

BuyCycles

Evaluation of a novel approach towards alleviating transport disadvantage



Canterbury
District Health Board
Te Poari Hauora o Waitaha

Report prepared for the BuyCycles Steering Group

by the Information Team
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Executive summary

Background

Transport is a determinant of health that enables access to employment and education opportunities, recreation and social activities, health and social services, and resources for everyday life (Delbosc, 2012). However, people may experience transport disadvantage when they cannot access appropriate, timely or affordable transport options. Transport disadvantage is associated with social exclusion, and in turn, a lower level of wellbeing (Currie & Delbosc, 2010; Currie et al., 2010).

Much of the literature discussing ways to address transport disadvantage focusses on transport policy and public transport infrastructure. One smaller-scale strategy towards alleviating transport disadvantage is providing bicycles to those who can, and would like to, use them for transport. BuyCycles is a health promotion initiative using a supported purchase model, developed by Community and Public Health, a division of the Canterbury District Health Board. The BuyCycles pilot offers clients of community mental health services in Christchurch an opportunity to purchase a second-hand bicycle at a low cost and develop a suitable payment plan. The main goal of BuyCycles is to increase bicycle ownership among clients of mental health services who may be experiencing transport and financial disadvantage.

Methods

The main objectives of the evaluation were to:

1. provide a summary of initiatives similar to BuyCycles from which lessons can be learnt
2. document the processes involved in setting up and implementing BuyCycles
3. assess the uptake of BuyCycles
4. describe administrative and financial aspects of BuyCycles
5. explore the experience of BuyCycles participants
6. explore the experience of case managers supporting BuyCycles participants.

The evaluation collated data collected during the first seven months of the pilot, up until 31 August 2018. Quantitative descriptive data were analysed using Microsoft Excel, and interview and written comments were analysed using an inductive thematic analysis (Braun & Clarke, 2006; Green et al., 2007; Liamputtong, 2013).

Findings

Aspects of the BuyCycles process evolved slightly over the pilot period to better facilitate the needs of participants, case managers, and BuyCycles volunteers. Successes of the pilot included the increase in referrals over time, and a positive response from participants and their case managers. Having an associated charitable trust (to handle finances), a steering group (of members who have an in-depth knowledge of the target population), supportive case managers, and technical support people (who are skilled in choosing and refurbishing bicycles) were key to implementing BuyCycles.

Challenges noted included the need for the coordinator to delegate more tasks to other individuals/organisations as the number of referrals increased, and coordinator capacity was stretched. It was also identified that some fundraising would be required if an increasing number of referrals were received to ensure sufficient funds to meet new participants' needs.

In the first seven months of the BuyCycles pilot, 38 referrals were received (both from mental health service providers and self-referrals), and of these, 27 people decided to participate. Of those 27, 24 participants received their bicycle, and a further three were still in the process of selecting a bicycle at the time of writing. The average combined cost of a bicycle, helmet and lock was \$131 (range \$55-210), and the majority of participants chose to repay \$5 per week. As of 31 August 2018, three participants had fully repaid the cost of their bicycle, helmet and lock; 13 participants were currently making repayments; and eight participants had not yet started repayments.

Sixteen participants provided feedback on their experience with BuyCycles. Since receiving their bicycle, the majority of respondents used it every day or at least weekly. The most common benefits of participating in BuyCycles identified by respondents were being active, being able to get to where they wanted to go more easily, saving money on transport, having someone to help choose the bicycle, and improved wellbeing. The most common challenges identified by respondents were finding a bicycle that suited them, and problems with the bicycle (such as a flat tyre). Most respondents found it easy to make the payments and no respondents stated that they had to go without things to pay for their bicycle. Almost all respondents said that they would recommend BuyCycles to others.

Nine case managers of BuyCycles participants provided feedback on their experience with BuyCycles. All case manager respondents undertook BuyCycles-related tasks with their client, most commonly completing the BuyCycles agreement with their client, telling their client about BuyCycles, and contacting BuyCycles on their client's behalf. Some of the positive aspects associated with BuyCycles identified by respondents included providing a practical way for people to access a bicycle within a realistic budget, including mechanical checks, helmets and locks as a routine part of the initiative, and providing the opportunity for participants to make decisions, take responsibility, and increase their independence. Four case managers identified some challenges with BuyCycles, which related to setting up repayments and increased workload.

Discussion

This evaluation of a small pilot trialling a supported purchase model suggests it is a feasible way to increase bicycle ownership among clients of mental health services in Christchurch, who may be experiencing transport and financial disadvantage. Overall, findings from the pilot indicate that BuyCycles is contributing to its main objectives by increasing access to transport options, increasing cycling for transport, and developing collaborative networks with mental health service providers across Christchurch. The feedback on BuyCycles in the first 7 months of the pilot is positive, and referral numbers are increasing. This growing demand highlights the need for strategic planning for the initiative in terms of future funding and division of labour to ensure its longer-term growth and sustainability.

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Background

The link between transport disadvantage and wellbeing

Transport is a determinant of health that enables access to employment and education opportunities, recreation and social activities, health and social services, and resources for everyday life (Delbosc, 2012). However, people may experience transport disadvantage when they cannot access appropriate, timely or affordable transport options. In New Zealand, many households on a low income do not have access to a motor vehicle (Stats NZ, 2015), and public transport options can be limited or costly for some. Transport disadvantage is associated with social exclusion, and in turn, a lower level of wellbeing (Currie & Delbosc, 2010; Currie et al., 2010). Access to suitable transport is particularly important among Māori to enable access to activities and sites for cultural wellbeing and whānau ora (Raerino, Macmillan, & Jones, 2013).

Initiatives to alleviate transport disadvantage

Much of the literature discussing ways to address transport disadvantage focusses on transport policy and public transport infrastructure. One smaller-scale strategy towards alleviating transport disadvantage is to increase access to bicycles and associated equipment to those who can, and would like to, use them for transport. In Christchurch there are some not-for-profit initiatives that have been running for several years which redistribute refurbished used bicycles to those who need them, and/or offer free sessions to encourage bicycle owners to learn how to fix and maintain their bicycles. One example is RAD,¹ which supports people to build or repair a bicycle to keep for themselves, or to give away, using the tools and technical guidance provided by volunteers.

Another example is ICEcycles,² which provides free donated bicycles and maintenance sessions to people on low incomes living in the inner-city east area of Christchurch. An evaluation of a small number of people who had received a bicycle through ICEcycles suggested that it may have decreased transport disadvantage and allowed people to access a range of important opportunities, such as visiting friends/family, accessing healthcare, food shopping, and attending work or job interviews (Community and Public Health, 2015). Many similar community recycled bicycle initiatives are underway in other parts of New Zealand, and around the world.

There is some suggestion that items provided for free may be undervalued by recipients, and paying for an item may encourage greater use and self-efficacy. However, there is a lack of published literature on this assumption relevant to health promotion initiatives (such as BuyCycles) in high-income countries. It is likely that the value placed on free items may depend on the environment, the situation of the recipient, and the item itself. For example, evaluations of interventions in low-income countries suggest that having to pay for health products (such as insecticidal bed nets, water disinfectants, soap, and deworming medicine) decreases uptake, does not increase usage among recipients, and does not focus adoption by those who need the products most (Bates, Glennerster,

¹ www.radbikes.co.nz/

² www.facebook.com/icecycleschch/

Gumede, & Duflo, 2012). Evidence does suggest that receiving a health product for free can increase recipients' willingness to pay for it in the future (Bates et al., 2012).

