on a multiple case study of communities who had converted their hospital to a MAF. They state that:

From the perspectives of the key informants in this study, the MAF program has been successful in maintaining or improving access to local health care.

However, the authors found that some of the “features of the MAF program that have worked well from communities’ perspective” included greater flexibility regarding staff, services and length of stay requirements. They call for further research to be done.

***Alternative Rural Hospital (California)***

Similar to the MAF programme, the aim of the Alternative Rural Hospital (ARH) project is for small rural communities to establish the scope of their services (Sharp 1991), given the following core features:

- ❑ emergency services on standby at all times;
- ❑ stabilisation capacity for up to 96 hours prior to transferral;
- ❑ primary care and outpatient services;
- ❑ basic radiography and laboratory services (Sharp 1991).

***EACH/RPCH (“Each-Peach”)***

In 1989 the federal government enacted legislation to enable the EACH/RPCH programme (Shride 1997). This programme provides more generous reimbursement and relaxed regulatory requirements for hospitals which form an alignment as an “each-peach pair”, being designated, respectively, as an Essential Access Community Hospital and a Rural Primary Care Hospital. The RPCH has the following features, demonstrating similarities to the aforementioned MAF and ARH programmes:

- ❑ must provide 24-hour emergency services;
- ❑ may use nurse practitioners and physician assistants for emergency cover, given appropriate physician support and backup;
- ❑ is limited to six inpatient acute care beds and 72-hour length of stay;
- ❑ may keep “swing beds” (acute care to long-term) in place at time of RPCH designation but may not apply for any more, other beds to be skilled nursing/long-term only;
- ❑ must provide laboratory and radiography services;
- ❑ must limit surgery to outpatient surgery which does not require general anaesthesia;
- ❑ must have a formalised referral relationship with an EACH.

On the other hand, the EACH:

- ❑ is a full-service hospital with 75 beds or more;
- ❑ is the targeted facility for transferrals from the RPCH;
- ❑ provides the RPCH with medical and emergency backup and support (Shride 1997);
- ❑ provides staff privileges to RPCH primary clinicians (Sharp 1991).

According to Shride (1997), the network relationship between the EACH and the RPCH can offer the smaller institution and rural area:

... availability and accessibility to a broader range of services than is financially feasible in the local community.

Shride reports that six such relationships had been established in West Virginia. The RPCH were all located in “extremely rural and mountainous areas” with high unemployment and elderly populations. They “would not have survived...[without] conversion to a cost-based system and some regulatory relief”.

At the time of writing (Shride 1997) it had been proposed to expand the scope of RPCH and rename them Rural Critical Access Hospitals (RCAH). Maximum bed numbers were to be extended to 15 and length of stay to 96 hours. The Rural Hospital Flexibility Program was in fact passed into law in 1997, and authorised the creation of CAH nationwide, drawing from the apparent success of the MAF configuration in Montana.

However, when Ormond, Wallin and Goldenson (2000) visited 13 rural counties in five states they found that the option of downsizing the local hospital and converting to a CAH facility was far from popular. In only three out of the 16 hospitals visited by these authors was CAH conversion considered a reasonable option. Of the others, four hospitals in three states stated explicitly that downsizing to a CAH would be a bad idea. Part of the reason for this was that their revenue was actually better under the diagnosis-related group reimbursement than it would be under cost-related reimbursement. The principal objection, however, was that:

... the attendant loss of flexibility in treating patients and structuring hospital services would limit the hospital's ability to meet community needs and expectations. Specifically, hospitals saw the restriction on length of stay under most limited-service facility proposals as not in the best interests of local residents.

In fact, hospitals in this study were more likely to consider *expanding* services. Expansions taking place included construction or renovation of physical facilities, addition of medical services, particularly outpatient services, and diversification into non-traditional areas such as home health and long-term care. Like the Community Health Centres described above, hospitals were using revenue from these sources to cross-subsidise acute care.

**\* Comment \***

The advantages of the one stop shop model are usually listed as being improved “cost-effectiveness” for the funder, and improved access for the consumer/community. But what do health professionals think of collocation, sharing of resources, and common administration ? Given that they are ultimately responsible for making these new arrangements work, this would seem to be a worthwhile avenue of inquiry.

In surveys carried out of New Zealand's rural GPs and nurses (Dawson 2000a, Dawson 2000b), six GPs and three nurses specifically identified having a one stop shop or practitioners located close to one another as contributing to the “success” of the practice.

Clearly, much more could be written and researched about the particular issues and problems experienced at ground level by health professionals and administrators in the course of implementing the models discussed above.

Two of the most obvious issues raised are :

- ❑ The problems and possibilities inherent in new lines of communication across disciplines, joint action, shared administration, and the need for general cooperation, coordination and collaboration.
- ❑ The challenges and possibilities indicated by the need for new roles to be undertaken by health professionals, and, in particular, nurses. The development of a new breed of multi-skilled, generalist health professionals is a common theme emerging from discussion of new models of rural health service delivery, such as the Australian MPS (see above).

While examination of these issues goes above and beyond the scope of this review, two projects currently underway at the National Centre for Rural Health address the very themes outlined above. Titled “Interdisciplinary Teamwork in Rural Health” and “The Role of Rural Nurses”, these projects will provide in-depth examinations of these salient issues. See Jones and Ross (2000), Ross, Jones and Litchfield (2000) and Litchfield and Ross (2000) for information on progress in the second of these projects.

## **Regional Integration: Rural Health Networks**

Rural health networks have been the subject of an increasing amount of literature in the past five years. However, even seminal and prolific writers on networks such as Moscovice and Christianson admit that the potential benefits and even the nature of rural health networks are not well understood (Moscovice, Wellever and Christianson 1997).

The fundamental features of rural health networks, however, appear to bear similarities to those of the integrated institutional and service models discussed above. The difference is that while community health centres, primary care hospitals and so on, represent local, single-community solutions to health service delivery, rural health networks are envisaged as achieving larger-scale, region-wide integration.

Moscovice, Wellever and Christianson (1997) are very informative on the possible nature and structure of rural health networks. They define “network” in opposition to “system” and “alliance”. Systems have “formal, permanent” arrangements with significant common ownership, while alliances are voluntary and “loosely coupled ... coming together to solve problems on an *ad hoc* basis”. Networks on the other hand, fall between these two extremes, with formalisation of interorganisational arrangements and commitment by members varying over time and between networks.

Network integration can be *horizontal* – between different kinds of providers such as a primary care practice and a home health organisation – or *vertical* – between different levels of provider, such as a rural hospital and a secondary or tertiary hospital. Or, of course, it can be between the same type of provider, such as when GPs form independent practitioner associations. Furthermore, there are different *types* of integration a network may undertake:

- ❑ clinical integration – the coordination of patient care across various units;
- ❑ functional integration – the coordination of administrative and support activities;
- ❑ physician-system integration – the involvement of physicians in planning, management and governance;
- ❑ financial integration – the sharing of the risk of profit and loss across the network.

However, in terms of the possible benefits of rural health networks, the best summary is offered, once again, by Humphreys, Mathews-Cowey and Rolley (1996). According to these authors, networks may produce the following advantages:

- ❑ sharing of resources enables the provision of specialist services that individual institutions could not support by themselves;

- ❑ staff can be moved around the network, which gives the flexibility to allow more training and educational opportunities for staff in small communities;
- ❑ administration costs are reduced by integrating administrative tasks;
- ❑ a greater “population catchment” may make a wider range of services viable;
- ❑ broad, community-based health promotion projects may be undertaken.

This list does seem to bear some resemblance to the benefits achieved by the models of local integration described above. What different potential then, is realised by regional networks? One answer might be that networks allow the formation of what Hicks and Bopp (1996) call an “integrated pathway”, which they say is a “well-defined approach to delivering *all* necessary services to a population”. An integrated pathway allows a rural person to enter the health care system at a local level and receive appropriate care, be transferred to affiliated providers for specialised care, and be returned to the local area for follow-up and rehabilitation (Hicks and Bopp 1996).

A regional network may also offer members economies of scale different in extent from those that can be achieved at a local level. It may enable the purchase of, for example, telemedicine equipment, the benefits of which can then be shared among members.

In the United States regional integration is also thought to offer rural providers the opportunity to achieve the economies of scale necessary to compete with large, urban organisations which may desire to acquire patients from rural areas to add to their market share (National Rural Health Association 1998, Johnson 1994). Network formation is thus seen as facilitating the retention of local control of rural health services. With the increasing spread of managed care and prepaid capitated contracts, rural providers are being encouraged to form networks in order to provide a coherent “product” to offer in contracting negotiations with Managed Care Organisations (MCO) or state Medicaid and Medicare organisations.

At this point, it may be instructive to return briefly to Moscovice, Christianson and Wellever, who amidst their in-depth analysis of rural health networks pause to note:

Belief in the efficacy of networks is an example of a rationalized myth. There is widespread belief in the ability of networks to improve access to and quality of health care and to control health care costs, yet virtually no empirical evidence exists to support these conclusions.

