



**THE FEASIBILITY OF THE ROLE OF THE ALLIED HEALTH
ASSISTANT IN THE RURAL HEALTH DELIVERY MODEL**

for

**The Ministry of Health
(Rural Innovation Funding 2006/07)**

Author: Martin Chadwick
Contact : Robin Steed

New Zealand Institute of Rural Health
9 Anzac Street
Cambridge

This report was funded by the Ministry of Health Rural Innovation fund. The report content is the intellectual property of the Ministry of Health. All use of material must acknowledge MOH funding and intellectual property ownership. November 2007.

Contents

Executive Summary	3
Glossary of Abbreviations Used.....	5
1.0 Introduction.....	6
2.0 Project Activities.....	7
2.1 Summary of the Literature Review.....	7
2.1.1 Applying The Literature To The Rural Health Delivery Model	7
2.2 Summary of the Interviews	8
2.2.1 Applying The Themes From The Interviews To The Rural Health Delivery Model	8
3.0 Service Model Discussion	9
3.1 Service Model Options.....	9
3.1.1 The Assistant Working Within a Profession.....	9
3.1.2 The Assistant Working Across Professions	10
3.1.3 Service Model Summary In The Rural Health Delivery Model.....	12
3.2 Funding Options	12
3.2.1 Fulfilling Current Practice	12
3.2.2 Fulfilling a Greater Scope of an AH Professionals Practice.....	13
3.2.3 Applying Funding Options to the Rural Health Delivery Model.....	14
3.3 Scope of Practice for the Allied Health Assistant.....	14
3.3.1 Delegation	15
3.3.2 Supervision.....	15
3.3.3 Professional Oversight	15
3.3.4 Support Tasks	15
3.3.5 Prescriptive Intervention	16
3.3.6 Assistant's Responsibilities as an Employee.....	16
3.3.7 AH Professionals Responsibilities as an Employer	16
3.3.8 Scope of Practice of the Allied Health Assistant in the Rural Health Delivery Model	16
4.0 Recommendation for a Rural Delivery Model	17
4.1 Case Study: Community Based AH Services in North-South DHB.....	18
4.1.1 Delivery Model Funding.....	20
5.0 Telerehabilitation Pilot	21
Project References	25
Appendix 1: Literature Review	27
Appendix 2: Interviews Conducted.....	31
Appendix 3: Calculation of Table 1	36
Appendix 4: Pilot Project References.....	37

Executive Summary

Healthcare within New Zealand is under increasing pressure to deliver services to the population, and Allied Health (AH) as a professional grouping is not excluded from this pressure, which is often more acute in the rural setting. To examine possible alternatives to the current situation from an AH perspective this project was undertaken to explore the feasibility of the role of the AH assistant in the rural health delivery model.

A literature review undertaken highlighted the changing skill mix in delivering healthcare within the broader constructs of healthcare as well as those specific to AH. Common themes emerged, identifying areas that need to be clarified with the implementation of service models utilizing assistants. Themes included delegation of tasks, supervision of the assistant and professional oversight. A further theme emerged identifying the need of AH professional staff to be adequately prepared for any change in skill mix.

Interviews were conducted focusing on the geographic areas represented by the District Health Boards (DHBs) of Otago, Taranaki, Waikato and West Coast. Interviewees included representatives of AH professionals, AH educators, AH professional societies/associations, AH funders, PHOs, AH registering bodies and AH managers. Themes emerging from the interviews confirmed the themes of the literature review, as well as the concepts of "unburdening" the AH professionals, and allowing the AH professionals to fulfil a greater scope of practice.

Funding options for the AH assistant have been examined, focusing on using assistants to enhance the ability to provide services within the current funding arrangement. Alternate funding arrangements were also examined, most notably working more closely with the primary sector, to allow a fuller scope of practice of the AH professions to be realized.

A scope of practice for the AH assistant is explored which focuses on the ability of the assistant to provide supportive tasks for the AH professional, and to provide the prescriptive portions of care to the patient. Concepts of delegation, supervision and professional oversight are also reviewed.

Two service model options are proposed:

- 1. The Assistant Working Within a Profession**

This model is one whereby the assistant is employed to assist within a profession, and would carry a title to reflect this (ie, physiotherapy assistant, dietetic assistant).

- 2. The Assistant Working Across Professions**

This model reflects where the assistant would be employed to work across the allied health professionals and would have a title to reflect this, ie allied health assistant.

The advantages and disadvantages of each model are explored and the recommendation for the rural health delivery model is for the assistant to assist and work across the allied health professions.

The final section of this report proposed a pilot to access efficiency gains utilising off the shelf technology by the assistant and the health professional to provide patient care.

Glossary of Abbreviations Used

Abbreviation	Definition
AAOT	Australian Association of Occupational Therapists
ACC	Accident Compensation Corporation
AH	Allied Health
APTA	American Physical Therapy Association
CAD	Coronary Artery Disease
CSP	Chartered Society of Physiotherapists
DHB	District Health Board
DTA	Dietetic Assistant
FTE	Full Time Equivalent
GP	General Practitioner
HPCAA	Health Practitioner Competency and Assurance Act
MoH	Ministry of Health
NPC	Non Physician Clinician
NZIRH	New Zealand Institute of Rural Health
NZSP	New Zealand Society of Physiotherapists
OT	Occupational Therapist
OTA	Occupational Therapist Assistant
PALM's	Physiotherapy Advisors Leaders and Managers
PTA	Physiotherapist Assistant
PHO	Primary Healthcare Organisation
SLT	Speech Language Therapist
SLTA	Speech Language Therapist Assistant
SW	Social Work
SWA	Social Work Assistant

1.0 Introduction

As part of the agreement between the ministry of Health (MoH) and the New Zealand Institute of Rural Health (NZIRH), a project was undertaken over the first half of 2007 to examine the feasibility of the role of the Allied Health (AH) Assistant in the rural health delivery model. This project followed five distinct stages to fulfil the project requirements.

The initial stage set out to understand the context of this project, and why there is a need to examine a role for AH Assistants in the rural health delivery model. This was achieved by interviewing stakeholders and gaining insight with the following query:

Is the current level of services provided by AH in the rural environment appropriate?

The next stage was to gain insight into what is already occurring in the current environment to address the noted deficits. This was also achieved by interviewing stakeholders and gaining insight with the following query:

What is being done to address any perceived deficits?

After appreciating the why behind the project, and gaining understanding into what is currently occurring, the next stage was to appreciate possible future directions. This was achieved by interviewing stakeholders and gaining insight with the following query:

What could future service delivery look like to meet any deficits, either real or perceived?

Interpretation of the feedback gained was via a thematic analysis, as well as identifying frequency of themes between groups. This process has the aim of clarifying deficits in current service provision. This stage was further supported by undertaking a literature review of this subject. The final stage of this project was to distil recommendations from the interviews and the literature review, as well as to form a pilot framework for implementation.

Review of the literature and analysis of the interviews has revealed multiple terms that are in common use to describe the assistant (aide, assistant etc) and the registered AH professional. For the sake of clarity the term assistant will be used, and professional staff will be used to denote the AH professional.

2.0 Project Activities

2.1 Summary of the Literature Review

The literature reviewed supports that there is a shift in skill-mix in how health care is being provided in its broad sense, and that this shift is also occurring specific to the AH professions. To do so has the ability for the AH professions to be more efficient and to allow for a fuller scope of their respective practices to be realized. For this to be part of a more conscious strategy, success would be enhanced with attention to preparation of professional staff moving from a role of providing services to one where they are managing the services provided.

For the therapeutic relationship between the professional staff member and the assistant to succeed there needs to be in place appropriate guidance for delegation of tasks and in turn supervision of these tasks. To ensure that the assistant is performing tasks to an appropriate standard, accountability to a set of competency standards is recommended. To maintain provision of services to this level, support should be ongoing in the form of opportunities for training and up-skilling.

