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Evaluation Plan Housing & Accommodation Support Initiative Plus (HASI Plus)

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Glossary

AH&MRC	Aboriginal Health and Medical Research Council
BoCSAR ROD	NSW Bureau of Crime Statistics and Research Re-Offending Database
CHeReL	Centre for Health Record Linkage
CJP	Community Justice Program
CLS	Community Living Supports
CMO	Community Managed Organisations
FACS	Family and Community Services
HASI	Housing & Accommodation Support Initiative
HREC	Human Research Ethics Committee
ISP	Integrated Services Program
JH&FMHN	NSW Justice Health and Forensic Mental Health Network
LHD	Local Health District
MACNI	Multiple and Complex Needs Initiative
MDS	CLS, HASI and RRSP Minimum Data Set
MH-OAT	Mental Health Outcomes and Assessment Tools
NDIA	National Disability Insurance Agency
NDIS	National Disability Insurance Scheme
NSW	New South Wales
OIMS	Offender Inmate Management System
PHSREC	NSW Population and Health Services Research Ethics Committee
SPRC	Social Policy Research Centre
TAFE	Technical and Further Education
UNSW Sydney	University of New South Wales

1 The HASI Plus program

Over the past two decades, there has been a shift of focus in mental health support, from a medical perspective of symptom management to supporting consumer autonomy, recovery and reintegration into community life (Ramon, Healy and Renouf, 2007; Roe, Joseph & Middleton, 2010). Recovery has been conceptualised as a process rather than an outcome, consistent with the changing circumstances over time typical of mental illness (Brennaman and Lobo, 2011).

In line with these concepts, the HASI Plus program is designed to provide recovery oriented, high intensity, community based support for people with severe mental illness and an associated significant functional impairment. The program was established in 2013, is funded by NSW Health and delivered in partnership with Community Managed Organisations (CMOs). The main consumer groups of HASI Plus are people exiting mental health institutions, forensic patients and prisoners with mental ill-health who require intensive, holistic support to move from institutional care to live in the community.

The program integrates intensive clinical and psychosocial support (16-24 hours per day) with stable community-based accommodation, to support recovery and allow consumers to live and participate in the community. While in the program, HASI Plus consumers receive a holistic package of recovery-focused, integrated support encompassing:

- stable, community-based and fit-for-purpose accommodation
- flexible, high intensity accommodation support
- psychosocial support services
- coordinated multi-disciplinary mental health clinical support provided in partnership with the Local Health District mental health services and other service providers as appropriate.

HASI Plus is a state-wide program. Referrals are accepted from all NSW Local Health Districts (LHDs) and the Justice Health and Forensic Mental Health Network, with support provided at eight community-based residential settings in Northern Sydney, Hunter New England and Western Sydney Local Health Districts. According to the program logic developed by NSW Health (Appendix A), the intended high-level outcomes of HASI Plus are:

- people with severe mental illness who have resided long term in mental health facilities, prisons or hospitals transition to live in the community
- consumers have sustained improvements in their mental and physical health and experience greater wellbeing
- organisations have effective partnerships that support improved quality of life for people with severe mental illness

- there is a reduction in the number of avoidable presentations to emergency departments, mental health facilities and related support services
- consumer outcomes and the program performance are effectively monitored
- the program is appropriately governed.

Currently 60 HASI Plus packages are provided in NSW, across three LHDs and eight locations in total. Packages comprise 24 hours or 16 hours of support per day (Table 1). A small expansion of the program is planned as part of the NSW Government's investment in mental health reform.

Table 1 HASI Plus packages

Local Health District	**Number of packages**	**Referral source (LHD) (n=60)**		**Hours of support per package (n=60)**	
		Statewide	Local	16 hours	24 hours
Hunter New England (2 locations)	20	11	9	8	12
Northern Sydney (4 locations)	20	11	9	7	13
Western Sydney (2 locations)	20	12	8	10	10
Total	**60**	**34**	**26**	**25**	**35**

As a recovery-oriented support model, it is expected that the needs of HASI Plus consumers will change over time. While there is no time limit, it is anticipated that consumers will transition out of the HASI Plus accommodation to less intensive, community-based support arrangements. Since the beginning of the program, approximately 40 consumers have transitioned out of HASI Plus to alternative community support. During the next five years, NSW Health expects CMOs to continue to develop pathways and partnerships to facilitate recovery-based transitions of consumers out of HASI Plus.

Evidence from evaluations of similar programs, such as the Integrated Services Program (ISP), the Criminal Justice Program (CJP) or HASI in NSW and the Multiple and Complex Needs Initiative (MACNI) in Victoria, suggest that targeted programs like HASI Plus can be successful at improving outcomes for people with complex support needs, including serious mental illness (Purcal et al., 2016; Wilczynski et al., 2015; Muir et al., 2008, 2010; McDermott et al., 2015; Victorian Department of Human Services, 2009).

NSW Health has commissioned the Social Policy Research Centre (SPRC) at UNSW Sydney to evaluate HASI Plus. The evaluation commenced in August 2018 and runs until June 2020. This evaluation plan has been developed in consultation

with NSW Health. It outlines the planned approach, methodology and governance for the evaluation.

2 Evaluation approach

The purpose of the HASI Plus evaluation is to:

- identify what works well in the program governance and implementation, and identify opportunities for improvement (process evaluation)
- assess the impact of HASI Plus and the extent to which the program achieves its aims (impact/outcome evaluation)
- conduct an economic analysis of HASI Plus to determine the program's costs and benefits compared to other models (economic evaluation).

Specifically, the evaluation will explore:

- the extent to which the program supports transition of people with severe and persistent mental illness from institutional contexts to community living, and the experience and outcomes for different consumer groups where sufficient data is available
- whether consumers have sustained improvements in their mental and physical health and their wellbeing
- what the experiences of families and carers are of the program and their engagement
- whether organisations involved in the program have effective program operations, governance and partnerships
- whether the number of avoidable presentations to emergency departments, mental health facilities and related supports is reduced, and the associated impact on the health system
- what is the funding model for service provision, and what are the costs and benefits of the program
- how well the program data collection supports improved knowledge about the program and its outcomes.

Detailed evaluation questions are included in Appendix B. The process and impact/outcome evaluation framework entails qualitative data collection from stakeholders, consumers, families, staff; quantitative data analysis from program partners; and an economic analysis, which will examine the current funding model and costs and benefits of the program compared to other models. The program logic developed by NSW Health (Appendix A) underpins this approach.

A mixed-methods evaluation design allows the researchers to collect information from a range of sources and to triangulate them to assess the effectiveness and outcomes of HASI Plus. The quantitative and economic analysis components will incorporate data linkage through the NSW Health CHeReL of available program content with admitted patient and other available datasets.

3 Methodology

The evaluation methodology consists of six components described below: brief literature review, onsite qualitative fieldwork, interviews with government and state-level stakeholders, qualitative and quantitative program data analysis and economic analysis and cost modelling. Appendix B provides an overview of how the methods address the evaluation questions. An overview of sample sizes, collection timeframes and data collection processes is provided in Table 2.