Moscovice, Christianson and Wellever did conduct a study of six rural health networks. However, they concentrate on the technical details of their organisational structure. Much of the American literature focuses on these aspects, as well as the financial and legal implications of network formation. There is little on the effect of rural health networks on local communities.

An Agency for Health Care Policy and Research (AHCPR) User Liaison Program workshop held in 1997 (AHCPR web site) reports that by 1996 there were at least 180 rural health networks in the United States. 41% of network leaders said that “organisational development” had been their “most significant achievement to date”, while 22% claimed “improving access to health services” as their major achievement.

A National Governors Association (NGA) forum held in 1996 (NGA web site) reports that Wisconsin has one of the most developed “network infrastructures” in the nation, with four large network systems and other smaller networks. This has created a competitive environment, and it is reported that:

... network managers are now deciding where and what services should be developed often to gain market share. Rural communities that are not sufficiently profitable Centres for network outlets could lose support in the future ... because of the proliferation of networks, some services are being duplicated in certain areas for competitive reasons. This is an ironic development given that the elimination of the duplication of services was one of the main reasons why networks were developed (NGA web site).

Humphrey, Mathews-Cowey and Rolley (1996) describe a network arrangement in an Australian context. The Wagga Wagga Base Hospital and District Health Service has brought five outlying hospitals or health centres in south-west New South Wales into affiliation or amalgamation arrangements with the Wagga Wagga base hospital. Humphreys, Mathews-Cowey and Rolley indicate that these network arrangements have enabled expanded, community-based services in the outlying areas, with “centres also being utilised to service areas such as meals-on-wheels, preschools, senior citizens and community transport”. They claim that:

The example of Wagga Wagga shows that smaller communities can not only maintain existing health services but potentially attract extra services through a process of amalgamation and/or affiliation.

Wainer and Strasser (1997) tell a somewhat different story, however. In their previously mentioned study of six small communities’ process of change, some of the towns opted, or were required, to amalgamate or form a partnership with a nearby larger town’s health services. Wainer and Strasser state in no uncertain terms that “Amalgamation resulted in the *reallocation of acute and nursing beds*” from the smaller town to the larger one (author’s emphasis). What had been the local hospital was reconfigured into a “campus” of the larger health service.

In one community, amalgamation was promised to offer 24-hour accident and emergency services, hostel beds and retention of the doctor, but ultimately delivered none of these, with even the doctor leaving town. In another town, a voluntary partnership resulted in the reallocation of acute and nursing beds and the closure of the hospital. Wainer and Strasser note:

Newly purchased equipment for the closed hospital was transferred to the bigger town. The people experienced this as theft.

In New Zealand, the closest organisation to a rural health network seems to be the Rural Trust Collective, a grouping of the rural community trusts in the Otago/Southland area (Barnett and Barnett, submitted for publication). This would be likely to be characterised by Moscovice et al. as being more like an “alliance” than a “network”, since there are few signs of organisational integration. The annual report of the Clutha Community Health Company Ltd. (Clutha Health First 2000) describes the nature of the relationship between members of this collective:

These meetings ... help establish common ground, provide a supportive network to function within, as well as the ability to look at issues wider than each individual provider.

In addition, Clutha Health First meets regularly with the other independent rural hospitals in the Otago area – Gore, Waitaki and Dunstan. There are also some formal organisational links with other regional providers. The Clutha trust sub-contracts with Health care Otago – a large, urban-based health service – to provide specialist outpatient clinics. It also has a “formal relationship” with the Tapanui, Milton and Tuapeka trusts – smaller services than Clutha - to provide occupational therapy and social work services in those areas.

## **Academic Rural Practice : The “Two Birds” Model**

Academic rural practice is a relatively new phenomenon, its existence made possible by the growing recognition of rural medicine, rural nursing and primary rural health care as distinct, generalist disciplines in their own right. There are a number of potential benefits offered by academic rural practice. Firstly, there has been consensus for some time that recruitment and retention of health professionals to work in rural areas is made more likely by exposure to rural practice at either the undergraduate or graduate level.

Secondly, the involvement of large urban institutions such as universities and teaching hospitals in rural areas may help reverse some of the diseconomies of scale inherent in rural health service delivery. The resources, speciality skills and financial base of the tertiary institution potentially address some of the intrinsic difficulties for rural practice, such as professional isolation, lack of relief and rudimentary infrastructure.

A third “bird” to potentially be felled by ARP involves the possibility of ongoing research being carried out in rural areas. University involvement suggests a sustainable way to analyse and address some of the contingent rural health issues related to the particular demographic, cultural and occupational features of rural communities.

### **► Academic Rural Medical Practice**

The University of Adelaide’s web site gives an overview of the Health Education And Rural Training Service (HEARTS), including descriptions of two rural practices developed by the university, at Minlaton and Maitland on South Australia’s Yorke Peninsula. At Minlaton, the university developed an academic practice after the hospital closed in 1994, and there were difficulties with local health service provision.

According to the web site, the university-established practice now boasts two full time doctors offering 24-hour service, boosted by visiting doctors from the U. of A. Department of General Practice. Services offered include primary and emergency care, obstetrics, and residential and hostel nursing home care. Community-based services such as health education are boosted by the presence of training programmes, enabling “student workshops in the community”. Among the achievements of the practice are listed the computerisation and improvement of records and recall systems.

The apparent success of Minlaton encouraged the Yorke Peninsula Hospital Board to invite the university to set up another practice site at Maitland. This partnership shows us an interesting configuration, with the practice operated by university doctors out of the community health centre built by the Hospital Board. Prior to the university’s involvement, the community had been unsuccessful in attracting a new general practitioner in five years.

Rosenthal et al (1989) describe the development of a university rural teaching practice in Western New York. The establishment of this practice was precipitated by a number of factors coming to the attention of the Department of Family Medicine at SUNY, Buffalo. Two physicians in the area of Cattaraugus County, south of Buffalo, were moving on because of burnout, and combined with the retirement of two other physicians, this threatened the local hospital with closure. There was a medically underserved Amish community nearby, as well as a state institution for the mentally ill, and a state institution for the developmentally disabled.

Given that the DFM wanted to expand its predoctoral curriculum, it agreed to establish a teaching practice in the area. A partnership was formed with the hospital, and the two parties negotiated rent of the practice sites and coverage of a diagnostic and treatment centre for the Amish. A prepaid capitated

contract was negotiated with New York State to provide care for the developmentally disabled, many of who were being “reintegrated” into the community. The practice employed four of the university’s own residency graduates.

A year on, the establishment of the practice had helped stabilise the situation of the hospital, as well as provide training for 26 medical students and 8 family medicine residents. The cooperation between the university and the hospital had encouraged other departments of the medical school to consider opening subspecialty clinics at the hospital, and facilitated the recruitment of extra health professionals to the community.

The balance of the encountered literature on academic rural medical practice is either prescriptive (i.e. it considers what ARP *could* or *should* do), or is primarily concerned with the effect of rural rotations on the ultimate recruitment and retention of physicians. This has only indirect relevance to our primary interest in service delivery. See Hays et al. (1992), Bridges-Webb et al. (1994), and Rosenblatt (1991).

### ► Academic Rural Nursing Practice:

In the United States, schools and colleges of nursing have also played a part in setting up nursing centres in rural areas, to provide educational and training opportunities for students as well as to improve access to primary care services. According to Barger (1994), various inventories have revealed between and 40 and 65 academic nursing centres nation-wide, making up the bulk of all nursing centres in the U.S.A.

Barger describes a variety of strategies used by nursing centres to deliver health services in rural communities. Mobile and outreach projects include: a mobile clinic for mothers and infants in rural Georgia, a mobile unit providing health education to adolescents in Mississippi, screening services for farmers attending agricultural expositions in Montana, clinic services in a black church and health screenings in rural textile plants in South Carolina. Such services, says Barger, “simply are based on increasing access to health services through improved availability.”

Other services offered by nursing centres include “physical screening, health risk assessment, counselling, health education groups, family planning, home visits to prenatal clients, treatment of acute and chronic conditions, immunizations and allergy shots” (Barger 1994).

While one might imagine that the school or college of nursing might subsidise the operation of the nursing centre, Barger reports that “nursing Centres, even those in academic settings, are expected to be financially self-sufficient”. This has proved a problem in some cases, with seven states having no legislation and fifteen states very limited legislation providing for third-party reimbursement (by Medicaid, Medicare and other purchasers) of nurse practitioner services. Another issue has been the opposition of some physicians to the existence of nursing centres. However, Barger points out that

Despite such confrontational experiences, nursing Centres have and must continue to maintain collaborative relationships with physician colleagues in order to provide optimal health services for the clients they serve.

Lenz and Edwards (1992) describe the establishment of an academic nursing centre in Johnson county, a rural area in the Tennessee Appalachians. This area had been hit by severe economic downturn during the late 1980s, and was suffering 37% unemployment. The 66-bed hospital had closed, and only 3 FTE physicians were left practising in the community out of a former 12. Lenz and Edwards report that “no emergency, evening or weekend care was available.”

