Accessing AMH Data at AHS:

A Guide for AMH Researchers

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Alberta Health Services

ADDICTION AND MENTAL HEALTH RESEARCH HUB

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AHS AMH data

Purpose

This document was developed to guide external researchers looking to access addiction and mental health (AMH) data at Alberta Health Services (AHS). We encourage all parties to connect with a data team (AHS Provincial AMH Performance Measurement (PM) team) (pamh_bi@ahs.ca) or AHS Data & Analytics (dimr.intake@ahs.ca)) early in their projects to streamline the process.

Introduction

- AHS is committed to a healthcare system that takes into account the voices of those we serve, applying values-based decision-making, and leveraging research, information, and innovation to achieve excellence.
- AHS teams can help researchers access healthcare administrative data sets to answer research questions.
- As Connect Care continues to develop, the quality of data will improve, though processes for accessing data will largely stay the same.
- Researchers may request data for a variety of purposes:
    - Grand-funded research project. For example – Identify the prevalence of people without depression, with depression, and with treatment-resistant depression in Alberta, and determine differences in healthcare usage between those groups.
    - Support a CIHR grant application or project. For example – Identify the aggregate number of people with disorder X in Alberta to include in your future study.

Navigating AMH data at AHS

Options for accessing AMH data

- When accessing AMH data, you have the option of working with 1. The AHS Provincial AMH Performance Measurement (PM) Team or 2. The AHS Data & Analytics (including ABSPORU).
- If you are working on a project that requires AMH data, we recommend Option 1, the PM Team. This team is most familiar with AMH data and has access to AMH-specific data that is not available elsewhere.
- After consulting with the PM team on who is best suited to work on your request, you may select one of the options described below depending on your needs.

Table 1: Data team options for accessing AMH data at AHS

Data Source	Scope	Details
Option 1: AHS Provincial AMH Performance Measurement (PM) Team (recommended)		
PM Team Email: pamh_bi@ahs.ca Audience: For internal or external audiences who require access to specific AMH data sets	• AMH-specific requests only • Has access to all AHS data holdings in the Enterprise Data Warehouse (EDW). View Page 11 for AMH data holdings in EDW. • Has access to additional AMH-specific datasets (see Table 3) • Can provide specific AMH expertise that is not available through other sources	• Speed: Variable (see below) • Funding: Multiple models (see below) • Options to use (I) CRISM partnership, (II) Ad hoc request put into PM queue where timeline depends on competing operational needs, (III) Fund your own analyst (at your university or in-house at AHS) (see Table 2) • Processes are continually being refined and are subject to change
Option 2: AHS Data & Analytics , including Alberta SPOR SUPPORT Unit (ABSPORU)		
*Regardless of whether you submit your request through AHS Data & Analytics Request Management Tool or ABSPORU, these teams will ensure your request is handled by the appropriate team or analyst. *If you submit your request though AHS Data & Analytics Request Management Tool or ABSPORU and your request requires AMH data that is only available from the PM team, AHS Data & Analytics will connect you with the PM team. *AHS Data & Analytics doesn't support a lot of AMH-specific projects because they don't have access to all AMH-specific data holdings.		

Option 2A) **AHS Data & Analytics Team** (formerly Data Integration, Measurement, and reporting (DIMR)) Email: dimr.intake@ahs.ca Audience: Primarily for those who have internal AHS affiliations or accounts	• AMH and non-AMH requests • Has access to all AHS data holdings in the EDW • Does not have access to all AMH data • Supports internal AHS requests related to operations and research	• Speed: Variable • Funding: Positions funded through a variety of means, including operational and grant funds • Primarily does ad hoc requests • Request services via Request Management Tool (RMT). Search AHS Insite for "Data & Analytics Request Management Tool" to access
Option 2B) **Alberta SPOR SUPPORT Unit (ABSPORU)** Audience: Primarily for external audiences	• AMH and non-AMH requests • Has access to most AHS data holdings in EDW • Does not have access to all AMH data • Supports researchers	• Speed: Variable • Funding: Some positions at AHS Data & Analytics are funded by ABSPORU, and therefore dependent on the continuation and extent of ABSPORU funding • ABSPORU operates on a cost-recovery model wherever possible (for funded projects) • ABSPORU is virtual, and all analysts are AHS employees • View the ABSPORU Data Cheatsheet • Primarily does ad hoc requests • Request services via the ABSPORU Service Application