Table 2 Sample

Method	Sample sizes n	Collection frequency	Collection timeframes	Data transfer or collection process
Interviews with all consumers in the program who consent	HASI Plus 60	Twice	Jan-Mar 2019 Aug-Oct 2019	Fieldwork visits (peer-methodology) at eight HASI Plus accommodation sites, face-to-face interviews
Interviews with all consumers exited the program who consent	~40 (exited)	Once	Jan-Aug 2019	
Interviews with family/carers (matched to consumer) in the program	Estimate 1/3 of consumers nominate a carer = total ~20	Twice	Jan-Mar 2019 Aug-Oct 2019	Fieldwork visits at all eight sites and phone
Interviews with family/carers (matched to consumer) exited	Estimate 1/4 = total ~10	Once	Jan-Aug 2019	
Interviews with local service providers (CMOs, LHD staff, accommodation support, psychosocial support etc.)	3-4 staff per site = ~32 total	Twice	Jan-Mar 2019 June-Aug 2019	Fieldwork visits at all eight sites and phone (where feasible small group discussions, e.g. with a range of LHD staff)
Interviews with government and state-level stakeholders (e.g. Ministry, program partners, NSW Corrective Services, Justice)	8-12 groups	Once	Nov 2018–Aug 2019	Focus group in person or by teleconference (i.e. range of staff from one department)
Program data	HASI Plus 60	-	-	As available from NSW Health or service providers
Program outcomes data	HASI Plus 60 + 40 exited + potentially wait list (estimated 30-50)	-	-	Combined available program data and data linkage content through CHeReL

Method	Sample sizes n	Collection frequency	Collection timeframes	Data transfer or collection process
Economic analysis of costs and benefits	HASI Plus 60 + 40 exited + potentially wait list (estimated 30-50)	-	-	Will collate program funding, cost data and resource usage from the program data linkage for cost estimation.
Cost modelling data	HASI Plus 60 + 40 exited + potentially wait list (estimated 30-50)	-	-	Will align program expenditure data from NSW Health and service providers where available with the economic cost effectiveness work.

3.1 Brief literature review

The brief literature review will focus on programs similar to HASI Plus that offer intensive, integrated community-based services for people with severe mental illness transitioning from institutional contexts. It will include concepts of recovery in severe mental illness, and specific examination of outcomes for people with severe mental illness transitioning from institutional contexts with comorbid and substance use disorders, and outcomes for differing levels of cognitive and functional impairment. The aim of the review is to give an overview of the current evidence from evaluations of such programs. This will help to develop the conceptual basis for evaluating HASI Plus, including its recovery focus.

The review for HASI Plus will build on programs and models identified in a similar literature review that the researchers undertook for the Community Justice Program evaluation. We will conduct the review by searching academic databases (SCOPUS, INFORMIT, Medline, etc), grey literature and government websites.

The literature review will also incorporate key HASI Plus program documentation to inform the evaluation framework, design of data collection methods and analysis.

3.2 Onsite qualitative fieldwork

During two visits to the 8 HASI Plus locations the team will speak to stakeholders from the following groups:

- HASI Plus consumers who consent – the total sample is 60 current consumers, and approximately 40 who have exited the program
- families or carers of current and exited consumers

- local service providers and organisations (including CMOs, LHD and clinical staff, workers delivering psychosocial supports, other key community-based partners as appropriate).

The aim of the fieldwork is to understand HASI Plus consumer experiences of the program and support received; individual needs, planning and goal setting; and changes consumers have experienced (positive/negative) as a result of their participation in HASI Plus. The in-depth interviews with consumers, their families or carers and a range of local providers, services and partners will also provide insights into differences in support needs, perceptions of the program suitability for different consumer groups (e.g. former prisoners, forensic patients, Aboriginal people), and program operational and process issues.

The qualitative data from current consumers, families and local service providers will be collected twice to measure change over time for consumers and the program operations: in January–March 2019, and in August–October 2019. Interviews with exited consumers will be conducted once and focus on the transition experience and longer-term outcomes of consumers.

Recruitment processes and conduct of interviews will follow a trauma-informed approach, which includes:

- seeking informed consent and re-affirming this consent during the interview
- interviewing in an environment where the person feels safe
- using flexible and inclusive interview techniques as appropriate, which may include conversations, observations, storytelling, group activities, written or documented responses and interviews conducted with Easy English questions with pictorial support
- using trained and peer researchers (see below)
- being culturally sensitive (see below)
- empowering and supporting the interview participant.

3.2.1 Recruitment and consent processes for interview participants

Participation in an interview is voluntary, and recruitment will be undertaken using an arm's length approach, where the CMOs seek in-principle agreement to participate before SPRC researchers contact prospective interview participants and obtain formal consent. For HASI Plus consumers (both current and exited), consent will be sought preferably from the consumer themselves and otherwise, if necessary, from their guardian.

The recruitment and consent process for **current consumers and their families** will involve the following steps:

1. SPRC will produce information sheets and consent forms about the evaluation written in an accessible way for consumers, with advice from CMOs about length, design and wording

2. Finalised information sheets will be available to CMO support workers from January 2019, 2 weeks before planned first site visits

3. CMO support worker talks through the information sheet and what the evaluation involves with the consumer

4. First site visit: SPRC will conduct interviews with CMO staff and socialise with consumers in a way that CMOs regard suitable, e.g. over a meal; researchers aim to talk with consumers about the evaluation informally, build trust and give more information

5. Second site visit, 1-2 weeks later: researchers will obtain formal consent from consumers – either written or verbal – and conduct interviews

6. During consumer interview, the researcher will ask whether the consumer has a family member or carer who we could also talk to (will check with support worker first if appropriate)

7. If yes, the consumer or CMO will contact family member to ask for willingness to participate; if they agree, will forward contact details to SPRC

8. Family interviews will be conducted during following weeks via phone or skype; family member formal consent will be obtained before the interview

9. Recruitment and consent for second-round interviews will follow a similar process or involve fewer steps, depending on consumer need and preferences; in any case repeat consent will be sought for second-round interviews.

The recruitment and consent process for **exited consumers and their families** will involve the following steps:

1. SPRC will produce information sheets and consent forms about the evaluation written in an accessible way for exited consumers, with advice from CMOs about length, design and wording

2. LHDs or CMOs (depending on which organisation holds relevant contact information) will locate and contact exited consumer if possible, discuss evaluation, ask whether interested in participating in interview, seek verbal

consent for SPRC to contact exited consumer. Depending on circumstances, the process will involve:

   a. if the exited consumer is still known to the CMO or LHD and has an ongoing service relationship, HASI Plus providers and LHDs will make the initial approach to the consumer

   b. if the exited consumer is no longer in contact with the service, the HASI Plus provider will post an information sheet to the consumer at their last known address and invite them to participate in the evaluation interview

   c. separately, the NSW Ministry of Health will write to all LHDs to ask that any consumers who are known to have previously had a HASI Plus package be informed about the evaluation and how they can participate in an interview

   d. if an exited consumer is in prison, Justice Health and Forensic Mental Health Network (JH&FMHN) staff could complete a survey with the consumer. SPRC will provide JH&FMHN with support for this process.

3. If the exited consumer agrees, LHDs or CMOs (depending on which organisation holds relevant contact information) will pass on the relevant contact information, and SPRC researchers will arrange time and venue most suitable to the person (within fieldwork dates and location, otherwise phone if possible) to conduct an interview with the exited consumer

4. SPRC will meet exited consumer during fieldwork visit, obtain formal consent and conduct interview

5. During exited consumer interview, researcher will ask whether they have a family member or carer who we could also talk to

6. If yes, consumer or CMO will contact family member to ask for willingness to participate; if they agree, will forward contact details to SPRC

7. Family interviews will be conducted during following weeks via phone or skype; family members formally consent before the interview.

The recruitment and consent process for **local program staff in the HASI Plus locations** will involve the following steps:

1. CMO managers assign contacts in each of the 8 HASI Plus locations (some may be a contact for more than one location)

2. Location contacts nominate staff, including frontline workers and managers at various levels as appropriate, to participate in evaluation interviews (can be individual interviews or group discussions)

3. SPRC obtains formal consent and conducts face-to-face interviews during fieldwork visits, or phone or skype interviews.