A slight variation on community recycled bicycle initiatives are earn-a-bike programmes, which offer individuals the opportunity to learn basic mechanic skills through refurbishing used bicycles, and in return they receive a bicycle themselves. These initiatives are happening globally (particularly in North America³ and the United Kingdom⁴), however no earn-a-bike programmes were found to be operating currently in New Zealand.

Large-scale bicycle share systems have been implemented in many large cities across the world (e.g. Auckland,⁵ New York,⁶ and London⁷), providing a sustainable mode of transportation to residents and visitors of the area. Bicycle share systems offer a communal stock of bicycles that can be picked up and dropped off at bicycle stations around the city; payment is often completed through a mobile app and users are charged per hour or day (Kabara, Belavina, & Girotra, 2016). In Christchurch the bicycle share system nextbike⁸ was trialled, however the pilot recently ended. While bicycle share systems can be useful for tourists or residents living, working, and getting about in the city centre, they do not provide a sustainable or cost-effective day-to-day transport option for those on low incomes or residents who live in the outer suburbs of a city.

BuyCycles

BuyCycles is a health promotion initiative developed within the Communities Team at Community & Public Health (CPH, the public health division of the Canterbury District Health Board). The pilot offers clients of community mental health services in Christchurch an opportunity to purchase a second-hand bicycle at a low cost and develop a personalised payment plan to pay off the bicycle, helmet and lock. Referrals to BuyCycles come from case managers of mental health services, who have the responsibility of supporting the client to fill out a BuyCycles agreement and set up a tailored payment schedule. Letters were sent to participating mental health services in mid-January 2018 to inform them that BuyCycles was ready to accept referrals.

The overall goal of BuyCycles is to increase bicycle ownership among clients of mental health services who may be experiencing transport and financial disadvantage. The main objectives of BuyCycles are to:

1. increase access to transport options for work, education and recreational purposes
2. increase cycling for transport
3. further develop collaborative networks across Christchurch with a common project.

The purpose of the pilot study of BuyCycles was to ascertain its feasibility in the community.

³ www.revolvekc.org/earn-a-bike/

⁴ <https://thebristolbikeproject.org/our-workshops/earn-a-bike/>

⁵ www.nextbike.co.nz/en/

⁶ www.citibikenyc.com/

⁷ <https://tfl.gov.uk/modes/cycling/santander-cycles>

⁸ www.nextbike.co.nz/en/christchurch/

Methods

Evaluation objectives

The main objectives of the evaluation were to:

1. provide a summary of initiatives similar to BuyCycles from which lessons can be learnt
2. document the processes involved in setting up and implementing BuyCycles
3. assess the uptake of BuyCycles
4. describe administrative and financial aspects of BuyCycles
5. explore the experience of BuyCycles participants
6. explore the experience of case managers supporting BuyCycles participants.

Information gathered in this evaluation will be used to inform decision-making around the implementation and long-term viability of the BuyCycles initiative.

Ethics

A Scope of Review Form⁹ was completed and submitted to the Health and Disability Ethics Committee (HDEC) detailing the proposed evaluation of BuyCycles. The information provided in the Scope of Review form was assessed against the HDEC Standard Operating Procedures (Health and Disability Ethics Committees, 2014), and it was determined that the evaluation was not within the scope of HDEC review. A letter was provided by the HDEC outlining this decision on 18 December 2017. On enrolment into BuyCycles, participants sign an agreement, which (among other things) states that they agree to share their experiences of participating in BuyCycles if requested.

Data collection

This evaluation design used mixed methods to assess process factors. The quantitative aspect of the evaluation used routinely-collected data, and qualitative aspects of BuyCycles were assessed using interviews with the BuyCycles coordinator, and surveys of BuyCycles participants and their case managers.

BuyCycles coordinator

The evaluators collected qualitative information through discussions with the BuyCycles coordinator about their experience developing, planning, and implementing BuyCycles.

Routinely-collected administrative data

An Excel spreadsheet was provided to CPH which contained routinely-collected administrative data for all of those participating in BuyCycles whose referrals were received up until 31 August 2018. The BuyCycles coordinator and evaluators developed the spreadsheet template together to ensure the relevant data were collected from the outset of the pilot. Data included: the number of people

⁹ <https://ethics.health.govt.nz/hdec-review-and-approvals/find-out-if-your-study-requires-hdec-review>

referred to BuyCycles (and from where), the number of people attending an initial consultation with their BuyCycles support person, the number of people purchasing a bicycle (and the price), the number of people completing all of their payments, the time taken between different parts of the BuyCycles process, and participant demographics (including age, ethnicity,¹⁰ and gender).

BuyCycles participants

The case managers of 18 BuyCycles participants were sent an online and/or paper survey to complete with their client at one of their usual appointments at least 8 weeks after the participant had received their bicycle. A web link to an online version of the survey was sent via email to the case manager. If the survey had not been completed after 2 weeks, a paper version of the same survey was mailed to the case manager along with a prepaid return envelope. If there was still no response, the BuyCycles buyer who had worked with the participant to find and purchase the bicycle contacted the participant to attempt to complete the survey. The survey questions enquired about their experience of participating in BuyCycles (see Appendix B). The case managers of nine participants were not sent a survey to complete with their client as their client had not had their bicycle for 8 weeks or more (n=6), or they had not yet received a bicycle (n=3).

Case managers of BuyCycles participants

In August-September 2018, an online survey was sent to the 16 case managers of the 24 BuyCycles participants who had received a bicycle. One of those case managers no longer worked at the organisation, so did not receive the survey invitation. A reminder email was sent one week later. The survey contained nine brief questions about the case manager's experience supporting their client(s) with BuyCycles (see Appendix B). Five case managers each had two clients who were BuyCycles participants, and two case managers each had three clients who were BuyCycles participants.

Data analysis

Descriptive administrative data were analysed using Microsoft Excel. Interview and written free-text comments were analysed using an inductive thematic analysis to code the data and identify common categories (Braun & Clarke, 2006; Green et al., 2007; Liamputtong, 2013).

¹⁰ Total response ethnicity is used, where people who reported more than one ethnic group are counted once in each group reported. This means that the total number of responses for all ethnic groups can be greater than the total number of people who stated their ethnicities (and therefore, percentages may not sum to 100). In this report "Level 1" ethnic groups are used - i.e. Māori, Pacific, Asian, European, Middle Eastern/Latin American/African (MELAA) and Other (www.stats.govt.nz/Census/2013-census/info-about-2013-census-data/2013-census-definitions-forms/definitions/e.aspx)

Findings

Development and implementation of BuyCycles

Developing BuyCycles as a health promotion initiative

The idea for BuyCycles was formed after ICEcycles received significant demand for bicycles, especially from case managers with clients from Corrections and mental health services. In order to keep waiting times down, and continue to be responsive to their community, ICEcycles had to limit their service to people who live in the inner-east of Christchurch city. This meant that many case managers were seeking an alternative initiative that could provide their clients who live in other areas of Christchurch with a free or affordable second-hand bicycle.

