



# An initiative to improve equity, timeliness and access to District Health Board-funded physiotherapy in Canterbury, Christchurch, New Zealand

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## ABSTRACT

**Background and context:** General practice teams frequently request orthopaedic and musculoskeletal physiotherapy. In the Canterbury District Health Board (DHB) region, before November 2018, the criteria for DHB-funded physiotherapy were unclear. Wait times were many months. Care was provided on hospital sites. Limited data were available about the service.

**Assessment of problem:** A clinical project group including private and DHB hospital physiotherapists and general practitioners was established. Patients requiring orthopaedic and musculoskeletal physiotherapy who had certain criteria were seen by physiotherapists in contracted private clinics in the community instead of by physiotherapists in hospital departments. Patients received up to NZ\$300 (excluding GST) of care. A claiming process was established that required the physiotherapy clinics to provide data on patient outcomes.

**Results:** In the first 12 months of the programme, 1229 requests were accepted. Patients waited an average of 11.1 days for their first appointment. There was an average Patient Specific Functional Scale increase of 3.7 after treatment.

**Strategies for improvement:** A change environment was critical for this community-based, geographically distributed model to succeed. It was supported by key clinicians and funders with sufficient authority to make changes as required. It required ongoing clinical oversight and operational support.

**Lessons:** DHB orthopaedic and musculoskeletal physiotherapy can be moved from hospital sites to a community-based, distributed service in a timely, effective and equitable fashion. There was a prompt time to treatment. Data collection was improved by tracking 'before' and 'after' measures.

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## Introduction

### Problem description

Musculoskeletal problems account for 13% of all health loss in New Zealand.<sup>1</sup> General practice teams frequently refer to physiotherapists who are skilled in assessing and treating musculoskeletal problems.

New Zealand is divided into 20 district health board (DHB) regions. DHBs have the responsibility for

funding and providing health services in their area. Canterbury DHB covers the mid-South Island, including the urban centre of Christchurch, which was hit by a series of destructive earthquakes in 2010 and 2011. It is the second largest DHB by both population and geographical area. In the Canterbury DHB region before November 2018, the criteria for DHB-funded physiotherapy on request from general practitioners (GPs) were unclear, wait times were many months and care was provided on various DHB hospital sites. This did not fit with the

## WHAT GAP THIS FILLS

**What is already known:** General practice frequently requests DHB-funded orthopaedic or musculoskeletal physiotherapy for patients. This has traditionally been delivered on hospital sites. New Zealand has a wide network of private physiotherapy clinics whose clinicians are also skilled in providing this care.

**What this study adds:** DHB orthopaedic and musculoskeletal physiotherapy provision can be moved from hospital sites to a community-based, distributed service in a timely, effective and equitable fashion. This change process requires trust and buy-in from clinicians and funders alike.

Canterbury DHB mission of people staying well in their homes and communities, and receiving timely and appropriate care.<sup>2</sup> Also, after the earthquakes in 2011, Canterbury DHB hospitals remained short of premises to provide clinical services to its population of ~570,000 patients. There were limited data available on conditions treated, their severity and patient outcomes from existing services.

A new service model was a priority because capacity was needed to free up DHB hospital-based physiotherapists for their core work of specialist and inpatient care. The intended strategy was the development of a community-based, geographically distributed, equitable, timely and accessible service, which was fully funded on general practice team request and which provided good patient outcomes and clear data. An iterative improvement approach was taken, with a high degree of discussion and collaboration with existing services.

The initial experience over 12 months is reported here. This paper describes a routine health system improvement and was not a research study. No specific ethics application was obtained because the Canterbury Initiative has out-of-scope approval from the Health and Disability Ethics Committee for audit of changes to clinical services, received in 2016.

## Mechanism for change

The change was facilitated and managed by the Canterbury Initiative, who are a group of clinicians and project managers funded by Canterbury DHB

with expertise and time to assist with improvement change.<sup>3</sup> The Canterbury Initiative works with a sense of urgency across the community, primary and secondary care interfaces, using a project-focused approach, to deliver clinician-led, patient-centred change. All changes were discussed with a clinical project group, including private physiotherapists, hospital physiotherapists and general practice teams.

