Floresco Toowoomba

Final Evaluation Report
March 2019

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Executive Summary

The problem

Mental health illness in Australia is common and costly, with around half a million people accessing mental health services in Queensland each year[1]. People who live with a mental illness often experience a range of adverse social, economic and health outcomes. Timely access to a range of health and social services is crucial for managing this illness, however models of care are often fragmented and may be inadequate to address complex patient needs.

The innovation

The Floresco project is a community-based integrated service model that provides a holistic, person-centred, 'one-stop shop' for clinical care and psychosocial support in the Darling Downs Hospital and Health Service (DDHHS) region. The Floresco Centre involves a consortium of co-located health providers and social service agencies delivering a range of community-based psychosocial support services including one-to-one care, group sessions, peer support, self-help, and family and carer support. It uses a centralised and streamlined process for the referral, intake, triage, assessment and treatment of adults experiencing mental illness.

Key findings

The Floresco project increased the accessibility of integrated mental health care in the DDHHS region. The new model of care was successfully implemented, well accepted by partner organisations and front-line staff, and received overwhelmingly positive feedback from service users. Evidence also suggests that the project may have decreased mental health emergency department presentations and mental health admissions at Toowoomba Hospital. However, direct attribution is difficult due to limitations in the robustness of the data, and a number of additional hospital avoidance strategies in place within DDHHS.

Nevertheless, an estimated reduction in mental health admission length of stay of 6.7% (0.78 days) was observed after implementation, at a cost of $323 per bed day saved. Significant improvements were also seen in mental health outcomes and quality of life within a representative sample of Floresco service users. This includes a clinically important and statistically significant gain of 0.13 Quality-Adjusted Life Years (QALYs). While cost-effectiveness analysis was challenging, the current Floresco model is estimated to return $1,953 per QALY gained.

Recommendations

Given the improvements in health service and clinical outcomes demonstrated to date and implementation success, the Australian Centre for Health Services Innovation (AusHSI) strongly recommends continued funding of the Floresco service model. The centre is clearly meeting a need within the DDHHS and is receiving positive support from all stakeholders. AusHSI believes this project is sustainable if the partnerships established so far are nurtured and the threats to implementation identified in this report (e.g. funding, data sharing) are attenuated. It may be particularly important to achieve better systems-level integration for data collection, data-sharing and patient sharing. This evaluation provides evidence for the transferability of the Floresco model, now successfully scaled from a similar project in West Moreton Hospital and Health Services. The outcome and implementation evaluations in Toowoomba support those performed in Ipswich, with new knowledge added about value for money. Given that both these evaluations lacked a control group which might have allowed for more conclusive attribution of reduced health service use and mental health recovery to Floresco attendance, it would be prudent to generate stronger evidence to assess true effectiveness and long-term health impacts. Sustaining the model to generate this evidence via more robust research methods should be a priority for future work.

Floresco Toowoomba Project

Darling Downs
Hospital & Health Service

Implement a co-located, community-based, integrated service model for intake, assessment, clinical care & psychosocial support of mental health and well-being issues in the DDHHS

Target Population

The community-based Floresco Centre was established within the centre of Toowoomba to improve accessibility. It provides services for adults with mental health issues living within the DDHHS geographical catchment area.

The Problem

Timely access to a range of health & social services plays a crucial role in addressing mental health issues. Currently however, it is hypothesised that adults who experience mental health illness in the DDHHS region receive inadequate & fragmented care delivered by a range of services without partnership or continuity.

Patient Outcomes

Improved mental health outcomes in a variety of clinical domains

Improved ability to manage day-to-day life

Improved quality of life (0.13 QALYs)

High levels of satisfaction with experience of care

Provider & System Outcomes

There is evidence of declining ED presentation rates, lower hospitalisation rates & reductions in admitted length of stay for patients with mental health issues at Toowoomba Hospital since the Floresco centre opened. Cost of service is $323 per bed day saved. Floresco also improved provider job satisfaction and perceived ability to care for patients.

1,347
Patients used co-located services

579
Patients at group sessions

Key Service Elements

Co-location of a range of clinical & non-clinical services

Flexible, community-based psychosocial services

Centralised referral, intake, triage & assessment pathway

Single common consumer record

6.7%
Shorter length of stay

93%
of patients highly satisfied with experience of care

$1,953
per QALY gained

"My experience with Floresco has been both life-saving and life-altering"

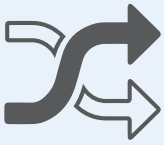
Success Factors

Capable & connected project lead

Strong networks & partnerships

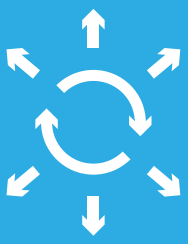
Continuous community & health provider engagement

Strength & design of innovation



Support for change in DDHHS

The project delivered a more accessible, holistic model of care for people with mental health issues in the DDHHS.



RECOMMENDATION

Sustain & spread

Given the improvements in health service & clinical outcomes demonstrated to date & strong implementation success, AusHSI recommends continued funding of the Floresco service model. The centre is clearly meeting a need within the DDHHS & is receiving positive support from all stakeholders. AusHSI believes this project is sustainable if the partnerships established so far are nurtured & the threats to implementation are attenuated. There is also good evidence for the transferability of the Floresco model to other Queensland HHS's.

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Introduction

Overview of problem and implications for health service delivery

It is estimated that one in every five Australians aged 16-85 will experience a mental illness in any given year[2]. About half of these will also receive clinical care, equating to around 500,000 people accessing mental health services in Queensland each year[1]. People who live with a mental illness often experience a range of adverse social, economic and health outcomes. Consequently, mental health disorders are also the largest contributor to the non-fatal burden of disease in Australia due to years of healthy life lost living with a disability[3].

Timely access to a range of health and social services plays a crucial role in addressing mental health issues and can prevent acute episodes from developing into more severe long-term conditions. Currently however, it is hypothesised that adults who experience a moderate or severe mental health illness in the Darling Downs Hospital and Health Service (DDHHS) region receive fragmented care delivered by a range of services without partnership or continuity. This type of service provision is likey inadequate to address their complex health and social concerns, as well as those of their carers and families. Additionally, only a small proportion access non-clinical services such as housing, employment and community support. Integrated services, co-location, and interagency joint service planning have all been associated with positive clinical and non-clinical outcomes for patients[4,5]. There is a need therefore for an integrated care model that provides a holistic, person-centred, 'one-stop shop' for clinical care and psychosocial support in this region.

The innovation

The Floresco Toowoomba Project aimed to address a service need by implementing an integrated intake, assessment and care coordination model as a way of providing a comprehensive solution for the management of mental health and well-being in the DDHHS region. This model is based on the already established Floresco Centre in Ipswich.

The project involves a consortium of co-located agencies including clinical services, employment, housing, primary mental health, general practice, Aftercare, allied health and psychological support providers. The centre delivers a range of community-based psychosocial support services including one-to-one care, group sessions, peer support, self-help, and family and carer support. Initially, the project was to be delivered within the scope of the following key components:

- Co-location of a range of clinical and non-clinical services
- A centralised and streamlined process for the referral, intake, triage and assessment of adults experiencing mental illness
- An IT solution which uses a single common consumer record to document and manage care
- The development and use of a common system for monitoring and measuring outcomes
- Provision of an Integrated Care Plan for each consumer which encompasses clinical care and community support services

The extent to which each of these components could be implemented is discussed later in the evaluation. A timeline of the Floresco project's activities is provided in Table 1.

Table 1: Floresco project timeline for evaluation

Project Timeline	Start Date
First referrals received	August 2017
Official opening of Floresco centre	October 2017
First co-located service operational	November 2017
Group sessions commenced	June 2018

Target population and setting

The Floresco Centre was established within the centre of the regional city of Toowoomba and is community based to improve accessibility. It provides services for adults (18-64 years old) with mental health issues living in a mix of urban and rural communities within the DDHHS geographical catchment area.

Evaluation

The evaluation is designed to measure outcome and implementation aspects of the project to provide useful information for decision making for the DDHHS, as well as other relevant stakeholders. A mixed-methods approach was adopted to evaluate the project outcomes, which sought to address three objectives:

- Objective 1: Quantify the outcomes of the project in terms of accessibility to integrated mental healthcare; utilisation of health services; patient outcomes and satisfaction; mental health workforce development and integration; and value for money
- Objective 2: Identify factors which supported, and barriers which impeded, successful implementation of the Floresco model, change to services, and achievement of the stated project outcomes
- Objective 3: Describe an optimal process for the implementation and sustainability of such a model, should it be replicated in other settings or locations

An outcome evaluation and an implementation evaluation were conducted, both of which inform the overall evaluation of the project. The outcome evaluation utilised data from existing DDHHS data collections, and primary data provided by the project team. Criteria for implementation success was derived from a range of perspectives collected in data from open-ended text answers collected in surveys and a focus group with key decision-makers and stakeholders in the project. Further information about the data sources used for the evaluation are summarised in Appendix 1, Table A1. The findings of the implementation evaluation will be presented first in order to report more detail about the project and how it was implemented, before presenting the results of the outcome evaluation.

Implementation Evaluation

In evaluating the implementation of this project, the aim was to explore which factors facilitated or hindered the roll-out and uptake of the Floresco Centre innovation and if any of these factors significantly impacted the overall success of outcomes to date.

Implementation Framework

Evaluation of the Floresco project was based on the Consolidated Framework for Implementation Research (CFIR), a widely cited and rigorously developed determinants framework for implementation[6]. The CFIR framework was used to systematically and comprehensively frame the results by applying key constructs considered most influential for the project implementation in terms of valence (positive or negative influence on implementation) and strength (strong or weak influence on implementation).

An in-depth semi-structured focus group was conducted with eight key project stakeholders. The focus group followed a series of questions, a complete list of which are provided in Appendix 1. Common themes that emerged throughout the evaluation were organised into the five CFIR domains: (1) intervention characteristics, (2) outer setting, (3) inner setting, (4) characteristics of individuals, and (5) process of implementation. Tables outlining all of the identified facilitators and barriers to implementation are provided in Appendix 2. The main findings are summarised here along with supporting qualitative evidence.

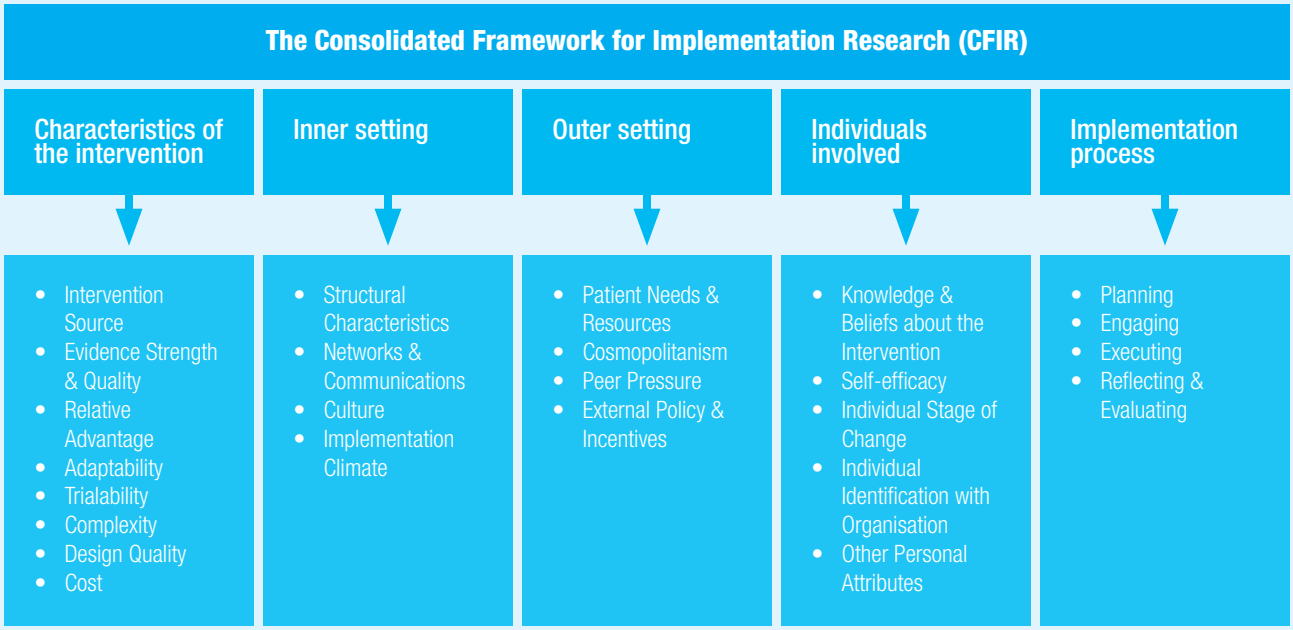

Figure 1: The Consolidated Framework for Implementation Research: Domains and constructs.

What worked? What were the facilitators of implementation?

The Floresco project had demonstrable implementation success. Many factors emerged as working well and facilitating implementation, including the strength of partnerships between service organisations involved in the project and the depth and breadth of community engagement owing in large part to the strategic appointment of centre manager. A detailed overview of all facilitating factors is presented in Appendix 2. Factors identified as major implementation facilitators with supporting qualitative data are summarised below.

Human capital of the centre manager

Strategic recruitment of the individual who served as centre manager was a major contributor to implementation success. The centre manager was competent and had the capacity to function in multiple roles involving not just the day-to-day centre management, but also effective community and health service engagement. Her clinical background and knowledge meant more smooth and successful partnerships with external service providers and internal co-located providers. Further, the fact that she had pre-existing relationships with and the respect of key people within the DDHHS removed several obstacles to implementation that would likely have been present had someone else without these qualities been hired to manage the centre. Other stakeholders noted that while it would not have been impossible for a different individual to build those same relationships and rapport, implementation would likely have been much slower and more difficult.