This demand led the Active Transport Health Promoter at CPH to the idea of creating an “accommodating hire purchase, or pay-as-you-go, system” to support clients of mental health services to obtain a bicycle for transport. They shared the idea at a Healthy Christchurch¹¹ seminar and received positive feedback from mental health service case managers, who thought it would allow clients to pay off a bicycle while minimising any financial burden “if it could be paid at a very low rate”. Subsequently a steering group was formed which included representatives from CPH (the Active Transport Health Promoter who became the BuyCycles coordinator), mental health service providers, and Community Focus Trust.¹² The steering group developed terms of reference and a participant agreement form, and collectively addressed any challenges that arose. Over the pilot period, members were “meeting electronically” more often than face-to-face.

BuyCycles took more than a year to get up-and-running, as it took some time to find an organisation to “umbrella” the pilot financially; this role was filled by Community Focus Trust. BuyCycles received approximately \$3000 of “seed funding from interested organisations”, which included CPH, ComCare, Spokes Canterbury, and Go Cycle Christchurch. It was thought that this amount would enable the purchase of an estimated 20 bicycles for 20 clients. Offers of funding were received from other organisations, however due to the length of time between seeking funding and the project getting started, and change in personnel at these organisations, these offers were no longer available when BuyCycles was ready to be piloted.

Implementing BuyCycles as a pilot study

The BuyCycles coordinator designed a referral process for BuyCycles with support from the steering group members who provided advice on what might work well for participants given their experience working with people using mental health services. This process evolved slightly over the pilot period to better facilitate the needs of participants, case managers, and BuyCycles volunteers. The first step in implementing the BuyCycles pilot was contacting mental health service providers to let them know about BuyCycles and then informing them via email when BuyCycles was ready to take referrals from case managers for their clients who were keen to use a bicycle for transport. The

¹¹ www.healthychristchurch.org.nz/

¹² www.empowerchurch.co.nz/Community.html

coordinator chose this simple approach at first as it was important the pilot could keep up with demand. Case managers were notified in mid-January 2018 that BuyCycles was ready to receive referrals. They were then able to send a referral to the BuyCycles coordinator via email, who contacted the individual directly to discuss BuyCycles with them. Individuals could also refer themselves to BuyCycles by contacting the coordinator directly. If the individual was interested in taking part, the coordinator sent the BuyCycles agreement form to their case manager, who discussed and completed it with their client. The signed agreement was then returned to the coordinator.

An important aspect of BuyCycles is that participants get to choose their own bicycle according to their personal requirements, preferences, and budget. A BuyCycles buyer (or the BuyCycles coordinator, who has been filling the role of a buyer as well during the pilot) worked with the participant one-on-one to ascertain what type/size of bicycle would be most appropriate for them, and the maximum amount they wanted to spend. The bicycles came from a range of sources. Throughout the pilot, the coordinator and buyers kept “an eye on Trade Me” for good quality, well-priced bicycles and bid on them, even when they did not have a specific participant in mind at the time. One of the buyers has a good relationship with a bicycle rental company that sold some of their old stock to BuyCycles. During the pilot, 3-4 bicycles were donated. This means BuyCycles had a “stock” of several bicycles at any one time that participants could browse as well as using Trade Me if they wished. In addition, the coordinator met an individual who refurbishes bicycles to sell and who was happy for BuyCycles buyers and participants to come and view their range of bicycles.

Initially, the idea was for the buyer to “sit down and look at Trade Me” with participants for a specific bicycle but this process changed somewhat to the buyers also being proactive in looking for bicycles, as described above. Buyers found that most often participants preferred to look at and choose from the stock of bicycles rather than search on Trade Me, which could be time-consuming and confusing, with the added complication of the auction process. It was easy for participants to be “distracted” by bicycles on Trade Me that were not of very good quality and were therefore a more expensive investment in the long term. It was the role of the buyer to convey the importance of getting a bicycle with quality components that will last longer and need less maintenance. BuyCycles also had a supply of quality locks and helmets (some of which had been donated) for participants to choose from and purchase in conjunction with their bicycle, which is a requirement, and outlined in the BuyCycles agreement.

As the bicycles came from a range of sources, the prices varied quite widely. The coordinator recognised this was a problem as “some people would get the really lovely, well done-up \$45 bike” while others paid more for a similar quality bicycle. In some cases, the prices of bicycles were adjusted (e.g. free or very low-priced bicycles were given a slightly higher price so that the price of more expensive bicycles could be adjusted down) to make it fairer for participants. These adjustments were documented so that the process was transparent and it was clear that BuyCycles does not take a “cut”, or make any profit, from the sale of the bicycles.

Originally the idea was for case managers and participants to pick up the bicycle from the vendor, however it seemed “much more practical and streamlined” to get the BuyCycles buyer to pick up and pay for the bicycles at the same time. This way it was the buyer’s responsibility to ensure that the bicycle was paid in full on pick-up and was checked by the volunteer BuyCycles mechanic and in

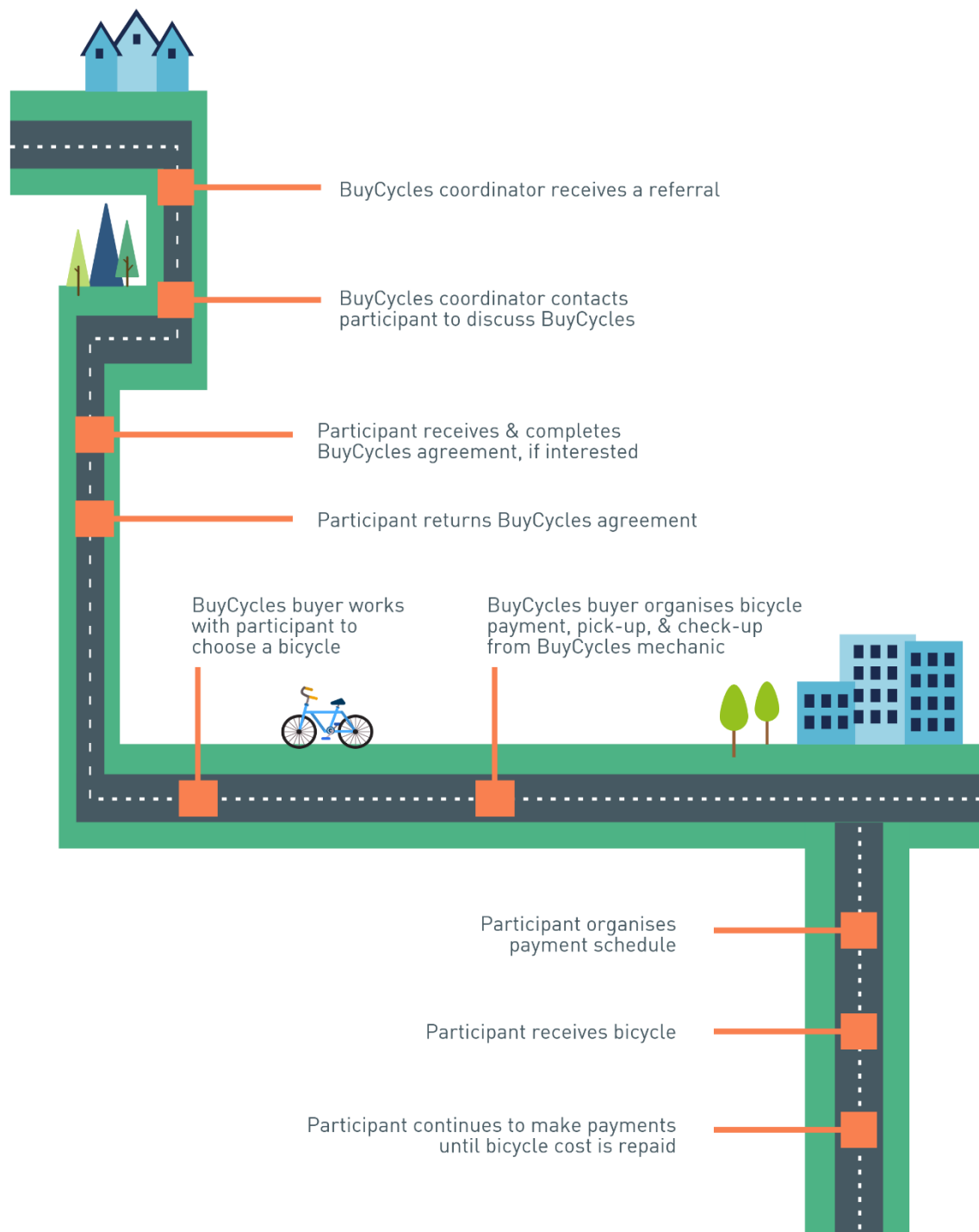
good working order before the participant received it. Often the bicycles just required volunteer mechanic's time or a small part or two to make them "a good, decent bike for people". The BuyCycles participant did "not wear the cost of labour of fixing the bikes", but some paid for smaller parts that were needed. BuyCycles tended to "carry the cost of big parts", or the unexpected need for parts, as they may have increased the cost for the participant too much.