The recruitment and consent process for **LHD staff members in the fieldwork sites** will involve the following steps:

1. The NSW Ministry of Health will pass on to the research team a list of key LHD contacts involved in the delivery of the HASI Plus program in the three LHDs

2. SPRC will send invitation emails to the LHD contacts attaching an evaluation information sheet and consent form and interview questions

3. LHD staff members who are interested in participating in an interview will reply to the evaluation team, ask any questions they may have about the study and fix a time for a telephone or face-to-face interview during the fieldwork visits. In the event of a non-response, a follow-up email will be sent after a week, and one phone call made a few days after that. Non-response will be assumed as declining to participate.

3.2.2 Peer research and culturally sensitive research practice

Two consumer-led research strategies will be adopted. The first is that peer researchers, including mental health consumers and Aboriginal community members, will contribute to evaluation design, data collection and analysis. The peer research is being organised by the research team's mental health peer researcher. The particular peer contributions will depend on local fieldwork considerations, which are discussed with the HASI Plus CMOs during the design stage. Depending on local capacity and preferences, expected steps will include:

1. Identify at least one interested mental health consumer for local peer research in each HASI Plus location (a peer researcher may work in more than one HASI Plus location)

    - Discuss with the CMOs their suggested method for us to identify and recruit local peer researchers or, if none are available, other local mental health consumers.

2. Prepare peer researchers

    - Build relationship with local peer researchers; seek their preferences and strengths for involvement in research, including design advice, fieldwork participation, analysis and application of the results;

supplement their strengths and develop support strategies appropriate to the person's preferences and timeframe.

3. Conduct research with peer researchers

    - Involve the peer researchers in their preferred research activities, using the identified support strategies.

The second strategy for consumer-led research is engaging the UNSW Community Reference Panel for advice on design and analysis. The panel's Aboriginal coordinators will seek advice from Aboriginal panel members, who are community members and mental health consumers, during the design and analysis stages. The panel members will be asked for advice about draft processes and draft analysis, which will then be used to refine the outputs.

3.3 Interviews with Government and other state-level stakeholders

Interviews will be conducted with high-level government and other key state-level stakeholders. These will include representatives from:

- government agencies such as the referring LHD/Ns, NSW Corrective Services, JH&FMHN, the NSW Chief Psychiatrist, Office of the Public Guardian, Trustee and Guardian, NSW Ombudsman

- state-level stakeholders such as the Mental Health Review Tribunal, Mental Health Carers NSW, the Mental Health Coordinating Council, the Mental Health Commission and Being.

About 8-12 groups of stakeholders will be interviewed e.g. involving a range of staff from one department. NSW Health and SPRC will agree on a final list and methodology based on purposive sampling and considering the time required for ethics approval processes.

NSW Health will inform stakeholders about the evaluation and invite them to participate. If they agree, SPRC will contact them to arrange the individual interviews or group discussions. Written consent will be obtained before the interviews.

3.4 Analysis of qualitative program documentation

The NSW Ministry of Health will pass on to the evaluation team for analysis:

- de-identified HASI Plus program reports, e.g. annual reports, steering committee minutes, and, where de-identification is feasible, consumer exit reports, incident reports and unsuitability reports

- program documents, such as: funding agreements, financial statements, HASI Plus RFT and proposals, budgets and staffing models, leases and/or agreements with housing providers.

These de-identified reports and program documents will complement the information on process and outcomes collected through the interviews.

3.5 Analysis of quantitative program and outcomes data

The evaluation will include quantitative analysis of linked program data and outcomes data for HASI Plus consumers to measure change over time. This will include analysis of de-identified quantitative information collected by CMOs and LHDs, where this data can be adequately de-identified. The evaluation will incorporate a comparison group if feasible and where sufficient data is available (see below).

Data analysis will build from the framework designed by SPRC for the two earlier HASI and current CLS-HASI evaluations. It will develop data linkage between available HASI Plus program data on outcomes and administrative record data on client outcomes from datasets managed by program partner agencies where available including NSW Health, Corrective Services, Justice Health and FACS Housing. The NSW Health Centre for Health Record Linkage (CHeReL) will undertake the data linkage component.

The HASI Plus outcome data will incorporate available program data for support provision and community, work, education or family engagement, where available, as well as outcomes through the data linkage component such as mental health outcomes and reduced and avoided hospital service usage. NSW Health data includes NSW Health inpatient data (hospitalisations), emergency presentations, NSW Health Mental Health Ambulatory data (community mental health service use) and NSW Mental Health Outcomes and Assessment Tools (MH-OAT) data (mental health measures) and mortality data (deaths). CHeReL data linkage may also include, where available, reoffending data (BoCSAR ROD) and community service orders (OIMS Corrective Services) as well as any other relevant data held by the Justice Health and Forensic Mental Health Network.

The analysis will consider changes in consumer outcomes over time through development of a time series framework and, if available, consider differences in outcomes to a comparison group.

The analysis will develop demographic and program support service profiles for consumers within the HASI Plus program across available MDS dimensions including referral pathways, exits and risk factors. The support profiles will examine program participation, duration and types of HASI Plus support including support

package and support service mix in hours of different types of support provided. The analysis will also identify contextual characteristics for individuals including primary and secondary mental health diagnoses and support arrangements, and it will assess preliminary outcome data for available instruments including CANSAS and RAS-DS.

Statistical analysis will focus on descriptive statistics, frequencies and proportions of clients across each MDS dimension and subgroup where sufficient sample sizes are available. This is expected to be limited for some categories given the small number of program consumers (n~100). Analyses will be undertaken in Microsoft Excel and STATA statistical analysis software.

The draft data analysis plan is provided in Appendix C and will be further refined in consultation with NSW Health. In particular, some qualitative program data may be included in the analysis, such as narrative-style reports about program exits, and meeting minutes, e.g. from the Steering Committee, if issues of confidentiality can be resolved.

3.5.1 HASI Plus comparison group

The evaluation will include an appropriate comparison group for the consumer cohort as part of the outcome analysis. The advantage of including a comparison group is that it enables a counterfactual analysis, comparing the outcomes for a group who received support in the program with those who have not. A well matched comparison group analysis may provide stronger evidence about whether changes in outcomes can be attributed to the program rather than other confounding factors.

The waiting list for the HASI Plus program has been identified as the most appropriate comparison group. It is the group most closely matched to the HASI Plus consumers, as people on the waiting list meet the eligibility criteria for the program but are yet to receive services and support from the program. The waiting list comparison group consists of three sub-groups (Figure 1):

- consumers who were on the waiting list, then entered HASI Plus
  This component of the waiting list will be assessed through the developed time series framework, which will establish the period from which consumers were nominated for the program until the point they entered the program. In some cases this is expected to be a short time, perhaps several weeks, and insufficient for comparison. In other cases this timeframe may be several months, which will be aligned with other similar interim waiting periods to add to the comparison group for this rolling, temporary waiting list timeframe before program support commenced (Table 3)

- consumers who are on the waiting list and have not yet entered the program

- referrals (nomination forms), including past and present and those deemed unsuitable.

Figure 1 Comparison group for HASI Plus evaluation

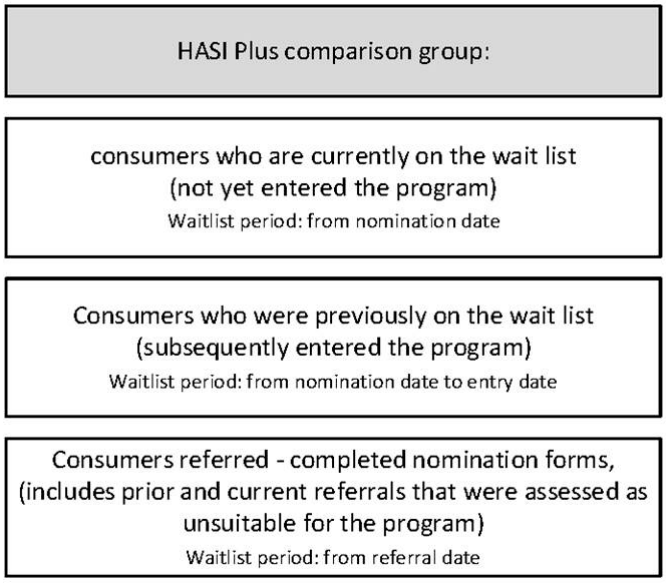

Table 3 Analysis time periods for current consumers and comparison group

Person	Time 1	Time 2	Time 3
A	Pre program	In program	
B	Pre program	Waiting list	
C	Pre program	Waiting list	In program
D	Pre program	Referral, unsuitable	

Comparison group shaded grey

Identifiers for people on the waiting list are held at LHD level. The NSW Ministry of Health will confirm with LHDs the process for collating and transferring to NSW Health the waiting list identifiers, at least name, date of birth and date on eligibility list.