> *"<Centre Manager's> connection back to the HHS has been really great too, clinically and process wise as well. I think the established networks, knowing who's who in the zoo, knowing what service they were providing, who you need to go to to market and how to market the service, and also trusting her ability."*
>
> *Project Stakeholder*

> *"And the other thing is, <centre manager> brings knowledge of Qld Health with her, so she understands what it is that is required for us to be able to transfer between two very different systems, I think that's really key to that partnership working really well."*
>
> *Project Team Member*

> *"The partnerships from the start had been really strong and that had initially been based on personal professional relationships that people had had, but then I think, as the team has grown…different representatives have come in, I think that it's grown more than just those people who were initially involved at the start. An example of that and also a strength is <centre manager>. So <centre manager> is still a HHS staff member, taking some leave without pay from the HHS to do this, so the HHS granted that, and then having <centre manager> here has been one of the big strengths. You know with all of her experience.*
>
> *Project Team Member*

Networks and partnerships

The well-connectedness of the centre manager was only one example of how pre-existing working relationships amongst several key project stakeholders was a major facilitator of implementation. Yet these pre-existing partnerships do not explain all of the success in this aspect of implementation because numerous staff changeovers were reported at management levels in multiple organisations. The ways in which staff turnover hindered implementation are noted in the following section on implementation barriers. However, the project team worked hard at building relationships, communicating regularly, and having open, even brutally honest conversations, in order to strengthen those partnerships and overcome barriers to implementation.

> *"<Another project lead> and I went off for training and I think that helped as well not just around the evaluation component, but sitting in a room and having a look and getting to know the way she worked and the way she thinks about things, that underlying side of things really helped as well."*
>
> *Project Team Member*

> *"So we had some pretty intense discussions at the start around what an evaluation would actually look like and therefore what were the key things that would need to be in play to meet the needs of Aftercare and Qld Health as well. So there's some pretty big challenges around implementing something and that allowed some of those communications to happen right at the start rather than just being problematic along the way."*
>
> *Project Team Member*

Engagement

Community and service provider engagement has been a major focus of implementation, not just at the beginning but on an ongoing basis. Considerable effort and resources were given to using every method available to increase awareness of the centre and attract referrals. The centre manager reported more than 75 personal engagements and an initial mail-out to every registered General Practitioner (GP) in the region to promote the Floresco Centre. Other avenues for regular engagement are also used, including: social media; community forums; attendance at health promotion events and conferences; and formalised communications through the Primary Health Network (PHN). The success of these engagement strategies is clear: referrals have come primarily from GPs, but also direct from consumer walk-in, from the DDHHS, from emergency services and from other community organisations.

> *"So that [engagement] really came down to me for a lot of it. In the first month we did a massive mail out to every GP in the district, we put it through the PHN, we sent flyers out. Over the first 12 months I think I did about 75 health promotion engagements to try and promote Floresco because our biggest engagement was of course the GP world. We did a lot of in-service education with DDHHS staff about how it was going to work, and really attend any health promotion event that we could find to talk about the model."*
>
> *Project Clinical Member*

What didn't work? What were the barriers to implementation?

Several barriers were identified as actual or potential barriers to implementation, some of which could impact the ongoing success of the project.

Staffing

Staff turnover slowed project implementation, particularly in initial stages, when managers in several partner organisations left at different times, preventing contracts and decisions being made in a timely manner. Difficulties recruiting and retaining both administrative and clinical staff is a common barrier faced by virtually all organisations in regional districts such as the Darling Downs. The project team considered it rather fortuitous that their co-located GP and other co-located services had actually approached the centre to establish a partnership, when it was expected there may have been significant challenges in securing stable service provider partnerships. Further reasons for difficulties with staff recruitment are discussed in the following paragraph. This issue is noted as an underlying threat for ongoing implementation success.

> *"Staffing changes was a big one so not at the service level where the consumers were sitting but at the higher level organisationally. We've had changes with PHN staff, we've had changes with Aftercare… from a HHS perspective, we've had changes among project managers and also among the chair, and sponsors during that time. At the very start, it impacted just getting the contract finalised from the HHS perspective…challenges getting decisions made."*
>
> *Project Team Member*

> *"So one of the barriers at the beginning was to get the staff on board, it was kind of a staggered approach, especially the GP. The GP was a delay. Six months."*
>
> *Project Team Member*

> *"So all my private practitioners and co-located partners have come to us, and our GP came to us as well –*
>
> *"– which is amazing, we've done so well with the GP. Six months sounds like a long time for people but any of our other integrated services do not even have GPs."*
>
> *Project Team Members*

Cost

The lack of secure funding was unanimously voiced by stakeholders as the biggest threat to implementation. The innovation relies on a complex funding model of monies from grants, the DDHHS, the PHN and from the Commonwealth government e.g Medicare billing. The short timeframes that are associated with competitive grant funding present considerable challenges for implementation of a project of this nature. The project had only two years to: develop contracts; secure a lease; fit-out a premises; engage partners; establish a 'footprint' in the community; promote uptake of programs; and accomplish all this with enough time left to also collect patient outcomes data in order to support a business case for continued funding. This is extraordinarily difficult to accomplish in such a short amount of time.

This issue has flow-on effects which can further hinder implementation. The instability of the project long-term makes it even more difficult than it already is to recruit and retain high quality staff. Some funding rules prohibit the direct recruitment of staff to clinical roles. Further, potential staff, particularly in allied health services, may be more likely to seek direct employment with the DDHHS where remuneration is likely to be more attractive. In addition to these challenges with staff recruitment, the need for rigourous outcomes data in order to secure ongoing funding causes further problems for implementation which are discussed in the next section.

> *"This centre, this kind of model is always a mixed-funding model, so it will require funding from Qld Health, from the PHNs, from the Commonwealth, you know possibly bringing in NDIS providers. We have Medicare private providers you know that come into the service so, it's a tricky confusing model, but if we aren't successful with something [a grant] in the next couple of months really, then we need to be looking at the future of this centre."*
>
> *Project Team Member*

> *"Funding obviously is the biggest challenge in the world. And nothing's cheap –" " – And that's relevant too, in terms of recruitment and retention and, all of those things, and I know we face this in other services in Aftercare – when people know that we have funding to the end of June, well, do you really want to refer someone to a program that may disappear, you know, there must be some element of that uncertainty that plays into that."*
>
> *Project Stakeholder*

> *"Finding appropriately qualified staff, with the right skills, willing to work for an NGO that pays less than Qld Health. [Even] from a HHS perspective we are often struggling to recruit [allied health] staff. So I think for an NGO, you're adding more complexity to that."*
>
> *Project Stakeholder*

Data sharing, data collection and clinical governance

Although the organisational partnerships developed in this project have been noted previously as a strength of implementation, the project faced significant challenges negotiating the complexities of these collaborative partnerships. Stakeholders had identified a systems-level lack of compatibility particularly between Aftercare and the DDHHS with regards to each organisation's perceived risks/needs, existing processes, and IT systems. Several factors contributed to this incompatibility, including, the fact that Aftercare's data management software did not 'speak to' the software used by the DDHHS, the unwieldiness of the DDHHS's regulatory characteristics, and a general cultural tendency for DDHHSs not to trust the clinical skills of non-government service providers. As a result, 'sharing' - data-sharing, patient sharing, and location/resource sharing – had inherent challenges. Project managers acknowledged that co-locating private care providers functioned better than sub-contracting, as those care providers would agree to work under Aftercare's governance and sign a confidentiality agreement in order to use a shared data management system. However, this was more difficult when it came to DDHHS-employed care providers. When DDHHS employees saw patients out of the Floresco centre, they did not use the shared digital record which was in use for other Floresco patients, and clinical governance was retained by the DDHHS.

Not only did the organisations use different digital record systems, they also had different preferred reporting and patient outcome measures that were used for data collection, which caused further challenges. Inconsistencies across patient outcome data and other items such as occasions of service, type of session, billing information and general patient demographic information, can complicate the unique ways Aftercare and the DDHHS understand cohorts of patients, risk stratify complex patients and link key objectives to measurable outcomes.

Project stakeholders discussed 'work arounds' that they had to come up with in order to facilitate working together in spite of these incompatibilities. An example of this was when a small number of complex patients were able to be officially 'shared', staff used patient consent forms to enable the sharing of data, which then required both organisations to send and manually enter each other's data into their respective systems. In the case of patient outcome measures, the decision was made to collect data with all of the outcome measures used across both Aftercare and the DDHHS. The sustainability of work-arounds such as these warrants further consideration. Anonymous partnership surveys collected as part of AusHSI's evaluation suggests these 'work arounds' may not be working sufficiently well and this systems-level incompatibility remains a significant barrier to ongoing success.

> *"When we first started looking at if Qld Health staff are going to sit down here, how do we look at matching, or how do we get them to use our service or how do they get their electronic data here? But that never happened –"*
>
> *"– [Queensland Health's] got such good firewalls."*
>
> *Project Clinical Members*

> *"If we happen to co-share, and we're co-sharing two acute patients at the moment, we have a consent form for release of information. So ourselves and say the acute care team will send information back and forward, and then we would upload their information to our system, they would upload ours to their system. So we share a couple of patients are aware of that and we sign consent form so they know that they're being treated by both – – that's the work arounds we talk about."*
>
> *Project Team Members*

> *"That's important in terms of the reproducibility of the model as well - who's in that position [as centre manager]. I think it's still possible to develop the relationships and address the sorts of issues - I don't think this [Floresco] would have happened without <centre manager>, absolutely not – but it would just take more time and probably more discussion about clinical governance, information governance, those sorts of things."*
>
> *Project Stakeholder*

An overview of all factors identified as barriers to implementation is provided in the Appendix 2.

Outcome Evaluation

The outcome evaluation was designed to evaluate how successfully the project has been able to deliver a variety of health service and clinical outcomes. Key results from the outcome evaluation are presented in brief in Table 2. For a more comprehensive summary table, see Appendix 3 (Table A3.1).

Table 2: Summary of outcome evaluation

Outcome	Nature of evidence	Strength of evidence
Increased integrated mental health care access	Supports	766 Floresco clinical service users, 1,347 Floresco co-located service users, and 579 group session attendees. Patient feedback supports greater access and holistic care.
Reduction in mental health emergency presentations	Supports	Floresco implementation period coincided with 2% decline in ICD-10 coded mental health presentations compared to constant growth pre-Floresco.
Reduction in acute mental health admissions	Somewhat supports	2.3 mental health related admissions per month reduction in DDHHS Floresco 'catchment' cohort; 1.9 admissions per month increase in cohort residing in other DDHHS areas.
…and associated length of stay	Supports	6.7% (0.78 days) reduction after Floresco implemented.
Improved mental health outcomes	Supports	Significant improvements across several mental health instruments including HoNOS (4.6 points) and RAS-DS (16.2 points).
Improved health-related quality of life	Supports	7.9 point increase in AQoL-8D during service use; equivalent to a clinically important and statistically significant increase of 0.13 QALYs.
Improved day-to-day living skills and community engagement	Supports	Statistically significant improvements in the relevant subscales of the HoNOS (1.9 points) and RAS-DS (8.5 points). 84% of YES Survey respondents reported Floresco to have a "very good" or "excellent" effect on managing their day-to-day lives.
Patient satisfaction with new model of care	Supports	92.5% of Floresco clients rated overall experience of care as either very good or excellent. Qualitative feedback supports patient satisfaction.
Clinical and non-clinical services provided by multidisciplinary team	Supports, although uptake of non-clinical services has been slower than that of clinical services	Four co-located services now within Floresco (both clinical and non-clinical partners). Regular group sessions provided by 6 different clinical and non-clinical partners. Multidisciplinary workforce includes nursing, allied health, social work, psychology, support workers, doctors, and drug and alcohol specialists.
Increased staff satisfaction and ability to care for patients	Supports	Care model well accepted by front-line staff. Perceived improvement in patient care consistently agreed among healthcare providers.
Cost of implementation	N/A	Set-up costs: $361,000. Ongoing costs: $80,000 per month.
Value for money in mental health services	More evidence needed	Cost per bed day saved: $323. Floresco model value: $1,953/QALY ($252 per Floresco patient). More evidence of costs and effectiveness of standard care required to assess value.

Limitations in health services evaluation of Floresco

The Floresco outcome evaluation was a pre-post study design. As with any health services evaluation assessing a change to a broad range of services and outcomes, limitations in the robustness of the data means that it is not possible to make causative attributions. Other interventions at both clinical and administrative levels, such as referral streamlining, clinical pathways, government initiatives and patient education, may have also had an impact on the outcomes of interest.

The low response rates received for mental health outcome data are also an inherent limitation of evaluations involving this population. However, in most cases the patients captured in this evaluation are representative of the overall Floresco patient cohort.

In addition, the catchment area for Floresco was defined based on expert opinion rather than concrete user access data. This indicates that while in-catchment patients were more likely to use Floresco services than out-of-catchment, there may also have been other, population-level differences inherent to more regional and rural patients that may have affected their mental health outcomes.

Accordingly, the evidence for Floresco presented within this evaluation is subject to the limitations presented here. However, in light of these limitations, an effect was still clearly observed that coincides with the implementation of Floresco, indicating that there is some evidence the program has been successful in its aims.

Access to integrated mental health care and services

Has the new model of care resulted in an increased number of patients able to access integrated care for mental health conditions?