The School of Nursing at East Tennessee State University established a nurse-managed primary care centre in this area, after significant preliminary work establishing community support and obtaining an initial grant from the First Tennessee Community Health Agency. The engagement of the community paid off, as space in the vacant hospital, equipment and supplies were provided by the community through the Johnson County Hospital Board. The nursing centre was staffed and directed by faculty members from the School of Nursing. It was initially open only on weekends and nights during the week, but nevertheless received 2,778 visits during the first year of operation. The centre was able to obtain eligibility for reimbursement from Medicaid, Medicare and private health insurance carriers.

Ultimately not only the School of Nursing but also the entire Health Science Division of the university became involved in the nursing centre, and Lenz and Edwards report that “Physician preceptor services are currently contracted with the Department of Family Medicine” of the university. The establishment of the centre, say Lenz and Edwards, has had the double benefit of providing “additional and accessible primary care for county citizens” as well as being a site which “enriches and expands the practice opportunities for students”. Furthermore, the presence of nursing students in the community has had the flow-on effect of providing “role models for Johnson County youth”.

### ► Area Health Education Centres

Certain federal programmes in the United States encourage the development of the kind of partnerships between academic institutions and communities described above. The Area Health Education Centre (AHEC) programme dates back to legislation passed by Congress in 1971. More than 40 states have since developed AHEC programmes (South Florida University AHEC web site, State University of New York at Buffalo AHEC web site). The principal aim of AHEC is to promote the recruitment and retention of health professionals to medically underserved areas by providing clinical training in those areas.

However, AHEC are among the organisations that can apply for a federal rural interdisciplinary training grant under the Section 754 programme (Bureau of Health Professions web site). The stated aims of this programme serve to provide a summary of the potential role for academic institutions in rural health, which could include:

- ❑ using new and innovative methods to train health care practitioners to provide services in rural areas;
- ❑ demonstrating and evaluating innovative interdisciplinary methods and models designed to provide access to cost-effective comprehensive health care;
- ❑ delivering health care services to individuals residing in rural areas;
- ❑ enhancing the amount of relevant research conducted concerning health care issues in rural areas;
- ❑ increasing the recruitment and retention of health care practitioners in rural areas and making rural practice a more attractive career choice for health care practitioners.

The Bureau of Health Professions web site provides a list of recipients of rural interdisciplinary training grants at <http://bhpr.hrsa.gov/dadphp/rurinter.htm>, together with links to organisations’ own sites, which offer information about their programmes.

## Rural Mobile Health Services

Mobile health services represent one way of providing services in rural areas to people whom they would not otherwise reach. On the one hand, mobile units offer the possibility of bringing services, perhaps including specialist equipment, to localities where they could not be sustainably supported on a fixed basis. On the other hand, mobile services may be able to bring health services out of the medical, “institutional” setting and into one more attractive to people otherwise unlikely to access primary or preventive care.

Mobile health services might therefore be seen as a means of serving the “hard-to-serve” by closing both the spatial and non-spatial gaps and bringing providers to the people.

Lee and O’Neal (1994) describe the operation of a nurse practitioner-staffed mobile clinic in rural South Carolina. They review some of the literature on mobile clinics, and report that some of the services able to be carried out in mobile clinics include “a wide range of radiologic technology ... audiology, mammography, ultrasonography, and laboratory procedures”. Other uses for which mobile clinics have been used include prenatal care and education, immunisations and nutrition education.

The mobile service described by Lee and O’Neal was enabled through a collaborative arrangement between Clemson University College of Nursing and the South Carolina Office of Rural Health, with the university providing the staff and health supplies and the State providing the mobile clinic itself. Up until the time of writing, the clinic had been taken into Oconee County, an underserved rural area, on a twice-monthly basis. The principal activity was assessing participants for eligibility for the WIC programme, which provided supplemental food, nutritional counselling and education to at-risk families.

During the period between January and September 1991, “8 to 10 new clients [were] registered for WIC each month”. A total of 153 people were seen, with 119 immunisations given. Other activities included well-child physical assessment, screening for pulmonary tuberculosis, and referral where necessary to other health professionals.

Humphreys, Mathews-Cowey and Rolley (1996) provide their own overview of mobile health services. According to the authors, mobile health services have been used:

- ❑ in England to provide essential health services to travelling families (gypsies), for whom conventional health services were not “accessible and sensitive to their lifestyle and needs”;
- ❑ in Western Australia, to provide services to working women in factories, and in suburbs with a high percentage of single parent families;
- ❑ in country towns in the same state, in order to “reach women who were isolated by their different life experiences from accessing regular preventive health care checks and tests”.

Humphreys, Mathews-Cowey and Rolley conclude that mobile services may overcome a variety of barriers to access of health services, including “distance, social isolation, lack of time and cultural issues”.

The authors go on to describe some prominent mobile health service projects in Australia. The Remote Isolated Children’s Exercise (RICE) offers a wide variety of health, educational and support services to isolated homesteads, stations, and railway and construction camps in South Australia. As well as the services they themselves offer, the RICE team act as a “bridge” between isolated families and appropriate services.

Probably the most famous mobile health service is the Royal Flying Doctor Service (RFDS). Immortalised on the small screen, the RFDS covers more than two-thirds of the Australian continent from fourteen bases. According to Humphreys, Mathews-Cowey and Rolley:

While the service has operated primarily as a curative and emergency health care service, the role of the RFDS has expanded recently to include flying dentists, nurses, several aspects of health promotion, and to transport other health professionals who need to access remote locations.

Allen (1996) describes the development of a mobile service offering physiotherapy and other allied health services in a remote area of North Queensland. The service travelled on a monthly/bimonthly basis to communities in the shires of Croydon and Etheridge (population 1658 in an area larger than Tasmania). The need for services was estimated from the number of phone calls from remote clinics asking for advice for patients and the number of patients from remote areas utilising regional hospital allied health departments.

The mobile service included a physiotherapist, occupational therapist and social worker operating as a team. Teamwork was found to be integral to the success of the project, and Allen notes:

Consultation throughout and after trips has been vital to problem solving in the remote communities.

The provision of services was also facilitated by being able to use “existing health infrastructure” in the communities visited. For instance, in one area the local dance hall doubled as an RFDS clinic and as a base for the outreach team. The utilisation of services was greater than expected, with 59 clients seeking physiotherapy care alone in the first four months of operation. Allen reports a prevalence of occupation-related injuries, such as “anthill” accidents suffered during mustering, and falls from horses. Many of these injuries were long-term, resulting in chronic pain and dysfunction. Allen notes the case of one woman, who had accessed a physiotherapist shortly after her initial injury but had not sought follow-up, “due to the tyranny of distance”.

While Allen concedes the great difficulty of making a direct cost-benefit comparison of the mobile team with hospital based outpatient services, he emphasises the considerable number of people with treatable conditions, and points out that the provision of “regular, if not frequent mobile services...[could] result in a reduction of costs through prevention of the need for orthopaedic surgery”.

However, Humphreys, Mathews-Cowey and Rolley sound a note of caution in their summary of mobile health services. Despite their obvious benefits, mobile services have the following drawbacks:

- ❑ Despite the apparent improvements in access offered by mobile services, they may be less acceptable to consumers, who prefer local, fixed services.
- ❑ Many mobile services operate as projects or pilots, and their efficacy may be limited by difficulty in getting ongoing funding and providing continuity of care.
- ❑ Due to their periodic nature, mobile services may not be available when most needed.

The authors also emphasise the importance of coordination and collaboration with complementary services to avoid duplication, the need for many mobile services to be multipurpose in nature, and detailed attention to workforce issues. Professional isolation, disruption to personal lives and a heavy and varied workload are all potential problems for those staffing mobile services, and thus importance needs to be attached to the recruitment, retention, training and support of the appropriate professionals.

## Community-Oriented Primary Care

Rather than a particular model or institutional configuration, community-oriented primary care (COPC) might be described as a “mode of practice”, in which a community of interest is defined, and the community’s health needs and problems are identified and prioritised. Interventions are then designed to address these health needs. COPC represents a move beyond patient-based to community or population-based care. As such, it seems to have potential for actively addressing the health inequalities that may be associated with rural areas.

Christianson and Grogan (1990) describe an intervention, derived from Nutting (1987), carried out on an Indian reservation in southern Arizona, which demonstrates the principles of COPC. From an analysis of patient data, infants at high risk of mortality and morbidity from gastroenteritis-related dehydration during the summer months were identified. Intervention involved education of caregivers and community outreach workers. A substantial reduction in morbidity for the at-risk group resulted.

Kukulka et al. (1994) report on a 2 ½ year-long national demonstration project of COPC carried out in the U.S. Assisted by grant funding from the W.K. Kellogg Foundation, COPC programmes were implemented in 13 rural sites across 13 states. Sponsoring organisations (the practices instituting COPC) ranged from community health centres and hospitals to private practices, county health departments and a tribal health board. The programmes resulting from identification of health care priorities included falls prevention for elderly, diabetes education and prevention, substance abuse prevention, cardiovascular risk reduction and companionship for isolated elderly.