Once the bicycle was checked, it could be picked up by the participant. On receiving their bicycle, all participants were given a laminated wallet-sized card with the contact numbers of key BuyCycles people (i.e. coordinator, buyer and mechanic), as well as the BuyCycles bank account number, so they had all the information they needed and could easily carry it around. If participants experienced any mechanical problems with the bicycle, they could contact the BuyCycles mechanic for advice.

The repayment rate and frequency were decided by the participant to suit their budget, and payments were set up via online banking or WINZ, sometimes with the help of the case manager. The participant could receive their bicycle before the first payment has been made, as sometimes setting up repayments was a long process. An important aspect of BuyCycles is that participants receive their bicycle as soon as possible so they can start using and enjoying it. Participants continued to make repayments until the full cost of the bicycle, helmet and lock was repaid, and were given the flexibility of making changes to the payment amount/frequency, if needed. The BuyCycles process is summarised, in a simplified format, in Figure 1.

Administrative data (such as payment schedules and bicycle/accessory costs) related to the initiative were recorded and managed using spreadsheets by the BuyCycles coordinator, and a monthly report was provided to the steering group which gave an update on BuyCycles' progress. The BuyCycles coordinator liaised with case managers, buyers, mechanics, and participants on an as-needed basis.

Figure 1. BuyCycles process



Successes, challenges, and lessons learnt

When asked what had been going well with BuyCycles, the coordinator highlighted the increase in referrals over time, particularly in the previous month, which they found “really gratifying ... but a bit scary too”. It was felt that word had got out and perhaps it takes about six months or so for a project to establish itself and get a reputation. Feedback from participants has been “mostly good”, and

sometimes the coordinator receives text messages from participants expressing their gratitude for, and happiness with, their bicycle. BuyCycles participants were all confident cyclists, and participants' "biggest barrier [to cycling] is lack of bike and lack of money", rather than inexperience or concern about riding a bicycle for transport. The coordinator enjoyed hearing positive feedback from participants and case managers. It was suggested that the supported purchase model used by BuyCycles could also be used to support people to purchase other "day-to-day items with a large up-front cost".

Having an associated charitable trust (to handle finances), a steering group (with members that have an in-depth knowledge of the target population), and technical support people (who are skilled in choosing and refurbishing bicycles) were identified as being key to implementing BuyCycles. The coordinator greatly appreciated the "goodwill" of the BuyCycles mechanics, who were always keen and ready for a new bicycle to work on for the project. The crucial role of participants' case managers was also acknowledged, as a point of contact, and to support the participants with tasks such as understanding and completing the BuyCycles agreement and setting up repayments. The need for a "back-up" contact person for each participant was raised, in case the participant is no longer a client of the case manager and needs to be followed up (for example, if repayments are missed).

Challenges experienced included the need for the coordinator (who currently performs several responsibilities within the pilot) to delegate more tasks to other individuals/organisations who could then take "a more active role" as the number of referrals increases, and coordinator capacity is stretched. It was felt that 12 referrals a month (as for August 2018) was quite "a lot to manage" (approximately two referrals a week is manageable at present), so additional promotion of BuyCycles at this stage was not needed. It was thought that delegating more of the tasks to others would also help to ensure the sustainability of BuyCycles as a community-led initiative.

To ensure bicycle/accessory suppliers and Trade Me vendors were paid promptly, the BuyCycles coordinator often paid for items out of their own pocket and then received a refund from the BuyCycles account (administered by the steering group treasurer) at a later date. Sometimes this meant having to wait until sufficient funds were available in the BuyCycles account from participant repayments.

It was accepted that BuyCycles may not recoup the full agreed price of the bicycle and accessories from every participant, however these losses would be "absorbed", and accepted as part of the supported purchase model. It was also noted that some "fundraising" would be required if an increasing number of referrals were received, to ensure sufficient funds to be "nimble enough" to meet new participants' needs. Further funding has not been sought at this stage, and it was acknowledged that BuyCycles was probably not financially sustainable in the long-term. If the project continues into the future "funds will be dwindling", as participants will take some time to pay off their bicycles, so it will be necessary to look for more funding. There was optimism that additional funding could be sought with "good data and good stories", and BuyCycles' appeal as a "practical" and "feel-good" initiative.

The potential need for a specific space to store BuyCycles stock was also identified as it was "never the intention to have bicycles in storage". Community Focus Trust has indicated that they will be able to store bicycles, but are currently in the middle of rebuilding their premises due to earthquake-

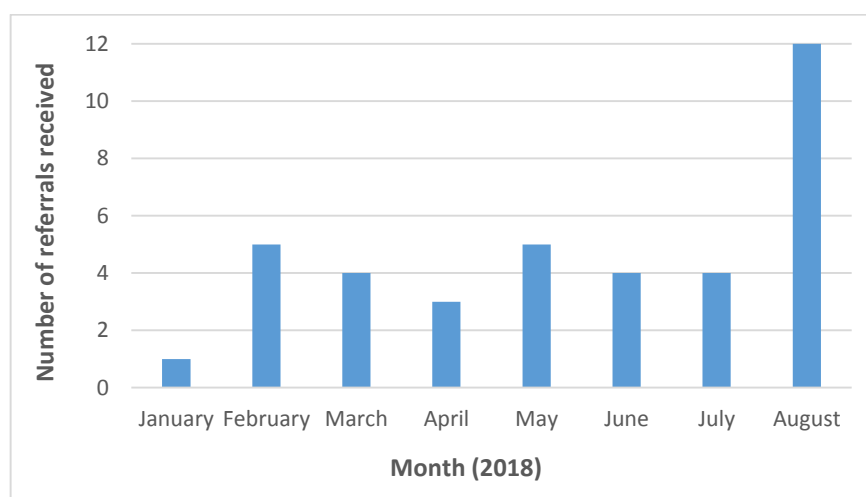
related damage. Once bicycles were stored there, Community Focus Trust would be more likely to take on greater responsibility for the day-to-day management of the project.