The Floresco centre has delivered 2,278 sessions of clinical care to 766 patients between September 2017 and December 2018. The demand for this care grew sharply several months after launch, with an average of 179 (S.D 24) sessions of clinical care delivered in each month of 2018 (Figure 2). Additionally, 1,347 clients have accessed co-located services and 579 have attended group sessions at the centre between June and December 2018. This combination of services allows Floresco clients to receive multidisciplinary health and social care in an integrated fashion. This is important as reports suggest that integrated approaches to care for people in the community are currently lacking and should play a key role in the future of mental health care in Australia[7]. Importantly, 17% of Floresco clients were walk-ins (rather than referred by a health practitioner), suggesting that the service is assisting patients with mental health concerns access healthcare services when and where care is needed. Additionally, feedback from patients about the service and how it changed their care suggests that this was indeed the case:

> *"Accessibility and empathy given to self and able to reach services. Wasn't able to do so on own originally"*

> *"I feel I now have access to a range of supports and am beginning to develop hope of a holistic care approach for me"*

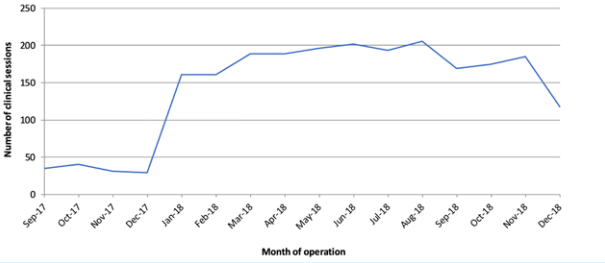

Figure 2: Number of clinical sessions delivered by the Floresco centre each month of operation

Use of health services

Has the new model of care decreased the number of mental health related emergency department presentations at Toowoomba Hospital?

The literature around Emergency Department (ED) visits and mental health suggests that mental health presentations are rising year on year. Australian studies on mental health presentations have shown increases of between 5% and 10% per year, around 10 times the rate of population growth[8, 9]. This is greater than the rate that general ED presentations are increasing annually[8, 10]. Consequently, this trend means any analysis which uses only change in total mental health ED presentations pre and post implementation may fail to assess the true effect of the Floresco service. Likewise, while we have attempted to control for exogenous factors, the fact that only observational data were available indicates that findings should be viewed in the context of a constantly changing health service environment.

In order to model the change to mental health presentations in the context of rising general and mental health ED visits, we conducted a Poisson regression on the rate of change per 1,000 general ED presentations. We controlled for the rising rates of presentations coded by ICD-10 criteria as related to mental health in the 13 months prior to Floresco. We offset the model by the general ED presentation rate at Toowoomba Hospital, which was increasing by 5% per year. We found that, contrary to trends reported in Australian literature, since Floresco opened there was a decline in the rate of mental health presentations as a proportion of total presentations at Toowoomba Hospital. The post-Floresco rate of mental health presentations was 0.98 times (SE = 0.007) the pre-Floresco rate of mental health presentations (95% CI: 0.968-0.996).

This analysis shows that the Floresco service coincided with a 2% decline in the rate of mental health presentations. Figure 3 below shows the trends of general and mental health presentations before and after implemenation of Floresco. The Floresco project however, did not impact on the mean number of ED presentations per patient (1.4) or significantly reduce the proportion of patients with more than one presentation in each time period (18.9% pre vs 19.0% post; x^2=0.012, p-value=0.91) (Appendix 3, Table A3.3). Information about the data used, characteristics of presentations and model characteristics for the Poisson regression can be found in Appendix 3.

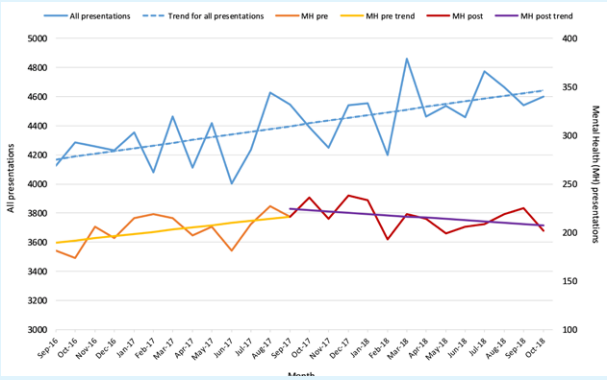

Figure 3: Mental health presentation rate before and after Floresco relative to total presentations

In addition to a declining rate of mental health presentations compared to general ED presentations, the Floresco project also coincided with a decline in ED admission rates for mental health presentations. We used a logistic regression model to estimate the likelihood of a patient being admitted from the ED before and after Floresco. We controlled for age, sex, Aboriginal/Torres Strait Islander status, whether Toowoomba hospital was the patient's local hospital (i.e patient within 1 hour's drive of Floresco centre), and triage category. Following the implementation of Floresco, patients were 0.863 (SE = 0.053) times as likely to be admitted from the ED (95% CI: 0.765, 0.973).

In the 13 months pre-Floresco, there were 2,640 emergency presentations for mental health, of which 865 were admitted (48.7%). During the 13 months Floresco was in operation, there were 2,807 emergency presentations for mental health, of which 826 were admitted (41.7%). Without Floresco, the regression model estimates that the post-intervention period would have seen 957 patients admitted instead of 826. This is a difference of 131 admissions over 13 months, or 121 per year. The regression model can be found in Appendix 3.

Has there been a reduction in the number of acute mental health related hospital admissions and associated length of stay?

There is evidence that hospital admissions are also rising on an annual basis[11]. While we did not have the overall admission data to support a statistical analysis, as with the ED presentation rate, we did find that a trend in rising mental health admissions at Toowoomba Hospital declined at the time of introduction of the Floresco project.

Figure 4 demonstrates that mental health admission rates of patients residing in the DDHHS were increasing at Toowoomba Hospital by 3.2 each month pre-Floresco, and 2.8 each month of Floresco operation. This was a minor change. However, we split this admission rate to capture in-catchment patients (those more likely to have local access to the Floresco centre) and out-of-catchment patients (those residing in other areas of the DDHHS who would not be expected to regularly access care at Floresco). In-catchment patient admissions were rising by 2.8 per month prior to Floresco and declined noticeably to 0.5 per month after Floresco was introduced. This is a stark contrast to the overall rate of admissions, which was driven by out-of-catchment patients. The pre-Floresco admission rate out-of-catchment was just 0.4, and increased to 2.3 in the post-Floresco period, with admissions starting to increase each month from April 2018. While this out-of-catchment spike may be due to exogenous factors, we suggest ongoing monitoring of admissions and analysis into the local context of the DDHHS region to investigate these variations further.

We also conducted a Poisson regression on Length of Stay (LOS) to determine if the Floresco centre coincided with reduced time spent in hospital for mental health patients. We adjusted for catchment area, Aboriginal/Torres Strait Islander status, gender, age group, admission source, admission type, and whether the patient was a new mental health admission or repeat. Residential, long stay patients were excluded as they constituted a separate study population. We found that after Floresco was introduced, patient admitted LOS was 6.7% (0.78 days) shorter than before Floresco. There was also a significant decrease in the median LOS across all mental health admissions during the Floresco period from 4 to 3 days ($X^2 = 15.5$, $p<0.0001$) (Table A3.4). Information about the data used, characteristics of presentations and model characteristics for the LOS model can be found in Appendix 3.

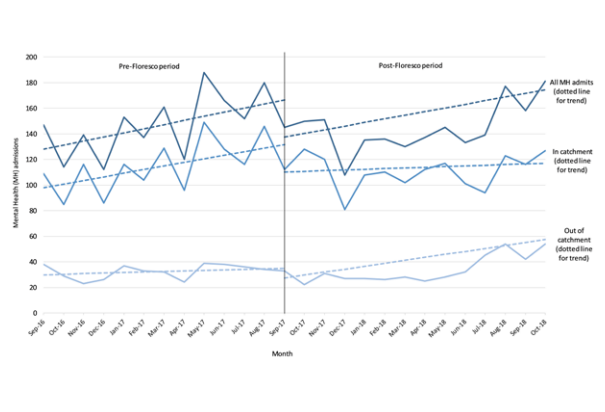

Figure 4: Admission rates for all mental health admissions (top), and split by in-catchment (middle) and out-of-catchment (bottom)

Patient outcomes and satisfaction

Do patients using the Floresco service demonstrate improved mental health outcomes

Improvements in mental health outcomes were captured by the Health of the Nation Outcome Scales (HoNOS), Recovery Assessment Scale Domains and Stages (RAS-DS), and Depression and Anxiety Stress Scales-21 (DASS-21) instruments. Clients were approached to complete these assessments as part of intake to the Floresco centre, with a proportion (<20%) also completing them at follow-up assessment throughout their interaction with the service. Such low availability of repeated outcome data is a common limitation in mental health service evaluation[12,13].

The HoNOS is a clinician rated instrument to measure the health and social functioning of people with severe mental illness. It comprises 12 simple, 5-point Likert scale responses measuring behaviour, impairment, symptoms and social functioning (higher scores indicate poorer functioning). 71 Floresco clients had repeated measurements using this scale. This accounts for 18.5% of those with baseline scores and may represent those with less severe illness (Appendix 3). There was a statistically significant improvement in mean HoNOS score between assessment and follow-up (11.4 to 6.8, p-value <0.0001), driven by improvements across all 4 sub-scales. A reduction in the number of items rated as clinically significant was also observed (p-value <0.0001). Full results are reported in Appendix 3, Table A3.5.

The RAS-DS is a patient self-report instrument with a focus on recovery rather than symptom reduction. The 38 items are rated on a Likert scale and are divided into 4 recovery domains: Doing Things I Value; Looking Forward; Mastering My Illness and Connecting and Belonging. Higher scores represent more advanced levels of mental health recovery. 41 Floresco clients completed RAS-DS assessments at baseline and 30 had at least 1 more RAS-DS assessment during follow-up. The baseline scores of those who were followed up did not differ significantly from those who only completed one assessment (Appendix 3). Significant improvements were seen in 3 out of 4 domains from baseline to re-assessment, with the largest gains in Mastering My Illness (17% improvement, p-value <0.0001). This was matched with a statistically significant improvement in the overall RAS-DS score of 16.2 points. Full results are reported in Appendix 3, Table A3.6.

The DASS-21 is a self-reported tool designed to measure the negative emotional states of depression, anxiety and stress. 18 Floresco clients had repeated assessments of this measure. This represents only 7% of all service users with a baseline DASS-21 assessment, however the baseline scores and severity of illness did not differ between those who were followed up and those who only completed one assessment (Appendix 3). At follow-up there was a decrease in all 3 DASS-21 scales of between 1.7 and 2.7 points however, none of these represented clinical or statistically significant changes (perhaps due to the small sample size). Full results are reported in Appendix 3, Table A3.7.

Taken together these findings suggest that the Floresco model has demonstrated improvements in mental health outcomes for clients, including in the domains of behaviour, social connection, day-to-day living and recovery. However, the outcomes reported are simply "before and after" and lack a control group that might have allowed for more conclusive attribution of the mental health recovery of Floresco clients to attendance at the Floresco centre. They are however supported by similar gains in mental health demonstrated by an earlier model of the service in Ipswich[13]. Importantly, a large number of Floresco clients (who may have more severe mental illness) did not undertake repeated assessments of the HoNOS mental health measure. However, this is a common problem in mental health service evaluation and one which would be hard to address outside of a more rigourously controlled trial.

Has health related quality of life improved for patients as a result of greater access to integrated mental health care?

The Assessment of Quality of Life-8 Dimension instrument (AQoL-8D) was used to assess health related quality of life (HrQoL) in Floresco service users. This validated instrument measures eight primary dimensions: independent living, happiness, mental health, coping, relationships, self-worth, pain and senses. All clients were approached to complete the AQoL-8D as part of intake to the Floresco centre. Of these clients, 44 had at least two AQoL-8D assessments throughout their on-going interaction with the service and were used for analysis. While only 11% of all service users are included in this sample, the baseline scores of those who were followed up did not differ significantly from those who only completed one assessment (Appendix 3). Moreover, such low availability of repeated outcome data is common in mental health service evaluation[12,13].

The mean score of clients at initial Floresco attendance was 52.7 (S.D 14.2). At follow-up this mean score had increased to 60.6 (S.D 19.9). Improvements were seen across all domains, but were most marked for coping, mental health and happiness. This change of 7.9 points in overall AQoL-8D was statistically significant (p-value = 0.005), suggesting that access and attendance via the Floresco service did improve quality of life for patients.

The psychometric scores from the AQoL-8D were converted to health utility scores using a validated algorithm. The numbers obtained refer to utility values on a conventional scale where 1.0 refers to perfect health and 0.09 is the worst health state. The mean baseline utility score of Floresco service users was 0.39 (S.D 0.16) with an improvement to 0.52 (S.D 0.27) at follow-up, representing a statistically significant gain of 0.13 (95% CI 0.21-0.05) in health utility. An improvement in health utility of this magnitude represents a clinically meaningfully improvement in quality of life for patients[14]. In other words, an improvement which would have a genuine and noticeable effect on a patient's life and which indicates that Floresco is an effective intervention. A full summary of AQoL-8D results can be found in Appendix 3, Table A3.8.

While improvements have been demonstrated, it is important to recognise that the outcomes reported are simply "before and after" and lack a control group to account for other potential contributing variables. Additionally, the small sample size and limited time-frame for evaluation, means it will be important to continue to measure the long-term impacts of the Floresco intervention on quality of life to gauge true and lasting effectiveness.

Do patients using the Floresco service demonstrate improvements in day-to-day living skills, and social/ community engagement?

Information about improvements in day-to-day living skills and social engagement at baseline and follow-up/discharge were captured by subscales of the HoNOS and RAS-DS instruments and items of the Your Experience Survey (YES).