Some interesting developments were noted in the study. One related to the degree of community involvement. While COPC is often supposed to involve the community acting in an advisory role to a practice, at some sites “interventions” turned into full-blown “rural development/community-organizing program[s]”, with the clinical practice ultimately playing an advisory role to the community. In many sites, the needs analysis was determined by community perceptions as much as by secondary data, with both playing an important role in identifying health problems.

However, over all the study reinforced the problems traditionally associated with COPC. Nutting (1986) identifies:

... difficulty in defining the target population, difficulty in accessing individuals in the target population, inadequate data on the target population, inadequate skills and expertise in COPC, and limited reimbursement for COPC activities.

In addition, the study found that the implementation of the COPC projects was hindered by high staff turnover, especially when it meant the loss of those most committed to/knowledgeable of COPC activities. The ongoing involvement of the community required communication, motivation and organisation in many of the sites, which challenged the practices’ resources in terms of both time and skills. The demands of time proved to be crucially important. The sites that were able to employ a nonphysician COPC coordinator were most successful at implementing COPC and “sustain[ing] clinician involvement”. Kukulka et al. note, however, that this was only financially viable within the context of the project’s grant funding. Practitioners found that the demands of their practice severely limited the time they could devote to COPC activities. Comments included “...COPC is not a primary part of [the staff’s] job” and “Acute care always wins out over COPC”.

The cost structure of COPC was also analysed in the study. 21% of expenditure was dedicated to defining and characterising the community, although this made up 50% in the first six months. The majority of all expenditure went towards designing and implementing the interventions. In the final year, 19% was spent on monitoring the impact of interventions. Kukulka et al conclude from this that COPC projects may take up to two years to design and implement, and that

... the program’s time frame was not long enough to complete the initial COPC process and evaluate the impact of the intervention.

## COMMUNITY INVOLVEMENT IN RURAL HEALTH

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Community participation is now accepted worldwide as a concept essential for securing social justice. It involves democratisation of the management of development programmes.

O. Shisana, P. Versfeld *South African Medical Journal*, 1993, 83, p.5

Throughout New Zealand, consultation is falling into disrepute because the perception is that people have come with fixed agendas and have not come with an open mind or been receptive and rural communities have felt this. They've felt that people have come with the idea that we know what's good for you, our job is to make the bitter pill more digestible.

(Discussion) *National Symposium on the Delivery of Health Services to Smaller Communities*. Hamilton, 1995, p.62

### Introduction: What is the Community?

Almost every writer on rural health, whether from an academic, professional, management or government perspective, considers that successful rural health services require community involvement. Various, community “involvement”, “participation”, “consultation”, “engagement” and “empowerment” are considered to be crucial factors in ensuring that the appropriate services are provided in an appropriate manner. Above and beyond the pragmatic consideration that health services will be more effective if people want to use them, there is a philosophical commitment to the belief that communities should have “ownership and control of their own endeavours and destinies” (WHO 1986).

However, before we go on to consider the specific ways in which communities can be involved in the provision of their health services, it may be useful to ask the question: who, or what is the community? There is raised the question of whether community groups and community representatives really represent the people they purport to represent. Do processes used for consulting communities allow for genuine input from the population, or merely preserve existing power structures and recognise those who shout the loudest?

But above and beyond this, there is the question of whether “the community” is itself an unproblematic concept. A little reflection on what we mean when we talk about communities shows that certain “communities”, for example ethnic, cultural, religious or occupational groups or demographic groups such as women or the elderly, may exist within or across more obvious spatially determined “communities”.

And even when we restrict our construction of “community” to spatial factors, the issue of multiple community membership remains. We only need to look back at the Successful Models section of this review to see how the concept of integration was examined at both the regional and local level. At which level do we locate the community? Might not both a region and a locality be considered a “rural community”? Communities might not be cut up as easily as cookies.

Revisiting Wainer and Strasser's (1997) study, where some small towns “experienced a takeover” of their resources, might we not look at the rural area which included both the small town and the larger town and consider that the area as a whole benefited from a rationalisation and integration of its resources?

Having these ambiguities in mind could be useful in an examination of the sometimes confusing literature on community involvement.

The ways in which communities can be involved in determining the nature of their health services may be divided into several main categories

1. Utilisation of services.
2. Involvement in the recruitment, retention, support and sociocultural integration of health professionals.
3. Fundraising, financial and in kind contributions.
4. Involvement in identifying health needs and determining the nature and direction of health services.
5. Ownership and control.

Clearly, the listed categories are to some extent artificially demarcated. For instance, full community utilisation of available services may be linked to the community's sense of influence over the nature of those services. Efforts to recruit and retain health professionals or to take control of health services may necessitate fundraising initiatives. And involvement in determining health needs may cross over into contributions towards addressing those needs, as occurred in the COPC projects described by Kukulka et al. (1994, see above). Furthermore, the same people may be involved in several of the activities listed above, possibly simultaneously. However, it should be useful for purposes of discussion to divide something as vague as "community involvement" into distinct themes.

## Utilising the Services

One of the most straightforward ways in which rural communities can be involved in their health services is simply by utilising and supporting the services that are available. This aspect of community involvement is most often noted in the literature from the United States. Here, the provision of health care has not traditionally been a public venture to the extent that it has been in New Zealand, Australia and other countries. The concepts of a health care "industry" and health care "market" have had a longer-standing prevalence in discourse about health services. Hospitals and other providers have been financed largely through reimbursement for services actually provided. Issues such as financial viability have historically been responsibilities of the institutions themselves, rather than any regional or national government body.

Therefore, closed hospitals seem less likely to be viewed as having been taken away from the community by some outside force. Rather, the community has "lost" the institution or the institution itself has "failed". So, while Medicare's introduction of Diagnosis Related Group (DRG)-based reimbursement in the 1980s is cited as the single greatest factor in the closure of rural hospitals (Pirani, Hart and Rosenblatt 1993), some writers point to under-utilisation and lack of support from communities as a key factor in the loss or dysfunction of local health services. For example, Amundson, Hagopian and Robertson (1991) claim that:

The extreme vulnerability of rural hospitals and other providers had been long-standing, a casualty of chronic low utilization by rural residents.

A number of reasons are identified for this problem, including:

...a poor public image of local facilities and services, limited technology, the absence of local health planning, weak institutional governance, inadequate management and financial systems, intracommunity conflict, ineffectual provider recruitment, minimal collaboration among community providers, and a limited local understanding of the serious pressures facing the community health system.

Some ideologues may point to a case of the market at work, and laud the exercise of choice by consumers. However, Ormond, Wallin and Goldenson (2000) offer a quite different analysis. According to these authors, access to local health care services is most important to the elderly and poor, those least able to travel and obtain services elsewhere. Nevertheless, because of the limited number of providers in rural areas, every provider may in some way be a part of the “safety net” for those most in need. If the “wealthier, insured residents” bypass the local hospital and health services, this places an excessive burden on local providers to care for those both most in need and least able to pay. But if local services are lost this ultimately affects everybody. As Ormond, Wallin and Goldenson point out:

... the health care infrastructure in a rural community *is* the safety net, and to maintain one is to maintain the other.

The onus is thus on the whole community to support local health services. For in addition to the health care itself, local services provide a number of flow-on benefits to the community. An institution like a hospital may be the largest employer in a small rural town. Health professionals may be positive role models and a source of expertise and leadership. Ormond, Wallin and Goldenson indicate that:

For the local economy, local availability and control of services ensures that expenditures made on health care are retained by the community ... [and] without a local health care system, communities may find it difficult to bring in new residents or to attract and retain new businesses and the jobs they represent.

Clearly, however, for a community to utilise and support local health services, it must have confidence that the services will be appropriate to their needs. Problems such as those listed above are obstacles to this confidence. Amundson, Hagopian and Robertson (1991) describe the Community Health Services Development (CHSD) Model, a process designed to assist communities and providers to address such problems which, they say, “because [they] are local in origin ... are most appropriately, although not always effectively, addressed by rural communities themselves.”

The Rural Hospital Project was a six-community pilot study carried out by the Department of Family Medicine at the University of Washington. An interdisciplinary team from the university helped bring together health care and community leaders to discuss and work through the interdependent problems affecting their health services. Communities were encouraged to define a “rational, affordable” scope of health services. Out of this emerged the CHSD model, described as “a strategy and process for community problem identification, problem solving and change”.

Although at the time of writing formal evaluation of the project was unavailable, Amundson, Hagopian and Robertson note that the study communities had achieved “an increased facility in addressing issues, with attention paid simultaneously ... to multiple problem areas”. The CHSD process was subsequently implemented in 25 further communities by regional AHECs (see above) in Washington, Alaska, Montana and Idaho.

