Friday, March 29, 2024

Application for Standard Analytic Files from the Maryland Medical Care Data Base (Governmental Entity)

Approval Status	In Progress
MHCC Data Request Number	549466
Application Received	Tuesday, March 19, 2024

INSTRUCTIONS

This form is required for Governmental Entity Applicants requesting Standard Analytic Extracts. Applicants must complete all of the attachments. The completed Application and the Data Management Plan will be used by MHCC to determine whether the request meets the criteria for data release, pursuant to COMAR 10.25.05. Incomplete applications will be returned to the Applicant and the request will be delayed. All applications must include evidence that the project has been reviewed by the governmental entity's legal counsel regarding the entity's legal authority to use the data requested for the purpose described.

Note to Applicants:

- Review data availability here and here
- All application attachments will be incorporated into the Data Use Agreement (DUA) that will need to be signed prior to any Maryland APCD data being transmitted. A draft DUA will be provided to the applicant after this Application is received, so that the applicant can review the terms and conditions.

Questions?

Email mhcc.datarelease@maryland.gov

Data Fee Calculator available to estimate the fee for your data sets.

PROJECT INFORMATION

Project Title

Comparing Utilization, Outcomes, and Choice between VHA and non-VHA Health Care Systems

blanks

Scheduled Project Start Date 08-01-2024

Date

Scheduled Project End Date 12-31-2030

Date

MHCC Data Request Number 394748

Project Overview: Provide an abstract or brief summary (150 words) of the specific purpose and objectives of the Project.

The goal of this research is to compare VHA and non-VHA health care systems and the choice of veterans to rely on VHA or non-VHA systems for their services. Using data from the VHA and Maryland's all-payer claims data (not linked), the project will compare various parts of VHA and non-VHA systems, such as ICU, primary care, mental health, and specialty care services. The project will assess differences in utilization patterns and outcomes. The project will also assess various policy and operational changes that occurred in the VHA recently that might have affected access to care and the care itself delivered to patients.

Applicant (Governmental Entity)

Organization Name PEPReC/ Boston University

Type a label

Website

Email Address yeec@bu.edu

Email

Telephone Number 702-538-8739
Phone Number

Mailing Address Talbot Building, 2W, 715 Albany Street
Street Address

Boston MA 02118
City **State** **Zip**

Principal Investigator/Project Manager (individual responsible for the research team using the data)

Name Christine Yee
First Name **Last Name**

Title Research Scientist
Type a label

Email Address yeec@bu.edu
Email

Telephone Number 702-538-8739
Phone Number

Organization Name Boston University/PEPReC
Type a label

Mailing Address Talbot Building, 2W 715 Albany Street
Street Address

Boston MA 02118
City **State** **Zip**

Data Custodian (person responsible for receiving, organizing, storing, and archiving data)

Name Eric Jacobsen
First Name **Last Name**

Title Director of Information Security
Type a label

Email Address Jacobsen@bu.edu
Email

Telephone Number 617-353-8284
Phone Number

Organization Company (if different from Applicant)

Boston University
Type a label

Mailing Address 930 Commonwealth Ave. Boston MA
Street Address **City** **State**

02215

Zip

Project Contact (person responsible for all communications with MHCC)

Relationship to Applicant (eg, Contractor) Boston University Employee

Type a label

Name Christine Yee

First Name **Last Name**

Title Research Scientist

Type a label

Email Address yeec@bu.edu

Email

Telephone Number 702-538-8739

Phone Number

Organization Name Boston University

Type a label

Mailing Address Talbot Building, 2W, 715 Albany Street

Street Address

Boston MA 02118

City **State** **Zip**

ATTACHMENT A: SCOPE OF WORK

1. Project Purpose

a. Describe the specific research question(s) you are trying to answer or problem(s) you are trying to solve with the requested data or describe the intended product or report that will be derived from the requested data. If a research project, please list each individual question or aim of the analysis.

The aims of this project are to:
1. Compare utilization patterns among patients who receive services in the traditional VHA system and patients who receive services from private providers, which may be covered by Medicare, Medicaid, commercial insurance, or the VHA under the Community Care program implemented under the Choice and MISSION Acts of 2014 and 2018.
2. Compare outcomes and utilization among patients treated at VHA medical centers that implemented various policy and operational structures and patients at non-VHA medical centers. Examples of policies and structures include virtual or telehealth technologies and policies, COVID-19 related policies, and Choice and MISSION Acts.
3. To the extent possible, examine factors associated with patient choice of provider, health coverage, and rate of utilization under each type of coverage; and evaluate the share of services covered by various types of payers and whether this has changed (and if there is crowd out) due to the Choice and/or MISSION Acts of 2014 and 2018. Factors include patient characteristics, local health coverage options available, costs to patients and cost-sharing, local economic characteristics, and provider characteristics.

b. Briefly describe the purpose(s) for which MD APCD data are sought. Use quantitative indicators of public health importance where possible. For example: variation in costs of care; rates of under or over service utilization; health system performance measures, the effect of public health initiatives, health insurance, etc.

Using VHA and Maryland's all-payer claims data (not linked), the project will compare various parts of VHA and non-VHA systems, including the differences and similarities in utilization, choice, and outcomes. The project will also assess various policy and operational changes that occurred in the VHA recently that might have affected access to care and the care itself delivered to patients. The VHA is a publicly funded and publicly provided system; each medical center is under a global budget that is determined by Congress. Most other health care systems in the U.S. are either publicly funded and privately provided (e.g., Medicare and Medicaid) or privately funded and provided (e.g., commercial insurance). The findings will have implications for the important policy questions about public versus private provision of services and about global-budget payment structures.

c. Explain in detail how the planned project that will use MD APCD data is in the public interest and give specific examples of how the project will serve the public interest.