Ways to access AMH data from the PM Team

- The PM Team doesn't cost recover for these services. Timelines will vary depending on the option chosen in Table 2, and on operational needs and number of requests in the queue.
- If you include analyst funding in your grant application, the amount of funding needed will depend on:
    - The complexity of your project
    - Extent of work (data extraction only or analyses as well)

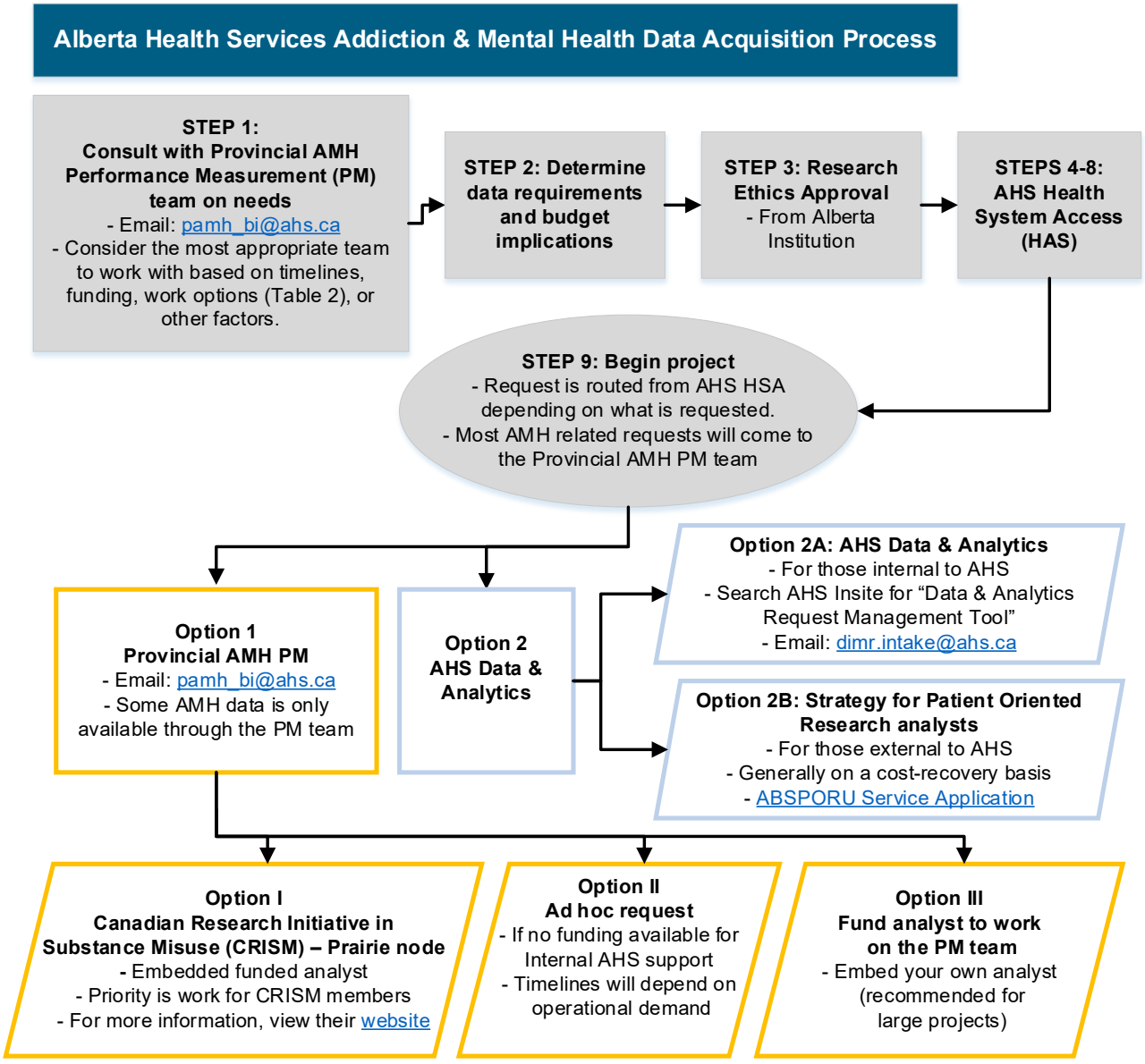
Table 2: Process options for data from the PM Team