The RAS-DS domains of Doing Things I Value and Connecting and Belonging cover questions of social and community engagement. Scores in both of these domains improved during attendance at Floresco, however only the 8.5 point change in Connecting and Belonging was statistically significant (64.7 pre and 73.2 post, p-value = 0.01, Table A3.6).

The HoNOS subscale of Social contains questions related to day-to-day living skills. Floresco clients experienced a statistically significant improvement in this subscale from baseline to follow-up assessment (3.9 pre and 2.0 post, p-value <0.0001, Table A3.5).

Several questions in the YES survey ask about improvements in day-to-day living skills and mental outlook. These are displayed in Figure 5. Most importantly, 83.8% of respondents reported that their interaction with the Floresco centre had a “very good” or “excellent” effect on managing their day-to-day life.

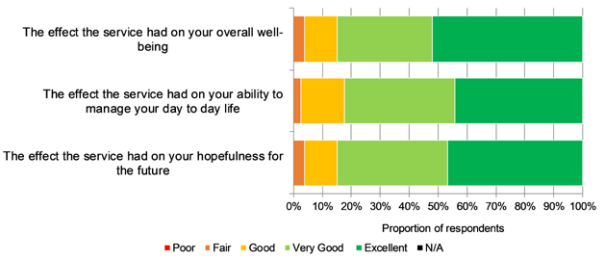

Figure 5: Responses to the YES Survey questions related to day-to-day living improvements (n=80)

Are patients satisfied with the new model of service introduced?

Satisfaction of clients receiving care under the new service model was captured by the Your Experience of Service (YES) survey. This tool captures mental health consumer’s experience of health care in areas such as provision of care, relationships with staff, facilities, access, respect, safety, convenience, peer support, information provided and the effect of treatment on health. Eighty clients who had been receiving care at the service for various durations of time participated in the survey (Appendix 3, Figure A3.1). Respondents reported positively on the improvements that Floresco had made in their lives and the care they received, with 92.5% rating their overall experience of care at Floresco as either very good or excellent (Figure 6). Particularly positive responses were received for satisfaction with the facilities and environment; respect for privacy, values and feelings; involvement of family/friends in care; development of a care plan; access to peer support; and opportunities to discuss progress. The results for all items of the survey are included in Appendix 3, Figures A3.3.and A3.4

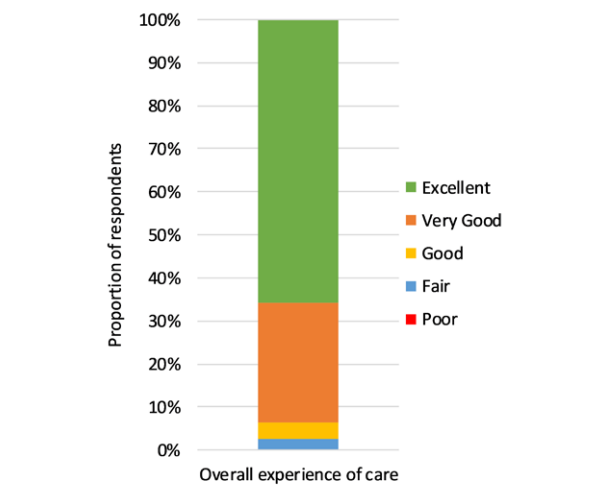

Figure 6: Overall experience of care reported by Floresco service users (n=80)

Overwhelmingly positive feedback was also received by the service in response to a feedback form asking three simple questions about patient experience (Appendix 3). The only negative comments the service received were about parking and the availability of doctors' appointments. Examples of several of these completed feedback forms are provided in Appendix 3. Recurrent themes in this feedback, and supporting quotes from patients are listed below:

- praise for clinical and non-clinical staff in terms of empathy, friendliness, skills, kindness, support, professionalism and respect
- satisfaction with the flexibility of treatments provided and needs catered for
- good accessibility of the centre including available times, services and costs
- overwhelming positive feedback about the importance of the carer's group
- positive life changes experienced by many patients including improved outlook, self-esteem, mental health, anxiety, depression, and relationships with workmates, family and friends
- several comments that the service had been "life-changing"
- that clients are recommending it to family, friends and colleagues who may be in need

"My experience with Floresco has been both life-saving and life-altering…on numerous occasions phoned or dropped in for a talk in times of need."

"Your service is a blessing to me. The only thing that would make the experience better is if I did not need it"

"I don't think I could have had a better experience or received better overall care anywhere else."

"Very welcoming staff. Make me feel valued as a person and like I can do anything I put my mind to. I am treated with respect at every session I attend. Extremely happy with this service."

"Being able to talk freely and openly in a safe judgement free environment to someone who genuinely cared and gave personal and professional advice."

Workforce development and integration

Is a range of clinical and non-clinical services being provided within the new model by a multidisciplinary team?

Integration of several multidisciplinary clinical and non-clinical services has been achieved at Floresco Toowoomba, however the client uptake and continued expansion of these co-located services remains a work in progress. As of December 31st 2018, there are four co-located services within Floresco Toowoomba:

1. Healthy Lifestyles Australia (dietitian, diabetes education and exercise physiology services)
2. Lives Lived Well (support for drug and alcohol problems)
3. Uniting Care (health and community services)
4. Centrelink (social security payments and services)

Of these, the multidisciplinary clinical service, Healthy Lifestyles Australia, has provided the most care with 1,246 clients seen in the 7-month period since opening (Figure 7a). Uptake of the other services, particularly those of a non-clinical nature has been much more limited (Figure 7b).

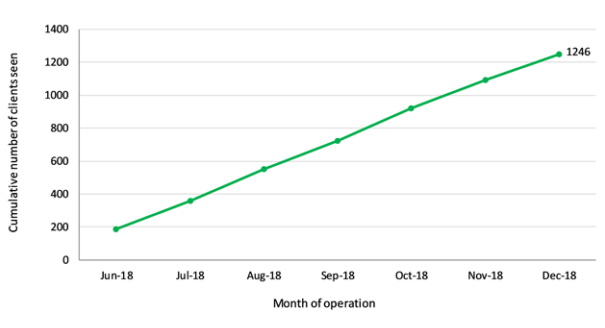

Figure 7a: Clients seen at Floresco Centre by co-located services (Health Lifestyles Australia)

Additionally, a large number of clients (n=579; mean 83 per month) attended clinical and non-clinical group sessions held at Floresco between June and December 2018. These included carers groups, parent/child groups, and support for health, drug and alcohol, and domestic violence issues (Figure 8).

At the time the focus group was conducted for this evaluation, the Floresco service had engaged a co-located general practitioner for one day per week. GP recruitment had taken six months. Qualitative data suggests recruitment of health practitioners, particularly in general practice and allied health, is an ongoing barrier for implementation, the reasons for which are discussed in greater depth in the implementation evaluation section of this report.

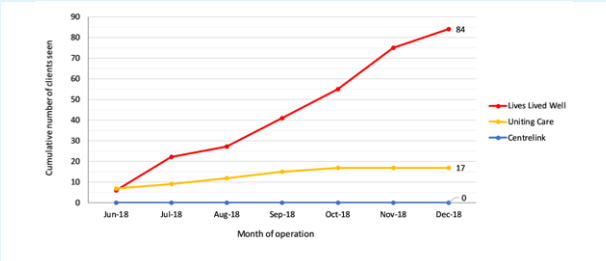

Figure 7b: Clients seen at Floresco Centre by co-located services

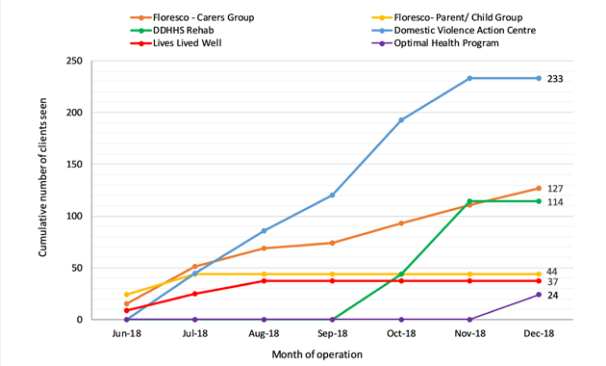

Figure 8: Clients attending group sessions at the Floresco Centre

Has the new model of care led to an improvement in team communication, and cross-agency interaction?

Information about improvements in team communication and cross-agency interaction were captured by the instruments outlined in Appendix 1, Table A1. Overall the findings provide strong evidence for improved team communication, cross-agency interaction and colaborative partnerships under the new model of care, however some issues of concern still remain for cross-agency interaction in terms of standardisation, resourcing and organisational priorities.

Provider and Organisational Team Satisfaction

The AusHSI Healthcare Provider Satisfaction and Organisational Team Satisfaction Tools were used at the completion of the project to survey clinical providers and organisational team members who were involved with implementing the new Floresco model in the DDHHS. These surveys provided strong evidence for improved team communication under the new model of care (Appendix 3, Tables A3.9 and A3.10). Most respondents (82%) reported that they met more regularly and worked more closely with their own team during the Floresco innovation period. They also felt that there was better communication between different parts of the organisation (64% of respondents). Occupational groups who communicated frequently within the project team included administration, management, social workers, allied health staff and mental health nurses. These improvements also extended to cross-agency communication with 91% of respondents agreeing/strongly agreeing to good communication with other organisations providing care for patients, and 73% reporting better communication with all external organisations since Floresco began.

The VicHealth Partnership Analysis Tool

The VicHealth Partnership Analysis Tool was completed by key stakeholders and co-located service providers before, during, and after implementation of the project (Appendix 3, Table A3.11). This included members of DDHHS, Aftercare (including Floresco staff), the Primary Health Network, Uniting Care, Healthy Lifestyles Australia, The Domestic Violence Action Centre and a carer representative. Results indicate that a partnership based on genuine collaboration had already been established at baseline, which was maintained during implementation, even with the addition of several new partners. Scores were consistently high across all partnership domains for the duration of the innovation, with the average overall score increasing slightly between pre- and post-survey (Pre = 138.5/175 – Post = 139.6/175). Score improvements were largest for the domain, "implementing collaborative action" which focussed on common processes, investment in the partnership, rewards for collaborative action, adding value to the community and opportunities for inter-agency communication.

Some sources of concern in terms of successful partnerships that were flagged in the tool early on and which did not improve throughout the project were:

- that 75% of respondents disagreed or were not sure that processes that are common across agencies had been standardised (e.g. referral protocols, service standards, data collection and reporting mechanisms)
- that only half agreed that there are resources available from either internal or external sources to continue the partnership, and that differences in organisational priorities, goals and tasks have been addressed

Stakeholders displayed greater optimism in the focus group conducted owing to 'work arounds' that had been negotiated to overcome system-level incompatibilities between organisations. However, these results from the partnership tool likely suggest that more work is required to resolve systemic differences, develop common processes and overcome barriers to data-sharing. This may be particularly important for robust data collection which is crucial to demonstrate outcomes and justify the value of the service.

The Consolidated Framework for Implementation Research Survey

The CFIR Survey was completed by the steering committee both before and after implementation of the project (Appendix 3, Figure A3.6). The survey confirmed the results of the other instruments with improvements in the internal communication structure of the Integrated Care Innovation Fund (ICIF) team, increased engagement with individuals responsible for implementing the ICIF project, and the ability to remain networked with external organisations before and after implementation.

Has the new model of care led to an improvement in job satisfaction and increased the ability of clinicians to care for patients with mental health issues?

The AusHSI Healthcare Provider Satisfaction Tool provides insight about changes in job satisfaction and perceived patient care. Ten responses were received from a multidisciplinary range of providers including a mental health nurse, alcohol and drug councillor, allied health staff, social worker, administration, carer consultant, psychologist and support worker (Appendix 3, Figure A3.5b). Almost all responses were strongly in favour of positive changes to job satisfaction since the introduction of Floresco. In particular, there was a clear consensus for improved workloads, enhanced teamwork, and more flexible and interesting roles within the new model. Importantly, 100% of respondents either agreed or strongly agreed that they had been able to do their job to a standard they were pleased with since Floresco began.

Improved patient care with the introduction of Floresco was also a consistent theme among healthcare providers surveyed. All respondents agreed or strongly agreed that they are satisfied with the quality of care they are able to give to patients, that their role makes a positive difference to patients, and that the people providing care for mental health patients in the region work well together. Most respondents (7/8) believed that their patients' care had gotten better since the introduction of Floresco, with just one respondent not sure.

Full results of the Healthcare Provider Satisfaction Survey are summarised in Appendix 3, Table A3.9.

Value for Money

How much did the new model of care cost to implement, how much does it cost to run the program now, and what resources would be needed to maintain the service after the end of ICIF funding?

The Floresco centre introduced a co-located service model that required several components. These included day-to-day operational costs, service delivery costs, and set-up and maintenance costs. These can be divided into ICIF-specific costs of project implementation, fixed costs for the Floresco centre, and variable costs depending on patient throughput.

Costs that were ICIF-specific amounted to $21,000 over 16 months for staff. This was the cost of managing the implementation of the Floresco project rather than the operational cost of the Floresco centre. This is expected to be the translation cost of scaling Floresco to different environments. In-kind costs required for scalability not included in this figure are monthly steering committees, which occurred for an hour each month, and IT infrastructure such as computers and teleconferencing used in day-to-day Queensland Health operations.