From time to time the coordinator was contacted by participants about problems with the bicycles (for example, a flat tyre). Even though participants were provided with the telephone number of a BuyCycles mechanic who could advise them on bicycle-related issues, the coordinator felt that some people may have felt more comfortable contacting the coordinator, who they were already familiar with, rather than someone they had not met before. A couple of participants had their bicycle stolen, however, these participants were provided with a replacement bicycle and could continue to pay what they had agreed for the original bicycle.

BuyCycles uptake

In the first seven months of the BuyCycles pilot, 38 referrals were received from Comcare (n=10), the Salvation Army (n=7), Pegasus Health (n=3), Emerge Aotearoa (n=3), Purapura Whetu (n=2), Pukeko Blue (n=2), Housing First (n=1), and self-referrals (n=8). The source of two further referrals was not recorded. There tended to be 3-5 referrals per month, increasing to 12 referrals in August (Figure 2). Of the 38 referrals, 29 people returned a BuyCycles agreement. On average, it took 4 days between the BuyCycles coordinator receiving a referral and receiving a BuyCycles agreement (range 0-13 days). Eleven people decided not to participate in BuyCycles due to them purchasing a bicycle elsewhere (n=4), concern from a case manager or family member about their ability to participate (n=2), illness (n=1), not being able to find a suitable bicycle (n=1), using ICEcycles instead (n=1), or for an unstated reason/no response given (n=2). In total, 27 participants worked with a BuyCycles buyer to choose a bicycle and develop a payment plan.

Figure 2. Number of referrals received by BuyCycles each month



BuyCycles participants

Of the 27 BuyCycles participants, three-quarters were male (n=20, 74.1%), and most were 30 years of age and older (Figure 3). One-quarter of participants were Māori (Figure 4).

Figure 3. Age of BuyCycles participants

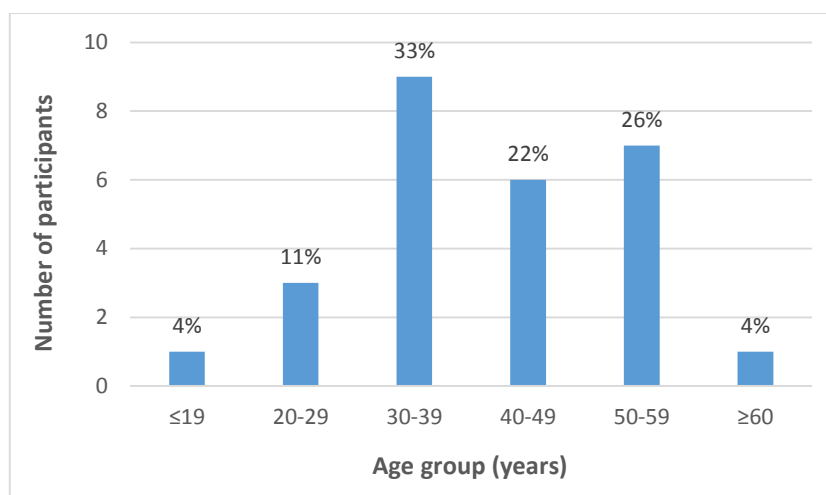
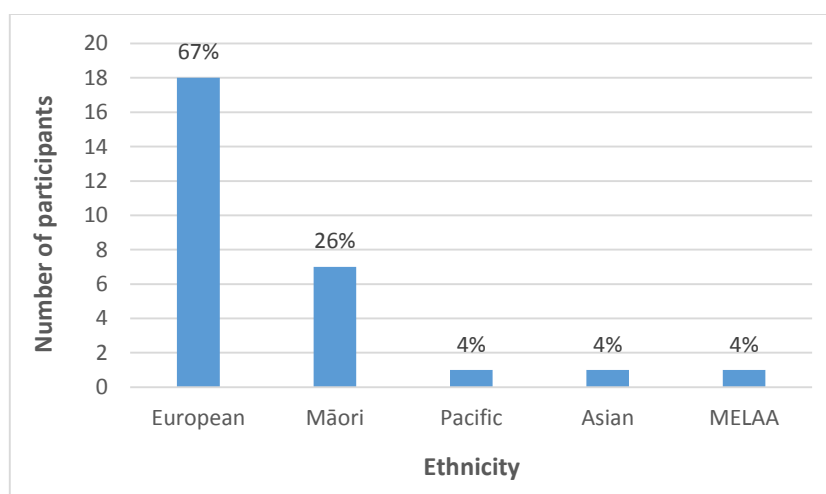


Figure 4. Ethnicity of BuyCycles participants



BuyCycles purchases

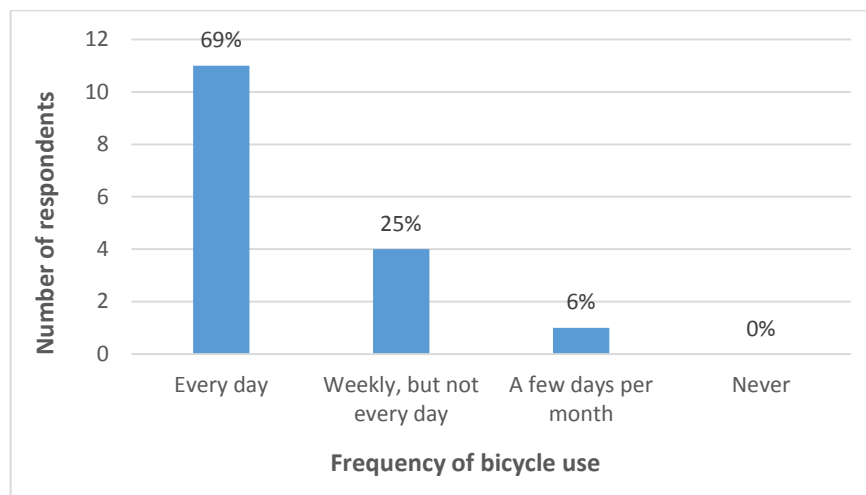
In the first seven months of the pilot, 24 participants received their bicycle, and a further three were still in the process of selecting a bicycle. It took, on average, 11 days between BuyCycles receiving a participant's referral and them receiving their bicycle (range 0-41 days). Bicycles were sourced from BuyCycles stock (n=16), Trade Me (n=6), and an independent retailer who refurbishes used bicycles (n=2). The average cost of a bicycle was \$99 (range \$50-160), and the average combined cost of a bicycle, helmet and lock was \$131 (range \$55-210). The majority of participants (83.3%, n=20) chose to repay \$5 per week (range \$5-15 per week). As of 31 August 2018, three participants had fully repaid the total cost of their bicycle, helmet and lock, 13 participants were currently making repayments, and eight participants had not yet started repayments.