Factors which facilitated the success of the process included: quality community leadership and broad involvement of different stakeholders, community commitment to the process, “a minimal threshold of cooperation” and the capacity to resolve intracommunity conflicts, and comprehensive identification of problems in the community health care system. The involvement of the external AHEC team was crucial in some of these aspects, notably in the resolution of conflict and the objective assessment of problem areas. Amundson, Hagopian and Robertson note that:

The analogy to the therapist in the family therapy model is compelling, and the principles of intervention and resolution are strikingly similar.

While community under-utilisation and lack of support for local health services may indeed be due to a complex set of interrelated problems, providers can take steps to build support for their services. This is borne out by Lenz and Edwards’ (1992) description of the establishment of a nursing centre in the Tennessee Appalachians (described above in the section Academic Rural Nursing Practice). The authors found that making allies of influential community figures was a crucial factor in the success of their project. Three “self-reliant, independent” businessmen embodied the values of rural self-sufficiency, while a teacher and the owner of the local newspaper and radio station were respected and had access to information networks.

Lenz and Edwards also emphasise the value of employing local people – “Our greatest public relations asset is our security officer. He is a past sheriff and lifetime resident with deep roots” – and putting effort into public relations – “We rolled up our sleeves and worked alongside community members on the most mundane of activities”. As a result, the nursing centre garnered substantial community support, with the community taking care of details like painting and trash removal as the site for the centre was prepared.

Elsewhere, Greenwood (2000) points to “protection of turf” as a behaviour unhelpful to gaining full community support. One of her interviewees from a qualitative study describes a male doctor in a rural town who refused to collaborate with newly arrived women GPs because he felt they were going to “steal” his patients. As a matter of fact:

... those women didn’t access him anyway ... what was happening was that there were two adjacent towns – one 120 kilometres, and the other 240 kilometres away – and his female patients were going to those two towns that had female GPs. So they were voting with their feet.

## **Community Involvement in Recruitment and Retention of Health Professionals**

O’Reilly (1997) describes the successful involvement of the community in helping to overcome a physician shortage crisis in the town of Marathon, northern Ontario (population 5500). The one remaining GP in the town was a catalyst for the crisis and its solution by refusing to be on call more than one day in four at the local hospital. He was involved, along with a local dentist, in forming a “Doctor Crisis Coalition”, which also included the mayor, the chair of the hospital board, and local industry, union and community leaders. The coalition lobbied the Ministry of Health to increase the complement of doctors allowed to practise in Marathon. They instituted a community-wide letter writing campaign, which was so successful that the health minister (having granted the designation) had to ask the group to get people to stop writing. The hospital board chair led a movement to restructure and modernise the hospital, and the mayor convinced the town to contribute \$10,000 for each new doctor and to provide inexpensive housing. When all these initiatives were in place, the coalition set about recruiting doctors, and in fact managed to attract no fewer than *six* new physicians.

Veitch et al (1999) report on a project in which two North Queensland communities with a “poor GP recruitment and retention record” were assisted in forming “action plans” to improve their recruitment and retention rate. The authors note from a previous study that :

... ‘sociocultural integration’ is the pre-eminent retention issue for rural practitioners and ... communities can play a important role in this regard.

The authors engaged in a “facilitation process” involving interviews and meetings with “key stakeholders” in each of the communities, a similar process to that described by Amundson, Hagopian and Robertson (1991, see above) in a U.S. context. Both communities had previously made attempts to recruit and retain GPs. The problems experienced included :

... lack of knowledge about how to progress a strategy; lack of resources; personal conflicts between individuals or within groups; illness in doctor’s families and partners which have caused doctors to leave; burnout of key players; groups growing stale, either because of slow progress or changed focus; unrealistic expectations about how long a GP should remain; and bureaucratic barriers.

At the end of the process, both communities had developed “action plans”, and the common strategies identified for community involvement in recruitment and retention of GPs are listed below (from article):

- ❑ form a liaison committee to interface with other stakeholders;
- ❑ develop information packages for prospective applicants;
- ❑ form a welcome process that helps doctors and families settle in;
- ❑ address quality and appropriateness of housing;
- ❑ sponsor a medical student to spend time in the community;
- ❑ consider spouse’s education and employment needs.

## **Finance and Fundraising: Baking Cakes for Bricks and Mortar**

One of the most visible ways rural communities have historically been involved in their local health services is through raising funds for buildings and equipment. As noted by Wainer and Strasser (1997, see above), this has often created a sense of ownership of local facilities such as hospitals, and led to a sense of betrayal when these facilities are threatened with closure by external forces. While there is some lampooning in the New Zealand and Australian literature of communities’ obsession with “bricks and mortar” and the “hospital on the hill”, this remains an important aspect of community involvement in rural health.

Robb (1994) tells of the achievement of the community of New Germany, Nova Scotia, in building a new medical centre, and thereby attracting physicians back to the community. The town had been left without a doctor, after the existing ones left because of “poor medical facilities”. A search committee was formed, but was unable to find a physician. They applied for provincial government funding for a new building, but were turned down without explanation. The trigger for the community’s eventual concerted fundraising effort was when “the insurance agent let it slip to the plumber that he’d donate a piece of land”.

The 14-room medical centre was built thanks largely to “donations of labour, materials, equipment and furniture”. It was completed 8 months ahead of schedule and well below projected cost. The surplus funds raised were used to buy equipment such as a blood pressure unit and a steriliser. With the new facilities in place, the community was able to attract two part-time and one full-time physician, who were attracted by the “low, rent-free overhead”.

In the New Zealand context, the web site of the Hokianga Health Enterprise Trust provides information about the ongoing fund-raising activities in the Hokianga region. In 1928 the community helped raise funds to build and equip an entirely new hospital, assisted by a visionary doctor who browbeat residents into paying an unofficial property tax, and the “usual card evenings and dances”. Seventy years on, the community has come full circle and needs to repeat the process. Although surpluses from the trust are earmarked for the building project, a sizeable portion of money still needs to come from community fundraising. Given that the area is extremely poor by New Zealand standards, there are innovative moves to spread the fundraising appeal outside the community, including a “first-ever” Opononi to Rawene relay swim contest to be held on February 1, 2001 and an appeal to those who “have whanau in our region, or have ever enjoyed a holiday in the Hokianga”.

The financial contribution of communities to their health infrastructure and services is formalised in an interesting way in parts of the United States. Ormond, Wallin and Goldenson (2000), in their study of the health services of 13 rural counties, report that in many cases there is support for the county hospital in the form of some kind of local government instituted tax. Of the 16 hospitals visited by these researchers, seven received local tax subsidies, usually in the form of a sales tax. A further four were “hospital district facilities with taxing authority”, receiving funds usually from a property tax. Ormond, Wallin and Goldenson note that hospitals use such locally provided funds to “reduce debt, make capital expenditures, and offset operating losses, including the costs of charity care”.

## **The Community as “Empowered Consumers”**

Perhaps the most commonly written-about aspect of community involvement in rural health services, or at least what many writers seem to mean when they talk about community involvement, is the “involvement”, or “participation” of the community in determining their health needs and the nature of their health services.

Most of the models of rural health service delivery discussed earlier in this review contain some kind of commitment to this aspect of community involvement. For instance:

- ❑ The MPC and MPS in Australia are mandated to establish what Humphreys, Mathews-Cowey and Rolley (1996) call a “shared vision” between consumers, providers and government. Evaluation of health and aged care needs is carried out in conjunction with the community, and the community is represented by elected members on administrative boards.
- ❑ The M/CHC in the U.S.A. must be administered by a board with representation from the communities they serve, and must carry out an annual needs assessment process.
- ❑ As has been seen, the institution of Community Oriented Primary Care involves a partnership-forming process with the community in question to identify crucial health care needs and gaps. In some cases, as noted above, COPC projects can turn into full-scale community development projects, with the community as the more active partner.

This tells us that there are at least broad gestures towards involving the community in some way. However, we may wish to know more specifically how much influence, responsibility, and decision making power the community can or should have in the determination of its health services, and in what manner this can be achieved.

Shisana and Versfeld (1993) delineate a number of interpretations of what they choose to call “community participation”.

**1. Contribution to predetermined programmes**

The community may be encouraged to assist financially or in kind in the provision of physical facilities. This has already been discussed in the above section on community fundraising. Most authors seem to consider community involvement to be something more substantive than this.

**2. Representation in organisational structures**

The community is represented by elected or appointed members of a health council or committee, which has input in to the health service planning process for the area.

**3. Decision making and self-determination (“Empowerment”)**

The community is involved at every step in identifying and prioritising health needs, discussing and helping to implement possible solutions, and monitoring and evaluating outcomes.

One example of the second type of involvement is described by Glover (National Rural Health Conference, 1997), who reports on the establishment of a “customer council” in the south-eastern coastal area of Western Australia. The role of the Esperance Customer Council is as an “adjunct to the [Esperance] Board in terms of providing support for evaluation and planning purpose [sic] in a consumer context”. Glover notes that while the Board

... exist[s] to carry out their function in the interests of the community...it is not part of a Board’s role to represent the community as such. A Customer Council however could be an advocate of the Board [sic] in representing the community on a particular issue i.e. allocation of doctor provider numbers.