Monthly costs for Floresco totalled an average of $79,830 each month after a high initial cost of $341,790 for the first two months. This figure included high initial costs for administration and fit-out of the building and can be regarded as roughly fixed for a Floresco centre of a similar size and locale to the Toowoomba model. Given that Toowoomba Floresco ongoing monthly costs remained approximately fixed regardless of patient volume, it is difficult to ascribe an accurate cost-per-patient figure. However, from June to December 2018, with 4 co-located services in place, the centre treated 2,216 patients (317 patients each month) across clincal, co-located and group services, with minor variations from month to month. Assuming this is the expected throughput for the Floresco centre moving forward, the cost-per-patient for modelling purposes after the initial set-up costs is $252. There are significant limitations to this approach in terms of scalability and sustainability, but this cost is transferable to other models once the centre has been set up and is working at capacity. Given that multiple services may be used by Floresco clients, and that most have 2-4 sessions of clinical care, it may be useful to describe cost in terms of sessions of care. The Floresco centre provided 4,204 individual sessions of care to patients over the same period. This equates to 601 per month at a cost of $133 per session of care.

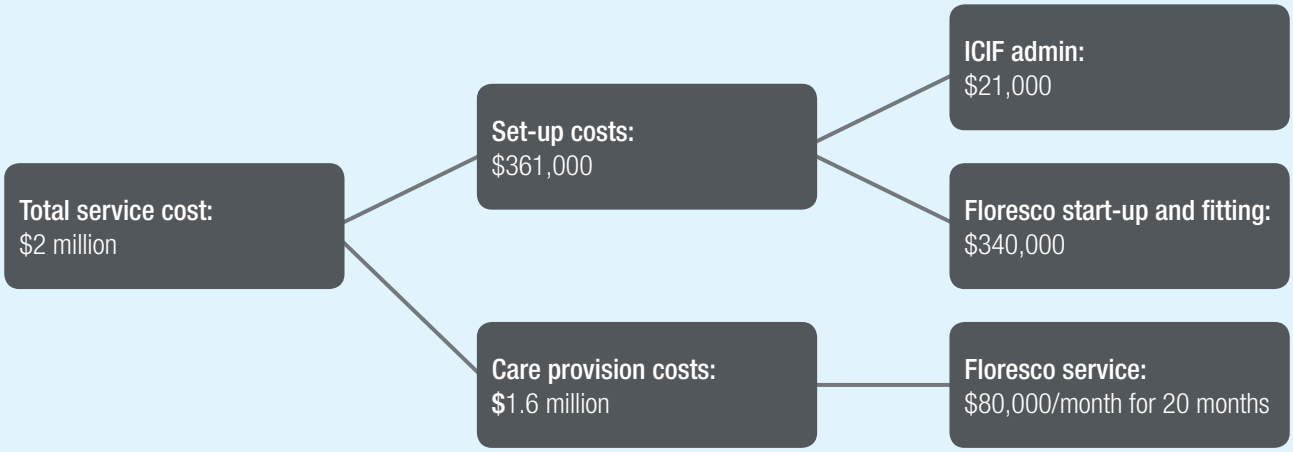

Figure 9: Fixed and variable costs for Floresco model set-up and service provision over 20 months of care

Did the project improve the value for money obtained from mental health care services in the region?

We calculated cost-effectiveness based on the per-patient cost of Floresco, which we estimated at $252. The mean LOS for a mental health admission prior to Floresco was 11.63 days. Given a 6.7% reduction from Floresco equated to 0.78 days, the cost per bed day saved was estimated at $252 per 0.78 days, or $323 per day. In other words, by implementing Floresco, the health system spends $323 for each bed day avoided. This is slightly higher than the willingness to pay (WTP) valuation by Page et al[15]to release a bed day, calculated at $284 in 2019 dollars (SE = $23). This is a conservative estimate, as it does not take into account the potentially avoided admissions, both through ED and directly. While these estimates are uncertain and can significantly vary the cost per bed day saved, their inclusion could potentially bring this figure down further. Sensitivity analysis shows that including avoided admissions reduces the cost per bed day saved to $26.78, indicating the volatility of this measure.

Due to data limitations regarding the health outcomes from the pre-Floresco model of care, we were unable to calculate an incremental cost-effectiveness ratio (ICER) to compare Floresco to other health service delivery methods. This was due to the heterogeneity of the patient population and a lack of knowledge about the type of standard care usually delivered for mental health in DDHHS. However, as a standard cost per Quality-Adjusted Life Year (QALY), the Floresco service cost $252 per patient and improved health utility by 0.129, returning a highly competitive $1,953/QALY, assuming the utility gain occurred over 12 months. One QALY represents a year of perfect health, benchmarked against a WTP threshold. Currently, the Australian government funds health interventions at a relative value of $28,033/QALY, indicating the Floresco model is likely to be cost-effective [16]. Further research on models of care in areas without a Floresco centre are required to assess whether the model provides a cost-effective policy option.

Appendix 1. Evaluation methodology

Data sources

Data were collected regularly by the project team to track costs, project activities, service use, implementation issues and clinical outcomes. Data to complete the implementation evaluation were also collected via focus group. Information about the data sources used for the evaluation are summarised in Appendix 1, Table A1. Sources marked with an asterisk denote survey tools that were either developed by AusHSI, or adapted by AusHSI from existing tools for the purpose of evaluating ICIF projects.

Table A1: List of data sources used in evaluation

Outcome	
Increased access to integrated care for mental health	• Floresco operational reporting • Patient feedback
Emergency department mental health presentations	• Emergency Department Information Systems (EDIS) • Queensland Health Database on hospital presentations
Mental health patient admissions and length of stay	• Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Mental health outcomes	All collected by Floresco staff during routine assessment and care • Recovery Assessment Scale Domains and Stages (RAS-DS) • Health of the Nation Outcome Scales (HoNOS) • Depression and Anxiety Stress Scales-21 (DASS-21)
Health Related Quality of Life	Collected by Floresco staff during routine assessment and care • Assessment of Quality of Life- 8 Dimension (AQoL-8D)
Ability to manage day-to-day life and social engagement	Subscales of the: • Recovery Assessment Scale Domains and Stages (RAS-DS) • Health of the Nation Outcome Scales (HoNOS) • The Your Experience Survey (YES)
Patient satisfaction	• The Your Experience Survey (YES) • Patient feedback
Workforce integration	• Floresco operational reporting • VicHealth Partnership Analysis Tool • AusHSI Healthcare Provider Satisfaction Tool* • AusHSI Organisational Team Satisfaction Tool* • The Consolidated Framework for Implementation Research Pre-Post survey* • Interviews with project team members and key stakeholders*
Job satisfaction and patient care	• AusHSI Healthcare Provider Satisfaction Tool*
Cost of implementation and value for money	• AusHSI project costing tool* • Project budgets/actuals • Reported mental health and service outcomes

Implementation evaluation: Focus group questions

The focus group with project team members and stakeholders followed a semi-structured list of questions. For each of the key questions, additional questions/ prompts were also used as needed to ensure thorough data collection.

Key Question 1:
How was the project designed and implemented?

- Who developed the intervention?
- Why was the intervention implemented in your setting?
- How did you become involved in implementing the intervention?
- Can you describe how the intervention was implemented?
- Was the intervention implemented according to the implementation plan?
- Who were the key stakeholders to get on board with the intervention?
- What was your communication strategy for getting the word out about the intervention?

Key Question 2:
Was the project successful? What worked?

- Intervention characteristics?
- The process used to implement?
- Contextual issues, including local and external factors?
- Characteristics of individuals involved in the project?

Key Question 3:
What didn't work?
What would you do differently next time?

- Intervention characteristics?
- The process used to implement?
- Contextual issues, including local and external factors?
- Characteristics of individuals involved in the project?

Key Question 4:
What factors will be important for scale-up and/or sustainability?

Key Question 5:
Is the project generalisable to other settings?

Appendix 2. Implementation factors

Table A2.1: Factors facilitating implementation of Floresco project

CFIR Domains	Constructs	Summary of Findings
Intervention Characteristics	Intervention Source	The design for the project had been modelled after a pre-existing centre, which gave stakeholders confidence that it would work and facilitated implementation. Data was available to suggest positive outcomes that had been achieved at the established centre would also apply to Toowoomba setting. This combined with the freedom to develop and adapt the model to suit the local context gave stakeholders confidence in the value and success of the project.
	Evidence Strength and Quality	
	Design Quality and Packaging	The innovation was designed as a 'one-stop-shop' for mental health services. The centre was well branded. Excellent choices were made for the name, the location and the fit-out of the centre. Consumers gave consistent feedback that the centre was convenient, helpful and welcoming rather than clinical, which encouraged repeat presentation.
Outer Setting	Patient Needs & Resources	The initial idea for the project was informed by data collected by DDHHS directors and a thorough understanding of the needs of patients in the Darling Downs region. Gap analyses had identified a need for better community mental health services.
	Cosmopolitanism	This was a major facilitator of implementation owing largely to the pre-existing working relationships between managers in the DDHHS and Aftercare. Networking between these and other organisations was also deliberately fostered throughout implementation.
Inner Setting	Networks and Communications	The networks that were built, and the regular communications between key individuals within the various stakeholder organisations was a key implementation facilitator.
	Implementation Climate - Compatibility	Stakeholders reported the compatibility of the goals and values of the Floresco centre with the values that have been developing within health services in the region (person-centred) and the Toowoomba culture more broadly (destigmatising mental health, focus on wellbeing).
	Readiness for Implementation – Leadership Engagement	Leaders with key organisation such as the DDHHS and the PHN endorsed the project, and leant considerable support and knowledge to the innovation being engaged in the steering group.
Characteristics of Individuals	Knowledge and Beliefs	The knowledge and expertise of the centre manager was considered key to implementation success. Her clinical background facilitated more successful partnerships with other external and co-located service providers. Her competence and capacity to wear multiple hats were key in the successful operation of the centre.
	Other Personal Attributes	
	Individual Stage of Change	The personal characteristics that are common among people with mental illness is a barrier to implementation in that it is typically quite difficult to get accurate end-point data. People struggling with mental illness often struggle to commit to engagement, don't re-present, and move around a lot, which all effect the quality of data that can be collected about the success of the service.
Process	Planning	The project team understood how crucial collecting data was to demonstrate implementation success and support continued funding applications. They sought advice on the best ways to do that and spent effort resolving issues around outcomes measures and software to be used. This aspect of the project was very well planned.
	Engaging	The project team prioritise community and health service engagement, not just in the early stages of implementation but consistently. A wide range of engagement strategies are used: social media, community networks, formal networks such as the PHN, individual engagement, and opportunistic representation at relevant events and conferences.
	Formally Appointed Internal Implementation Leaders	Positive feedback was given from several stakeholders about the project manager and the centre manager in particular for their roles in achieving implementation success.

CFIR Domains	Constructs	Summary of Findings
	Executing	Securing co-located partnerships with a GP and other service providers happened fortuitously or possibly as a result of effective engagement. Service providers contacted Floresco to initiate partnerships.
	Reflecting and Evaluating	A steering committee met regularly to discuss feedback, evaluate progress and make decisions.

Table A2.2: Factors hindering implementation of the Floresco project

CFIR Domains	Constructs	Summary of Findings
Intervention Characteristics	Complexity	Stakeholders described a sense of 'bigness' in what they were trying to achieve with the project. A number of steps, some involving complex tasks and negotiations, were involved. This complexity was not considered a complete barrier to implementation by stakeholders, but rather a factor which slows the process down.
	Cost	Stakeholders described the lack of secure funding as a major implementation barrier. The funding model for the innovation is complex, and relies upon funding from Qld Health, the PHN and the Commonwealth government. The grant funding typically available comes with prohibitive rules and timeframes which present additional challenges for implementation.
Inner Setting	Structural Characteristics	Barriers identified in the inner setting all centred around the complexities of negotiating a partnership between the DDHHS and the other organisations and activities involved in the Floresco model. There was a cultural tendency for the DDHHS not to trust the clinical management of non-government service providers. There were several 'system-level' incompatibilities with regard to clinical governance, data-sharing, and co-location of services. The steering group endeavoured to devise a number of 'work arounds' however these issues are considered serious residual threats to implementation.
	Culture	
	Implementation Climate – Compatibility	
Process	Executing	Changes in staff at management levels across several partner organisations resulted in delays in: contracts, decisions, and development of 'work arounds' to other identified barriers. Although the engagement of health practitioners and other organisations to provide services in the centre was relatively easy (at least up until the time of this evaluation), it is noted as an ongoing threat to implementation and the overall success of the centre.

Appendix 3. Outcome evaluation: additional methodology, tables and figures

Table A3.1: Detailed summary of outcome evaluation

Outcome	Nature of evidence	Strength of evidence
Has the new model of care resulted in an increased number of patients able to access integrated care for mental health conditions?	Supports	766 patients have accessed Floresco's clinical services. In addition, 1,347 clients have accessed co-located services and 579 have attended a variety of group sessions. Patient feedback suggests a more accessible, holistic model of care is now being provided.
Has the new model of care decreased the number of mental health related emergency department presentations at Toowoomba Hospital?	Supports, although direct attribution is difficult due to limitations in the robustness of the data	The introduction of the Floresco service coincided with a 2% decline in the rate of presentations coded with mental health diagnoses (ICD-10) which were in the treatment scope offered by the service. This rate was expected to maintain constant growth based on previous trends and overall emergency department presentation rates
Has there been a reduction in the number of acute mental health related hospital admissions at Toowoomba Hospital?	Appears to support but more evidence is needed. Direct attribution is difficult due to limitations in the robustness of the data.	No clear change to overall mental health admission rates was observed. However, for the group of patients with greater likelihood of Floresco access (closer proximity to centre) there was a change in mental health admission trends from an increase of 2.8 per month pre-Floresco, to 0.5 per month after Floresco opened. The mental health admission rate increased from 0.4 per month to 2.3 per month over the same period for DDHHS residents who lived further away from the centre.
And associated length of stay?	Supports, although direct attribution is difficult due to limitations in the robustness of the data.	LOS for mental health admissions was 6.7% (0.78 days) shorter after implementation of the Floresco model.
Do patients using the Floresco service demonstrate improved mental health outcomes?	Supports, although a larger sample and control group would provide more robust data.	Significant improvements across individual domains and in overall scores for several mental health outcome measures including the HoNOS (4.6 points) and RAS-DS (16.2 points).
Has health related quality of life improved for patients as a result of greater access to integrated mental health care?	Supports in a representative sample of patients	Improvements across all domains of quality of life rated by the AQoL-8D during Floresco service use, including a significant increase of 7.9 points overall. A clinically important and statistically significant gain in health utilities of 0.13 QALYs.