Two participants had their bicycles stolen – one bicycle was found, and the other participant received a replacement bicycle from BuyCycles stock on the condition that it would be returned to BuyCycles if their original bicycle was recovered.

Views of BuyCycles participants

In total, 16 participants provided feedback on their experience with BuyCycles, and two participants did not complete the survey as they could not be contacted after multiple attempts (response rate = 89%). Since receiving their bicycle, approximately two-thirds of respondents (69%, n=11) stated that they used it every day, and one-quarter used their bicycle at least weekly (25%, n=4) (Figure 5). Cold winter temperatures meant that one participant used their bicycle only a few days per month, but felt that they would use it more when the weather improved.

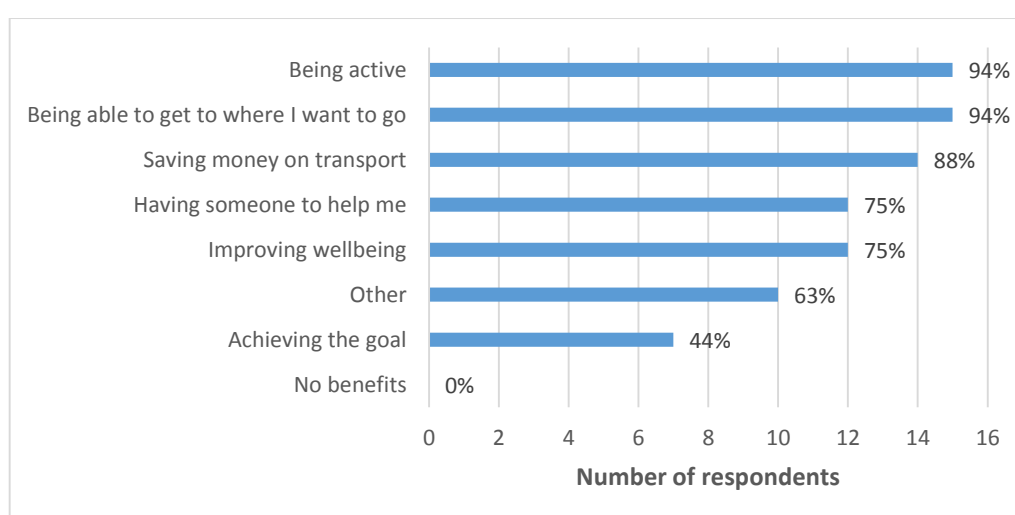
Figure 5. Frequency of bicycle use



All respondents identified at least one benefit of participating in BuyCycles, and most identified more than one benefit. The most common benefits of participating in BuyCycles identified by respondents were being active (n=15), being able to get to where they wanted to go more easily (n=15), and saving money on transport (n=14) (Figure 6). Many respondents also felt that having someone to help choose the bicycle was a benefit (n=12), and participating in BuyCycles improved their wellbeing (n=12).

Ten respondents mentioned other benefits of BuyCycles in their own words. Some of these responses further explained how BuyCycles improved their wellbeing in terms of improved sleep, weight loss, riding their bicycle being a “fun” and “enjoyable” activity, and going for a bicycle ride if they were “feeling down”. Using their new bicycle for transport allowed respondents to go to places in Christchurch they may not usually go to, and saved them time and money. They could be more “independent getting to appointments” and not have to “rely on others for transport” as well as avoiding public transport options that made them feel uncomfortable due to social phobia. Having helmets and locks available was appreciated, and respondents also expressed their gratitude “to get a nice bike” and said BuyCycles was a “blessing”. One respondent felt that they would not have “gotten a bicycle at all without the project”.

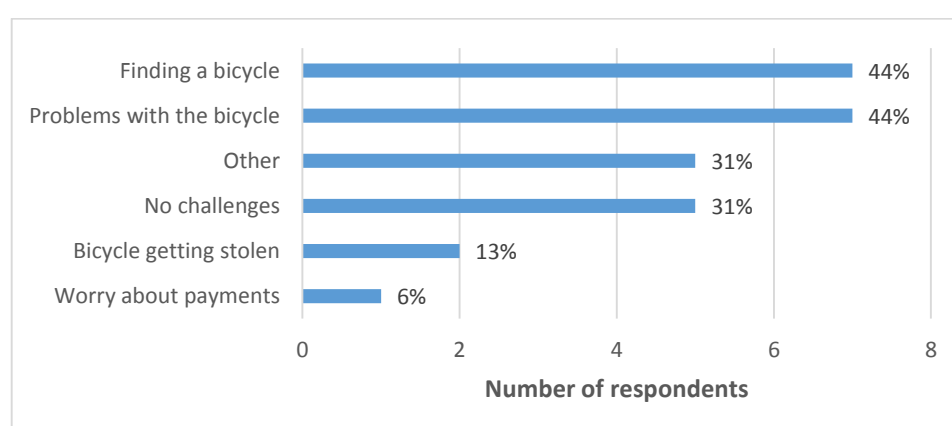
Figure 6. Benefits of participating in BuyCycles



The most common challenges of participating in BuyCycles identified by respondents were finding a bicycle that suited them (n=7), and problems with the bicycle (such as getting a flat tyre, or the bicycle needing repairs, n=7) (Figure 7). Two respondents said their bicycle being stolen was a challenge and one respondent mentioned that payments for BuyCycles caused them to worry. Respondents could state more than one challenge if applicable. Five respondents felt that there were no challenges associated with participating in BuyCycles.

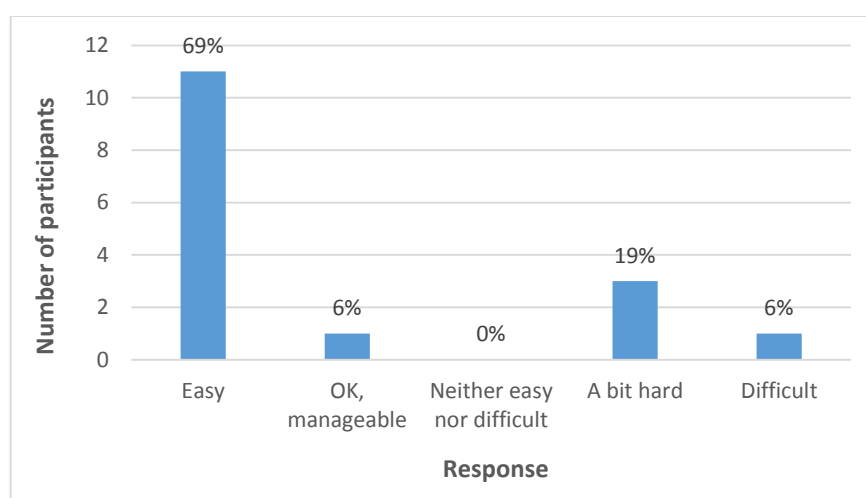
Five respondents mentioned other challenges in their own words, which included bicycle problems that they did not know how to repair themselves (e.g. tyre punctures) (n=2), finding a bicycle that they liked within their budget (n=2), and setting up the payments through WINZ (n=1). However, two respondents explained that BuyCycles helped them to overcome these challenges by being directed to places that offered free bicycle repairs and helping them to “choose a lower-priced but quality bike”.