3.5.2 Consumer consent for use of program data for the evaluation

When CMOs introduce the evaluation to HASI Plus **current consumers** (2.2.2), they will ask consumers to provide consent for their de-identified program and linked outcomes data to be used for the evaluation. This approach may be unsuitable for some consumers. Where this is the case, CMOs are invited to suggest alternative options for obtaining consent. It is expected that some consumers may choose to give consent for use of their program data but not for an interview, or vice versa.

Any missing current consumer consent for use of their program data will further reduce the limited sample size and potentially compromise the statistical significance of the outcome data analysis.

For **exited consumers**, SPRC will seek a waiver of consent:

- to access their MDS and other program data for secondary research purposes, and
- for data linkage.

The waiver of consent will be sought to avoid a risk of bias. Once exited from HASI Plus, many consumers cease contact with organisations that provided the HASI Plus services to them. Therefore, CMOs and LHDs would not be able to contact exited consumers who may have changed address or phone number – a common experience among exited consumers. Asking informed consent would only capture exited consumers whose current contact details are known. This would introduce a significant bias into the analysis, because people who maintain home address or phone number might be more stable and therefore have better outcomes.

A waiver of consent would also avoid the risk of inflicting psychological harm to exited consumers. They are people with mental illness who might find it stressful being contacted to provide consent for this research.

For people in the **comparison group**, a waiver of consent will be sought for two of the three sub-groups:

- consumers who are on the waiting list and have not yet entered the program
- referrals (nomination forms), including past and present and those deemed unsuitable.

The waiver of consent will be sought because NSW Health has informed the evaluation team that waiting lists and referrals across the different HASI Plus sites are managed in different ways. Therefore, asking informed consent would mean including in the data linkage only those people for whom the LHDs have a formal record. This would introduce a significant bias into the analyses, because it would severely limit the size of these components of the comparison group and therefore the robustness of the evaluation findings.

As with exited consumers, a waiver of consent would also avoid the risk of inflicting psychological harm to people referred or on the waiting list. They are people with mental illness who might find it stressful being contacted to provide consent for this research.

The first comparison sub-group – all HASI Plus consumers who were on the waiting lists and then entered the program – are current consumers and will be asked for informed consent as outlined at the beginning of this section.

3.6 Economic analysis and cost modelling

The economic evaluation component consists of economic analysis and cost modelling. It will examine the current HASI Plus funding model and the costs and benefits of the program compared to other models based on integration with the quantitative linked data analysis.

The economic analysis will incorporate a descriptive section providing an overview of the current funding model and an analytical section investigating the costs and benefits of the program compared to other models of support. The overview of the current HASI Plus funding model will be based on all available program expenditure since commencement, program funding agreements and budget data, as well as initial program development costs and investment. The cost data will be developed into a time series framework to establish before and after HASI Plus consumer entry and exit points as the basis for calculating detailed average costs across all available cost dimensions. The cost modelling will include the 60 established (25 x 16 hour and 35 x 24 hour) as well as the planned additional packages if these are implemented.

This will provide the basis to establish total annual program cost and estimated average annual cost per consumer across package type (16 or 24 hour), per consumer group if sufficient sample size (e.g. inpatient, forensic patient and prisoner), as well as cost per program element based on the proportion of funding spent on each element, average annual cost per consumer and cost of different accommodation types. Each average cost dimension will be aligned where data allow with the time series framework to assess changes in consumer numbers over time, although throughput is understood to be relatively low with approximately 40 consumers having transitioned out of the program. The average cost figures may be compared to alternative support costs where appropriate, including NDIS benchmarks and potentially cost analysis work currently in progress through the SPRC CLS-HASI evaluation, which also includes average support cost modelling.

The program costs and funding will be aligned with outcomes of the HASI Plus program to provide a broad assessment of relative costs and benefits. The overarching perspective is assessment of consumer pathways to examine the generally measurable up-front program costs in context of potentially multiple longer term sustained outcomes. The analysis will examine referral sources from LHDs, Justice Health and the forensic mental health network, given the high proportion of consumers who come from institutional facilities, long term inpatients or prison, and the estimated cost of each.

The data linkage undertaken by CHeReL will provide healthcare and correctional service usage profiles for consumers and will be combined with supplementary cost and resource usage data where available, including CMO service costs, housing supply and maintenance, tenancy management and support, clinical mental health services, and cost-related program data if available such as work or education. The

potential cost offsets will focus on reduced or avoided inpatient hospital costs, emergency department presentations and correctional service episodes, particularly in comparison to acute and long stay hospital admissions or time in custody.

The economic methodology will leverage the data linkage component to provide retrospective assessment of HASI Plus consumers before, during and after exit from the program including across years prior to the two-year evaluation period, as well as the time series framework to potentially assess complexities in funding and changes in the support model over time. The cost and benefit analysis will be undertaken from the perspective of NSW Health as the lead program funding agency. The options available for the economic analysis will be wider and hold greater validity if a comparison sample is available (2.2.5).

4 Evaluation phases and timeline

The evaluation will be conducted in the four overlapping phases in Table 3. If, during the course of the evaluation, any resourcing issues at the LHDs or InforMH should impact on timeframes for data extraction, NSW Health and SPRC together will manage variations to the evaluation timeline.

Table 4 Evaluation timeline

Deli-verable	Task	Date
	Initiation meeting	August **2018**
	Refine method	Aug/Sep
	Engage key stakeholders, incl. Evaluation Reference Group, Steering Committee and key CMO contacts in fieldwork sites	Sept/Oct
	Review program documentation and data sources	Sep/Oct
	Recruit peer researchers	from October
1	Evaluation plan	28 September
2	Ethics	5 October
3	Stakeholder engagement strategy	5 October
	Interviews with government and state-level stakeholders	Nov 2018–Aug 2019
4	Ethics approval	31 December
5	Initial economic analysis	31 December
6	Brief literature review on similar programs	31 December
	Fieldwork interviews (first round) with • consumers • families • local program staff • other local service providers	Jan-Mar **2019**
7	Progress and Findings Report 1	31 March
	Interviews with exited consumers and their families	Jan-Aug
	Analysis of consumer profile data as at March 2019	Apr/May
	Qualitative data analysis	Apr-Nov
8	Progress and Findings Report 2	30 June
	Fieldwork interviews (second round) with • consumers • families • local program staff • other local service providers	Aug-Oct
9	Progress and Findings Report 3	30 September
	Outcomes data analysis	Sep - Nov
10	Draft Final Report	31 December
11	Final Report incorporating feedback	31 March **2020**
12	Communication plan and materials	31 March

<u>Phase 1</u>: Project set up, evaluation plan, stakeholder engagement strategy and ethics approvals (August – December 2018)

In Phase 1, the evaluation team will:

- finalise the evaluation approach with key stakeholders (NSW Health, the HASI Plus Steering Committee and Evaluation Reference Group) and refine evaluation questions and methods against the program logic
- establish project management communication plan (including initial weekly meetings)
- engage key contacts and stakeholders in sites to build fieldwork relationships
- refine qualitative and peer research methodologies with input from advisors and other expertise (see below more detail on culturally sensitive and recovery-oriented design)
- finalise fieldwork protocols (recruitment strategy, safety protocols, culturally sensitive research practice)
- recruit peer researchers to contribute to evaluation design, data collection and analysis
- finalise the Evaluation Plan and submit for comment to NSW Health and key evaluation partners (Deliverable 1 due 28 September 2018)
- review relevant literature and program documentation to inform later phases of the evaluation
- review data sources and content for the economic evaluation and possible comparison group
- prepare and submit ethics submissions (Deliverable 2 due 5 October 2018) – see 3.3.
- finalise and submit Stakeholder Engagement Strategy (Deliverable 3 due 5 October 2018).