Outcome	Nature of evidence	Strength of evidence
Do patients using the Floresco service demonstrate improvements in day-to-day living skills, and social/ community engagement?	Supports in a representative sample of patients	Statistically significant improvements in the relevant subscales of the HoNOS (1.9 points) and RAS-DS (8.5 points) instruments. 84% of YES Survey respondents reported Floresco to have a "very good" or "excellent" effect on managing their day-to-day lives.
Is there a change in patient satisfaction as a result of the new service being introduced?	Supports	The new model is meeting the care and service needs of patients. 92.5% of Floresco clients rate their overall experience of care as either very good or excellent. Qualitative feedback demonstrates strong support for patient satisfaction.
Are a range of clinical and non-clinical services being provided within the new model by a multidisciplinary team?	Supports, although uptake of non-clinical services has been slower than that of clinical services.	Four co-located services now within Floresco (both clinical and non-clinical partners). Regular group sessions provided by 6 different clinical and non-clinical partners. Multidisciplinary workforce including nursing, allied health, social work, psychology, support workers, doctors and drug and alcohol specialists.
Has the new model of care led to an improvement in team communication, and cross-agency interaction?	Supports	Stakeholder interviews and surveys confirm improvements in internal and external communication under the Floresco model. A partnership based on genuine collaboration has been established. Work needs to be done to address differences in organisational priorities and processes, and provide resources to continue strengthening the partnership.
Has the new model of care led to increased job satisfaction and increased the ability of clinicians to care for patients with mental health issues?	Supports	The new model of care has been well accepted by front-line staff. A perceived improvement in patient care with the introduction of Floresco was also a consistent theme among healthcare providers.
Cost of implementation		Set-up costs totalled $361,000. Ongoing costs for service provision are $80,000 per month under the current model.
Did the project improve the value for money obtained from mental health care services in the region?	Promising, however more evidence is needed	The cost of Floresco per bed day saved is estimated to be $323 due to shorter LOS. There is high uncertainty in the results of the cost-effectiveness analysis. However, the Floresco model is estimated to return $1,953/ QALY based on a service cost of $252 per patient. More evidence, particularly related to costs of standard care and health related quality of life is likely to improve confidence in the results.

Additional methodology for use of health services

Emergency department presentations: dataset

Changes to emergency department presentations were evaluated using individual-level information on ED presentations extracted from Emergency Department Information Systems (EDIS). Presentations during the Floresco operational period (13 months) were compared with outcomes 13 months prior to the innovation being implemented (Table A3.2). While the centre began receiving referrals from August 2017, the official launch of the centre, and clinical activity that would have contributed to changes in health service use, did not commence until October 2017.

Table A3.2: Defined study periods for evaluating Floresco health service use outcomes

Evaluation Phase	Dates
Pre-Floresco (Baseline)	1 September 2016-30 September 2017
Floresco (Implementation)	1 October 2017-31 October 2018

Data used to analyse the mental health presentation rate included all presentations to the ED at Toowoomba Hospital during the defined period with a mental health diagnosis in the following ICD-10 categories (https://icd.who.int/browse10/2016/en): F05-F69; F90-99; X60-84; Y10-34; Z56; Z59-65; Z70-73. This included presentations from people residing within the DDHHS as well as other Queensland HHS's, interstate and international locations. Consequently, not all of these presentations would be from patients with access to the Floresco service and the true effect of the service may therefore be diluted across this sample. Some mental health presentations may also have been missed, and counted in the overall presentation rate, if not correctly coded to an included ICD-10 code. However, this is likely to be only a small proportion of all presentations. In sub-group analysis, we defined patients who resided within 1 hour's drive of the Floresco centre as being within the Floresco catchment area. While the Floresco centre may have also impacted ED presentation rates at other nearby hospitals such as Oakey and Dalby, due to its size and proximity, we focussed on Toowoomba Hospital for the purposes of this evaluation.

Emergency department presentations: demographics

Characteristics of all mental health ED presentations pre- and post- Floresco operation are described in Table A3.3.

Table A3.3: Characteristics of Toowoomba Hospital ED mental health presentations during the evaluation period

Sex	Proportion pre-	Proportion post-
Male	51.5%	51.1%
Female	48.5%	49.9%
ATSI Status	**Proportion pre-**	**Proportion post-**
Not Indigenous or TSI	84.0%	83.3%
Indigenous or TSI	16.0%	16.7%
Age	**Pre-**	**Post-**
Mean age at presentation (standard deviation)	36.4 (17.5) years	36.2 (18.3) years
Admission end status	**Proportion pre-**	**Proportion post-**
Discharged	58.7%	62.9%
Admitted	32.4%	28.9%
Short stay unit	6.0%	4.8%
Other	2.9%	3.4%
3 most common causes of admission	**Proportion pre-**	**Proportion post-**
Depression	21.1%	19.8%
Drugs and Alcohol	18.0%	15.8%
Schizophrenia	14.4%	10.6%
Number of individual patients	**Pre-**	**Post-**
Total patients	1879	1960
Number of presentations per patient	**Pre-**	**Post-**
Mean (standard deviation)	1.4 (1.0)	1.4 (1.4)
Median	1	1
Proportion of all patients with more than one presentation	18.9%	19.0%

Emergency department presentations: analysis

The Poisson regression modelled the impact of the independent variables monthsince (months since Floresco began) and MY (linear time trend) on the dependent variable of number of mental health presentations. The log of the base presentations divided by 1,000 was used as the offset in order to assess the rate of mental health presentation increase relative to the total rate of base presentation changes over time. This shows that in the time since Floresco was implemented, there is a lower rate of mental health presentations per thousand base presentations seen at Toowoomba hospital.

Output from the model shows that the typical number of mental health presentations is 7% of the base presentations. This trend was increasing by 1% each month independent of Floresco. Post-Floresco, this trend is reversed, instead declining by 2%, or 98% of the expected rate.

Iteration 0: log likelihood = -101.94202
Iteration 1: log likelihood = -101.94202
Poisson regression — Number of obs = 26
LR chi2(2) = 6.49
Prob > chi2 = 0.0391
Log likelihood = -101.94202 — Pseudo R2 = 0.0308

MHpres	IRR	Std. Err.	z	P>|z|	[95% Conf.	Interval]
monthsince	0.9818	0.0071	-2.54	0.011	0.9680	0.9958
MY	1.0095	0.0043	2.20	0.028	1.0010	1.0180
_cons	0.0743	0.2187	-0.88	0.377	0.0002	23.7352
logbase	1.0000	(offset)				

We also conducted a logistic regression on the likelihood of a patient being admitted from the ED for mental health. We regressed the admission likelihood on intervention period and demographic variables in addition to triage category. Our findings show a 13.8% reduction in admission likelihood post-Floresco.

Logistic regression — Number of obs = 5,447
LR chi2(6) = 423.66
Prob > chi2 = 0.0000
Log likelihood = -3162.3509 — Pseudo R2 = 0.0628

admitted	Odds Ratio	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Post	0.8628	0.0527	-2.41	0.016	0.7654	0.9726
Ageatpresentation	1.0189	0.0016	11.73	0.000	1.0157	1.0221
male	1.0424	0.0638	0.68	0.497	0.9246	1.1753
ATSI	0.9816	0.0847	-0.22	0.829	0.8289	1.1624
DDHHS	0.3475	0.0272	-13.48	0.000	0.2980	0.4052
TriageCategory	0.6563	0.0330	-8.36	0.000	0.5947	0.7244
_cons	2.1306	0.4153	3.88	0.000	1.4541	3.1219

We estimated the counterfactual by dividing the number of presentations in the post-Floresco period by the odds ratio of admission (826/0.8628). This calculates, given no change in demographic and triage categories, the expected number of admissions from the ED that would have been expected in a post period without Floresco.

Mental health admissions and length of stay: dataset

Changes to mental health admissions were evaluated using individual-level information on hospital admissions extracted from the Queensland Hospital Admitted Patient Data Collection (QHAPDC). Presentations during the Floresco operational period (13 months) were compared with outcomes 13 months prior to the innovation being implemented (Table A3.2). While the centre began receiving referrals from August 2017, the official launch of the centre, and clinical activity that would have contributed to changes in health service use, did not commence until October 2017.

Data used to analyse the mental health admission rate and length of stay (LOS) included admissions to Toowoomba Hospital during the defined period with a mental health diagnosis in the following DRG categories: U40; U60; U61-68; V60-64; X40; X60; X62; X64; Z60, or with a mental health care type, or stay in a mental health unit. Only admissions from those residing within the DDHHS were included in analysis. Due to the extended duration of their admissions, patients admitted to a residential mental health ward were excluded from analysis. In sub-group analysis, we defined patients who resided within 1 hour's drive of the Floresco centre as being within the Floresco catchment area. While the Floresco centre may have also impacted ED presentation rates at other nearby hospitals such as Oakey and Dalby, due to its size and proximity, we focussed on Toowoomba Hospital for the purposes of this evaluation.

Mental health admissions: characteristics

Characteristics of mental health admissions for residents of the DDHHS pre- and post- Floresco operation are described in Table A3.4.

Table A3.4: Characteristics of Toowoomba Hospital mental health admissions during the evaluation period

Sex	Proportion pre-	Proportion post-
Male	46.2%	43.8%
Female	53.8%	56.2%
ATSI Status	Proportion pre-	Proportion post-
Not Indigenous	85.7%	84.3%
Indigenous	14.3%	15.7%
Age	Pre-	Post-
Median age group	30-34 years	30-34 years
Admission Source	Proportion pre-	Proportion post-
Emergency department	43.3%	42.2%
Community service	27.3%	32.1%
From other hospital	15.5%	10.5%
Other admission source	13.9%	15.2%
3 most common causes of admission	Proportion pre-	Proportion post-
Depression	21.1%	19.8%
Drugs and Alcohol	18.0%	15.8%
Schizophrenia	14.4%	10.6%
Previous mental health treatment	Proportion pre-	Proportion post-
Previous admitted care	62.7%	63.2%
Previous non-admitted care	75.2%	79.0%
Length of stay	Days Pre-	Days Post-
Median	4	3
Mean (Standard deviation)	12 (38.7)	10 (21.2)
Referral to further care from mental health unit	Proportion pre-	Proportion post-
Community health program	91.6%	93.4%

Mental health admissions: analysis

The table below displays the regression outcomes from the length of stay Poisson model. The IRR heading for regression coefficients refers to the percentage impact on the dependent variable, LOS, for each independent variable (Post, in_catch, etc.). For example, the Post variable shows that post-Floresco patients stayed 0.933 times as long as pre-Floresco patients, after adjusting for the other independent variables. In other words, these patients stayed (1-0.933) = 6.7% less time in hospital than pre-Floresco patients.

The other potentially ambiguous variables are as follows: in_catch = patient residing within 1 hour of Floresco and thus more likely to use the service; ATSI = Aboriginal status; admsource_transfer = patient was transferred from another hospital; admsource_ED = patient was admitted from the Emergency Department; admsource_other = patient was admitted from another source such as private practice referral; mental_health = patient was delivered mental health care (as opposed to acute care); new_patient = patient was not previously admitted for a mental health disorder. The _cons variable refers to the intercept, or when all independent variables in the model are set to 0. The reference group in this case is a female, non-ATSI patient pre-Floresco living out of catchment between the ages of 20 and 35 with a history of mental health problems.

Iteration 0: log likelihood = -43048.601
Iteration 1: log likelihood = -43042.15
Iteration 2: log likelihood = -43042.148
Poisson regression

Number of obs = 3,794
LR chi2(13) = 18829.53
Prob > chi2 = 0.0000
Log likelihood = -43042.148
Pseudo R2 = 0.1795

LOS	IRR	Std. Err.	z	P>|z|	[95% Conf. Interval]	
Post	0.9334	0.0094	-6.81	0.000	0.9151	0.9521
in_catch	1.2954	0.0179	18.71	0.000	1.2608	1.3310
ATSI	0.8680	0.0131	-9.40	0.000	0.8428	0.8940
male	1.0282	0.0105	2.73	0.006	1.0078	1.0490
age_u19	0.3122	0.0059	-61.32	0.000	0.3008	0.3240
age_35_50	0.9902	0.0129	-0.75	0.450	0.9652	1.0159
age_50_65	1.0210	0.0162	1.30	0.192	0.9896	1.0533
age_o65	1.6098	0.0250	30.64	0.000	1.5615	1.6596
admsource_ transfer	1.8675	0.0315	37.04	0.000	1.8068	1.9303
admsource_ED	0.9613	0.0146	-2.60	0.009	0.9332	0.9903
admsource_ other	1.7446	0.0275	35.33	0.000	1.6916	1.7993
mental_health	3.5079	0.0808	54.46	0.000	3.3530	3.6699
new_patient	0.7117	0.0081	-30.06	0.000	0.6961	0.7277
_cons	3.1329	0.0962	37.17	0.000	2.9499	3.3274

Patient Satisfaction

The Your Experience of Service survey is a nationally recognised tool that captures mental health consumer's experience of health care. It asks patients to think about the care they have received from a service within the most recent 3 months. Eighty Floresco clients completed the survey during the evaluation period. Their duration of interaction with the service varied from 1 day to more than 6 months (Figure A3.1).