## Methods

The changes made were as follows:

- (1) In November 2018, a simplified process was established by the project team for GP requests for DHB-funded physiotherapy. General practice teams sent requests to one central point, rather than directly to multiple services. This process was modelled on a successful referral process established for DHB-funded dietitian requests from general practice. It allowed allocation to different services according to patient need. It initially comprised Christchurch and Burwood Hospitals, which are both DHB facilities. It was expanded in July 2019 to include Ashburton Hospital, also part of the DHB.
- (2) Criteria and exclusions were established and published on Canterbury Community HealthPathways, which provides online clinical guidance and process information for local general practice teams.
- (3) Requests were reviewed by experienced community physiotherapists contracted for a few hours per week for this purpose. They used the review system built into the Electronic Request Management System (ERMS) in use across South Island DHBs, which is securely available online.
- (4) Requests for orthopaedic and musculoskeletal physiotherapy that were accepted on review were delivered to patient-selected, contracted private physiotherapy clinics in the community instead of to hospital departments.
- (5) Physiotherapy clinics were contracted to deliver a package of care up to NZ\$300 (excluding Goods and Services Tax (GST)) per patient. These packages of care were specifically for orthopaedic and musculoskeletal physiotherapy only; GPs could still

request DHB outpatient physiotherapy for other physiotherapy needs (hydrotherapy, lymphoedema, neurology, paediatric, respiratory, vestibular and women's health).

- (6) A claiming process was established that required the provision of data (before and after Patient Specific Functional Scale) to assess patient outcomes.

### Recruitment of physiotherapy providers

Physiotherapy providers were recruited to the scheme through the local physiotherapy network and Allied Healthways, which provides online guidance for allied health professionals similar to HealthPathways. Any physiotherapy clinic in Canterbury was eligible to sign up as a provider. This was to ensure a geographical spread of providers and to enable both large and small clinics to apply. Working with the established network of physiotherapy clinics also aligned with the NZ Health Strategy, which is that the health system 'provides services closer to home'.<sup>4</sup> Physiotherapy providers were advised that they would be required to report 'before' and 'after' patient measures to receive payment under the scheme. Additionally, registering as a package-of-care provider did not guarantee that clinics would receive any requests or a particular volume of requests from local general practice teams, but did mean that they were on the list of providers available for patients and general practice teams to select from.

### Patient criteria

To be eligible for a package of care, patients needed to meet certain criteria: have an orthopaedic or musculoskeletal physiotherapy need that was not covered by the Accident Compensation Corporation (ACC) –New Zealand's no fault, universal injury compensation scheme. They also needed to hold a Community Services Card (CSC), a means-tested card that helps low-income patients meet the cost of health care if they were otherwise unable to afford treatment.<sup>5</sup> Full criteria for the scheme were documented on Canterbury Community HealthPathways, which provides online clinical guidance and process information for local GP teams.

### Request process

After GPs established that patients met criteria for requests, they and their patients jointly selected a physiotherapy provider, taking into account preferences such as location. The GP then sent a request via the ERMS.

Requests were reviewed electronically by experienced physiotherapy reviewers. Accepted requests were delivered to the selected physiotherapy provider. Requests that did not meet criteria were returned to the referring GP team with a decline reason and alternative advice (eg request ACC-funded services, consider a physical activity intervention such as Green Prescription).

When physiotherapy providers received a request, they contacted the patient to organise an initial appointment. Clinic staff were expected to make a reasonable effort to contact patients (eg attempt three phone calls and check with the referring GP that the patient's contact details were correct).

### Outcome measures

At the initial appointment, patients completed the Patient Specific Functional Scale. Patients were asked to identify three important activities that were impeded as a result of their presenting condition. The Patient Specific Functional Scale was completed again at subsequent appointments to assess if there had been any change in function. The Patient Specific Functional Scale was chosen as an evaluation tool for the scheme for its validity across both a variety of body sites and for both individual and group-level change.<sup>6–11</sup> An additional benefit was that Canterbury physiotherapy providers were already familiar with the Patient Specific Functional Scale as they were required to complete it when treating patients funded by ACC.