The research team anticipate ethics approvals from the different ethics committees by the end of December 2018 (Deliverable 4 due 31 December 2018).

Phase 2: Literature review and initial economic analysis (September 2018 – March 2019)

In Phase 2, the evaluation team will:

- undertake an initial economic analysis including all available program expenditure since commencement to examine annual cost and average annual cost per consumer, package type (16 or 24 hour) and consumer group if possible (Deliverable 5 due 31 December 2018); this will provide the base for integration with the cost and benefit assessment when data linkage analysis is available
- conduct a brief literature review on similar community based, integrated and specialised service delivery models for consumers transitioning from institutional settings to community living that are based on a holistic recovery focused support model (Deliverable 6 due 31 December 2018)

- commence data collection with government and state-level stakeholders focusing on operational and governance aspects of the program, once ethics approval is obtained.

Phase 3: Process and outcome evaluation data collection and analysis (January – October 2019)

In Phase 3, the evaluation team will:

- conduct two rounds of fieldwork with local peer researchers, interviewing consumers and HASI Plus services and community partner organisations - mainly individual face-to-face interviews - at all 8 sites
- with the consumers' consent, invite family members for interviews about their experiences of HASI Plus
- continue data collection via phone interviews and focus groups with other key stakeholders as agreed with NSW Health
- conduct outcome analysis of program data, including data linkage between available HASI Plus program data and administrative record data on client outcomes from datasets managed by program partner agencies where available
- summarise preliminary evaluation results in three Progress and Findings Reports (Deliverables 7, 8 and 9, due 31 March, 30 June and 30 September 2019).

Phase 4: Final analysis, triangulation and final reporting and presentations (May 2019 – March 2020)

In Phase 4, the evaluation team will:

- analyse the qualitative data and program documents thematically against the evaluation questions, using the qualitative analysis software program NVivo; analysis will start simultaneously with the data collection from Phase 3 to allow formative analysis and iterative interpretation of the findings
- the quantitative data analysis will examine longitudinal changes in outcomes for HASI Plus consumers and conduct more in-depth analysis on outcomes for key participant subgroups if possible to inform the economic evaluation
- the final economic analysis, including the funding model and cost benefit analyses, and triangulation of data sources will inform Deliverable 10 Draft Final Report (Dec 2019) and Deliverable 11 Final Report (31 March 2020).
- upon approval of the Final Report, the team will prepare a range of communication materials to stakeholders including Easy Read versions of the report and key findings (Deliverable 12, March 2020).

5 Quality assurance processes

5.1 Governance

SPRC will report to the Supported Living, Mental Health Branch of NSW Health. Project meetings will be weekly initially and move to fortnightly in consultation with NSW Health. Meetings will include updates on evaluation progress and findings and any potential variations to the project scope, budget or deliverables.

The HASI Plus Steering Committee and an Evaluation Reference Group provide governance for the evaluation. The Evaluation Reference Group has representation from the NSW Health Agency for Clinical Innovation and the Centre for Epidemiology and from Being, while the Steering Committee includes representatives from the CMOs which provide HASI Plus, the LHDs in the HASI Plus locations, the Ministry of Health, the Justice Health and Forensic Mental Health, Corrective Services and referring LHDs.

Both groups will provide advice on evaluation design and methodology, comment on deliverables and provide general evaluation advice. SPRC will attend meetings and present evaluation progress and findings as required and appropriate.

The UNSW Community Reference Panel will provide advice on culturally appropriate and trauma-informed methodology, and on implications of the evaluation for Aboriginal and mental health consumers.

5.2 Stakeholder engagement strategy

Table 4 summarises the stakeholder engagement strategy for the evaluation. This strategy aims to ensure that all stakeholders are engaged and confident in the evaluation and informed about its progress. SPRC will communicate the final evaluation findings to all stakeholders in various appropriate formats in March 2020.

Table 5 Stakeholder engagement strategy

Stakeholder type	Engagement point or method	Times
HASI Plus current consumers	Introduction of evaluation by CMOs SPRC researchers introduce themselves Interviews 1 Interviews 2 Feedback about evaluation findings (full public report and short, accessible version)	Jan 2019 Jan-Feb 2019 Jan-Mar 2019 Aug-Sep 2019 Mar 2020
Families/carers of current consumers	Consumers/CMOs contact families/carers Interviews 1 Interviews 2 Feedback about evaluation findings (full public report and short, accessible version)	Jan-Mar 2019 Jan-Mar 2019 Aug-Sep 2019 Mar 2020

HASI Plus exited consumers and families	Introduction of evaluation by CMOs Interviews Feedback about evaluation findings (full public report and short, accessible version)	Jan-July 2019 Jan-Aug 2019 Mar 2020
CMOs	Preliminary discussion about fieldwork Liaising about recruitment of peer researchers Fieldwork 1 Fieldwork 2 Liaising about interviews with exited consumers and families Feedback about evaluation progress and findings: during Steering Committee meetings, see below	Sep 2018 Oct-Nov 2018 Jan-Mar 2019 Aug-Oct 2019 Oct 2018-Aug 2019
LHDs in the HASI Plus locations	Fieldwork 1 (after NSW Health has informed LHD stakeholders about the evaluation) Fieldwork 2 Feedback about evaluation progress and findings: during Steering Committee meetings, see below	Jan-Mar 2019 Aug-Oct 2019
Relevant service providers in the HASI Plus locations	Fieldwork 1 Fieldwork 2 Feedback about evaluation findings (full public report and short, accessible version)	Jan-Mar 2019 Aug-Oct 2019 Mar 2020
Peer researchers in the HASI Plus locations	Advice on fieldwork methodology and interview recruitment processes Fieldwork 1 Fieldwork 2 Contributing to analysis in progress reports Contributing to analysis in final report	Nov 2018-Jan 2019 Jan-Mar 2019 Aug-Oct 2019 Mar/Jun/Sep 2019 Dec 2019
Government stakeholders	Phone interviews – individual or small group discussion (after NSW Health has informed stakeholders about the evaluation and they have agreed to participate) Feedback about evaluation findings (full public report and short, accessible version)	Nov 2018-Aug 2019 Mar 2020
Other state-level stakeholders	Phone interviews – individual or small group discussion (after NSW Health has informed stakeholders about the evaluation and they have agreed to participate) Feedback about evaluation findings (full public report and short, accessible version)	Oct 2018-Aug 2019 Mar 2020
UNSW Community Reference Panel	Evaluation design and methodology advice Analysis advice Feedback on progress reports Feedback on final report	Sep-Nov 2018 throughout 2019 Apr/Jul/Oct 2019 Jan 2020
HASI Plus Steering Committee and Evaluation Reference Group	Evaluation design and methodology advice General evaluation advice Feedback on progress reports Feedback on final report	Sep-Oct 2018 as appropriate Apr/Jul/Oct 2019 Jan 2020

5.3 Ethics

This evaluation requires five ethics approvals. Applications will include the strategies and competencies to reduce the risk of causing psychological harm and minimising risk of trauma to the consumers. The applications will ensure voluntary participation and confidentiality in the qualitative and quantitative research.