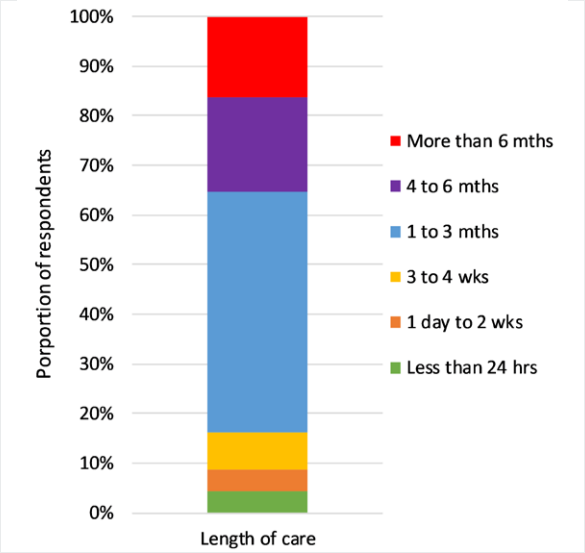

Figure A3.1: Duration of care at the Floresco Centre for YES survey respondents (n=80)

The results of the survey items that assess how *often* the service provides certain experiences for consumers are displayed in Figure A3.2.

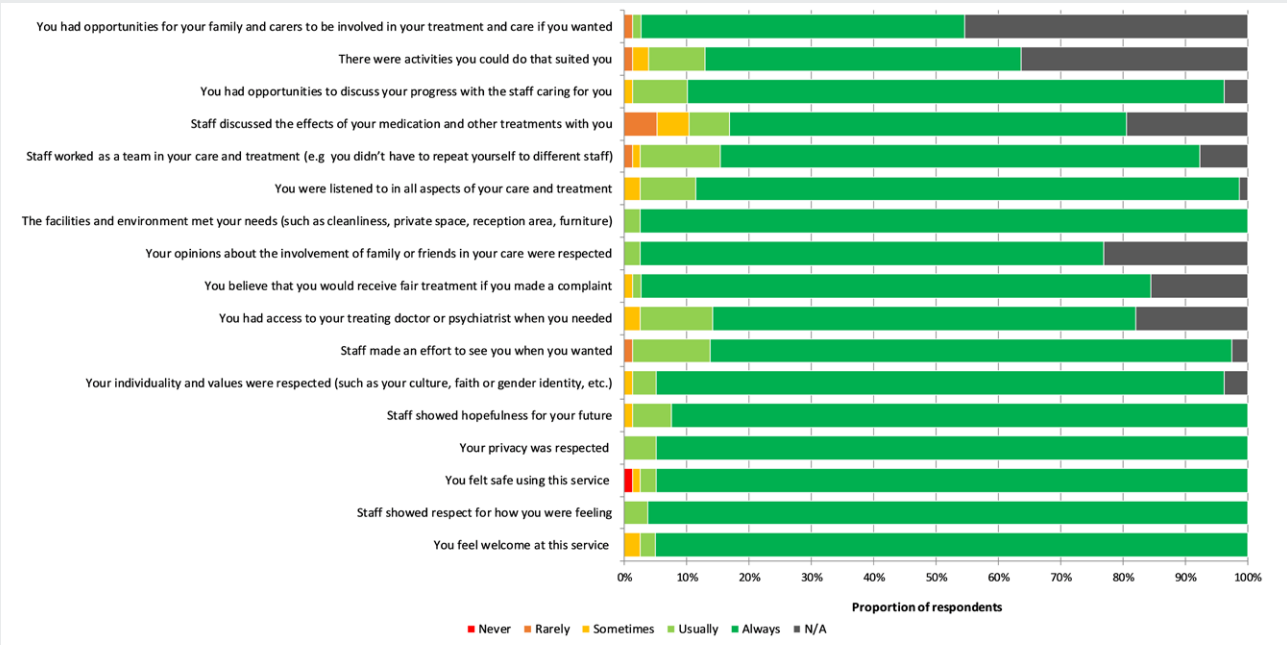

Figure A3.2: Floresco service users responses to items of the YES survey about how often experiences were provided (n=80)

The results of the survey items that assess how *well* the service provides certain experiences and outcomes for consumers are displayed in Figure A3.3.

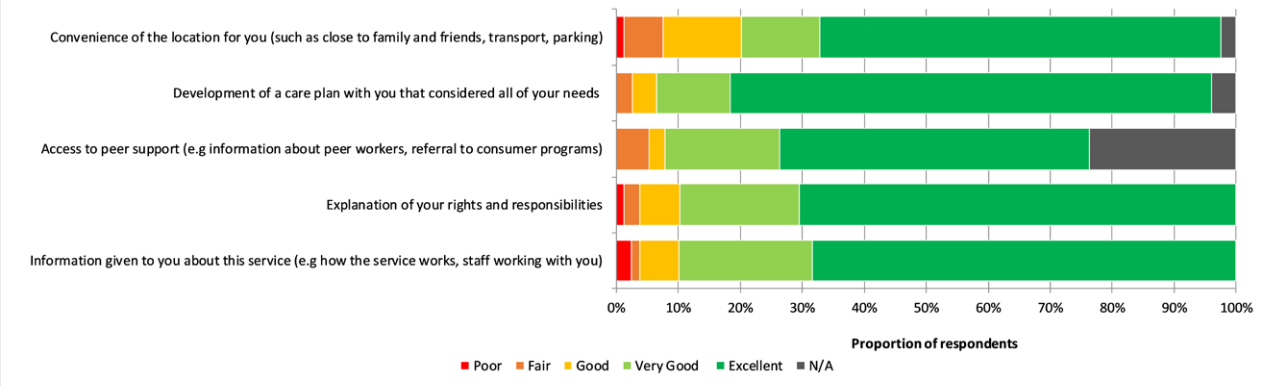

Figure A3.3: Floresco service users responses to items of the YES survey about how well experiences and outcomes were provided (n=80)

More detailed feedback about the service was also captured by a feedback form asking the following three questions:

1. How did you find your experience with the service?
2. What has changed in your life because of using the service?
3. What would you tell a family member/friend about the service?

Two samples of this feedback are attached to the end this report.

Health of the Nation Outcome Scales

A score of 2 or more on each individual HoNOS item is judged by experts to be evidence of a clinically significant problem that requires active monitoring or intervention[17]. Floresco clients had, on average, 3.5 clinically significant HoNOS items at baseline assessment, however this was reduced to 2.0 items at follow-up (p-value <0.0001). The proportion of all of items deemed clinically significant therefore decreased from 29% to 17% during treatment at the Floresco centre.

Those who were followed up account for 18.5% of all clients with a baseline assessment of HoNOS. There may be over-representation of those with less severe illness in this group with a slightly lower overall score (11.4 vs 13.5, p-value for difference: 0.01) and fewer clinically significant items (4.2 vs 3.5, p-value for difference: 0.02) than that observed across all 383 clients.

Table A3.5: Change in HoNOS scores of Floresco clients (n=71) between intake and follow-up. S.D: standard deviation

Sub-scale	Baseline	Follow-up	Change	p-value
	Mean (S.D)	Mean (S.D)		
Behaviour (max score 12)	2.0 (2.1)	1.6 (2.0)	-0.4	0.074
Impairment (max score 8)	1.1 (1.3)	0.6 (1.1)	-0.5	<0.0001
Symptoms (max score 12)	4.4 (1.8)	2.6 (2.2)	-1.8	<0.0001
Social (max score 16)	3.9 (3.0)	2.0 (2.8)	-1.9	<0.0001
HoNOS score (max score 58)	11.4 (6.2)	6.8 (7.0)	-4.6	<0.0001

Recovery Assessment Scale - Domains and Stages

Only 41 clients completed a baseline assessment of the Recovery Assessment Scale - Domains and Stages. Of these, 35 had complete data at baseline and 30 completed an additional assessment throughout their on-going interaction with the service (post-assessment). Data from these 30 clients was used for the assessment of improvement in RAS-DS in the Floresco cohort. The baseline RAS-DS score for all Floresco clients with complete data (62.1) was not statistically different from that observed in the sample of clients with repeated data analysed (p-value: 0.52).

Table A3.6: Change in standardised RAS-DS scores of Floresco clients (n=30) between intake and follow-up. S.D: standard deviation

Recovery Domain	Baseline	Follow-up	Change	p-value
Max score 100	Mean (S.D)	Mean (S.D)		
Doing Things I Value	68.1 (15.7)	74.0 (16.6)	+5.9	0.08
Looking Forward	60.4 (15.2)	71.1 (18.7)	+10.7	0.001
Mastering My Illness	55.9 (13.0)	72.7 (16.6)	+16.8	<0.0001
Connecting and Belonging	64.7 (18.4)	73.2 (20.2)	+8.5	0.01
RAS-DS score	61.6 (13.0)	72.2 (16.9)	+10.6	0.0005

Depression Anxiety Stress Scales

The DASS-21 is a self-reported tool designed to measure the negative emotional states of depression, anxiety and stress. It is divided into three scales that each contain 7 items. While 268 clients had a baseline assessment of this measure, only 18 clients (7%) had repeated assessment. However, the categorised severity of illness and baseline scores of stress (24.7, p-value: 0.94), anxiety (18.5, p-value: 0.75) and depression (23.4, p-value: 0.59) in the entire patient cohort were not significantly different from those in clients followed up.

At baseline, Floresco clients were considered to have moderate levels of stress, and severe levels of anxiety and depression. At follow-up there was a decrease in all 3 DASS-21 scales of between 1.7 and 2.7 points however none of these represented statistically significant changes (perhaps owing to the small sample size). Additionally, these changes did not alter the classification of depression, anxiety or stress of the client population.

Table A3.7: Change in DASS scores of Floresco clients (n=18) between intake and follow-up. S.D: standard deviation

Scale	Baseline	Follow-up	Change	p-value
	Mean (S.D)	Mean (S.D)		
Stress	24.8 (9.1)	22.1 (12.0)	-2.7	0.13
Anxiety	17.7(10.9)	15.7 (10.8)	-2.0	0.36
Depression	21.7 (12.9)	20.0 (11.4)	-1.7	0.58

The AQoL-8D instrument

Data analysis

The AQoL-8D was used to assess health related quality of life (HrQoL) in Floresco service users. This validated instrument measures eight primary dimensions: independent living, happiness, mental health, coping, relationships, self-worth, pain and senses. The mental health content of the AQoL-8D is unique amongst HrQoL instruments and is derived from psychometric analysis. In terms of psychometric (raw) scores using the AQoL-8D, these are standardised between 0 and 100 with a lower numerical score representing poorer QoL.

The psychometric scores from the AQoL-8D were converted to health utility scores using a validated algorithm (https://www.monash.edu/business/che/aqol/using-aqol/scoring), allowing the results to be used in an economic model and estimate change to quality adjusted life years (QALYs). The numbers obtained refer to utility values on a conventional scale such that 1.0 refers to good health and 0.09 is the worst health state (death = 0.00).

All clients were approached to complete the AQoL-8D as part of intake to the Floresco centre. Consequently, 414 clients completed a baseline assessment of AQoL-8D. Of these clients, 44 completed an additional AQoL-8D assessment throughout their on-going interaction with the service (post-assessment). Data from these 44 clients was used for the assessment of improvement in quality of life in the Floresco cohort. The baseline AQoL-8D score for all Floresco clients was 50.4 (S.D 15.8) which was not statistically different from the 52.7 (S.D 14.2) observed in the sample of clients with repeated data analysed (p-value: 0.35).

Results

Table A3.8: Change in AQoL-8D standardised scores of Floresco clients (n=41) between intake and follow-up. S.D: standard deviation

Domain	Baseline	Follow-up	Change	p-value
Max score = 100	Mean (S.D)	Mean (S.D)		
Independent living	74.3 (18.8)	77.1 (20.4)	+2.8	0.262
Happiness	41.3 (16.5)	50.0 (25.5)	+8.7	0.027
Mental Health	43.5 (18.2)	53.3 (21.9)	+9.8	0.006
Coping	39.6 (19.1)	50.8 (27.6)	+11.2	0.010
Relationships	55.9 (17.7)	62.9 (19.6)	+7	0.008
Self Worth	39.4 (21.3)	48.0 (27.5)	+8.6	0.077
Pain	54.9 (28.7)	62.7 (29.6)	+7.8	0.099
Senses	77.5 (14.4)	83.5 (12.9)	+6	0.007
AQoL-8D score	**52.7 (14.2)**	**60.6 (19.9)**	**+7.9**	**0.005**

The histogram for health utility scores for pre- and post-Floresco can be found in Figure A3.4 below. The grey pre-Floresco scores have a mean of 0.392 with substantial right skew, while the post-Floresco scores are more uniformly distributed.

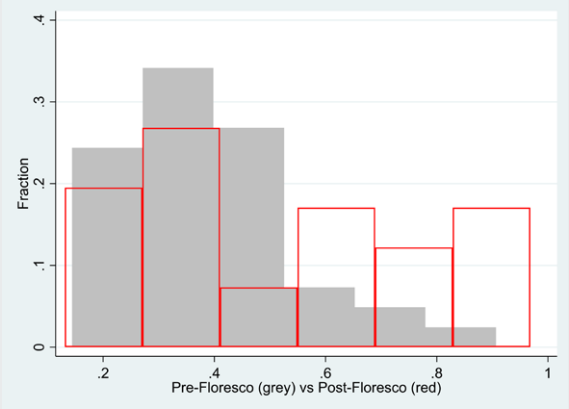

Figure A3.4: Histogram of the pre-intervention and post-intervention health utilities in Floresco patients

It is important to note that the HrQoL in Floresco clients at all points was much lower than reported in Australian population norms using this instrument (psychometric mean 81.0, S.D 12.7; utility mean 0.80, S.D 0.19)[14].