2.1.1 Applying The Literature To The Rural Health Delivery Model

The literature reinforces that it is appropriate to look at alternate skill mix when it comes to providing AH services. AH Staff need to be prepared for any changes and guidelines around delegation of tasks needs to be clear and well understood. Supervision within the rural context is an issue, with direct and personal supervision difficult to implement. Direct supervision would be achievable, but it would be more likely that general supervision would occur. This reinforces the need for clear and ongoing communication to occur between the AH professional and the assistant for the therapeutic partnership to be maximized. Establishing competencies for the assistant brings accountability to the role, which needs to be supported with ongoing training and education opportunities.

A full analysis of the literature is referenced in the Appendix 1.

2.2 Summary of the Interviews

Across the groups interviewed it emerged that the current situation is one where recruitment and retention of AH professionals is an ongoing concern that is influencing the ability of AH services to be offered. This has resulted in the perceived loss of scope of practice of many of the AH professionals due to the need to meet contractual requirements. The use of assistants within AH is common, most notably within the professions of Occupational Therapy and Physiotherapy. There is variability on how AH professionals are exposed to assistants during their training, and delegation is a skill that is not uniformly part of an AH professionals training. Currently training of assistants is on the job, with variability in ongoing training opportunities.

If an alternate model of service was to be examined whereby greater portions of prescriptive clinical care are provided by the assistant, there was agreement across the groups that consistency of training of the assistant needs to be implemented. Parallel to this was the recognition of the need for AH professionals to be prepared to be able to utilize the assistant in this way. Issues that were identified as needing clarifying included guidelines for delegation of care, supervision requirements of assistant staff, accountabilities between the AH professional and the assistant, and defining appropriate competence standards for the assistant.

For alternate models to be examined, the caveat offered from funders and managers was that it could not be more expensive than the current model, and it should allow for efficiencies in AH services. A desired outcome of an alternate model is that it would allow for a greater portion of the AH professionals scope of practice to be realized. To do so acknowledges that the current funding arrangement for AH services may need to be re-visited and address the concerns around the primary/secondary interface as well as where service should be situated i.e. within the provider arm, or in the primary sector.

2.2.1 Applying The Themes From The Interviews To The Rural Health Delivery Model

The themes around recruitment and retention of AH professional staff is as relevant or more so within the rural context and the associated service provision issues. The current models of assistant usage are primarily focused on providing inpatient services. This further highlights the need for the issues around delegation of care, supervision requirements of assistant staff, accountabilities between the AH professional and the assistant, and defining appropriate competence standards for the assistant, to be clarified for the use of assistant staff to succeed in the rural environment.

However, potential for efficiency gains exist, and an alternate model for service delivery has the very real benefit of examining how services could be offered where current service offerings are minimal or non-existent. Issues around the primary/secondary interface as well as where service should be situated i.e. within the provider arm, or in the primary sector, would need to be clarified for any alternate service model to succeed.

A full analysis of the interviews conducted is referenced in the Appendix 2.

3.0 Service Model Discussion

3.1 Service Model Options

When examining options as to how the assistant may be utilized, it must be emphasized that the assistant is a role that exists to do just this, to assist the AH professional. The role is one that exists as a therapeutic partnership between the AH professional and the assistant, and is not a substitution for the professional. Acknowledging this point provides a context for two service models to be explored.

3.1.1 The Assistant Working Within a Profession

This model is one whereby the assistant is employed to assist within a profession, and would carry a title to reflect this (i.e. physiotherapy assistant, dietetic assistant).

Advantages

To employ directly to assist an identified professional grouping allows for clear lines of delegation to be established between the AH professionals and the assistant. This then provides clear boundaries as to what does and does not fall within the role of the assistant. Competencies for the assistant could easily be established reflecting how they assist a given profession. Once these competencies are established, supervision and professional oversight could occur reflecting these competencies. This would also provide the basis for ongoing training of the assistant within the role.

Disadvantages

In the rural environment, employing an individual to fill a role specific to a profession has a very real risk of not enough work being generated to occupy the assistant. This is reflective of the sparse population that is encountered rurally, and that the ratio of AH professional staff relative to the population may not allow for a large enough generation of patients for both the AH professional and the assistant. Focusing within a profession also runs the risk of confusion on the part of the patient as to who is the professional and who is the assistant, which has already been identified as an issue within the literature. Combining these two points does raise concerns about the viability of a within profession role, as it is entirely conceivable that with a healthcare episode that a patient may have an encounter with over seven different health-care providers, which is further complicated when the assistant roles are added into the mix (see figure 1).

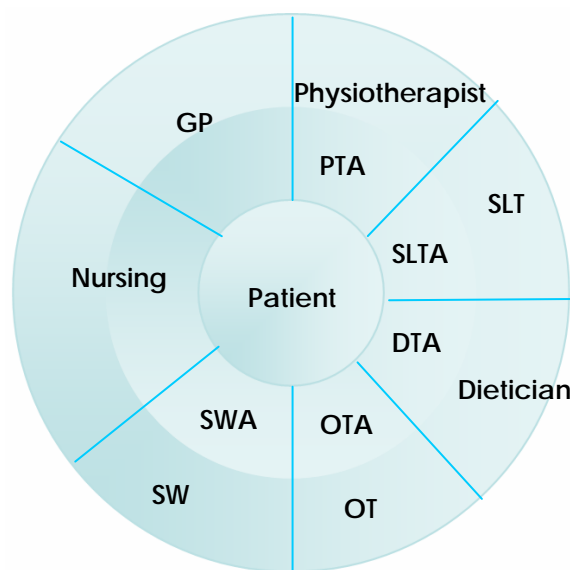


Figure 1. Components of patient care utilizing within profession assistants

Other potential risks of utilizing within profession roles are for limitation of the growth of the assistant. Given that there is a determination made on the part of the AH professional as to which components of care are prescriptive in nature and can be handed over to the assistant, there is an inherent degree of self limitation in that not all components of care are appropriate to be handed over to the assistant, which over time may become limiting for the career growth of the assistant.

3.1.2 The Assistant Working Across Professions

This model reflects where the assistant would be employed to work across the allied health professions and would have a title to reflect this i.e. allied health assistant.

Advantages

The literature review highlighted where the patient often was unable to distinguish between professional groupings, and often during a healthcare episode the patient will be exposed to multiple professional groupings, further confusing who is attempting to do what. By having in place an assistant who operates across several AH professional groupings, there is potential benefit in that this individual will become a constant in the care that is provided. Diagrammatically, this is represented in figure 2.

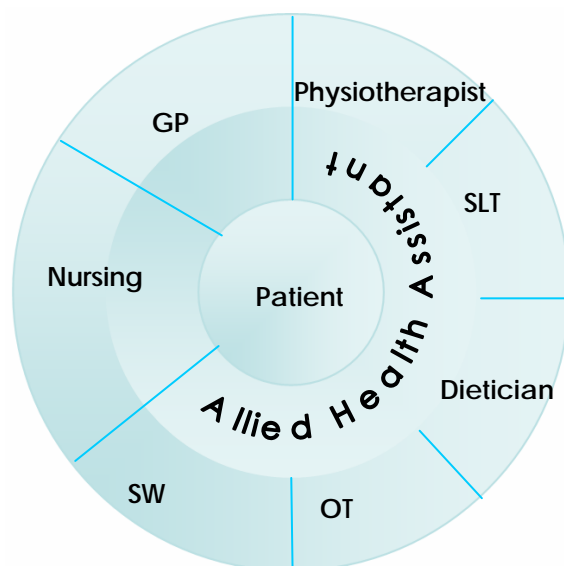


Figure 2. Components of patient care utilizing across profession assistants

Working across several professions would have the added benefit of increasing the likelihood of enough work being generated to fully utilize the assistant. The presence of an assistant working across several professions has the potential to enhance inter professional learning and collaboration as communication between the groups would need to be clear for benefit of the position to be fully realized. For the individual employed into this model of an assistant, there is greater scope for variety and ongoing learning within the role due to the diversity of professions that they would be working with.

Disadvantages

Due to the nature of this type of a role, there is potential for delegation of care issues to arise. This may result in situations where the assistant is providing ongoing portions of care for several AH professionals for a patient, and confusion may arise if there is not clarity in communicating what is seen as priority, and how the different aspects of care may need to be sequenced. There is also potential for blurring of professional boundaries to occur, whereby care is recommended from one professional that may normally fall under the remit of another professional, placing the assistant in a situation of conflict. This potential for confusion is a main detractor from the implementation of this type of role. Setting competencies for the assistant is also a potential issue, and while they can be set to be generic across the professions, there is potential for specifics to be lost that could be more easily addressed in a within profession model.