Figure 7. Challenges of taking part in BuyCycles



Most respondents found it easy to make the payments for their bicycle (n=11) (Figure 7). One respondent said the repayments were OK/manageable, two thought it was “a bit hard” and one felt that it was difficult to make the repayments. No respondents stated that they had to go without things to pay for their bicycle.

Figure 8. How easy/difficult participants found making repayments



All respondents said that they would recommend BuyCycles to others, except one respondent who said that they “maybe” would recommend it. Five people provided responses to why they would recommend BuyCycles, which included positive responses such as BuyCycles is “awesome”, the BuyCycles team was very helpful and understanding, and the process was “so simple” because they were able to pay the bicycle back at a low rate. Another respondent said they would recommend BuyCycles because it is “good for exercise” and helps them to set goals.

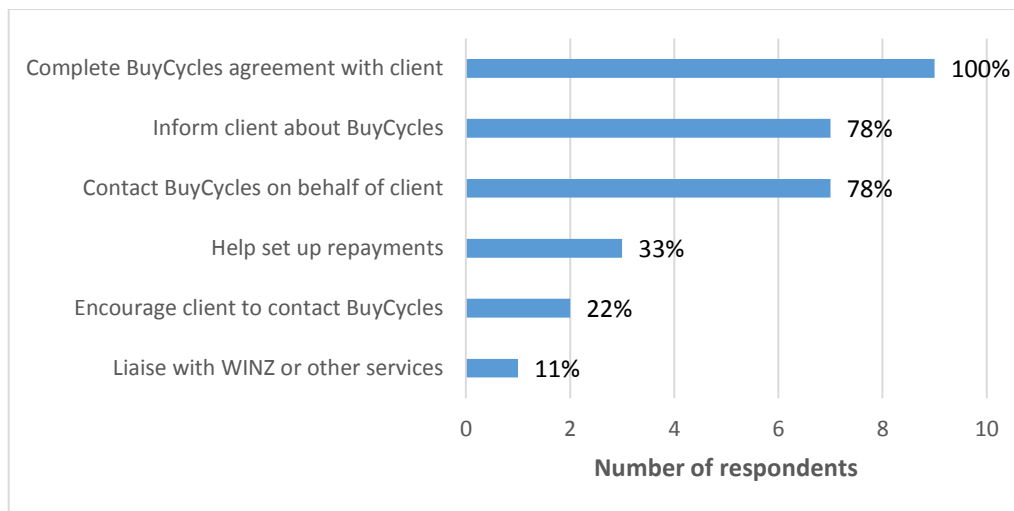
Four respondents provided ideas on how BuyCycles could be improved. Two respondents thought it could be advertised more, such as in the “paper, internet, everywhere”, one respondent said BuyCycles should ensure the bicycle is in working condition before the client received it (as they were still waiting for their bicycle to be fixed), and another respondent felt the communication between WINZ and BuyCycles could be improved. A further four respondents felt that BuyCycles was doing a good job and they should “keep up the great work”.

Views of BuyCycles participants’ case managers

Nine case managers of BuyCycles participants provided feedback on their experience with BuyCycles via the online survey (response rate = 60%). Case manager respondents heard about BuyCycles from three sources – notification from their employer (n=4), a colleague (n=3), or direct contact from the BuyCycles coordinator (n=2). Each case manager had either one (n=3), two (n=5), or three or more (n=1) clients who were BuyCycles participants.

All case manager respondents undertook BuyCycles-related tasks with their client, with most undertaking multiple tasks (Figure 9). Most commonly these included completing the BuyCycles agreement with their client (n=9), telling their client about BuyCycles (n=7), and contacting BuyCycles on their client’s behalf (n=7).

Figure 9. BuyCycles-related tasks that case managers undertook with their clients



When asked what they thought some of the positive aspects associated with BuyCycles were, eight case manager respondents provided their own free-text responses. Some of the positive aspects identified by respondents included that BuyCycles provided an efficient, convenient, and practical way for people to access a bicycle (n=3), which was made possible by “very helpful” staff (n=1). Respondents felt that having the bicycles checked by a BuyCycles mechanic was important (n=1) and the result was that the bicycles participants received were “solid” (n=2). Including a helmet and lock as part of the bicycle “package” was commended (n=2), as it was mentioned that these are items a participant might otherwise delay purchasing (n=1). Another positive aspect was that participants could access an affordable and easy-to-manage repayment plan with a realistic budget (n=3), and the initiative provided financial help to participants (n=1), who no longer had to rely only on expensive transport options, such as buses (n=1). It was felt that having a bicycle provided “huge” physical and mental health benefits (n=1), and increased participants’ independence (n=1). BuyCycles also enabled opportunities that participants may not have otherwise been able to access due to their low income and high public transport costs, such as seeking employment and medical care (n=1). Respondents appreciated that BuyCycles provided the opportunity for participants to choose their own bicycle, make decisions, take responsibility, and negotiate costs and repayment, which improved participants’ self-efficacy and treated them with respect (n=6).

When asked what they thought some of the challenges associated with BuyCycles were, case manager respondents could select from a list of options, as well as providing their own responses. Five respondents felt that there were no specific challenges with BuyCycles. Of the four respondents who identified some challenges, these included setting up repayments (n=3) – such as liaising with WINZ and possibly having to “keep on track with repayments” if the client is not able to do this, an increased workload (n=2), and coordinating with their client (n=1).

Most respondents felt that their clients found it easy (n=6) or OK/manageable (n=2) to participate in BuyCycles, and one respondent felt that for their client it was “a bit hard”. All respondents except one said that they would refer other of their clients to BuyCycles as it was a “fantastic service”, with “wonderful communication”, and provided a “good opportunity” for their client to get a bicycle within their means. One respondent felt that having to follow up on repayments placed a strain on

their relationship with the client and got in the way of the main focus of their engagement with the client.

When asked what BuyCycles could do differently in the future, suggestions from three case managers included having a wider choice of bicycles available, arranging finance directly with the client, and setting up a WINZ supplier system for those on very low incomes where the repayments are paid directly from WINZ rather than from their personal bank account.

Finally, case managers were asked if they had any further comments about BuyCycles. Four respondents stated that it was a great service, particularly for “vulnerable clients” which makes “a positive difference for people and supporting them towards independence”. Two respondents stated they were happy with the initiative and had had a positive experience working with BuyCycles. BuyCycles was encouraged to “keep up the good work” by two respondents and it was hoped the initiative would grow to become available to more clients in the future.

Discussion

This evaluation of a small pilot trialling a supported purchase model suggests it is a feasible way to increase bicycle ownership among clients of mental health services in Christchurch, who may be experiencing transport and financial disadvantage. Overall, findings from the pilot indicate that BuyCycles is contributing to its main objectives by increasing access to transport options, increasing cycling for transport, and developing collaborative networks with mental health service providers across Christchurch with a common project.

BuyCycles receives referrals and works alongside participants to support them in choosing a suitable bicycle, lock and helmet, and develop an individualised payment plan with their case manager that fits their current budget. The concept was developed from an observation that many ICEcycles participants were clients of mental health services and those living outside the ICEcycles catchment area were missing out on the opportunity to obtain a bicycle for transport. By involving steering group members from mental health service providers in the development of the initiative, and making some small adjustments during the pilot, the BuyCycles process was shaped around what would work best for the participants given that some may be experiencing significant challenges in their day-to-day lives. Coordination of BuyCycles requires a high level of flexibility and understanding to manage the day-to-day tasks of recruiting and meeting participants, managing bicycle purchase, pick-up, storage, and maintenance, keeping track of finances, and communicating with all of the stakeholders.