So the customer council was envisaged as a kind of channel of concerns from the community to the administrative body. It was agreed at the first meeting (in 1995) that its membership should largely comprise representatives of existing groups such as

... Home and Community Care, Nursing Home, Career Contact, Arthritis Foundation, Red Cross, Diabetes Foundation, Religious Groups, Schools, Service Clubs, Ladies Auxiliary, Senior Citizens etc.

The achievements of the Customer Council listed by Glover include the development of a Consumer Service Charter to outline the process involved in putting forward a consumer point of view, assistance with the evaluation of results from Community Needs and Satisfaction Surveys and the development of a three-year strategic plan to “address consumers [sic] needs”.

Merkens and Emmerson (1995) describe community participation of the more active, “empowered” kind in north Wellington, a rural county in south-west Ontario. Among the initiatives undertaken by community members were the North Wellington Advisory Group, the Palliative Care Support Group, and the Community-Based Program Advisory Committee.

The NWAG was begun by local parents, concerned about lack of access to services from the Children's Aid Society (CAS), located in the south part of the county. They enlisted support from teachers and a school principal, and were able to get the CAS to expand services and provide local offices. Their success was such that the group came to be recognised as an advisory body to the CAS. They went on to advocate for better mental health services in the area, encouraged by the growth of at-risk low-income families moving into the area in search of lower living costs.

The Palliative Care Support Group arose when a member of the local seniors council collaborated with the CEO of the local hospital to begin a programme to link all providers of palliative care in the area. A steering committee was formed, and the result was a coordinated programme to provide support for the dying, with collaboration between the different providers and trained volunteers.

The Community-Based Program Advisory Committee was formed through a need to create better communication and coordination between the various community services operating out of the local hospital. According to Merkens and Emmerson,

The committee meets quarterly to strengthen communication among the organisations, looking at gaps in services, scrutinising duplication, promoting cooperation and exploring possibilities for integrating and improving overall quality.

However, the process of community involvement is not necessarily unproblematic. Shisana and Versfeld point out that community participation can be a political matter, and involves a process of power sharing:

Service organisations have financial, intellectual and political power; community organisations also possess political power which may be used to oppose health programmes introduced by the health authorities. Misuse of power by both parties may be detrimental to health programmes.

There is the potential, therefore, for community participation to result in conflict. The possibility of power struggles rather than power sharing is heightened by what emerges in the literature as a largely unacknowledged conflict of three separate agendas:

- ❑ As already noted, there is a near universal acknowledgement that communities should be involved as fully as possible in determining the nature of their health services. It is considered that this involvement should be meaningful, rather than mere token consultation.
- ❑ There is consensus that primary health care, sickness prevention and health promotion should be the foundation of modern health services. This is partly a recognition of the move away from the "biomedical model" of health care to a holistic view of the determinants of health, and partly due to governments' and other payers' determination to "contain" health care costs as medical care becomes more specialised and technically advanced. It is widely stated that there should be a move away from "institutional" to "community-based" care.
- ❑ Rural communities demand primarily of health services that they offer security. The health service components they value most highly are doctors, hospitals and pharmaceuticals. (Humphreys and Weinand 1991). An inpatient hospital is seen as the foundation stone of the community, and communities will fight tooth and nail to prevent its loss, even if it is under-utilised.

The strong commitment of many writers on rural health services to both of the first two agendas perhaps masks a tacit belief that communities will need to be “educated” about which mix of services is really best for them. This is rarely stated, because the prevailing philosophy stresses avoidance of paternalism. The occasional less tactful politician has let this slip, however. For instance, in 1993 Saskatchewan’s then health minister, Louise Simard, stated:

Health care has moved beyond small rural hospitals...we’re going to have to educate people before they get that point. (James, 1999; quotation from Dokosch, B. 1 October 1993 “Anger mounts”. *Regina Leader Post*, p.A3)

Cuts to the funding of small rural hospitals by the Saskatchewan government pre-empted the full transition to regional health care districts, and the election of board members for these districts. The government had been promoting a “wellness” model of health care, and promised communities that the new regional districts would give them the “power to make changes” (James, 1999). However, as noted by James, “Nine months later it appeared that *wellness* was a code word for cutbacks” (author’s italics).

So at times community participation is transformed into community *resistance*. Communities’ opposition to hospital closures has been well documented in New Zealand, Australia and Canada. There has been a suspicion that governments’ talk of so-called health reforms has been a smokescreen for cutting costs. In some cases communities have been successful in their resistance. In Saskatchewan, many of the hospitals were able to delay closure or at least maintain 24-hour emergency care. In New Zealand, Barnett and Barnett (submitted for publication) note that some communities:

... rejected the safety argument and in several cases were able to persuade the funder to support the continuation of maternity services when this could be achieved at lower cost, suggesting that the safety argument was something of a ‘red herring’ (authors’ quotation marks), with cost the real issue.

However, Wainer and Strasser’s (1996) study of six Victorian towns’ experience of change suggests that community flexibility more than resistance was an important feature in keeping the services they saw as most important. While “there was no formula of consultation with the community which worked to ensure an acceptable outcome”, the towns which “volunteered” for change came out of the change process better, in some cases with expanded services. Wainer and Strasser note that:

The towns which volunteered for change managed to involve their communities more in problem solving than resistance.

By contrast, the other towns exhausted their energies on resisting change, and then were forced to change anyway.

The obscuring of the conflict of agendas and the reality of power relations may help explain why relations between communities and health authorities have at times been traumatic and dysfunctional in New Zealand, Australia and Canada. To some, it has seemed that those in power pay lip service to the notion of community consultation, but continue regardless with a fixed agenda. This was one perception to emerge from discussion at the New Zealand Symposium on the Delivery of Health Services to Smaller Communities in 1995. One participant commented that:

... you can get situations which have occurred where consultation has been undertaken and those people who are perceived to hold the power return and say, 'Thank you very much, we've heard what you said, but I'm sorry, we just can't do that'. And this is where the stumbling block has come.

Other problematic features lurk beneath the surface of the idea that communities can and should be involved in determining their health service needs. While many authors are enthusiastic about this making community involvement more meaningful and participatory, others sound notes of qualification.

Hamilton-Smith (1975) argues that there are several dimensions to community need, whether it be in the context of health services or recreational facilities. He identifies:

*Normative need:* Some guiding standard set as a baseline by authorities; for example, that every community have access to accident and emergency services.

*Felt need:* The extent to which people indicate they want a specific service (if they are asked about it in a survey, for example).

*Expressed need:* The extent to which people use or actively demand a service.

*Comparative need:* The level to which a community's level of service provision differs from other comparable communities.

Hamilton-Smith also notes the importance of "social indicators" in determining need. They might be considered especially important in health, with the attention given to outcome measurements in recent times. Hamilton-Smith argues that social indicators "are but one kind of normative statement about need".

So, while authorities might quite reasonably be expected to base provision of services on need, community surveys and consultation processes may only capture one or two dimensions of need – "felt" or "expressed" need.

A consequence of this is brought out in a paper given by Anderson, Tyson and Clatworthy (National Rural Health Conference, 1997), who describe a community needs assessment carried out in the remote community of Goodoga. The recommendations from the needs assessment (survey) included: more visiting specialists/services, radiography, better transport, 24 hour service at the hospital, more preventive health care, a palliative care service, early childhood services, provision of locum doctor, dietitian/nutrition service, better dental service, more diabetic services, ambulance service, local chemist, and more staff/services locally. In other words, more of everything. Anderson and Tyson comment that:

The reality of maintaining the twenty four hour inpatient service while achieving a more PHC focused service simultaneously, would require an enormous injection of funding which is not available in the current economic climate.

The needs assessment thus did not seem to be optimally helpful in assessing real community need and identifying priorities.

One of the principal problems with felt or expressed need though, is that some people are more likely than others to express their (or what they perceive as the community's) needs. Shisana and Versfeld (1993) caution against this, commenting:

... it is essential to identify true community leaders, i.e. those selected by community members to represent them, rather than individuals who have appointed themselves as spokespersons for the community.

Even this may not be enough to ensure that community need is appropriately expressed. Shisana and Versfeld go on to say that:

Subgroups within the broader community with special needs, such as disabled people and their families, *may need to be mobilised* in order to ensure that their interests are represented (reviewer's italics).

Here, as well as at other places in the literature, there is the suggestion that, what communities *say* they need may not be what they *really* need. This is apparent in Malcolm and Wright's (1996) description of their experience as consultants for the community of Waimate. Malcolm and Wright declare that:

Some rural communities tend to focus their concerns more on buildings, perhaps as symbols of past health services, rather than on their future needs. Such needs include primary-care [sic] services which are much more frequently accessed than hospital services.