3.1.3 Service Model Summary In The Rural Health Delivery Model

Two models have been identified, the assistant working within a profession, and the assistant working across professions. Both carry potential benefits and risks. In the rural setting, the potential for the greatest benefit is to have the assistant working across professions. This would allow for fuller utilization of the assistant, and has the added benefit of being a role that requires the AH professions to work in a trans-disciplinary way. This would require coordination on the part of the AH professionals to ensure the AH assistants time is maximized during the patient contact, and would be further reinforced with appropriate levels of supervision needing to be put in place, which will require clear communication both within and across professions.

To manage any risks to the public all tasks would be conducted under the supervision of the AH professional and within their relevant registration.

3.2 Funding Options

Guidance for how AH assistant positions could be funded has been clearly stated during the interview process in that it cannot equate to a service model with a greater costing than what is already in place. However, from the DHB planning and funding perspective, the service specifications for AH are generally worded to allow for workforce variation. Taking this into consideration, there are two options that are to be presented for funding assistant positions, the first is fulfilling current practice, while the second is based on fulfilling a greater scope of an AH professionals practice.

3.2.1 Fulfilling Current Practice

Recruitment and retention of AH staff has been identified as an ongoing issue across the DHBs and across professions, with vacancies often going unfilled for extended periods of time. This places strain on the ability to provide services when operating within the current model where it is the AH professional who often is the sole provider of services. Acknowledging that there are prescriptive portions of clinical care, or appropriate support tasks that can be delegated and performed under supervision by the assistant provides the basis for alternate skill-mix models to be explored. To do so requires a shift in philosophy on the part of the AH professional, from being the provider of services to that of being a manager of the services provided. This philosophical shift does however allow for a re-examination of FTE allocation under current funding arrangements and to examine within the services provided, what is prescriptive or supportive in nature and can be provided by the assistant, and what is skilled in nature and requires the AH professional to be available. This philosophical shift also requires examination as to what level of supervision will be required of the AH professional to provide oversight to the assistant and the impact that this may have on the ability to provide skilled services.

While this funding option does provide an opportunity to unburden the AH professional of the prescriptive and supportive components of services provided it does require appropriate examination in striking a right balance between AH professionals and assistants, and keeping this balance within current resources. This ratio is likely to differ between professions, and would benefit from examination at an individual service level.

3.2.2 Fulfilling a Greater Scope of an AH Professionals Practice

The literature has highlighted the shift in medicine as to who is providing services with the rise of the Non-Physician Clinician (NPC). Taken within the context of an AH workforce that is becoming increasingly skilled, it matches with the feedback received from the interviews conducted that many of the AH professionals state that they are not fulfilling the full breadth of their scope of practice. To fulfil a greater scope of practice is inherently difficult to do within the current funding for services, which leads to examination of alternate funding options for AH.

A theme that emerged from the interview process was whether funding for AH services in the rural environment best lies in the primary or secondary sector, and if services should sit in the provider arm of a DHB, or in the primary sector. Benefit would be derived from continuing to situate the majority of AH services in the provider arm of the DHB to allow for the AH professional to access the support for compliance that is required under HPCAA and other like registration Acts. However, for new funding options for AH services it is most appropriate to examine opportunities in the primary sector.

Three areas have been identified as opportunities for services to be extended. First is to improve access to services, the second is to improve services to high need areas or to prevention of admission to secondary or tertiary services, and thirdly to assist in injury prevention. All are areas that AH as a grouping can contribute, and access to additional funding will allow for the more conscious addition of assistants to the skill mix to enhance the efficiency and effectiveness of AH services. The first two options require a closer relationship with PHOs to be nurtured to identify specific projects that can be implemented to benefit specific health populations. The third requires building relationships with ACC as they seek to find alignment with the Primary Healthcare Strategy. This is however limited insofar as ACC is legislatively bound to reimburse for services that are provided by a registered health professional only, which does not allow for the assistant to be utilized to provide any portions of clinical care.

All of the three identified areas are areas of need within the broader context of healthcare, and are areas that AH as a professional grouping can positively contribute. To be able to contribute requires a greater breadth of the AH professionals scope of practice to be fulfilled, but to do so requires greater efficiency of the AH professionals to provide services beyond what currently is being provided, which will be facilitated by greater utilization of assistants.

3.2.3 Applying Funding Options to the Rural Health Delivery Model

An examination of how the funding options may guide service delivery is explored in the Case Study under section 4.1.2.

3.3 Scope of Practice for the Allied Health Assistant

The scope of practice of the AH assistant can only be fully explored when the context of how AH services are, and could be provided. When an AH professional is providing care under the current model, services are provided by the AH professional in its entirety. When an AH assistant is engaged, there is a shift from providing care, to managing care. The components of care provided could roughly be divided into components that are skilled in nature and require the direct input of the AH professional, that which supports the treatment episode (i.e. administrative tasks), and that which is prescriptive in nature, that is, components of care that are necessary to the treatment episode but do not require the clinical reasoning skills which are core to the AH professions. Simplistically, the scope of practice of the assistant could be viewed as the combination of providing support tasks and providing the aspects of clinical care that are prescriptive in nature. Diagrammatically this is described in figure 3.

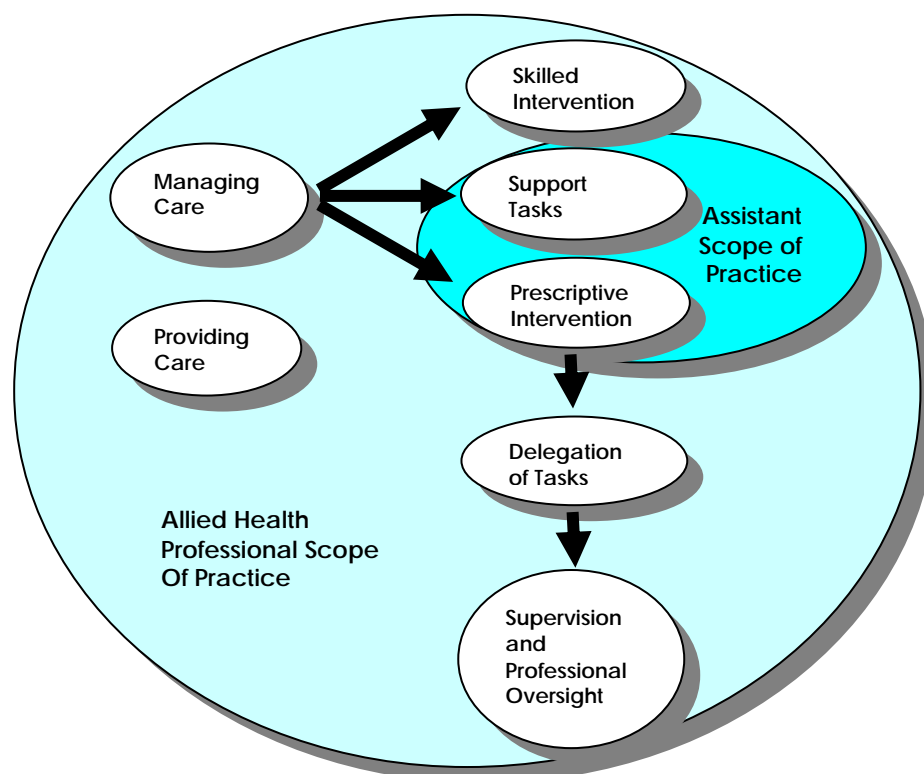


Figure 3. The Scopes of Practice of the AH professional and assistant

For clarity, and acknowledging the issues that have been raised in both the literature, and the interviews, components within the scopes of practice would benefit from further clarification.

3.3.1 Delegation

Specific delegation of tasks can only occur once a conscious decision has been made on the part of the AH professional as to what denotes prescriptive portions of care. To delegate implies that there is clear communication between the AH professional and the assistant as to what is being delegated, and within what parameters the care is being delegated. All AH professionals considered within this report fall under either HPCAA or the SW Registration Act, and during the interview process the practitioners were acutely aware of their responsibilities under these Acts, and they raised the points referenced around supervision and appropriate delegation, all of which occur within a professions relative Scope of Practice.

