# Day 1 | October 1, 2024 - Introduction to DART & Health Services Research

### 9 am - 10 am Welcome / Coffee Chat

Learning Objectives:

- Meet and greet of DART staff and fellow attendees
- Free coffee, sweets, and treats (&parking)!!

Intended Audience:

- Any who are interested in learning more about Sheps
- Research professionals with an interest in health services (etc.)

### 10 am – 11am Introduction to the Data Analytics and Research Team (DART)

Presenter(s): Brian Cass, Erica Richman, Ashley Avis, Dan Angelelli Learning Objectives:

- Learn about collaborative opportunities offered through DART team
- Understand data sources available to assist with research questions
- Be informed on skillsets, areas of expertise, and interests across DART

Intended Audience:

- Researchers interested in collaboration and support on emerging research questions in health services
- Early-career research professionals looking to build partnerships an established center with experienced members of the research community

## 11am – 12 pm Deep Dive on Data Sources

Presenter(s): Dan Angelelli, Peter Newman-Matthews, Jessica Archibald

Learning Objectives:

- Understand data security standards at the Sheps Center
- Understand available data sources
- Understand use cases for data sources

Intended Audience:

- Members of research community (faculty, staff, graduate students) that are interested in using health data sources for research

## 12 pm – 1pm Break for lunch

## 1pm – 2pm | Claims 101

Presenter(s): Jessica Archibald, Shweta Pathak

Learning Objectives:

- Understand basic structure of claims data
- Understand capabilities of claims data for research purposes
- Learn limitations of claims data for public health research

Intended Audience:

- Members of research community (faculty, staff, graduate students) that have research questions well-suited for claims-based secondary data
- Individuals interested in gaining knowledge of claims data

### **Day 1 Schedule Continued Below**

# Day 1 | continued | Introduction to DART & Health Services Research

## 2pm – 3pm Basics in Grant Writing, Study Design, and Analysis Planning

Presenter(s): Erica Richman, Shweta Pathak

Learning Objectives:

- Understand strategies to use in grant writing
- Be informed on overall methods of study design
- Be educated on drafting an analysis plan to lead discussions during project kick-off and implementation

#### Intended Audience:

- Early career research looking to better understand tools and methods for health services research
- Graduate students looking to gain information about applied tools and methods

## 3pm – 4pm Office Hours / Brainstorming Sessions with DART

Informal time to chat with some of our presenters, featuring expertise in the following areas:

- In Person:
  - Study Design / BCBSNC: Shweta Pathak
  - o Medicaid Claims / Policy Evaluation: Jessica Archibald
  - o Research Engagement: Erica Richman
- On Zoom:
  - o AI / Bias: Ashley Avis
  - o Transforming Data: Jake Hyman & Melissa Sandahl
  - o Behavioral Health in Claims: Heather Copley

#### Intended Audience:

- Researchers hoping to get feedback on initial ideas / potential collaborations
- Individuals interested in hearing more in-depth about any topics

## Day 2 | October 2, 2024 - Applied Data Science in Health Services Research

## 10 am – 11am Parsing the Patient: NLP Applications for Clinical Documentation

Presenter(s): Nathaniel Hendrix

Learning Objectives:

- Have a high-level understanding of what NLP is
- Understand public health data sources that are well-suited to NLP
- Be educated on applications of NLP to public health research questions

#### Intended Audience:

- Public health researchers looking to incorporate new data sources into research
- Data scientists / statisticians in public health research with experience in other data analytical methods wanting to grow understanding of NLP and its applications

## 11am - 11:30 pm | Geospatial Health Data

Presenter(s): Jake Hyman; Heather Copley

Learning Objectives:

- Introduce examples of the data available through the US Census Bureau (and other sources)
- Demonstrate our ability to geographically map hospital locations using the Place of Service File
- Demonstrate how geographic data can be incorporated into our claims data (how accurately can we map providers/patient locations and hospitalizations).

#### Intended Audience:

- Public health researchers looking to incorporate geospatial data into research
- Public health researchers who have not yet considered incorporating geospatial components into their research

## 11:30am – 12pm Transforming Claims Data

Presenter(s): Melissa Sandahl

Learning Objectives:

- Learn how to transform health care claims into patient visit summaries for use in Markov chains
- Be familiar with some of the limitations of building visit summaries

#### Intended Audience:

- Researchers new to working with health care claims or looking for new ways to use claims data
- Data scientists interested in how to prepare data for Markov chains

### 12 pm – 1pm Break for lunch

### 1pm – 2pm Bias in Al

Presenter(s): Ashley Avis

Learning Objectives:

- Attendees will leave knowing:
  - o How bias is proliferated through AI
  - o How we can structure projects and teams to identify and correct bias
  - Resources and tools for identifying and correcting bias

### Intended Audience:

- Researchers interested in projects to build AI that could be introduced in a clinical or other public setting
- Data scientists and other practitioners who want to learn how to identify and correct bias

#### **Day 2 Schedule Continued Below**

# Day 2 | Continued - Applied Data Science in Health Services Research

## 2pm – 3pm Highlighting Current Projects with DART at Sheps

Presenter(s): Jessica Archibald, TBD, Erica Richman

- Program eval: HOP
- Stats: (ask Shweta for details)
- Al: Tobacco
- CLAD: large NIH project transforming claims data into standard OMOP format

#### Learning Objectives:

- Understand in an applied sense how DART contributes to projects
- Be informed of how ongoing studies are making use of the secondary data sources are being used Intended Audience:
  - Research professionals interested in collaborating with DART and/or Sheps
  - Anyone that gets excited by cool, interesting, impactful academic research!

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- Zoom:
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  - o Medicaid Claims / Policy Evaluation: Jessica Archibald
  - o NLP: Nathaniel Hendrix
  - o Research Engagement: Erica Richman