### Treatment

Physiotherapists provided up to NZ\$300 (excluding GST) of treatment per patient. The figure of NZ\$300 was in line with other local physiotherapy initiatives in place at the time. It was modelled on an estimated cost of NZ\$100 per hour of treatment. However, clinics were free to charge at their usual rates and could provide more or less than 3 h of care

within this funding up to NZ\$300. Patients were not charged anything as the scheme was targeted at low-income patients who were unable to self-fund physiotherapy. Physiotherapy clinics invoiced the Canterbury Initiative monthly.

Guidance was provided via Allied Healthways, which provides online guidance for allied health professionals, on how to arrange language interpreting services for patients who required them. Expenses incurred in arranging and using interpreting services were paid in addition to the NZ\$300 treatment allowance per patient. This was to ensure equitable clinical outcomes for patients requiring interpreters.

When patients finished a course of treatment, their physiotherapist completed a final Patient Specific Functional Scale and submitted it with their final invoice to the Canterbury Initiative. They also provided a discharge letter back to patients' GPs.

## Results

In the first 12 months, there were 1635 requests; 1229 (75%) were accepted by the physiotherapy reviewers. The main reasons for declining a request were that patients did not hold a CSC or that requests were eligible for ACC funding. The decline rate decreased over time as GPs became more familiar with these eligibility criteria.

There was an average of 11.1 days from physiotherapists receiving a request to first patient appointment. Patients attended an average of four appointments at an average cost of NZ\$235 (exclusive of GST) per patient.

Back pain was the main reason for physiotherapy (477 packages: 39% of all packages). This is in line with the prevalence of back pain in the New Zealand population. It accounts for 10% of overall health loss in New Zealand.<sup>1</sup> This was followed in order by knee, hip, shoulder and neck pain. Some requests included more than one body part as the request reason.

## Patient demography

There were 895 women (mean age 58 years) and 334 men (mean age 57 years) who received care under

this scheme. This gender distribution (73% women : 27% men) is similar to other national and international findings, which indicate that women present more commonly than men with orthopaedic and musculoskeletal conditions.<sup>12–15</sup>

According to ethnicity recorded by GP teams in line with the Ministry of Health Ethnicity Data Protocols, most patients who received treatment were New Zealand European (76%), 11% were Māori (135 patients) and 4% were Pasifika (47 patients); this is out of an overall population of 9% Māori and 3% Pacific enrolled patients in Canterbury. However, of the CSC holders in Canterbury, 15% are Māori and 4% are Pasifika.

## Patient Specific Functional Scale results

Before-and-after Patient Specific Functional Scale scores were returned for 362 patients by the 12-month point of the project. Some patients did not complete a course of treatment, so final data were not obtained. Others were still undergoing treatment. There was an average Patient Specific Functional Scale increase of 3.72.

## Discussion

The following were felt to be important factors and findings in the initiative, which produced a shift in the delivery of health care.

The change environment was critical to success. The initiative required and received both high-level support to scope-out and develop a different model of care, as well as dedicated resources to operationalise it.

## Initial set-up

Having embedded network groups within organisations who can operate alongside, but outside the traditional 'reporting line' hierarchy is a recognised enabler of change.<sup>16,17</sup> It is a 'high-trust, low bureaucracy' approach embedded in the Canterbury health system, which seeks to break down the traditional groupings of health care by fostering relationships and alliances across organisations and care interfaces.<sup>18</sup> Setting up the physiotherapy initiative in a nimble change organisation was crucial.

It allowed the initiative to be established in a relatively short length of time. It was supported by clinicians and funders with sufficient authority to make changes as required.