3.3.2 Supervision

Once tasks have been delegated, supervision needs to be in place. Supervision in the rural environment using the definitions offered by the APTA (general, direct, and direct and personal) highlights that general supervision is the only practicable expectation. This should not detract from the need for communication between the AH professional and the assistant to be frequent and planned. Given that the AH professional maintains overall responsibility for the care provided, it is a reasonable expectation that there is daily interaction between the AH professional and the assistant as to patient status and allowing for any needed adjustments to the plan of care.

3.3.3 Professional Oversight

Acknowledging that the assistant is providing the portion of care that is prescriptive in nature, the AH professional remains responsible for the totality of the care that is provided. As such, the onus remains on the AH professional to interact frequently with the assistant to determine the patients status and to adjust the plan of care as is necessary.

3.3.4 Support Tasks

These are the tasks that are not involved clinically with the patient, but still assist the clinical care episode to take place. This may include, but is not limited to administrative tasks, and preparation tasks. It is within this component that the greatest value may be found for the professions of Social Work, Dietetics, Speech Language Therapy and Psychology. Preparation for the clinical encounter in these professions is often time consuming, and may not necessarily be skilled in nature. To be able to utilize the assistant in this way would unburden these AH professionals.

3.3.5 Prescriptive Intervention

When the AH professional is managing the care being provided to the patient, this managing includes making a determination as to what components of clinical care do not necessitate clinical judgment and can be provided safely and effectively by the assistant. As the application of clinical judgment is core to the AH professions, an expectation would be that the assistant is reporting frequently to the AH professional as to the status of the patient. This will assist in making judgments for progressing any established plan of care. In no manner should the provision of the prescriptive portions of clinical care be seen as a substitute for the evaluative or assessment of a patient that is usually undertaken by the AH professional.

3.3.6 Assistant's Responsibilities as an Employee

The assistant's responsibilities reflect that the role is a therapeutic partnership and that the assistant must provide services under the auspices of delegation and supervision. Communication between the AH professional and the assistant is key, and the responsibility lies with the assistant to inform the AH professional of the patient status to allow for any necessary changes in the plan of care.

3.3.7 AH Professionals Responsibilities as an Employer

Reinforcing the therapeutic partnership requires that delegation of tasks is clear, and that appropriate supervision and professional oversight is in place. Both the literature and the interviews reinforced the need for training to be in place, for initiation of the assistant into the role, and ongoing training and skill development. Training also is warranted for the AH professionals where there has not been a strong representation of assistants previously, to allow for smooth transition to an alternate model of service delivery, and for this model to allow for services to be maximized.

3.3.8 Scope of Practice of the Allied Health Assistant in the Rural Health Delivery Model

The scope of practice of the AH assistant acknowledged in diagram 3, whereby the key components of service provision is providing the prescriptive portions of clinical care as well as carrying out supportive tasks. The following concepts have been described and are critical to the success of the therapeutic partnership between the AH professional(s) and the AH assistant and to manage risk to the patient:

- o Delegation
- o Supervision
- o Professional oversight

Further work on each of these key areas of practice would need to occur if a service model was being developed.

4.0 Recommendation for a Rural Delivery Model

Taking all discussion into consideration, as well as acknowledging the two service delivery models explored, it is recommended that the AH assistant be more fully integrated into the rural health delivery model, by operating to assist and work across the AH professions.

Using an AH assistant to assist in providing clinical care is dependant on a therapeutic partnership existing between the AH professional and the assistant. The role of the assistant is just that, to assist the AH professional in providing care, and at no time should the assistant be considered a substitute for the AH professional. For this partnership to succeed, there is a need on the part of the AH professional to have a focus on managing the care that is provided to the patient. This may differ from the traditional approach of many of the professions where their role is to be the sole provider of care, or working as sole providers of their professional care within a multidisciplinary group/team.

Another component of the therapeutic partnership that needs to be explored for successful implementation is the determination on the part of the AH professional as to what components of the care that is to be provided are prescriptive or supportive in nature versus skilled. This delineation allows for clarity as to what components are appropriate for the assistant to carry out (prescriptive/supportive) and can be done so safely and effectively. This delineation between skilled and prescriptive forms the basis of delegation that only portions of care that are prescriptive in nature can be delegated to the assistant. This delegation of tasks must include handover between the AH professional and the assistant, which should be both verbal and written to ensure appropriate guidance is given. This also provides accountability on the part of the assistant.

Once care has been initiated via the therapeutic partnership, supervision and professional oversight needs to be continual in nature. This should consist of scheduled handovers and debriefs between the AH professional and the assistant. It is during this continual interaction that progression of care can occur, and when it occurs needs to be recorded to establish new guidance for the assistant to follow.

The above recommendation takes into account many of the factors that are already in place in the rural environment. The AH professionals are often part of a team, whether this be working as part of the community based services provided by the provider arm of a District Health Board, or within a PHO organization. There is a central focus of these teams in providing services to the patient. To have in place assistant roles within these teams has the potential to improve and in turn increase the collaboration that occurs between the individual professions. While this already occurs with team meetings and multidisciplinary meetings, this may have the limiter of updating other team members of what is being provided within a profession. If however there is the ability to expand services by utilizing the assistant, this would place the AH professionals in a situation of needing to coordinate services more fully to be able to maximize the assistant. Therefore there are two potential benefits for a delivery model that utilizes the assistant to a greater extent. The first is increasing the efficiency of the AH professional by unburdening the prescriptive and supportive tasks of service provision, and the second with this unburdening allowing a greater

scope of the AH professional to be fulfilled. Highlighting these positive impacts can be explained via a case study.

4.1 Case Study: Community Based AH Services in North-South DHB

Setting: North-South DHB is a mid sized DHB with a relatively low population density outside of the urban settings. Within the provider arm of the DHB is a community based team consisting of AH professionals currently budgeted for 0.5 Dietician FTE, 3.0 Occupational Therapy FTE, 3.0 Physiotherapy FTE, 0.5 Speech Language Therapy FTE and 4.0 Social Work FTE. Recruitment issues have led to a situation whereby the Dietetic and SLT FTE are vacant and being covered on an ad hoc priority basis from the main hospital. OT is carrying a 1.0 FTE vacancy and Physiotherapy 1.5 FTE. SW is fully staffed.

Preparation: A review of the current situation highlights that it is not an uncommon one historically with the various professions dealing with vacancies to a greater or lesser extent. A workshop with the staff examines all options including the current skill mix. As part of an organized change process, the skill mix of the team was altered. This alteration recognized the need for significant and appropriate professional presence to be maintained with 0.5 FTE in Dietetics, Physiotherapy and SLT being left open, and 3.5 AH assistant roles being created.

In preparation for this change the AH professionals were taken through training to create a common understanding around delegation, supervision and professional oversight. The recruitment of the AH assistants provided a large talent pool to allow selection of the most suitable candidates.

Implementation: As part of the induction of the AH assistants the concepts of delegation, supervision and professional oversight were reviewed. All the assistants were engaged in an on the job modular training programme aimed to establish the standard skills required of an AH assistant.

While the AH professionals already had in place a multidisciplinary team meeting, there was a conscious change in the nature of the meeting to move from operating in a multidisciplinary way to a trans-disciplinary one whereby there is a greater

understanding of respective skills to allow for increased clarity of how to utilize the assistants across the teams professional groupings.

Outcome 1: While the integration of the AH assistants is not a substitution of professional staff it did allow for a change from having 7.5 FTE on the ground to 11 FTE with an associated increased ability to fulfil service needs.

Outcome 2: With the increased capacity of the community based AH team being realized after a bedding down period, a post implementation review highlighted opportunities for the team to examine that previously could not be considered. The main opportunity that was examined was working with the local PHOs to implement packages of care that could be offered to patients recently diagnosed with Coronary Artery Disease (CAD).

The package of care was to provide a Dietetic review and education, OT environmental assessment and follow through, Physiotherapy assessment to establish activity status and other musculoskeletal issues affecting ability to increase activity levels, and a SW review of services needing to be in place for current and ongoing monitoring.

