Establishing Data Linkages from Different Sources

Hawai‘i State Department of Health
Interagency Council for Intermediary Sanctions
University of Hawai‘i at Mānoa

Innovative Surveillance CoP Linkage to Care Workgroup
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CDC Centers for Disease Control and Prevention

OVERDOSE DATA2ACTION

Funding Statement

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Outline

- Purpose of data linkage project
- Brief overview of data sources
- Current status of linkage project

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Purpose

- Currently, there is limited information on substance use and overdose risk among individuals in the criminal justice system in Hawai‘i.
- Linking specific datasets from different sources will help to provide a more comprehensive understanding of their substance use disorders and type/level of treatment received.

An Interagency Partnership

- Hawai‘i Department of Health Adult Mental Health Division
- Interagency Council for Intermediate Sanctions
- Hawai‘i Department of Health Alcohol and Drug Abuse Division
- The University of Hawai‘i at Mānoa

Health analytics

requires the application of

- ✅ data management and governance,
- ✅ data cleaning and data quality assurance,
- ✅ data analysis including modeling, and
- ✅ data visualization and communication

using the lens of social, cultural, behavioral, economic, and biological theories to understand health and to better inform decisions, policy, programs, and practices for well being and health.

Hawai‘i OD2A Data Governance Framework

1. Identify agencies which have relevant opioid-related data
2. Establish communications and relationships with specific agency and explore the potential for data sharing
3. Identify and develop the mechanisms which data can be shared such as Memorandum of Agreement (MOA), Data Use Agreement or other mechanisms
4. Develop data requests which outline the purpose of data request (for Public Health planning) and specifications of the data requests including data elements (i.e. variables) and record extraction criteria, etc.
5. Develop an analytics plan that will include table shells which specify how the data will be analyzed
6. Receive the extracted data in accordance in their agreement such as their data use agreement and data requests
7. Develop and implement data quality assurance procedures to filter the data
8. Implement the analytics plan and produce relevant summary information in accordance with data use agreement and data requests
9. Visualize, communicate, and disseminate the information in accordance with all data governance, data use agreements, or MOAs while working to identify the relevant stakeholders for community engagement

We are here at Step 7!

Activities & Outcomes

Activities:

1. Establish **relationships** between AMHD, ADAD, ICIS, and UH
2. Obtain data access through **data sharing agreements**
3. Develop and implement the **framework for data linkages**
4. Develop a **plan** for data analysis

Outcomes:

Link ICIS ASUS to AMHD AVATAR data, and **link** ICIS ASUS to ADAD WITS data

Best practices for patient matching

- Biometrics
- Centralized enterprise master patient index (EMPI)
- Enterprise-wide governance policies and procedures e.g.:
  - Naming conventions
  - Patient search procedure
  - Procedure for data correction for duplicates
- Staff training
- Patient matching algorithms

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Siloed Data Sources

AMHD

- AVATAR Electronic Health Record System

ICIS

- Adult Substance Use Survey (ASUS)
- Composite Recommended Treatment Level

ADAD

- Web Infrastructure for Treatment Services (WITS) Electronic Health Record System

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- **Current status of linkage project**
  - **Successes**
  - **Lessons learned**
  - **Challenges**

Data Governance & Management - Progress to Date

In alignment to the OD2A work plan deliverables, the UH Epidemiologic and Evaluation team has:

- Established a Business Associate Agreement (BAA) with AMHD (HIPAA-covered entity) and the University of Hawai‘i at Mānoa (UHM) Thompson School of Social Work and Public Health’s Center on Aging (COA)
- Established a BAA with ADAD (HIPAA-covered entity)
- Facilitated a memorandum of agreement (MOA) between AMHD (PI for OD2A) and ICIS
- Approval of ICIS Privacy Safeguard Form for AMHD & ADAD

Current Status

- Current focus on the AMHD-ICIS linkage
- Data exploration of ICIS data which has been extracted and loaded
- Selecting and reviewing identifiers for matching
- Extraction Transform Load (ETL) procedures for AMHD data
  - Determining the subset of data to initial the data linkage

Successes

- Built relationships with AMHD, ADAD, ICIS, and UH in order to established a collaborative and trusted framework for data sharing
  - Regular check-in meetings
  - Partner buy-in
- Created documentation for data governance and management
- Data access to ICIS-ASUS
- Role of public university in providing capacity, technical assistance, workforce, and training

Lessons Learned

- Buy-in from all members and key administrators
- Building relationships and trust
- Ongoing partnership & support
  - Partners demonstrated willingness to support this project
  - After Y2, we will continue to work through and improve upon the analysis

Challenges

- Data access
- Working with different organizations:
  - Policies and regulations between partners
  - Security considerations
  - Data discovery
  - Different identifiers for matching (i.e., using probabilistic match)
- Data quality
- COVID-19

Team

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HAWAI‘I CARES

Thank you

Questions?