### Ongoing change

This was an iterative initiative that evolved over the 12 months. It required ongoing clinical oversight and operational support. There were unanticipated questions and issues that needed to be resolved promptly. For example, initially, GPs were required to complete an impact-on-life questionnaire when requesting a package of care. This was removed after several weeks after negative GP feedback about the time taken in completing the questionnaire and questions about its validity for this purpose. Community HealthPathways was used to inform general practice of any updates.

### Ongoing support

The initiative required administration and project manager support. It also required a suitably flexible budget and payment process to contract multiple physiotherapists. Processing monthly invoices required dedicated administrative resources.

### Effect on existing services

Within this change environment, it was important to reassure hospital physiotherapists that there would be no reduction of their resources as a result of these changes. The changes allowed hospital physiotherapists to reprioritise resource to patients requiring their expertise. Hospital physiotherapists also wanted to ensure that service quality would be maintained for patients referred to community physiotherapists. This was addressed by gathering and communicating outcome data.

### Findings summary

#### *Patient outcomes*

There was an average Patient Specific Functional Scale increase of 3.72. This is a significant improvement as a group-level outcome;<sup>9</sup> however, a limitation here is the absence of comparable data from before the initiative. We do not know whether this increase in function is greater or less than when this

physiotherapy was provided by the hospital outpatient service. Future study could also obtain qualitative patient and GP team feedback on the scheme.

#### *Equity – ethnicity*

Although Māori and Pasifika patients were slightly over-represented in the packages of care on an overall population basis, this may still not fully meet their health needs in terms of how the burden of disease is distributed across the population. For example, Māori have consistently poorer health outcomes than non-Māori.<sup>19</sup> Additionally, although Māori hold 15% of the CSCs in Canterbury, they received only 11% of the packages of care. Further study could investigate this and adjust the initiative to better meet the needs of Māori and Pasifika populations.

#### *Equity – geography*

The packages of care improved access to physiotherapy for rural patients as they no longer needed to travel to urban hospital sites to receive care. Instead they could attend a participating local physiotherapy clinic.

#### *Equity – CSC requirement*

A gap in service provision existed for patients who were above the income threshold for a CSC, and thereby did not meet eligibility criteria, but could not afford to self-fund physiotherapy.

#### *Equity – fixed treatment cost*

Patients can access up to NZ\$300 of treatment. Concerns were raised that this sum is limited for patients with complex or chronic conditions, who would benefit from further treatment.

#### *Data*

Previous work has pointed to a lack of strong data, including outcome measures, for primary care physiotherapy.<sup>20</sup> Our approach provides a model for data collection.

#### *Packages of care extensions*

The package of care model has been extended to hand therapy and may be extended to other allied health areas such as to dietetics for coeliac disease.



*Future of packages of care*

It is uncertain if the current package of care model will remain as it is now or will evolve. It could be explored if one-on-one physiotherapy is the best or only way to meet this patient need, or if group interventions, similar to those offered by local pain management specialist services, could be run. The simplified request process could evolve to manage multiple community programmes, so the initiative could be better integrated with other local services and funding streams. Physiotherapists could be employed within general practice teams themselves.

**Conclusion**

On the basis of these results, it appears that improvement of DHB-funded physiotherapy delivery was achieved in terms of equity of access, improved timeliness, closeness to home and community setting. DHB orthopaedic and musculoskeletal physiotherapy can be moved from hospital sites to a community-based, distributed service in a timely, effective and equitable fashion. The prompt time to treatment (average 11.1 days) supported the Canterbury health system vision of providing care in a timely fashion close to home.<sup>2</sup> Data collection was improved. This is an appropriate way to deliver publicly funded allied health care in the community.

**Competing interests**

Lisa McGonigle was contracted to the Canterbury Initiative and was involved in every stage of this project. The Canterbury Initiative is part of Canterbury DHB Planning and Funding, which funds the packages of care and contracts Graham McGeoch as clinical adviser, who was also involved in every stage of this project. Graham McGeoch is a GP business owner and the practices refer patients to these services. Graham McGeoch is a shareholder in health centres that lease or sub-lease premises to physiotherapists who are contracted to provide services.

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