Providing this package of care utilized the AH assistant to conduct initial data gathering for the team including an activity questionnaire for the physiotherapist, an energy conservation diary for the OT, and a nutritional diary for the Dietician. As a result of the pre-gathering of information, the AH professionals assessments were streamlined.

With the AH professionals and assistants meeting as a group, ongoing care was established and coordinated to allow for the AH assistant to deliver the prescriptive portions of clinical care and continuing to provide the supportive components as well. By approaching this in a coordinated fashion, visits from the AH professionals were streamlined with the assistant providing portions of care under the appropriate supervision of the team.

4.1.1 Delivery Model Funding

While this case study is overly simplified, it does highlight the potential for the assistant in the AH team. By examining the skill mix of the team, there is the ability to improve current efficiencies by having the numbers of staff available to provide services and maintain within the current funding stream.

	FTE	Salary Cost	Available Clinical Time
Budgeted Initial Situation	11	594,000	371.25 hours/week
Actual Initial Situation	7.5	405,000	253.13 hours/week
Budgeted Alternate Skill-Mix Situation	12.5	587,500	421.88 hours/week
Actual Alternate Skill-Mix Situation	11	506,500	371.25 hours/week

Table 1. Application of funding to a service delivery model

By improving efficiencies within the current funding arrangement, there is an ability to fulfil service requirements and to more actively explore options to operate the AH professions within a broader scope of practice.

An explanation of the calculation of table 1 is referenced the Appendix 3.

5.0 Telerehabilitation Pilot

Focus on efficiencies: using physiotherapy assistants and telerehabilitation to provide patient care

Introduction

This proposal sets out to explore the therapeutic relationship between the physiotherapist and the physiotherapist assistant in providing patient care. Further, it seeks to also examine the potential benefit of using technology to enhance the efficiencies of registered staff in providing patient care. There is historical context for the physiotherapist/physiotherapist assistant therapeutic relationship in that assistants have been used in various capacities in providing components of patient care, but this has not been explored systematically in the New Zealand environment. The development of technology is now making telerehabilitation a real possibility and more readily accessible from a cost and implementation standpoint. Placed within a rural environment there are several benefits to the provision of care that are worthy of investigation.

To understand how the use of assistants and technology may positively impact provision of care, it is appropriate to view this proposal through a quality lens. Donabedian (2003) proposed seven pillars of quality:

Efficacy	The gold standard of treatment application
Effectiveness	The ability to approach the gold standard within resources
Efficiency	The best use of resources to reach a desired outcome
Optimality	Balancing the improvement of services provided against associated costs
Legitimacy	Conforming care provided to general expectations
Acceptability	How easily the public will embrace any new service
Equity	The fairness of service provision in relation to need, geography, socio-economic status, age, sex and ethnicity

Viewed in this way, this proposal seeks to maintain effectiveness and legitimacy of care provided while improving efficiency and the optimality of the services provided. Further, it seeks to understand how acceptable this proposal is to the patient, as well as desiring to improve the equity, or access to services.

Lastly, this proposal acknowledges that there is unmet demand for rehabilitative services in the community, which is more acute in the rural environment. To maintain the status quo will not alleviate this situation, but to quote Berwick (2004) "not all change is improvement, but all improvement is change".

Pilot Project Objectives

This pilot project sets out to explore three main themes:

1. The therapeutic partnership
 - a. Can provision of physiotherapy services be provided effectively in a therapeutic partnership between the physiotherapist and the physiotherapist assistant?
 - b. Will such a partnership allow for clarity of delineation between that which is prescriptive and can be carried out appropriately by the assistant, and that which is skilled and needs to be provided by the physiotherapist?
 - c. Can the physiotherapist move from being the provider of services to the situation where they are managing the physiotherapy care being provided to the patient?
 - d. Will a therapeutic partnership improve the efficiency of the physiotherapist?
2. Technology
 - a. Can available off the shelf hardware technology and readily available freeware be used to provide telerehabilitation?
 - b. What are the issues of providing telerehabilitation in the rural New Zealand context?
3. Provider/Patient relationship
 - a. How will the use of physiotherapy assistants to provide clinical care be viewed by the patient?
 - b. How acceptable will the use of telerehabilitation be to the patient in providing professional oversight and supervision for the physiotherapist assistant?

The Problem

Provision of physiotherapy services in the community is inefficient at best due to the associated travel time, which is further exacerbated with community care in the rural environment. The lack of registered physiotherapists in New Zealand (Taylor 2006) places the onus on maximizing the efficiencies of the registered staff. This issue is made more acute with strategy and policy direction seeking to have more care provided in the community as well as initiatives such as aging in place (reference appropriate MoH documents). Therefore there is a need to examine initiatives to improve the efficiencies of physiotherapists providing care in the rural community.

The use of physiotherapy assistants offers a potential solution as they have been a part of the physiotherapy landscape in the public sector for many years with the role that they have played in providing services having waxed and waned over time. While there is general acknowledgement that there are portions of care provided

by physiotherapists that could be delegated to the assistant, there has been varied approached as to how care is delegated, as well as defining the scope of the physiotherapy assistant. Professionally there was little documented around the assistant prior to 1973. In 1981 there was a manual published for "Rules of conduct and training for Hospital Physiotherapy Aides", and in 1988 there is a line reference to assistants in the "Physiotherapy Code of Safe Practice". There was further work published in 1989 with the Ministry of Health publishing the "Roles and Function of the Physiotherapist" which contained Section IV: The Physiotherapy Assistant. Most recently, in 2005 the New Zealand Society of Physiotherapists ratified the document "The Physiotherapy Assistant". In all of these documents there is the understanding that there are portions of clinical care that can be provided by the physiotherapy assistant.

Consistency in how this has been done has varied, and has been minuted as such, especially in the Physiotherapy Managers conference and its most recent incarnation PALM's (Physiotherapy Advisors, Leaders and Managers). In 1993, there was concern around the training of Physiotherapy Assistants, in 1998 there was a highlighting of how the assistant roles varied across the country, and in 1999 there was an attempt to clarify this with a survey to be conducted across the public sector. Most recently there was a further attempt to determine what level of delegation is appropriate at the 2006 conference. So while there have been repeated attempts to clarify the usage of assistants in the public sector, it remains to date an unresolved issue. Another issue with regards to the use of assistants is the concept of supervision, and what level of supervision is appropriate if an assistant is to be providing aspects of clinical care. It of interest to note that current legislation is silent on this aspect (Health Practitioners Competency and Assurance Act 2003).

Professional delegation, oversight and supervision are valid concerns and may seem to be contrary to the stated need to improve the efficiency of registered physiotherapists. A way forward may be found within the concept of telerehabilitation. This is a concept that has made considerable gains within the last five years as technology and the ability to access it has improved. When used as a tool to provide rehabilitative services, it has been found to be an effective modality (Piron 2004, Soopramanien 2005, Hill 2006, Hoenig 2006, Lum 2006), and has potential when attempting to optimise services (Gamble 2004 and Tousignant 2006). It has also been suggested that it improves the access to services (Demiris 2005). It is not known if telerehabilitation has been used in a way to provide professional oversight and supervision of physiotherapy assistants.

Pilot Project Hypotheses

- That an assistant can provide the prescriptive aspects of patient care safely with professional oversight and supervision being provided via telerehabilitation with the physiotherapist.
- That utilising telerehabilitation in the prescribed format will improve the physiotherapist's efficiency.
- That the patient will not feel disadvantaged with this alternate care provision arrangement.