AusHSI Healthcare Provider Satisfaction Survey

There were 10 respondents to the survey who worked on the project between 15 and 40 hours per week (Figure A3.5). Of these, 20% managed staff, 80% were female and 80% had been in role 2 years or less. The overall results of the survey are presented in Table A3.9 below.

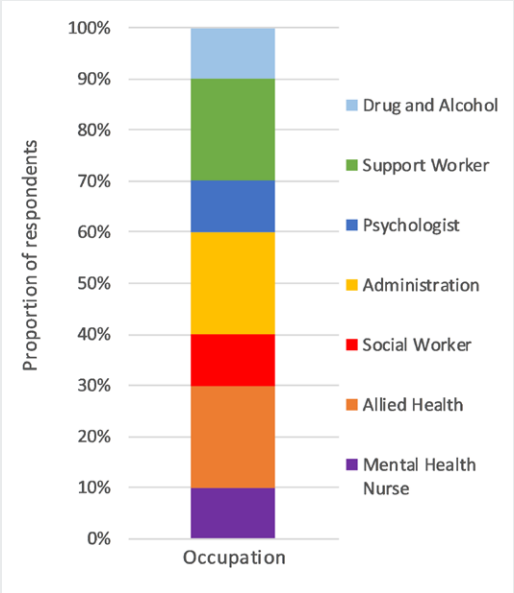

Figure A3.5: Occupations of AusHSI Healthcare Provider Satisfaction Survey respondents (n=10).

Table A3.9: Summary of responses to the AusHSI Healthcare Provider Satisfaction Survey (n=10).

Workload- since the Floresco innovation began:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My workload is now more manageable (%)	0	0	22	67	11
I can manage all the conflicting demands on my time at work (%)	0	0	22	67	11

*1 participant did not answer

Responsibility - since Floresco began:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The depth of my job has increased (%)	0	0	30	40	30
The breadth of my job has been expanded (%)	0	0	30	40	30
I now delegate more responsibility to others (%)	0	0	90	10	0
I now have more responsibility delegated to me (%)	0	0	40	50	10

Structure - since Floresco was introduced:	Worse	No Change	Better	Not Sure
The training support in my area of work has been (%)	0	44	44	11
Organisational structure and reporting has been (%)	0	33	56	11
Communication between different parts of the organisation has been (%)	0	33	56	11
Communication with external organisations has been (%)	0	33	67	0

*1 participant did not answer

Role - since Floresco was introduced, my work has:	No	Not Sure	Yes
Had clearer objectives and goals (%)	0	33	67
Been more interesting (%)	0	22	78
Had more flexibility in my role (%)	0	22	78
Been given more adequate resources (%)	0	22	78

*1 participant did not answer

Teamwork - since Floresco was introduced:	No	Not Sure	Yes
Do you have clearer lines of accountability? (%)	20	10	90
Do you meet with team members more regularly to discuss improvements? (%)	0	10	90
Do you work more closely together? (%)	0	20	80
Does your team have clearer objectives? (%)	0	30	70

Patient care - since Floresco began:	Gotten Better	Not Changed	Gotten Worse	Not Sure
Do you feel that your patient's care has: (%)	87.5	0	0	12.5

*2 participants did not answer

Service provision - since Floresco began:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am satisfied with the quality of care I give to patients (%)	0	0	0	70	30
I feel my role makes a positive difference to patients (%)	0	0	0	70	30
I am able to do my job to a standard I am pleased with (%)	0	0	0	89	11
The people who provide care for my patients work well together (%)	0	0	0	70	30
A 'seamless service' is a good description for the care my patients receive (%)	0	10	0	80	10
There is good communication with other organisations provided care for my patients (%)	0	0	10	50	40

Additional positive feedback about the Floresco innovation was provided by one of the support workers:

> *"Floresco has provided the perfect platform in terms of venue, atmosphere and support for the carer support group, which I initiated and facilitate in conjunction with Floresco staff. There's over 50 mental health carers have been able to find learning, support and information that they would not otherwise have had a forum to do so. It is a hub of community information for carers- for themselves, or to pass on to family and friends. Some carers have made life-changing decisions based on the information and support they receive at the Floresco Marigolds Carer Group."*

AusHSI Organisational Team Satisfaction Survey

Two key members of the organisational team who worked full-time on the project responded: the project lead and a member of the steering committee.

Table A3.10: Summary of responses to the AusHSI Organisational Team Satisfaction Survey (n=2).

Workload - since the Floresco innovation began:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My workload is now more manageable (%)	0	0	100	0	0

Responsibility - since Floresco began:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The depth of my job has increased (%)	0	0	50	50	0
The breadth of my job has been expanded (%)	0	0	50	50	0
I now delegate more responsibility to others (%)	0	0	100	0	0
I now have more responsibility delegated to me (%)	0	0	50	50	0

Structure - since Floresco was introduced:	Worse	No Change	Better	Not Sure
The training support in my area of work has been (%)	0	100	0	0
Organisational structure and reporting has been (%)	0	100	0	0
Communication between different parts of the organisation has been (%)	0	0	100	0
Communication with external organisations has been (%)	0	0	100	0

Role - since Floresco was introduced, my work has:	No	Not Sure	Yes
Had clearer objectives and goals (%)	0	0	100
Been more interesting (%)	0	0	100
Had more flexibility in my role (%)	0	50	50
Been given more adequate resources (%)	0	0	100

Teamwork - since Floresco was introduced:	No	Not Sure	Yes	Did not answer
Do you have clearer lines of accountability? (%)	0	0	50	50
Do you meet with team members more regularly to discuss improvements? (%)	0	50	0	50
Do you work more closely together? (%)	0	0	50	50
Does your team have clearer objectives? (%)	0	0	50	50

Patient care - since Floresco began:	Gotten Better	Not Changed	Gotten Worse	Not Sure	Did not answer
Do you feel that your patient's care has: (%)	50	0	0	0	50

Service provision - since Floresco began:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Did not answer
The people who provide care for my patients work well together (%)	0	0	0	50	0	50
A 'seamless service' is a good description for the care my patients receive (%)	0	0	0	50	0	50
There is good communication with other organisations provided care for my patients (%)	0	0	0	50	0	50

Additional positive feedback about the Floresco innovation was provided by both respondents:

"Worthwhile service filling community gap; provides additional primary health pathway; expanded community networking"

"Floresco is providing a wonderful service which is seamless and easy to navigate for the patient"

VicHealth Partnership Analysis Tool

Table A3.11: Summary of pre, mid and post scores from the VicHealth Partnership Analysis Tool

Domain	Pre	Mid	Post
Max score per domain = 25	N=4; Mean (Range)	N=4; Mean (Range)	N=9; Mean (Range)
Determining the need for the partnership	20.3 (18-23)	20.3 (20-21)	20.3 (18-24)
Choosing partners	20.0 (18-22)	19.8 (18-21)	20.3 (16-25)
Making sure partnerships work	20.3 (18-23)	20.0 (18-23)	20.6 (17-24)
Planning collaborative action	20.0 (19-22)	20.5 (19-23)	19.7 (16-22)
Implementing collaborative action	18.0 (16-19)	19.5 (18-22)	20.2 (16-24)
Minimising the barriers to partnerships	19.8 (18-23)	19.5 (19-20)	18.8 (17-21)
Reflecting on and continuing the partnership	20.3 (19-22)	20.0 (19-21)	19.7 (16-23)
TOTAL* (max score = 175)	**138.5 (130-151)**	**140 (132 – 150)**	**139.6 (123 – 163)**

*Higher numbers indicate greater consistency with concepts of successful partnerships

Consolidated Framework for Implementation Research (CFIR) survey

The Floresco project scored highly at baseline and follow-up for most items, suggesting a strong context for successful implementation. The greatest concerns initially were whether the model fit well within health service norms, however these had been overcome to a large extent at follow-up. Confidence in most domains improved over time. The largest increase was seen in the ability of the individuals involved to accept and implement the innovation.

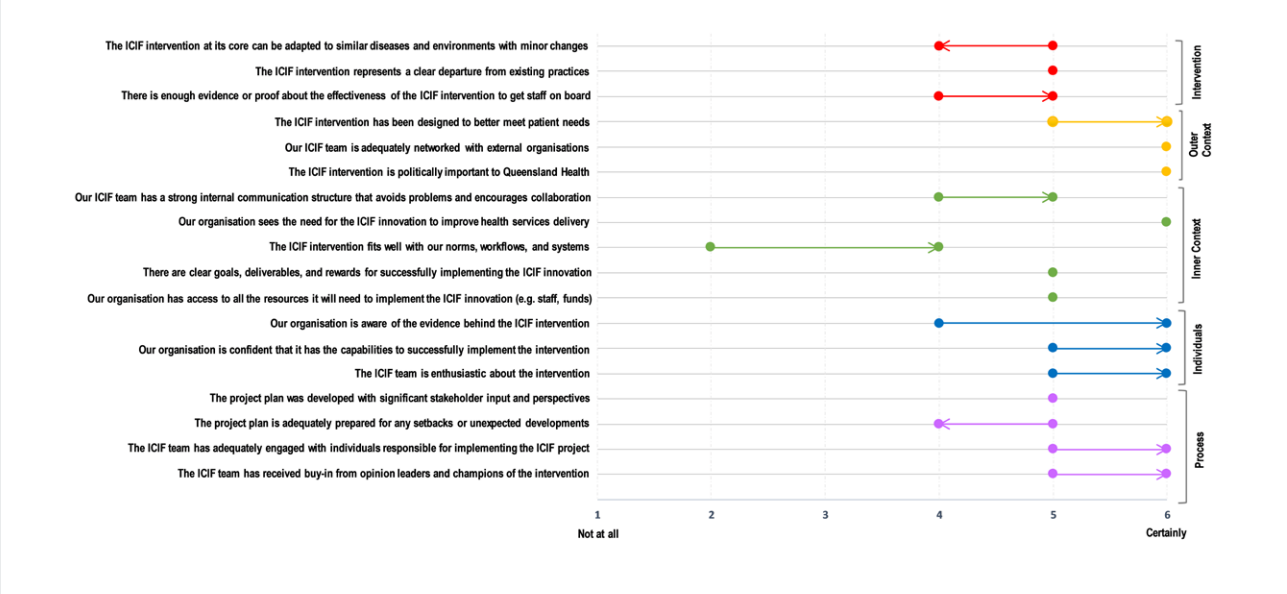

Figure A3.6: Changes in Framework for Implementation Research (CFIR) survey from baseline to post-implementation. Arrows represent direction of change.

Floresco Consumer Feedback Form

Your journey, your story

At Floresco we are always looking at how best we can improve on our service. Our participants and users of our service are paramount in letting us know how we can best achieve this.

If you would like to participate in providing Floresco with feedback, please complete the following 3 questions *(your answers will be submitted for evaluation purposes by the Floresco team)*.

Q1. How did you find your experience with the service?

My experience at Floresco has been both life saving and life altering. I have seen a Psychologist here on a regular basis for 12 mths (the most challenging of my life), the GP, dietitian, attended the first Anxiety group and on numerous occasions phoned or dropped in for a talk in times of need.

Q 2. What has changed in your life because of using the service?

With the skills I have gained and consistant support from the service I have been able to start to believe in myself and take control of my emotions and life. I moved into a unit by myself, bought a new car, gained both a forklift and truck licence, got a pay rise at work (a job I've been in for 11 years) and now I'm being groomed for a management position.

Q3. What would you tell a friend/family member about the service?

Floresco is a very professional, thorough, welcoming service that provide a range of services in the one location to the people of Toowoomba. I am happy to say that I have recommended Floresco to several people already.

We appreciate any feedback, complaints or compliments. Please feel free to speak to staff if you have any concerns

Thank you for your assistance.

Leah Christie
Service Manager

Floresco Consumer Feedback Form

Your journey, your story

FLORESCO
115-135 Margaret Street, Toowoomba QLD 4350
Phone: (07) 4543 5500
Email: floresco@uccare.com.au

At Floresco we are always looking at how best we can improve on our service. Our participants and users of our service are paramount in letting us know how we can best achieve this.

If you would like to participate in providing Floresco with feedback, please complete the following 3 questions *(your answers will be submitted for evaluation purposes by the Floresco team)*.

Q1. How did you find your experience with the service?

• I HONESTLY LOOK FORWARD TO ATTENDING THE SERVICE FROM BOTH A PERSONAL AND PROFESSIONAL PERSPECTIVE • I MAY HAVE BEEN A LITTLE CONFUSED RE THE G.P. AND ROLE/FOCU WITHIN THE TEA

Q 2. What has changed in your life because of using the service?

• I FEEL I NOW HAVE ACCESS TO A RANGE OF SUPPORT/S AND AM BEGINNING TO DEVELOP HOPE OF A HOLISTIC CARE APPROACH FOR "ME"

Q3. What would you tell a friend/family member about the service?

• I HAVE REFERRED PEOPLE TO THE SERVICE TO OBTAIN INFORMATION TO ASSESS WHETHER THEY MAY BE ABLE TO ACCESS SUPPORT etc. IN AN ATTEMPT TO PREVENT DETERIORATION OF THEIR HEALTH AND TO LET THEM KNOW THERE IS HELP AVAILABL

We appreciate any feedback, complaints or compliments. Please feel free to speak to staff if you have any concerns

AND PEOPLE THAT DO CARE.

Thank you for your assistance.

Leah Christie
Service Manager

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