Ethics approval will be sought from the following ethics committees:

- **NSW Health and NSW Population and Health Services Research Ethics Committee (PHSREC)**, which will provide ethics approval for the program data analysis (2.2.5) and economic and cost modelling analyses (2.2.6).

- **Western Sydney Local Health District (WSLHD) Human Research Ethics Committee (HREC)**, which will be the lead HREC for the interviews with NSW Health staff across the three LHDs where HASI Plus is located (2.2.2).

- **Aboriginal Health and Medical Research Council (AH&MRC) Human Research Ethics Committee (HREC)**, which will provide ethics clearance for study participants, except NSW Health staff (2.2.2, 2.2.3).

  Because of the small number of Aboriginal consumers in HASI Plus, the evaluation team might not be able to explore program outcomes for Aboriginal consumers, neither in the quantitative nor in the qualitative analyses. This is because the risk of identifying the consumers would be too high. Consequently, the evaluation team is checking with AH&MRC HREC whether an exclusive focus of the HASI Plus evaluation on process and service delivery issues for Aboriginal consumers (which would be investigated through interviews with stakeholders) would still require ethics approval from their ethics committee. If not, then ethics approval for all study participants will be sought through UNSW Sydney HREC. This change of ethics committee would not affect the timeline of the project.

- **NSW Justice Health and Forensic Mental Health Network (JH&FMHN) Human Research Ethics Committee (HREC)**, which will be needed to access data for the program data analysis (2.2.5) and economic and cost modelling analyses (2.2.6), as well as for interviews with staff of NSW JH&FMHN (2.2.3).

- **Corrective Services Ethics Committee**, which is needed for the BoCSAR ROD and non-custodial data for the program data analysis (2.2.5) and the economic and cost modelling analyses (2.2.6); it is also needed for stakeholder interviews with Corrective Services staff (2.2.3).

The research will adhere to the requirements outlined in the NSW Health Records and Information Privacy Act 2002 and the Privacy and Personal Information Protection Act 1998 (NSW) as per the request for tender.

5.4 Risk management

Table 6 outlines some of the challenges that could arise over the course of the evaluation, their potential consequences, their likelihood and mitigation strategies. These risks will be monitored and addressed during the evaluation.

Table 6 Risks and mitigation strategies

Risks	Likelihood	Impact on evaluation & stakeholders	Risk management response
Evaluation activities interfere with the delivery of services to consumers	Low	Medium	Evaluation design (with strong focus on program data) reduces impact on service providers and consumers.
Approval from relevant ethics committees is not successful or the project is delayed due to protracted ethics processes	Medium	High	We have a team highly experienced in preparing and applying for all ethics committees relevant for this evaluation. Researchers will rely on previous experience and Aboriginal and mental health community expertise in designing fieldwork methods and protocols.
Consumer data is not appropriately managed	Low	Medium	The researchers are experienced in managing sensitive data from a range of sources and use systematic data collection and storage methods. All personal data will be treated as confidential, and only research team members will have access to it.
Engagement of consumers and families in the project is not effective	Low	High	We have a wealth of experience in engaging mental health consumers and their family members, as well as services staff, including from earlier HASI evaluations.
Stakeholders do not have confidence in the evaluation	Low	High	The evaluation will be based on robust methodologies and clear communication, and the team is well-regarded in this field of research, having completed several similar evaluations.
The evaluation methodology is inappropriate	Low	Low	The mixed methods design and strong team reduce this possibility. The team includes a range of leading experts in the disability/mental health, evaluation, and peer-methodologies fields in Australia.
Data from stakeholders is difficult to obtain or is of low quality	High	High	The evaluation team will begin communicating early with key stakeholders in order to identify how to access program and other data. Progress of the data collection will be clearly communicated to stakeholders throughout the project. The team's evaluation experience with data collectors and holders (NSW Health, InforMH, community service providers) will contribute to avoiding and resolving data access problems.

Attrition of consumers in qualitative data rounds	Medium	High	In order to minimise attrition, the evaluation team will work closely with CMOs to build trust with consumers.
The timeframes for the project are not achievable	Low	Medium	SPRC has strong project management and risk management protocols. We will establish a detailed communication protocol (e.g. in the beginning weekly teleconferences, later fortnightly) to identify risks and manage them as they arise.
Submission of deliverables is delayed	Low	Medium	SPRC have strong project management and risk management protocols. We will identify potential delays early and manage them as they arise.
The evaluation does not produce useful recommendations.	Low	High	The team is renowned for undertaking rigorous research (governed by university standards) that produces comprehensive and useful policy guidance to inform program improvement and policy decisions.
Evaluation fails to critically analyse the programs	Low	High	We have an expert team in evaluations of government social health programs and a carefully designed mixed-methods approach based on various data sources to compensate for possible shortcomings.
Evaluation fails to identify issues affecting efficient program delivery	Low	High	The mixed methods design, strong evaluation team, formative evaluation approach, and input by the Evaluation Steering Committee and Reference Group reduce the likelihood of such limitations.

5.5 Reporting and data storage

The final report will be published, with approval from NSW Health, on the SPRC website. In addition, Easy English and Easy Read summaries will be produced and provided to evaluation participants.

Any data collected during this evaluation will be stored, in accordance with ethics and University requirements, for a period of seven years. Data will be stored in a de-identified form on a secure server, with access limited to the research team.

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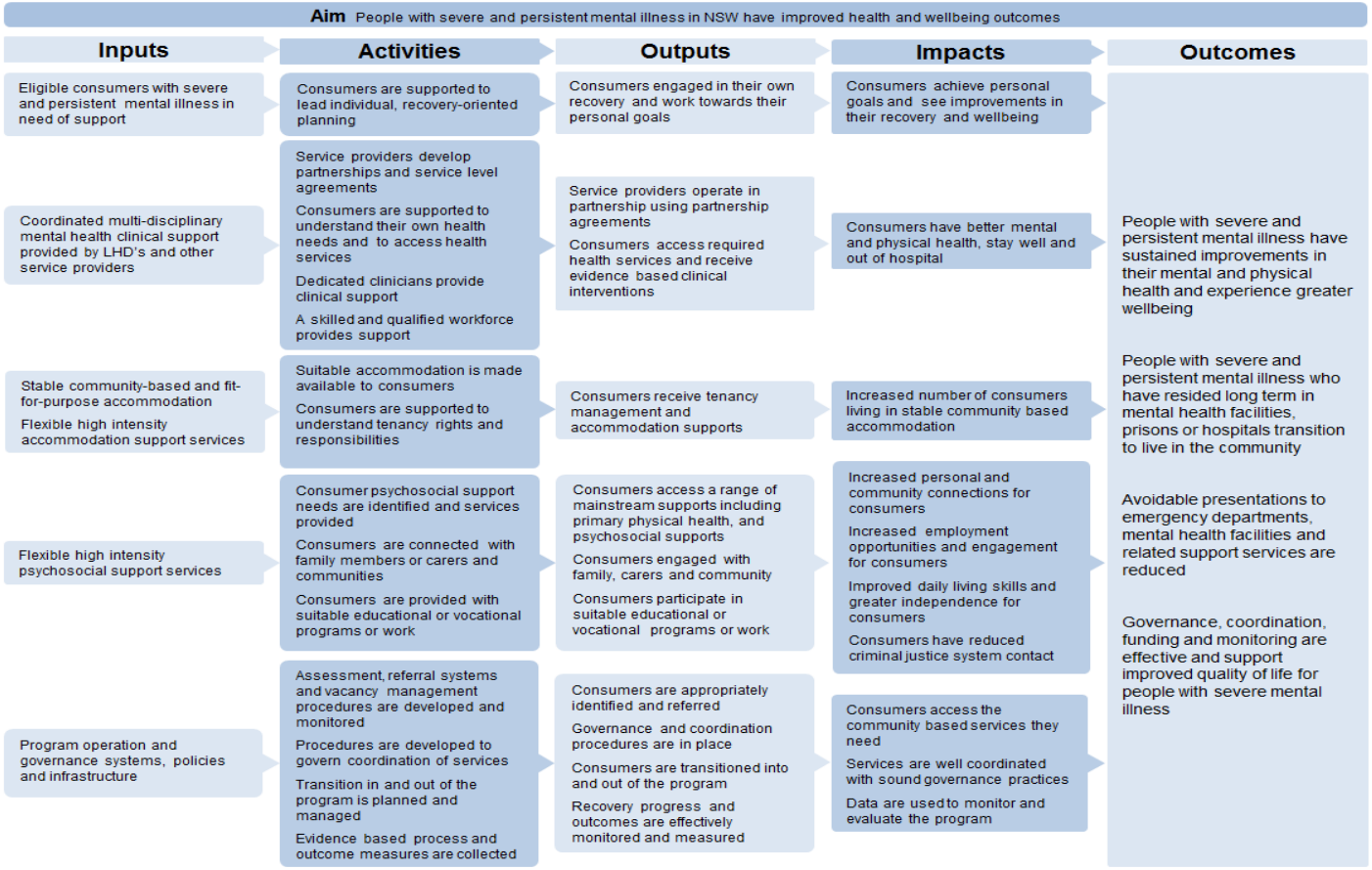
Appendix A Program logic