The above comments are echoed in discussion of Geoff Fougere's presentation at the National Symposium on the Delivery of Health Services to Smaller Communities (1995). Fougere himself remarks that area health boards were "seen as captured by narrow, *if community based* interests" (reviewer's emphasis). And in ensuing discussion, one participant comments: "There's a certain tension at this point, I accept that. But I don't think the answer is to go back to elected representation".

There emerges something of a consensus, almost never stated openly, that in order for community need to be truly determined and genuine community representation to occur, established community traditions, beliefs, and hierarchies may need to be subverted or bypassed.

This position appears most candidly in a paper given by Woolley (National Rural Health Conference, 1997), who reports on the establishment of an MPS service in the community of Boyup Brook, Western Australia. Prior to the establishment of the MPS, a needs survey was carried out. Although it only had a 17% response rate, the results were similar to Goodoga: the community wanted more of everything. The highest priorities, however, were GP services, accident and emergency services, and inpatient hospital services.

Woolley describes the efforts of the health service to create a balance between "what we (the community) want", and the professional and financial limitations on the service. She reports on a series of controversies over the provision of obstetrics, surgery and aged care, with certain sections of the community having been very vocal on these issues. She laments that:

Unfortunately, activities such as increased health promotion opportunities, allied health services, and increased Home and Community Care type services ... are not always seen to be as important as providing increased acute inpatient and obstetric services, yet in reality they reach a much wider population, and ultimately result in financial saving, to say nothing of improved quality of life.

Woolley points the finger at people she identifies as falling into Shisana and Versfeld's "self-appointed spokesperson" category, declaring "It goes without saying that the people making these claims (about aged care) do not have a beloved elderly parent who is at risk of being admitted". Ultimately, she points out:

The important thing is to listen to the silent majority as well as the vocal minority. Then you realise that you are in fact providing what the community wants as well as what the community needs.

It has not been the intention in this review to dwell overly on problems with community involvement. Clearly, the increased emphasis placed on community involvement has engendered more inclusive and locally specific structures of decision-making relating to health service provision, as evidenced by the initial two examples. Nor has it been meant to cast doubt on the possibility of working through the difficulties that do arise. However, it has been considered valuable to highlight some of the underlying conflicts and hidden agendas. There has been considerable suspicion that governments have used the rhetoric of community involvement to shift not necessarily desired responsibility for health care onto communities in order to cut costs. As James (1999) points out:

Community-based care policies also assume there is someone available to take care of the patient in their own home. Study after study has demonstrated that community care is another way of saying 'care by women' (author's quotation marks).

Furthermore, it has been thought pertinent to point out that many of those who most advocate community participation envisage, often with beneficent motives, a "reengineering" of communities' values and beliefs to be fundamental to the process. It may sometimes be a long and winding road to the shared vision.

## **Taking Charge: Community Ownership and Control**

The concept of community involvement in determining the nature of their health services is taken to its logical conclusion when communities actually take over the running of the health services themselves. There is no clear point where community involvement becomes community control. For example, in the above case of New Germany, Nova Scotia (Robb, 1994), the community built and owns the medical centre, but the medical practitioners continue working out of these premises in the normal, fee-for-service way.

However, the environment of extreme *laissez-faire* which prevailed in New Zealand during the early to mid-1990s paved the way for unequivocal community control in the form of community trusts. As described above, community trusts, especially in the Otago/Southland region, were able to contract with the funding authority (the Southern RHA and subsequently the HFA) to receive funds for the provision of health services on behalf of the community. In many cases they were able to retain services at local hospitals, which had been threatened with closure.

As already noted in the discussion of the community trust model, certain features were particularly correlated with the success of the trust. These included leadership and involvement by people experienced in and knowledgeable of contracting and business practice, and the support and involvement of local doctors, nurses or other health professionals (Barnett and Barnett, submitted for publication).

Another tactic which made community responsibility for providing their own health services more acceptable was to create two separate organisations, one to hold the assets on behalf of the community, and one to be responsible for contracting with the funder and providing the services. This spread not only the risk, but also the burden of personal responsibility and work input across two different boards. Pioneered in Lawrence, this model has since been developed by other trusts in the Otago/Southland region. (Barnett and Barnett, submitted for publication).

While the responsibility and time commitments have made community control a “two-edged sword”, Barnett and Barnett report that there is “no shortage of nominees” for elected board positions. A typical board structure is illustrated by that of Clutha Health First. Clutha Health Incorporated, which is the owner of the physical facilities, has a ten-person board. Five members are elected directly by the community. Of the remaining five appointees, three are elected by facility staff, while there is one representative from the Clutha District Council, and one from the Ministry of Health (Clutha Health First 2000). At the time of the 2000 annual report, the Ministry of Health representative was yet to be appointed. Clutha Health Company Limited, which is responsible for delivering the services, is administered by a five-person board appointed by the board of Clutha Health Inc.

One may speculate that there are other general reasons for the success of community trusts in the Otago/Southland region. South/Central Otago and Eastern Southland are relatively ethnically and culturally homogenous. The communities are well defined spatially by the townships and their hinterlands, and their populations are relatively stable seasonally. As noted in Barnett and Barnett’s study, the communities have been able to take advantage of the business and organisational acumen of local farmers, and especially in some towns (Lawrence, for example) have been greatly aided by the commitment of local health professionals.

The Hokianga offers perhaps as sharp a cultural contrast with Eastern Southland as one could reasonably expect in New Zealand. Nevertheless, it has also been possible here to present a “united front” and accept local responsibility for the provision of integrated health services. According to the Hokianga trust web site, 70% of the population in the area claim Maori descent. In addition:

...many of the Pakeha residents are descended from early settlers in the area. Land alienation has been minimal and there is a spirit of “one people” in Maori-Pakeha relationships. (Hokianga Health Enterprise Trust web site.)

As described above, the Hokianga is also characterised by general unemployment, poverty and genuine isolation. Tourism is not well developed and the area is well away from the main north-south route. Forestry, the major (legally recognised) profitable industry is operated from outside the area.

There are, therefore, well-defined needs that are experienced by the population as a whole, and a general lack of competing voices. This has long been recognised by the Hokianga’s Special Area designation, and may facilitate the community’s active role in health service provision.

One wonders whether the community trust model would work so well in areas where communities are neither homogenous nor well defined. Some comments from the National Symposium on the Delivery of Health Services to Smaller Communities (1995) cast an interesting light on this question:

I am committed to a Tainui Health development approach and I use “Tainui” quite deliberately. It is my own and my organisation’s community of interest – it is not Huntly or Hamilton or Auckland, it is Tainui – iwi/hapu/marae/whanau and if we are able to provide services which other people find attractive and acceptable that is a bonus. (Taitimu Maipi, p.25 ).

The issue I want to raise is Maori aspiration. We have concerns about the establishment of GP practices that have been set up in our area. How do we attain tino rangatiratanga if we are having organisations such as this imposed on us? ... Within our area, we are also very suspicious, we feel really threatened by GP practices that are set up within our area, supported by Government funding, at the expense of our iwi development. (Discussion, p.38).

As mentioned above, one greatly anticipates more studies of community trusts in New Zealand, of the factors involved in their development, and of their strategies, successes and challenges.

While ownership of physical facilities and budget-holding for services have here been considered unequivocal signs of community control, Riley and Weston (National Rural Health Conference, Perth 1997) argue for a much less legalistic construal of the concept of “control”. Discussing the delivery of health services to Aboriginal communities in the far west of New South Wales, Riley and Weston are critical of the idea that mere devolution of managerial responsibility or the capacity to “sign the cheques” constitutes community control. Rather, they maintain that communities are more truly empowered by actively enabling the expertise to make informed decisions about the nature and direction of their health services.

The mechanism for community participation described by Riley and Weston involved the establishment of a Health Advisory Council (HAC) in each community, with the councils acting as conduits between the communities and the region-wide Peak Health Council. This appears to be similar to the system of customer councils described by Glover (National Rural Health Conference 1997, see above). However, Riley and Weston claim that the usefulness of such a system has been severely limited when “the community had access to very limited information and was only involved in accepting or rejecting a specific proposal from an executive or manager of a service”.

For genuine community control, maintain Riley and Weston:

The need to ensure communities received information about their health, resources available and trends or developments in the broader health system was considered an essential prerequisite ...

This aspect of community participation, they claim, is more important than the gesture of devolving financial or managerial authority. While “In some quarters, control is viewed as signing the cheques and employing the staff”, Riley and Weston point out that:

... the capacity to sign cheques reflects a limited view of control, with those...who determine the priorities of the organisation and in turn the policies which determine what cheques will be signed for, hold[ing] control.

Similarly, they argue, a straightforward handing over of the poisoned chalice of managerial responsibility does not equate with real community control:

Over the past two decades, there has been an increasing trend to devolve management of Aboriginal Services to Aboriginal Organisations. Unfortunately, there has rarely been an attempt to provide training...and staff to readily meet the challenge that such devolution presents...