Study Design

1. Pre Intervention Period: Productivity data to be collected for a physiotherapist participating in the pilot project, for a defined period of time.
2. Intervention Period:
 - a. Two laptops are purchased with wireless broadband connectivity and web cameras allowing reasonable definition. Laptops are to be enabled with readily accessible freeware allowing a video-link between them allowing for telerehabilitation.
 - b. Physiotherapist and physiotherapist assistant to be familiarized with the laptops and accessing the video-link.
 - c. Five patients are to be selected within the criteria of a "normal" patient that would under ordinary circumstances receive three to five treatment sessions. Appropriate consent to be gained.
 - d. Initial assessment of the patient is to be carried out by the physiotherapist and an ongoing plan of care established.
 - e. Follow-up sessions to be provided by the assistant with the physiotherapist video-linked, providing the telerehabilitation aspect of the care, as well as providing the professional oversight and supervision of the physiotherapy assistant.
3. Post Intervention Period:
 - a. Interviews to be conducted with the physiotherapist and physiotherapist assistant to examine the objectives relating to the therapeutic relationship and the use of technology.
 - b. Interviews to be conducted with the patients to examine the objective relating to the provider/patient relationship.
 - c. Examination of productivity data during the pre-study and study period to determine if any productivity gains have been realized.

Analysis of Data

As this pilot project is primarily exploratory, it is to be qualitative in nature in that it seeks to gain insight into the noted objectives. As such it will require thematic analysis of the interviews as well as seeking any frequency of themes between the interviewees.

There will be the ability to conduct quantitative analysis of the productivity data to determine if this approach did realize productivity gains.

References

Pilot Project references are located in Appendix 4.

Project References

Anderson L (1997): The introduction of generic workers into the ward team: an exploratory study. *Journal of Nursing Management*; 5:69-75.

Alkinson K (1993): Reprofilling and skill mix: our next challenge. *British Journal of Occupational Therapy*; 56(2):67-69.

Bohmer RMJ (2005): Medicines service challenge: blending custom and standard care. *Health Care Management Review*; 30(4):322-330.

Cohn R (2006): Supervision and use of Physical Therapy personnel. *PT Magazine*; January: 60-62.

Cooper RA, Loud P and Dietrich CL (1998): Current and projected workforce of non-physician clinicians. *JAMA*; 280(9): 788-794.

Cooper RA, Henderson T and Dietrich CL (1998): Roles of non-physician clinicians as autonomous providers of patient care. *JAMA*; 280(9):795-802.

Cooper RA (2001): Healthcare workforce for the 21st century: the impact of non-physician clinicians. *Annual Review of Medicine*; 52:51-61.

Doumanov P and Rugg S (2003): Clinical reasoning skills of Occupational Therapists and support staff: a comparison. *International Journal of Therapy and Rehabilitation*; 10(5):195-203.

Ellis B, Cornell MAD and Ellis-Hill C (1998): Role, training and job satisfaction of physiotherapy assistants. *Physiotherapy*; 84(12):608-616.

Green S (1991): Shaking our foundations, Part 2: into the future. *British Journal of Occupational Therapy*; 54(2):53-56.

Hunter A (1999): Skill mix for the millennium. *Physiotherapy*; 85(1):4-5.

Keys M (1997): Health visitors reactions to implementing skill mix. *Nursing Standard*; 11(21):34-38.

Ford L and McIntyre G (2004): Competency standards for Occupational Therapy assistants: outline of the development process and applications. *Australian Occupational Therapy Journal*; 51:49-52.

Mackey H and Nancarrow S (2005): Assistant practitioners: issues of accountability, delegation and competence. *International Journal of Therapy and Rehabilitation*; 12(8):331-338.

Mackey H (2004): An extended role for support workers: the views of Occupational Therapists. *International Journal of Therapy and Rehabilitation*; 11(6):259-266.

McKinley JB and Marrow L (2006): When there is no doctor: reasons for the disappearance of primary care in the US during the early 21st century. *Unpublished paper*.

Nancarrow S and Mackey H (2005): The introduction and evaluation of an Occupational Therapy assistant practitioner. *Australian Occupational Therapy Journal*; 52:293-301.

NZOTB (2007): Draft policy: Occupational Therapy support staff.

Plack MM et al (2006): Clooaboration between Physical Therapists and Physical Therapists Assistants: fostering the development of the preferred relationship within a classroom setting. *Journal of Physical Therapy Education*; 20(1):3-13.

Richardson G et al (1998): Skill-mix changes: substitution or service development? *Health Policy*; 45:119-132.

Richardson G (1999): Identifying, auditing and implementing cost-effective skill-mix. *Journal of Nursing Management*; 7:265-270.

Russell KV and Kanny EM (1997): Use of aides in Occupational Therapy practice. *American Journal of Occupational Therapy*; 52(2):118-124.

Saunders L (1997): Issues involved in delegation to assistants. *Physiotherapy*; 83(3):141-147.

Saunders L (1997): A systematic approach to delegation in outpatient physiotherapy. *Physiotherapy*; 83(11):582-589.

Shepherd A and Hurwell A (2005): Service management plan. *Unpublished report: Waikato District Health Board*.

Smith S and Robels P (2005): An investigation of occupational therapy and physiotherapy roles in a community setting. *International Journal of Therapy and Rehabilitation*; 12(1):21-9.

Wilcock AA (2006): Reflection as I contemplate retirement. *OT Insight*; 27(5):1.

Wellington J (2006): Engaging at risk populations in early intervention programmes. WHO 2005 Fellowship.

Whiteford G (2006): Diversity in OT: myth or reality? *OT Insight*; 27(6):1.

Appendix 1: Literature Review

To understand what has been written in peer reviewed literature with regards to the implementation and use of assistants, a literature review was conducted using the Medline, Cinhal and HealthBusiness text databases. The following keywords were used to search the databases for relevant articles:

- o Physical Therapist Assistant
- o Physiotherapy Assistant
- o Allied Health Assistant
- o Occupational Therapy Assistant
- o Social Work Assistant
- o Dietetic Assistant
- o Speech Language Therapist Assistant
- o Speech Language Pathologist Assistant
- o Psychology Assistant
- o Skill-mix

As a result of the review 113 articles were identified, of which the abstracts were obtained and of these, 28 articles were relevant to the topic being explored and were subsequently critiqued.

From this literature review, several themes were identified that are worth exploring. The first is that there is an acknowledged change in how healthcare is being delivered in both its broad sense, and specific to the provision of Allied Health services. Cooper, Laud and Detrich (1998) have examined how this skill mix is changing and in particular how there is an increase use of what they term as Non-Physician Providers (NPC's). Cooper (2001) continues this thought and has identified areas that NPC's will likely have an impact in as far as providing services into the future. The question is then raised by McKinley and Marceau (2006) as to what future the primary care physician, or GP will have in future healthcare provision, and how many of the services currently provided by GP's can now be provided as effectively and in most cases cheaper by NPC's. While the literature as it relates specifically to AH professionals providing traditional GP services is sparse, Richardson (1998) does reinforce this notion that much of the GP work could be delegated to other health professionals, which in turn raises the question if this is an appropriate focus for AH professionals?

While it was identified that there was a shift in the broader aspects with regards to skill mixes in healthcare delivery, it is entirely appropriate to ask similar questions specifically with regards to the provision of AH services. Smith and Roberts (2005) examined the issue of skill mix from multiple perspectives, one of which was from the perspective of the end-user, the patient, and how they perceived the care they received and if they could identify differences between those who were providing the services to them in a community setting. The result was one were there was blurring between professions from the aspect of those actually receiving the care. So if the service user is unable to always distinguish the difference between who is providing the service, could services be provided just as effectively in alternate ways? This notion that there was not a perceivable difference between AH professionals may be challenging to professional identity, which was raised by the authors and that when care was provided in a team environment, there was a

degree of professional tribalism noted between providers. This tribalism may be reinforced by the need AH professionals have to protect their professions as there is a body of thought that the AH professions are losing their visibility (Wilcock 2006), and are constrained by the current "biomedical" approach to providing services (Whiteford 2006). All of this could be taken in the context that there is a growth in the need for AH services, but the professions are not able to deliver, a situation not unlike what medical physicians are facing. So as with the physicians, it is appropriate to examine what alternate skill mixes may be for providing AH services.

The benefit of utilizing an assistant within a professional grouping has been recognized to improved efficiencies (Saunders 1997), and advice has been presented on how to examine what the need is, and what appropriate skill-mixes may be for professional and assistant staff (Alkinson 1993, Hunter 1999, Richardson 1999, Squires and Hastings 1997, Williams 1991). It has also been acknowledged that implementation, or increased usage of assistants in providing aspects of clinical care is a change process and as such needs to be handled appropriately for the benefit of increased assistant utilization to be realized, as well as comfort of professional staff in delegating care to the assistant (Anderson 1997, Mackey 2004, Keys 1997).