The program logic developed by NSW Health shows the relationships between the program inputs, activities and outputs, the short-term impacts and longer-term outcomes.



Appendix B Evaluation methods matched to research questions

Evaluation components		Literature review	Consumers	Families/ carers	HASI Plus local providers	Government stakeholders	Other state-level stakeholders	Outcome data	Economic analysis and cost benefit
		Similar intensive, integrated programs	People in the program (60 new) and exited program (~40)		CMOs; LHD staff; other relevant local service providers	e.g. Justice, Corrective Services, FACS	e.g. Being, MH Carers NSW, MH Commission NSW	Consumer outcome data (health), demographic data (MDS)	
	Data gathering approach/ process	Data base searches and grey literature	Field visits (including peer-interviewing)	Field visits and off-site phone	Field visits and off-site phone	Phone interviews	Phone interviews	Provided by NSW Health (InforMH) and CHeReL linkage	Provided by NSW Health
Process and outcome evaluation	**Extent to which the program supports transition of people with severe and persistent mental illness from institutional contexts to community living, and the experience and outcomes of different groups.**								
	Overall how **effectively** does the program support **transition** of people with severe and persistent mental illness to community living		x		x	x	x	x	
	Accommodation models, their suitability for consumers, how they affect outcomes; and management of accommodation models	x	x	x	x				
	Accommodation support and its effectiveness (tenancy issues, tenancy skills, engagement of consumers and its success etc)	x	x	x	x				

Evaluation components		Literature review	Consumers	Families/ carers	HASI Plus local providers	Government stakeholders	Other state-level stakeholders	Outcome data	Economic analysis and cost benefit
	Referral pathways (effectiveness for different groups; eligibility criteria, equitability, differences to other community support models)	x	x	x	x	x	x		
	Transition Out – how many consumers, what have been their outcomes, issues around planning and support, factors supporting step down to other models of community support, factors preventing transition, continuity of care etc)	x	x	x	x	x	x		
	What are the different needs of the subgroups and are they being met by the program? And when exiting HASI Plus?		x	x	x	x	x		
	Do consumers have sustained improvements in their mental physical health and greater wellbeing? Consumers' experience of the HASI-Plus program								
	Overall do consumers experience sustained improvements in their physical health and mental health, and wellbeing? Do consumers have access and receive the support they require?		x	x	x	x	x	x	
	What are the different needs of the target groups (physical, mental health, psycho-social support) and are they being met?		x	x	x	x	x	x	
	Mental health: appropriateness of support, effectiveness of coordination of: level of care, recovery orientation, planning, goal setting, additional supports required		x	x	x	x	x	x	

Evaluation components		Literature review	Consumers	Families/ carers	HASI Plus local providers	Government stakeholders	Other state-level stakeholders	Outcome data	Economic analysis and cost benefit
	What are the outcomes for consumers with drug and alcohol use issues? How effective does the program support them?		x	x	x	x	x	x	
	Psychosocial Support and outcomes for consumers: how effective program links consumers to community-based services; extent of community engagement; what helps to increase daily living skills and participation in training, work, etc. Flexibility of packages		x	x	x	x	x		
	What are the experiences of consumers of the overall HASI-Plus support including psycho-social support? What would they like to improve?		x	x	x				
	Culture: How sensitive and appropriate is the program to the needs of Indigenous people, what are their needs? are they being met?		x	x	x		x		
	What are the experiences of families and carers of the program and their engagement?								
	What are the experiences of family and carers of the program (and consumers outcomes)? What aspects would they like to improve?			x	x	x	x		
	How satisfied are family/carers about their engagement in the program? How can it be improved?			x	x		x		
	Effectiveness of program operations, governance and partnerships								

Evaluation components		Literature review	Consumers	Families/ carers	HASI Plus local providers	Government stakeholders	Other state-level stakeholders	Outcome data	Economic analysis and cost benefit
	How effective is the operational governance and management of the program? (policies, procedure, funding, how LHDs use funding allocation etc)				x	x	x		
	What are the workforce issues for organisations in the program? (skills, qualifications, recruitment, retention, training needs, peer workforce etc)				x	x	x		
	Coordination and its effectiveness: Do organisations involved in the program have effective partnerships? (i.e. LHDs and community organisations) What helps and hinders these?				x	x	x	x	
	How do relationships affect outcomes for consumers? i.e. Admissions and referrals, coordination of support etc.		x	x	x	x	x	x	
Economic evaluation	**Reduction of avoidable presentations to emergency departments, mental health, facilities and related services and the impact on the health system**								
	Crisis presentations: is the number of avoidable crisis presentations reduced? What is the overall impact for the health system				x	x	x	x	
	What are critical factors that lead to success in reduction of avoidable hospitalisations?		x	x	x	x	x	x	
	What is the funding model of the program and cost and benefits								

Evaluation components		Literature review	Consumers	Families/ carers	HASI Plus local providers	Government stakeholders	Other state-level stakeholders	Outcome data	Economic analysis and cost benefit
	What is the **cost per consumer**, package type and consumer group in the program?					x		x	x
	What is the **funding model and how are resources spent across** the elements of the program: clinical, psychosocial, accommodation support				x	x	x		x
	Monitoring and data collection: how well does data collection support improved knowledge about the program and its outcomes?								
	What outcome **measures are collected** and reported? Do they provide adequate data about program impact and operations?				x	x	x	x	x
	What additional data could be collected to assist in monitoring?				x	x	x		x
	How is recovery progress monitored in the program?				x	x	x	x	x

Appendix C Draft data analysis plan

The following draft analysis plan builds on the previous evaluations of HASI and CLS conducted by the SPRC. The analysis plan will be refined in consultation with NSW Health in Phase 1 of the project. The analysis will at a minimum use a longitudinal before, during and after design to assess outcomes for HASI Plus consumers. If possible, a comparison group (e.g. waiting list for program) will be identified for additional outcomes analysis.

Evaluation timeframe:

- July 2018 to March 2020
- Data analysis reporting
    - Consumer profile: Progress and findings report 2 June 2019
    - Outcomes analysis: Draft report December 2019

Objectives:

- To provide a demographic and service use profile of HASI Plus consumers
- To assess outcomes for HASI Plus consumers before, during and after program participation
- To compare outcomes for HASI Plus consumers to similar cohort during this period.