It is necessary to ensure that the appropriate “consultative, organisational, management, community development and service delivery” expertise is available. Without this:

... it is all too often the case that community consultation, community development and organisation development fall by the wayside as the organisation struggles to provide a service.

Strategies that Riley and Weston report have been taken to help develop such expertise within the community include the provision of a public health officer to work with each HAC, “accessing data as requested and providing it in a format that can be easily understood and meets the needs of the HACs”. Experts have been provided whenever the HAC requires information about a specialised issue. Funding has also been provided to establish a two-year associate diploma course for Aboriginal Health workers, with the aim of enabling at least some health care provision to come from within the community. These steps are part of “ongoing training and a commitment of significant and ongoing support to a community driven structure ... by which the community can control services”.

Riley and Weston’s argument might be thrown into interesting relief by putting it alongside Shisana and Versfeld’s analysis (1993, see above) of community participation as involving power relations. As argued by these authors, health service organisations and funders hold political, financial and intellectual power. It may not be unreasonable to suggest that community participation is facilitated by these organisations *giving up* some of their power. Most incisive in Riley and Weston’s argument is the contention that not only financial but also *intellectual* power should be ceded by health services and governments. A “sink or swim” handing over of the financial and managerial reins is inadequate. Only when communities are provided with the knowledge to make informed choices will they be truly empowered.

This certainly rings true with some of the comments made in discussion at the National Symposium on the Delivery of Health Services to Smaller Communities (1995), especially in response to Geoff Fougere’s floating of the concept of “deliberative trust”. Remarks included:

So how do we nurture ‘deliberative trust’ when there is an imbalance of power between the people you’re trying to create the trust between? Because if I see the person I’m negotiating with has far more power than me, I’m going to have to maintain something resembling resistance, not be literally overpowered.

The succeeding speaker commented:

The power of information, the fact that we, the community, and the local health services provider had good information about costs; and about a lack of equity in the way that funding has been flowing to our people, was really crucial.

For the final word on community involvement, we might return once again to the community trusts of southern New Zealand. Here, where communities took on the double-edged sword of facility ownership and budget-holding and were also fortunate enough to have knowledgeable and experienced professionals involved, the three-way impasse of agendas described above was quickly dissolved. Despite a “strong initial view that services should remain the same” (Barnett and Barnett, submitted for publication), this changed as trust boards undertook research. Without the need to protect their hospital against outside threat, community trusts were able to implement innovative models of integrated service provision, to the extent that some trusts in fact had to “educate” the funding RHA about modern views on primary health care. (Barnett and Barnett, submitted for publication.)

## CONCLUSIONS

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The challenges of rural health care have been revealed to be twofold. Firstly, to ensure that rural people continue to have local access to sustainable, quality health services. Secondly, to actually improve the health of rural communities and reduce the inequities in health outcomes and quality of life experienced by rural people.

As noted at the outset of this review, it is difficult to ascertain whether models which allow the retention of local services actually contribute in a direct way to improvements in the health of rural communities. However, as has been seen throughout this review, the availability of local services contributes to the wider social and economic wellbeing of communities, and hence to their sustainability. Loss of services serves to perpetuate the processes of outmigration and economic downturn, which in turn have a negative effect on the health of the community.

The various models of integration of rural health services certainly seem promising, in that they offer hope for the retention of local services in small communities. The alternative would appear to involve a dwindling number of overworked practitioners facing worsening problems of isolation and lack of support, and community services characterised by gaps and overlaps.

In Australia, both the national and state governments have demonstrated commitment to rural health care by setting priorities, developing frameworks, and providing funding for the establishment of new service delivery models in rural areas. The challenges have been to get communities, governments, and public and private health service providers to collaborate effectively, and to forge a common vision of priorities for rural health care.

In New Zealand, some rural communities have been successful in maintaining local access to a range of services through integration and innovative arrangements. Strong leadership and committed local professionals have aided the retention of local facilities and led in some cases to improved community satisfaction. However, these successes have been inconsistent, and appear to have been achieved despite, rather than because of, the level of interest in rural health from government and large urban institutions.

In the United States, innovative models such as Community Health Centres have suffered from being stopgap, for-the-poor programmes. They have provided a safety net, and have been successful in addressing certain specific health problems such as infant mortality. However they have operated in an environment which has generally forced them to do the minimum necessary, rather than the maximum possible. The commercial, competitive health care industry in the U.S. has become increasingly stressful for rural providers.

The various reconfigurations of rural hospitals offer interesting parallels with those tried in Australia and New Zealand, as do attempts to set standards and conditions under which they are subsidised. These models appear to have worked best in frontier areas, and where there are no other options. In general, however, rural hospitals and their communities have looked for more flexibility and sensitivity to local circumstances than is contained in the standards set by federal and state governments.

Rural health networks have received much attention in the literature from the U.S., and in theory demonstrate great potential for coordinating services, achieving economies of scale and providing comprehensive care to a population. Their organisational development will continue to be of interest, as will the experiences of networks implementing managed care and other alternative funding models.

The successful development of all the discussed models is affected by other factors. The need for health professionals, especially nurses, to operate in multi-skilled roles is a recurring feature of the literature on integrated rural health services. However, for this to be possible, there needs to be commitment to the appropriate training, support and remuneration of rural nurses in their expanded roles.

The recruitment and retention of physicians and other professionals is also vital. A considerable amount of evidence has emerged in this review that improved service models can themselves aid recruitment and retention by providing the facilities, support and professional environment which help make rural practice sustainable. On the other hand, successful service delivery depends on having the right people delivering the services. So it appears that there is a symbiotic relationship between improvement in the areas of service delivery and recruitment and retention.

Attempts to actually improve the health of rural communities have focused on extending primary health care services to those who are not accessing them in their traditional format, and on identifying health problems at a community level in order to take a more preventive, pro-active approach to health care. These approaches have most often appeared as pilot projects or initiatives of a limited time period, and have been implemented only where interest, personnel, equipment and funding have been serendipitously available. Sustained attempts at outreach and community-oriented primary care have been hampered by difficulties in maintaining these above factors.

There does seem to be a potential conundrum for governments and other funders in financing new models of service delivery. On the one hand, there is a desire for evidence of efficacy before resources are committed. On the other hand, it may require a substantial amount of time and the commitment of sustained funding before improved outcomes can be achieved.

The entry of academic institutions into rural health appears to be a key to improvements in all of the discussed areas. Respectability of rural practice as a career option seems to be a missing link, and the development of distinct career pathways in rural health could be a possible balance to the increasing specialisation and technologisation of medicine, which has threatened to make rural practitioners ever-poorer country cousins. The establishment of university departments of rural health in Australia and Area Health Education Centres in the United States demonstrates some commitment towards the decentralisation of health care training.

Academic interest in rural health could also promote meaningful research into rural health problems, and facilitate health improvement in rural areas. The modern vision of holistic health care and health improvement is often spoken of, but its implementation is difficult without the development of the appropriate expertise, as demonstrated in the pilots of community-oriented primary care discussed in this review. Rural communities, with their distinct populations and environments appeal as a training ground for specialists in holistic health, and as research laboratories in a positive sense.

The literature on community involvement reveals at times unacknowledged complexities. "The community" is a concept about as plausible as "the family". Different communities have different social structures, values and needs. Communities can experience both external and internal conflicts. Where communities have become successfully involved in their health care delivery system, this has sometimes been with the assistance of an outside facilitating agent committed to sustainable community development, as in projects undertaken in the U.S. and Australia. At other times, communities have undertaken initiatives themselves, and have been fortunate enough to draw on the experience, expertise and leadership of local professionals.

In numerous cases, small communities have demonstrated the resourcefulness and strength for which they are renowned. However, while it has proved unwise to underestimate these qualities, neither should they be taken for granted. Simply giving communities more control of health services has not been shown to be an easy solution. Assisting communities with expertise and information as well as encouraging genuine representation of the population is not patronising, but rather demonstrates commitment to genuine community involvement.

In terms of structures for community involvement, enabling community input at both the local and regional level could aid planning and feedback, and better inform the complex process of health care priority setting. The system whereby local customer councils interact with a regional board is mentioned in the literature from Australia, has been tried in New Zealand before, and is making a comeback. Developments are awaited with interest.

Ultimately, health services by themselves cannot produce sustainable, healthy communities. This is demonstrated by the case of some of the most innovative models, such as the U.S. Community Health Centres and the integrated services in the Hokianga. No matter the excellence of the actual services provided, they are faced with the impossible task of improving the health of communities when the determinants of health such as education, employment and poverty remain unchanged.

Nevertheless, health services remain perhaps the most vital part of maintaining strong rural communities. The idea that rural communities are the repositories of a nation's traditional values and lifestyles has long been held in some parts of the world, and the concept of sustainable rural development is slowly gaining wider acceptance. Commitment to effective, sustainable health services will be a necessary part of such development. On their part, rural communities may need to be more flexible and adaptable than has perhaps traditionally been the case in order to benefit from new developments in service delivery.

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