Option	Considerations
Option I **Submit request to the Canadian Research Initiative in Substance Misuse (CRISM) for support**	• Must be specific to substance use • Will depend on project approval by CRISM (see application) • Only aggregate or anonymized line level data are released to protect personal and confidential information • Time for completion will be impacted by complexity of your request (data linkages, analyses, etc.) and other projects in CRISM queue (there is only one FTE analyst)
Option II **Ad hoc data extract & analysis by the PM Team**	• Time for completion will be impacted by complexity of your request (data linkages, analyses, etc.) and competing operational needs • Request is put into PM Team queue • Only aggregate or anonymized line level data are released to protect personal and confidential information
Option III **Fund analyst to work on the PM Team**	• Dedicated analyst extracts and analyzes data within AHS firewall • Timeline will be impacted by human resource needs • Consult with the PM Team for an estimate for your grant applications or budget • Only aggregate or anonymized line level data are released to protect personal and confidential information

How to access AMH data at AHS

- To access AMH data at AHS, you will need to work with:
  - A data team indicated on Pages 5-7
  - The Health System Access (HSA) team – works with AHS staff, Alberta's academic institutions, affiliated research institutes, and centres to support the administrative aspects of health research at AHS

We have outlined the processes involved in working on an AMH data project with AHS from start to finish with both a high-level flow chart and a step-by-step detailed guide.



Step 1: Study design phase

- Informal consultation with the PM Team (pamh_bi@ahs.ca) to determine which databases and teams have the data required for your study.
- Based on the consultation, identify whether you will work with the PM Team (pamh_bi@ahs.ca), AHS Data & Analytics RMT, or ABSPORU.

AHS Provincial AMH PM Team

Some AMH data may only be accessible by the PM Team (pamh_bi@ahs.ca)

Arrangements for accessing data (Table 2)

- Option I: Submit request to CRISM for support
- Option II: Ad hoc data extract & analysis by PM Team
- Option III: Fund analyst to work on the PM Team

AHS Data & Analytics

May not have required AMH data

Access via:

- Option 2A: RMT (Internal access only: Search AHS Insite for "Data & Analytics Request Management Tool" to access)
- Option 2B: ABSPORU (External audiences)

Step 2: Budget & data requirements

- Determine data and budget requirements. Apply for grant funds, if needed.

Step 3: Institutional ethics

- Work with the relevant AHS data team (identified in in Step 1) to ensure your submission contains all needed data descriptions
- May involve some back and forth between researcher and Research Ethics Board
- View ethics resources
- To access:
  - U of A: submit to HREB
  - U of C: submit to CHREB
  - U of L: submit to HPRC
  - AHS employees, non-affiliated PIs: submit to HREBA

Step 4: Legal/Contracting

- Following external ethics approval, engage with AHS HSA
- Contract depends on various factors (if sponsored externally, if you're sharing data)
- This can take a long time. If time sensitive, begin this process as early as possible (for example, when you submit ethics)
- To access this service:
  - U of A: negotiated by NACTRAC
  - U of C: negotiated by CSM legal
- Different agreements (by increasing complexity):
  - Data disclosure agreement: Researcher wants to extract data and analyze results locally. No transfer of data.
  - Data transfer agreement: Researcher is working with a couple of sites accessing data. Transfer of data occurs.
  - Sub-site agreements: Multi-centre studies between AHS and universities where several external parties will access data. Transfer of data occurs.
  - Clinical trial agreements

Step 5: Research Finance

- Not all data requests involve cost recovery, so this part may be optional.
- Some cost recovery may be directly billed by AHS Data & Analytics
- Research finance may be required for:
  - External researcher: Funding an analyst within AHS (see Table 2). Before beginning the project, you should reach out to AHS Data & Analytics or the PM Team to discuss. They can provide cost estimates to include in your grant proposal budget if needed.
  - AHS researcher: Holding funds at AHS to complete a research project
- To access this service:
  - U of A: Account set up with NACTRAC
  - U of C: Account set up at U of C
  - AHS: Account set up by HSA
  - Government (GoA or Federal): AHS Contract, Procurement and Supply Management.