BuyCycles participants were keen and capable cyclists, and the initiative appears to be particularly attractive to males of European and Māori ethnicity. Feedback from participants on their experience of participating in BuyCycles was positive and many expressed their gratitude and appreciation for the initiative. Participants used their new bicycles often, which meant they were able to get to where they wanted to go more easily while saving money on transport. They also felt it had a positive impact on their physical activity levels and wellbeing. While some participants reported it was challenging to find a bicycle that suited them, or experienced technical issues with their bicycle, many appreciated having a BuyCycles support person to help them choose a bicycle and arrange maintenance. Most participants found it easy to make the payments for their bicycle, and even though a small number found it more challenging, no one reported that they had to go without things to make the repayments.

There is a lack of published literature on health promotion initiatives using similar supported purchase models, which suggests that BuyCycles is a novel approach towards alleviating transport disadvantage. The supported purchase model can be tailored to the economic situation of the individual by allowing flexible timeframes and a manageable level of payment which retail businesses may not be able, or willing, to accommodate. It also avoids any negative consequences in terms of credit ratings, interest payments, debt, and related stress as a result of any missed payments or changes to the repayment plan. It was suggested that this type of purchase model could be applied to a wider range of day-to-day items which may have a significant upfront cost, for example, home appliances or quality winter footwear and clothing.

Mental health service case managers are an integral and valued part of the BuyCycles process, supporting their client in the administrative tasks such as completing the BuyCycles agreement and organising repayments. Case managers felt that BuyCycles provided a useful service which enhanced the wellbeing, finances, and independence of their clients. Case managers felt the BuyCycles model treated their clients with dignity and respect by giving them the opportunity to make their own decisions and take responsibility to work towards a goal. Almost all case managers stated that they would refer other suitable clients, which was demonstrated by the fact that several case managers had at least two clients who were participating in BuyCycles. The main challenges experienced were associated with setting up payments and increased workload. Initial difficulties with payments via WINZ have been addressed by BuyCycles so that future payments via this method will be easier to process.

The uptake of BuyCycles in the first seven months of the pilot is promising, and referral numbers are increasing over time. This growing demand highlights the need for strategic planning for the initiative in terms of future funding and division of labour to ensure its longer-term growth and sustainability.

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Appendices

Appendix A: Interview schedule for BuyCycles coordinator

Qualitative information from the BuyCycles coordinator was collected using the brief questions listed below about their experience developing, planning, and implementing BuyCycles.

1. How did the idea for the project develop?
2. How was funding sourced?
3. How were relationships with stakeholders (e.g. steering group members and organisations, funders, bicycle buyers, mental health service providers, mental health service case managers) developed?
4. What was the referral process for BuyCycles participants?
5. How was information managed between BuyCycles, referring organisations, and case managers?
6. What went well?
7. What challenges were experienced?
8. What could be done differently in the future?

Appendix B: Survey questionnaires

BuyCycles participants



Views of BuyCycles participants

Thank you for completing this survey about being part of BuyCycles. We are interested to know how you have found it, and your honest opinions about the services you have received.

Your responses will help to evaluate and improve BuyCycles.

This survey has 7 brief questions and will take about 5 minutes to complete. The answers are confidential.

* 1. Since you received your bicycle, how often do you use it?

- ☐ Every day
- ☐ Weekly, but not every day
- ☐ A few days per month
- ☐ Never (Why is that?)

* 2. What are some of the benefits of taking part in BuyCycles?

Please select as many responses as are relevant

- ☐ Being able to get to where I need to go more easily
- ☐ Saving money on transport
- ☐ Being active
- ☐ Improving wellbeing
- ☐ Achieving the goal of paying off the bicycle
- ☐ Having someone to help me choose the bicycle (e.g. the right size, a quality brand, a fair price)
- ☐ No benefits
- ☐ Other (please specify)

* 3. What are some of the challenges of taking part in BuyCycles?

Please select as many responses as are relevant

- ☐ Finding a bicycle that suited me
- ☐ Problems with the bicycle (e.g. flat tyre, needing repair, uncomfortable)
- ☐ Bicycle getting stolen
- ☐ Worry related to having to make the weekly payments
- ☐ No challenges
- ☐ Other (please specify)

* 4. How easy or difficult is it for you to make the payments for your bicycle?

Easy	OK, manageable	Neither easy nor difficult	A bit hard	Difficult
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 5. Do you have to go without anything to pay for the bicycle?

- ☐ No
- ☐ Yes (What? Please describe)

* 6. Would you recommend BuyCycles to other people that you know?

- ☐ Yes
- ☐ Maybe
- ☐ No

Why is that?

7. How do you think BuyCycles could be improved?

Thank you for answering these questions for us - we really appreciate it!

Case managers



Views of case managers & advocates of BuyCycles participants

Kia ora

You are receiving this survey because one of your clients received a bicycle from BuyCycles (at Community & Public Health, Canterbury District Health Board) this year.

To help with future planning for BuyCycles, the Information Team at Community & Public Health have been requested evaluate the initiative. We are interested to know how those working alongside BuyCycles participants have found it, and your honest opinions about the services your clients have received.

This survey has 9 brief questions and will take less than 10 minutes to complete. The answers are anonymous and confidential.

Thank you for completing this survey about being part of BuyCycles; your responses will help to evaluate and improve the initiative.

If you have any queries about this survey, feel free to contact Hannah (Public Health Analyst) at Community & Public Health (hannah.mulrine@cdhb.health.nz)

1. How did you hear about BuyCycles?

Please select as many responses as are relevant

- ☐ Notification from my workplace
- ☐ The BuyCycles Coordinator contacted me directly
- ☐ My client told me about it
- ☐ A colleague told me about it
- ☐ Other (please specify), or additional comments

2. How many of your clients have taken part in BuyCycles?

- ☐ 1
- ☐ 2
- ☐ 3 or more

Comments

3. What tasks associated with BuyCycles did you do?

Please select as many responses as are relevant

- ☐ Tell your client about BuyCycles
- ☐ Encourage your client to contact BuyCycles
- ☐ Contact BuyCycles on behalf of your client
- ☐ Complete the BuyCycles Agreement with your client
- ☐ Help set up repayments for the bicycle
- ☐ Liaise with WINZ, or other services
- ☐ None
- ☐ Other (please specify), or additional comments

4. What, do you think, are some of the good aspects of BuyCycles?

5. What, do you think, are some of the challenges of BuyCycles?

Please select as many responses as are relevant

- ☐ Increased workload
- ☐ Coordinating with clients
- ☐ Coordinating with BuyCycles
- ☐ Setting up repayments
- ☐ No challenges
- ☐ Other (please specify), or additional comments

6. How do you think your client found participating in BuyCycles?

Easy	OK, manageable	Neither easy nor difficult	A bit hard	Difficult
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Would you refer any other of your clients to BuyCycles?

- ☐ Yes
- ☐ Maybe
- ☐ No

Why is that?

8. What could BuyCycles do differently in the future?

9. Do you have any further comments about BuyCycles?

Thank you for answering these questions for us - we really appreciate it!