Sacred Heart Mission's Final Report
Empowerment Fund

Project Summary

Sacred Heart Mission conducted an analysis using machine learning to combine and examine the relationship between different datasets to both enhance service delivery and provide insights for the homelessness policy setting and the sector.

Client data used in the analysis was collected from three systems:

- Sacred Heart Mission's Vulnerability Assessment Tool (VAT) to determine client's level of vulnerability and prioritise services.

- Infoxchange's client and case management system (SRS) with monthly feeds into AIHW's Specialist Homelessness Information Platform (SHIP) which records client information, case notes, case plans and client goals.

- Sacred Heart Mission's Trauma Informed Care Support Planning and Outcome Tool (TICSPOT).

Key Achievements/Findings

The project analysed two Sacred Heart Mission programs that support people experiencing homelessness, Journey to Social Inclusion (J2SI) and the Continuum of Care (CoC), by using machine learning to test various hypotheses on what factors affect outcomes and support duration or intensity of the programs.

Whilst some hypotheses were able to be proven, the project was unable to validate a range of hypotheses. This has helped clarify some of the existing challenges with selection and design of data tools (survey questions) and the benefits of an aligned approach.

Insights

Learnings for the Organisation

- **Outcomes Survey Design**

    - TICSPOT captures a topic and category for each question in the client and case worker surveys which is useful for aggregating outcome data.

    - Survey questions on program feedback had a higher engagement rate at program exit, as compared to previous interval surveys.

- Outcome surveys are currently completed at certain time intervals. However, feedback raised the possibility for survey timing to be triggered by completion of specific milestones throughout the program, which could increase survey participation and better reflect program impacts.
- J2SI and CoC presently use the same survey. There is potential for Sacred Heart Mission to refine survey questions to be program specific. This would more accurately capture the focus of each program and their outcomes.

- **Data**
  - Programs where each service stage is captured as a separate service record result in difficulty identifying some clients and connecting them with a service history. This presents an opportunity to improve collection.
  - In instances where low levels of data were collected, there were areas where visibility of data and operational use of data was limited. Sacred Heart Mission are exploring options for more staff to track live data dashboards that can better inform operational decisions.
  - Metrics are often determined by funder requirements and longer-term evaluations of programs. There is an opportunity to define metrics for responsive and ongoing service improvement.

- **Accurate needs/complexity assessment**
  - The SHM Vulnerability Assessment Tool (VAT) score was found to not be the determining factor for service duration or intensity. Further investigation will be conducted into what purpose the tool should serve, and when or if it is appropriate to use.

Learnings for the broader social services sector

Through the analysis, Sacred Heart Mission came to five key findings that can improve future service delivery within the Homelessness sector:

- Testing hypotheses is a key step to understanding the value of outcome tools.
- Even validated tools that are useful for outcome measures, don't necessarily provide data with predictive value. Each program needs to assess and determine what data will be most useful and what best aligns with each service model and program logic.
- A periodic process to test metric usefulness and 'trim' the surveys as identified can reduce unnecessary data collection efforts and increase engagement in surveys.
- Flexible segmentation (cohort categorisation) tools can be useful for service planning.
- Anonymity must be ensured for collection of program feedback.

Additional information

Further opportunities

Drawing from the analytics of the report, best-practice evidence and knowledge of Sacred Heart Mission staff and service participants, including lived experience, these findings could lead to co-creation of further sophisticated tools for better service planning and operations by exploring:

- How can the key drivers of vulnerability or needs of clients be captured at an early staged and tested to predict both required services and outcomes?

- How can the dynamic measurement of service model outcomes be designed, where the minimum data set is defined and there is flexibility and responsiveness to capture additional outcomes that emerge, and align to service models and program logics?

- What factors can be used from intake and assessment to guide service intensity, type and variations in the service model?

- How can it be ensured that service levels are nether under nor over-servicing and is this accurately measured by a program's ability to achieve outcomes across a given period?

- How can metrics be refined to support key decisions, including service and resource allocation, staff-to-client ratios, additional supports or referrals?

- How can the set-up of data systems determine the relevancy and utility of data to best inform decision-making and ensure continuous improvement in the moment?

- How can structures and systems be established to continually test hypotheses and service innovations while limiting the need for significant, expensive statistical research projects?

Enquiries

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