Assumptions:

- Program data for HASI Plus includes, at a minimum, key variables for data linkage through CHeReL: Name, date of birth, gender, program entry and exit dates
- InforMH data is provided to CHeReL for data linkage with outcomes for each quarter/month, which will need to be annualised or analysed for six month periods.
- Comparison group can be formed from waiting list that includes key variables needed by CHeReL for data linkage (name, date of birth, gender)

Data sets

- **HASI Plus MDS**

    Minimum requirements for data linkage and analysis:

    - Names, date of birth, gender for data linkage
    - Program start date, and exit date if relevant
    - Services received

    Data to be analysed to address evaluation questions for participants in old and new HASI Plus MDS will include:

- Demographic characteristics (if numbers permit, >5 in each category) – gender, broad age group (under 45 years and 45 years and over), inpatient, forensic inpatient, prisoner status
- Source of referrals
- Exits: number and reasons for planned and unplanned exits
- Risk factors: smoking, drug and alcohol dependency, FDV
- Tenancy issues and exits (old MDS until end 2017)
- Diagnosis: primary and secondary
- Support arrangements:
  - housing,
  - Individual Care Plans,
  - Collaborative care plans (old MDS)
  - Pre discharge/transition plans (new MDS)
  - Risk and management plans
- Support hours and types of support to consumers
- Support to family and support network

Additional administrative data needed to address questions about non-participants:

- Referrals not accepted: number and reasons (in old MDS)
- Clinical and psychosocial characteristics of people not accepted into the program (based on rejected applications)?

- **Data sets for Linkage through CheRel**
  - **InforMH data**
  - NSW Health inpatient data and emergency (APDC and EDDC) (hospitalisations),
  - NSW Health Mental Health Ambulatory data (MHAMB) (community mental health service use)
  - NSW Mental Health - Outcomes and Assessment Tool (MH – OAT) data (mental health measures)
  - NSW Registry of Births, Deaths and Marriages (RBDM) death registrations and Cause of Death Unit Record File (COD URF)
- Other human service data will be included in the CHeReL data linkage where available including:
  - OIMS Corrective Services
  - Justice Health and Forensic Mental Health Network

Timelines for data analysis:

- HASI Plus commencement date 2013
- New HASI Plus MDS with outcomes data from March 2019
- Timeline for analysis of outcomes:
  - 2 years prior to program entry, during program participation, where relevant 2 year after program exit
  - Linked data from 2011 to June 2019: annualised outcomes for this period

Data Analysis

1. **Profile HASI Plus consumers as at baseline (March 2019 – analysis to be conducted April – June 2019)**
    - Demographics (no data will be extracted from the MDS where sub-populations are less than 5 consumers)
    - Contextual circumstances: refugee or asylum seeker background (Community Treatment Order in place in the reporting period; Community-based orders issued by the courts or releasing authorities)
    - Risk factors: smoking status, drug or alcohol use, possible domestic and family violence
    - Mental health diagnosis and other co-existing factors
    - Housing arrangements
    - Support arrangements:
        - package (16 or 24 hours)
        - risk management and care plan,
        - client on pre-discharge plan
        - family and carer involvement
        - Legal status during the reporting period
        - support from the NDIS: range of variables around eligibility and receipt of support
    - Entry into HASI PLUS
        - Source of referral
        - LHD of referral
        - source of forensic client referral
        - client referred due to anti-social warning
        - historical start date in the CLS-HASI program,
        - start date in program with this provider (the date the client has started in the current program with the current provider)
    - Support provided:
        - Number of hours per reporting period (monthly) in: daily living skills, medication support, accessing other support systems, social activities, family connections, Aboriginal community participation, care plans, travel, medical/ health activities, psychosocial intervention, direct specialist clinical intervention, educational, vocational activity or work, tenancy or accommodation
        - Number of hours of support provided as group activities
        - NDIS support applied for and received: applications, eligibility, approved plan, coordination funded, received funded services
    - Visits and activities client made within reporting period:
        - visits to GP, private psychiatrist, Public Health Network, ACCHO, drug and alcohol service, aged care, other
        - accessed healthy lifestyle activity, social or community activity, physical health assessment
    - Program Exits:

        - Exiting this program this period
        - Planned or unplanned exit
        - Reasons for exiting
        - Primary support following exit
    - Program Governance (monthly):
        - Total number of hours the CMO spent on Program governance
        - Total number of hours the CMO spent participating in, contributing to, or seeking advice from Aboriginal cultural reference groups
    - Outcome variables to be examined in HASI Plus MDS, if data quality permits, include:
        - Client received anti-social behaviour warning(s) during the reporting period
        - Number of hospital admissions (mental health related)
        - Number of hospital admission (medical related)
        - Number of emergency department presentations
        - Camberwell Assessment of Need Short Appraisal Schedule) CANSAS-P (met and unmet needs)
        - Recovery Assessment Scale – Domain and Stages (RAS-DS) Total Score
        - Living in the Community Questionnaire (LQC) – individual questions

2. **Outcomes analysis using linked data through CHeReL: Comparison of outcomes for clients before, during and, where relevant, after program participation, and in relation to comparison group (analysis to be conducted September-December 2019)**

    (1) Old MDS
    - Goal attainment
        - Selfcare
        - Domestic skills
        - Community tasks
        - Use of health or allied services
        - Social and community participation
        - Work and education/training
    - Hospital admission
        - Mental health
        - Physical health
    - Tenancy details
        - Current tenancy risk factors
        - End of tenancy
        - Reason for exiting tenancy

    (2) New MDS
    - CANSAS-P
        - met and unmet needs

- RAS –DS
- Living in the Community Questionnaire (LCQ) – Individual questions
  - Social activities
  - Education
  - Voluntary or unpaid work
  - Caring for others
  - Employment
  - Looking for work
  - Living situation (satisfaction with)
  - Saw GP in last 21 months
  - Other health professionals
  - Physical health (general question)
  - Having a say
  - Overall satisfaction
  -
- Antisocial behaviour

Data to be linked with HASI Plus MDS and comparison group through CHeReL

(3) NSW Admitted Patient Data Collection (APDC)

- Hospital admissions
  - Inpatient admissions (mental health) – number and duration
  - Inpatient admissions (other medical) – number and duration

(4) NSW Emergency Department Data Collection (EDDC)

- Emergency department presentations – number and duration

(5) NSW Mental Health Ambulatory Data Collection (MH-AMB)

- Community service use
  - Number community mental health contacts
  - Number of different types of mental health activities (Activity Code Mental Health)

(6) Mental Health - Outcomes and Assessment Tool MH–OAT outcomes scores:

- Mental health outcomes
  - HoNOS (HoNOS, HoNOS65 and HoNOSCA to cover all age groups)
  - LSP–16
  - K10+–LM or K10–L3D
  - Focus of Care Mental Health Phase of Care (PoC) (since 1 July 2017)
  - APQ6
  - SDQ (Self and parent completed) for young people
  - FIHS
  - CGAS
  - RUG-ADL

(7) NSW Registry of Births, Deaths and Marriages (RBDM) deaths and Australian Coordinating Registry (ACR) Cause of Death Unit Record File (COD URF):

- Number of deaths per year for the cohorts

(8) NSW Bureau of Crime Statistics and Research Reoffending database (ROD)

- Offending and Reoffending based on Proven court appearances
- Seriousness of principal offence (seriousness index)
- Duration of total term of penalty
- Reception date and discharge date from custody
- Level of Service Inventory – Revised (LSI-R) Risk Category

(9) NSW Corrective Services Offender Integrated Management System (OIMS)

- Episodes of Supervised Community Orders: duration (commencement and exit dates); offence type; outcome (success/revocation).