The literature does reveal relative consistency as to what the issues are with regards to implementing and using assistant staff for providing portions of clinical care. For this to occur there is a need for professional staff to be educated as to how to use assistants effectively, and to change their clinical approach from one of providing all portions of the clinical care episode to one where they are managing the care being provided and working in partnership with the assistant (Nancarrow and Mackey 2005, Plack et al 2006). To be able to do so there needs to be in place effective mechanisms and mutual understanding around how care is to be delegated between professional staff and assistants (Saunders 1997). For this to occur safely, it needs to be taken under consideration that assistants do not have the formal education of professional staff, and as such do not have instilled the clinical reasoning skills that are at the heart of most if not all of the AH professionals training (Doumanov and Rugg 2003). This reinforces the need for assistants to have in place adequate and ongoing supervision from professional staff to be able to monitor the care being provided, adjust as necessary, and to be able to easily clarify any questions or concerns that the assistant staff may have (Ellis et al 1998 and Russell and Kanny 1997). The suggestion and guidance has been put forward that as professional staff are held to account to a set of competency standards, so to should assistant staff (Cohn 2006, Mackay and Nancarrow 2005). Lastly, to utilize assistants for providing portions of clinical care without sufficient induction into the role and ongoing support and training has been noted to lead to dissatisfaction with the role with associated retention issues. As such it is recommended that initial and ongoing training is considered to be an integral part of the assistant role (Ellis, Connell and Ellis-Hill 1998).

While the literature has raised multiple issues that need to be considered when implementing and utilizing assistant roles, it also offers guidance as to what could be in place to address these issues. While the American Physical Therapy Association operates in a more legalistic healthcare environment, they have provided clear definitions to supervision, giving three specific levels:

- o General: where the professional staff is not required to be onsite, but is available for telecommunication at a minimum.
- o Direct: where the professional staff member is available for direction and supervision, having contact with the client each visit.
- o Direct and personal: where the professional staff member is available to continuously direct and supervise any clinical care being performed by the assistant (Cohn 2006).

When these levels are applied to the rural health delivery model, supervision of assistant staff could be considered at a direct level at best, but more realistically at a general level.

With regards to competency standards, this has been addressed both nationally and internationally. The New Zealand Society of Physiotherapists (NZSP) in 2005 ratified the document "The Physiotherapy Assistant" which includes definitions, roles and responsibilities of all parties, and suggested Physiotherapy Assistant competencies. Ford and McIntyre (2004) describe a process that was entered into in order to determine a core set of competency standards for Australian Occupational Therapy Assistants. Similarly, the Chartered Society of Physiotherapists (CSP) in 2002 published the Physiotherapy Assistant Code of Conduct. A table summarizing these standards is detailed below:

NZSP	Australian OT	CSP
Definition: A physiotherapy assistant is a person employed to assist a physiotherapist to provide physiotherapy services in a safe effective and efficient manner. This assistance may be in the form of patient contact and/or non-clinical activities and in any setting where physiotherapy is provided	Definition: Personnel that support and supplement the work of qualified occupational therapists in the delivery of health care to clients. (as per the AAOT website)	Definition: Physiotherapy assistants shall only practice to the extent that they have established, maintained and developed their ability to work safely and competently to the tasks delegated to them by Chartered Physiotherapists.
Roles and responsibilities of the employer	Management of assistive devices and equipment	Relationship with physiotherapists
Role and responsibilities of the Physiotherapy Assistant	Management of work environment	Relationship with patients
Role and responsibility of the supervising physiotherapist	Administrative support of Occupational Therapy services	Confidentiality
Provides safe and effective clinical care	Implementation of therapeutic programmes	Relationship with professional staff and carers
Communicates effectively	Maintenance of effective working relationships	Duty or report
Contributes to a safe working environment	Involvement in continuous learning	Advertising
Demonstrates individual responsibility and accountability	Maintenance of service standards	Sales of services and goods
		Standards of conduct

While this is only a summary of what is in existence nationally and internationally it does highlight similar themes that need to be considered with regards to competencies relating to assistants, namely:

- o relationships between the assistant and the employer
- o contribution to client centered service delivery
- o contribution to non-client centered service delivery

Given some of the other literature reviewed, it would be beneficial for competencies to also reflect the need for ongoing learning. While not explicit in what has been cited, delegation of tasks is an aspect that if clearly defined has the potential for improved utilization of the assistant to occur.

Appendix 2: Interviews Conducted

Interviews were conducted in either a 1:1 format, or within focus groups. In order to gain a cross-section of New Zealand, four District Health Boards (DHBs) were identified to be the focus of the project (Otago, Taranaki, Waikato and West Coast). In all 40 individuals were interviewed as part of this process. Interviews were semi-structured in their format using open ended questions:

- o Is the current level of services provided by Allied Health in the rural environment appropriate?
- o What is being done to address any perceived deficits?
- o What could future service delivery look like to meet any deficits, either real or perceived?

Comments from the interviews were noted, and were then coded to identify themes that were emerging. Themes were then compared across the groups interviewed to identify any points of commonality and frequency of the themes between groups.

AH Educators

Representatives were interviewed from the Auckland University of Technology, Otago University (2), and Otago Polytechnic.

There was consensus across the groups that the scope of practice of AH professionals was not being fulfilled due to limited numbers to provide services. This has been felt to have led to an eroding of professional boundaries with services being provided by other providers in what historically fell within the remit of the individual professions. From the perspective of educating future AH professionals there was noted to be variability as to the exposure to assistants in the workplace, and delegation was not a skill being taught uniformly.

Currently there is a high level of variability between the institutions in what is being provided from the perspective of examining skill mix and the rural environment.

With alternate models of service provision and alternate skill mix, issues were identified around training of assistants, and there was consensus that this needs to be more structured. Other components that were consistent across the groups were the need for supervision between the AH professional and the assistant to be clarified, and the need for the position of an assistant be used to build upon inter-professional learning in how to provide services in a more collaborative way. Funding was felt to need to be more focused on health needs and demands, and for there to be a degree of flexibility to meet this.

Physiotherapy/Occupational Therapy Professional Societies/Associations

Representatives were interviewed from the New Zealand Association of Occupational Therapists and the New Zealand Society of Physiotherapists (2).

The professional bodies acknowledged that there is high demand for AH services which are made more acute with retention issues within the professions. This is further exacerbated with an ageing workforce, and a workforce that continues to be predominately female. Funding for AH services was felt to be an issue, with the sense that funders do not have a depth of understanding as to the services that AH can offer.

Both professional bodies reported that assistants are being widely used within the professions, but primarily in the public and aged care sectors. There is also believed to be a high degree of variability as to how assistants are being utilized.

Future models were focused on how to allow AH professionals to fulfil their respective scopes of practice that were felt to be limited due to the issues identified previously. Training of assistants was noted to be an issue, with points to be clarified including who should be providing the training, and where should the training be provided (i.e. in-house, or block courses). Increasing the use of assistants to provide delegated services did raise concerns around supervision, professional boundaries, guidelines for service provision, and assistant/AH professional accountability. AH professional accountability included a focus on training to address how to delegate effectively, shifting from providing to managing the clients care, and understanding and working with team dynamics.

AH Funders

Representatives were interviewed from the Otago/Southland PHO sector (2), Taranaki PHO sector, Waikato DHB Planning and Funding, Waikato PHO sector and ACC.

The funders noted that there is a need to ensure clarity around delegation between AH professionals and assistants, how the competence of assistant staff is to be determined, and what constitutes appropriate oversight of services provided by the assistant.

If there was to be an alteration of the model of how AH services were to be provided, the theme emerged that there should be some examination as to if this would lead to increase efficiencies and enable the AH professions to seek out how they could improve access to services, especially for Chronic Disease Management, or working with those with high admission rates to affect a positive trend.