Step 6: Operational approval

- Health System Access (HSA) team will formally contact the relevant teams to request operational approval. This may include AHS EDW, the PM Team, AHS Zones, or specific AHS sites.
- Early engagement in Step 1 will help expedite this process.
- It is recommended to have a draft or finalized study protocol available for these discussions
- Learn more about operational approval

Step 7: Data & systems approval

- HSA team coordinates review of data request and ethics approval
- Data negotiations facilitated if necessary
- Ensure you list all data elements, type of data (aggregate, line level) you are accessing
- Sign data disclosure agreement

Step 8: Administrative approval granted

- Occurs once steps 1-7 are complete
- Ensure that all requested data sources and elements are described in full in ethics applications
- Be clear on the level of data needed (aggregate or line level), and that all required data sharing agreements are signed.

Step 9: Begin project

- Researcher contacts relevant group to begin project
- In some cases, the HSA team may also forward request to the relevant group to begin

AHS Provincial AMH PM Team	AHS Data & Analytics

Common AHS data sources

- A non-exhaustive list of data elements is included for the following common databases. Please contact AHS to explore the data elements available.
- Additional data elements may be found on the ABSPORU Data Cheatsheet or by contacting AHS.
- Some data sources are provided below

Table 3: Commonly used AHS AMH Databases

Database	Description & Data Elements	Limitations
Inpatient Discharge Abstract Database (DAD)	• Provincial inpatient discharge records.	
National Ambulatory Care Reporting System (NACRS)	• Provincial emergency department (ED) and urgent care records	
Pharmaceutical Information Network (PIN)	• Dispensation data from community pharmacies in Alberta	
Practitioner Claims	• Claims data for practitioners that are reimbursed through Alberta Health (primarily physicians, but other practitioners as well)	• Requires additional approval from Alberta Health
Provincial Registry	• Contains Alberta population demographic information from the Alberta Health Care Insurance Plan (AHCIP) Registry (used to track in/out migration, deaths)	• Requires additional approval from Alberta Health
The Consolidated Addiction & Mental Health Integrated Dataset	• Consolidation of multiple legacy systems and the new Connect Care system • Used to facilitate provincial level reporting • Data is available for the following AHS community-provided services: ambulatory outpatient, opioid dependency programs, residential treatment, and detoxification supports	• Not available in the AHS EDW, must be accessed by the PM Team. • There are a number of data limitations. Contact the PM Team directly (pamh_bi@ahs.ca) if you are interested in this data

Data limitations

Note on data updates:

- Data may be affected by updates (that sometimes affect data months later)
- The frequency of updates vary by source
- Timeframe for extraction should be discussed with the relevant AHS team
- Discussion with the PM Team is recommended prior to use (to discuss limitations and availability of AMH data not included in AHS EDW)

Note on content:

- Some clinics could be missing, the researcher may need to reach out to specific clinic(s) to ensure their data has been included

Formulating data research questions

- Formulate specific research questions for quicker turn-around time on data requests

Table 4: Examples of how to formulate better data questions

Vague Question	Specific Question
What are addiction treatment rates?	What were the numbers of distinct client enrolments per population from January 1st, 2019, to December 31st, 2020, in the residential and detox addiction treatment programs, by zone?
What are addiction treatment readmission rates?	What proportion of AHS detox and residential addiction treatment clients from January 1st, 2019, to December 31st, 2020, experienced readmission to detox or residential treatment within 30 days of discharge from the original service, by zone?
What is the average health care utilization for addiction treatment clients?	For distinct clients enrolled in an AHS detox or residential addiction treatment program from January 1st, 2019, to December 31st, 2020, what were the total number and average of emergency department visits, inpatient admissions, and physician visits over one year of follow-up from their first program enrollment, by zone?