All funders raised the issue of where could or should originate from (primary or secondary), and where service should be delivered from (provider arm or in the primary sector), especially if services to improve access, or high need services were addressed. It was felt that at this time the origin/employment of the AH professional in secondary or primary was less important than the delivery areas specified in any contracts, i.e. generally the work of a rural AH professional would embrace both

primary and secondary components. The model of providing services with alternate skill mixes was felt to be workable in that service specifications are generally written to allow for workforce variations. A stated desired outcome from any implementation of alternate skill mix is that it would assist with workforce planning, and improve the ability to provide services.

Occupational Therapy/Physiotherapy Registration Boards

Representatives were interviewed from the Occupational Therapy Board (2), and the Physiotherapy Board.

Both the Occupational Therapy and Physiotherapy registration boards acknowledged that HPCAA does not have specific provisions with regards to the use of assistants. There was a preference that if there was to be a greater utilization of assistants that formal training would be preferred for assistant staff to undergo in order to achieve a degree of consistency in the skill set of those in assistant roles. No preference was offered as to whether it was felt this could be best achieved in-house or via external offerings.

A concern that was raised centered around the potential for misuse or abuse of assistant staff, in that they may be used as a substitution for registered staff versus being used to assist the registered staff. It was recommended that this be considered if any guidelines were developed around the use of assistant staff. Further to this, it was highlighted that there needed to be an inability for people outside of the profession that the assistant is attached to, to be able to delegate clinical tasks to the assistant.

There was consistency in the points that were raised between the boards as areas for further clarification. Delegation of care was a component that was felt to not always be clearly defined, and once components of clinical care were delegated, ensuring that there was ongoing oversight of the care provided as well as ongoing monitoring of the competence of the assistant.

AH Professionals

Representatives were interviewed from the Otago DHB (Occupational Therapy, Physiotherapy, Social Work, Dietetics, Speech Language Therapy), Taranaki DHB (Occupational Therapy, Physiotherapy, Social Work, Dietetics, Speech Language Therapy), West Coast DHB (Occupational Therapy, Physiotherapy, Social Work, Dietetics, Speech Language Therapy), and Waikato DHB (Social Work, Dietetics, Occupational Therapy, Psychology).

AH professional staff employed by the identified DHBs raised the ongoing impact of vacancies and recruiting to these vacancies, and in turn retaining staff in roles. One of the impacts has been an inability of staff to be able to fulfil what they perceived as their scope of practice, and felt that they were being limited by what they could offer clinically due to the busyness of their roles and the need to work in very defined scopes of practice in order to meet contractual obligations.

When asked to comment on what was being done to address the current shortfalls, a theme that emerged across professions as well as across DHBs was the limiting of services that were being offered or simply withdrawing services due to lack of availability of registered staff. The withdrawing of services was often used as a conscious ploy to highlight a staffing situation. It was also identified that there is inflexibility in the current funding arrangements to adapt services to need. One strategy that had been employed in some DHBs was to identify alternate funding streams i.e. ACC, in order to create new roles to meet an identified need. All of the DHBs utilized assistants, with utilization being most common in the Occupational Therapy and Physiotherapy professions, and most commonly being used in the hospital environment versus in the community or rural environment. There was variable acceptability on how Dietetics as a profession could use assistants, but it was noted that Waikato DHB has previously submitted a proposal for a Dietetic Assistant in the community setting that was not acted upon. Speech Language Therapy identified models of assistants being utilized within the profession overseas, but it was not known of any examples currently within New Zealand. Social Work has some examples to reference with regards to use of assistants, but they are used primarily in administrative roles. Psychology did not have many models to draw upon nationally, but did note the potential for psychology students to be used in assistant type roles in a supporting fashion. Use of unregistered assistants for psychology was felt to best be limited to administrative type roles only. With regards to the current situation, a consistent theme emerged around the limited history, or commitment for change in how AH services are delivered.

When examining possible future models of providing service, all identified that assistants were in place in their organizations, and that if there was a shift to providing greater portions of prescriptive services, that there would be the potential for professional staff to realize to a greater extent their scope of practice. To do so raised the issues around training of assistants and the acknowledgement that this would need to be consistently addressed across DHBs. Supervision and delegation were also raised as components of the therapeutic relationship between the professional and assistant staff that would need to be clarified further. A note of concern was raised consistently, in that assistants do not have the training that supports clinical reasoning, and as such they cannot be seen as a cheap substitution for professional staff.

AH Management

Representatives were interviewed representing Allied Health from Auckland DHB, Otago DHB (2), and West Coast DHB.

Responses were consistent across the interviewees that there was a lack of professional staff within the AH groups, and there are ongoing challenges in retaining staff.

When examining what is being done to address this deficit, it was referenced that there are already models in place where assistants are being utilized to provide prescriptive portions of clinical care as well as other support duties, but for this to succeed there is a need for trust to exist between the professional staff and the

assistant. However, there was an acknowledgement that assistants are frequently being under utilized.

When examining what alternate future models may look like, it was highlighted that any expansion of the role of the assistant would need to be supported with appropriate training, which was suggested would be best achieved with in-house block type courses. Any expansion would also need to be supported by education of AH professionals on how to best utilize the assistant, which would also allow the issues around supervision, delegation and assistant scope of practice to be worked through. A caveat that was offered with any alternate model of service provision is that it could not be more costly than the current model, and it needed to be flexible to work around and primary/secondary issues as to where services would originate from or be offered.

Appendix 3: Calculation of Table 1

	FTE	Salary Cost	Available Clinical Time
Budgeted Initial Situation	11	594,000	371.25 hours/week
Actual Initial Situation	7.5	405,000	253.13 hours/week
Budgeted Alternate Skill-Mix Situation	12.5	587,500	421.88 hours/week
Actual Alternate Skill-Mix Situation	11	506,500	371.25 hours/week

Table 1. Application of funding to a service delivery model

- o Salary is calculated on the average AH professional receiving an average salary of \$54,000, the assistant \$29,000.
- o Clinical time is calculated on a 40 hour week per FTE and then accounting for paid breaks (0.9375 multiplier) and average leave (0.9 multiplier).

Appendix 4: Pilot Project References

Berwick DM (1996): A primer on leading the improvement of systems. *British Medical Journal* 312(7031):619-622.

Chadwick M (2006). Waikato DHB Physiotherapy Service Annual Report 2005.

Demiris G, Shigaki CL and Schopp LH (2005): An evaluation framework for a rural home-based telerehabilitation network. *J Medical Systems*; 29(6):595-603.

Donabedian, Avedis (2003). *An Introduction to Quality Assurance in Health Care*, Oxford University Press, New York.

Gamble JE, Savage GT and Icenogle L (2004): Value-chain analysis of a rural health program: toward understanding the cost benefit of telemedicine applications. *Hospital Topics*; 82(1):10-17.

Health Needs Assessment and Analysis (2005). Hamilton, NZ: Waikato District Health Board.

Hill AJ et al (2006): An internet-based telerehabilitation system for the assessment of motor speech disorders: a pilot study. *Am J Speech-Language Pathology*;15:45-56.

Hoening et al (2006): Development of a technology protocol for in-home rehabilitation. *J Rehab Research Development*; 43(2):287-297.

Lum PS et al (2006): A telerehabilitation approach to delivery of constraint-induced movement therapy. *J Rehab Research Development*; 43(3):391-400.

Physiotherapy Code of Safe Practice. Wellington, NZ: Department of Health;1988.

Piron L et al (2004): Motor tele-rehabilitation in post-stroke patients. *Med Inform*; 29(2):119-125.

Scrymgeour J. *Moving On: A history of the New Zealand Society of Physiotherapists 1973-1999*. Wellington, NZ:NZSP Inc; 2000.

Soopramanien A et al (2005): Using telemedicine to provide post-discharge support for patients with spinal cord injuries. *J Telemed Telecare*; 11(Suppl. 1):S1:68-70.

Taylor (2006) *Abstract NZSP conference*

The Physiotherapy Assistant. Wellington: NZSP Inc.; 2005.

The role of physiotherapy assistants (PTA's) in physiotherapy service provision questionnaire. Physiotherapy Managers Conference. 1998.

Tousignant M et al (2006): In home telerehabilitation for older adults after discharge from an acute hospital or rehabilitation unit: a proof of concept study and costs estimation. *Disabil Reab Assistive Technology*; 1(4):209-216.