The project will benefit Maryland stakeholders because it will shed light on the similarities and differences between several types of health care systems: public provision by the VHA, private provision paid for by the VHA, private provision paid for by Medicare, by Medicaid, and by commercial insurance. It will evaluate utilization, choice, and outcomes among patients under different systems in the state of Maryland. This is important for both public and private stakeholders, especially those focused on implementing value-based care. For example, payers may be interested in knowing the changes in utilization among their beneficiaries that are associated with changes in switching from traditional fee-for-service to global-budget payments or vice versa. Ultimately, this may lead to lower costs for health care and/or improvement in quality and overall health outcomes. In addition to understanding variation among the different payer populations, the project will evaluate the impact of certain policies, such as the MISSION and Choice Acts, and telehealth programs. The results should be useful to public and private payers, patients, providers, and policymakers.

2. Project Methodology

a. Provide a written description of the project methodology, state the project objectives, the protocol, software and/or identify relevant study questions and analysis method to allow MHCC to understand how the MD APCD Data will be used to meet project objectives or address research questions.

Using the MD APCD, we will develop measures that quantify utilization, outcomes, choice, and factors that might affect choice. We will develop similar measures using VHA data and merge the two files by geographic area. The investigators will use regression analyses to compare these measures across VHA and non-VHA health care systems using statistical software, such as SAS, Stata, and/or R. The analyses will control for many factors that may lead to differences in utilization, outcomes, and choice. Factors include local socioeconomic factors, demographics, practice patterns, health care market characteristics, and health plan characteristics. Many factors will be derived from publicly available data, which will be merged to the MCDB data using zip codes, counties, and other geographic identifiers.

3. Publication and Dissemination

Briefly (1-3 sentences) explain any "Yes" answer.

a. Do you anticipate that the results of your analysis will be published or made publicly available? Yes

i. If yes, how do you intend to disseminate the results of the study (e.g., publication in a professional journal, poster presentation, newsletter, web page, seminar, conference, statistical tabulation, etc.)?

The findings from this research will be made public through peer-reviewed academic publications, policy briefs, and presentations at national conferences and meetings with VHA leadership offices. The results through direct dissemination may later be cited by media outlets. The findings will be aggregated and de-identified.

ii. All public displays of the MD APCD data, regardless of the medium, must comply with MD APCD's cell size suppression policy, as set forth in the Data Use Agreement. Describe how you will ensure that any public display will suppress every cell containing less than 11 observations and suppress percentages or other mathematical formulas that result in the display of every cell with less than 11 observations.

All reported data will be in aggregate with strict adherence to all cell suppression policies outlined in the DUA. All publicly reported data will be reviewed by the main investigator prior to becoming public.

iii. Identify the lowest geographical level of analysis of data you will present for publication or presentation (e.g., state level, city/town level, zip code level, etc.). Will maps be presented? What methods will be used to ensure that individuals cannot be identified?

Results from regression analyses will be reported for large samples of observations, so individuals will not be identifiable. Our results may include maps - these will be aggregated to the county-year level to prevent identification, so long as the number of observations is more than 11 patients. If a particular county has fewer than 11 observations, we will combine counts with other counties or years to prevent identification.

b. If you answer "yes" to any of the following questions, describe the types of products, software, services, or tools and the corresponding fees will be for such products, software, services, or tools.

i. Will the MD APCD data be used for consulting purposes? No

ii. Will report(s), website(s) or a statistical tabulation(s) using MD APCD data be shared or sold? Yes

Findings may be shared via academic publications, policy briefs, and presentations at national conferences and VHA leadership meetings. The reports will not be sold, however.

iii. Will a software product using MD APCD data be shared or sold? No

iv. Will MD APCD data be used as input to develop a product (i.e., severity index tool, risk adjustment tool, a reference tool, etc.)? No

v. Will MD APCD data be sold or shared in any format not noted above? No

vi. Will the project result in disclosing MD APCD data, or any data derived or extracted from such data, in any paper, report, website, a statistical tabulation, seminar, or another setting that is not disseminated to the public? Yes

The team that will work on this research will use the data and share aggregated results to others in our

wider research group (called PEPReC) and VHA leadership. The findings we share will be in the form of statistical tabulations and regression analyses. These findings may or may not be disseminated to the public. We will not be sharing data or extracts of the data with anyone outside of the team that is on the project. Team members may fluctuate over time. The Principal Investigator will notify MHCC of any changes in members.

vii. Will the results from the project be used for price transparency? No

viii. Will health care providers be individually identified? Yes

Describe your protocol for informing health care providers prior to publication of this data/report.

We will need NPI and other identifiers of providers in order to characterize treatment patterns and other factors that might influence a member's decision on whether to receive care and where to get it. Depending on feasibility, we might also link the APCD to VHA data using provider NPI. However, our disseminated results will not identify provider names or other identifying information in any reports, presentations, or publications.

ATTACHMENT B: MD APCD DATASET REQUESTED

MHCC collects privately insured data (claims and membership), known as the Medical Care Data Base (MCDB), on a quarterly basis from life and health insurance carriers, health maintenance organizations (HMOs), third party administrators (TPAs), and pharmacy benefits managers (PBMs) that are licensed to do business in Maryland. The MCDB is Maryland's APCD. The MCDB data that is available for release contains eligibility and professional, institutional, and pharmacy claims. Starting in 2015, the Medical Care Data Base (MCDB) excludes private plan data for self-insured ERISA plans due to the Gobeille v. Liberty Mutual Supreme Court ruling.

The data which is refreshed and updated annually contains only privately fully-insured and self-insured non-ERISA health insurance plans for Maryland and non-Maryland residents. The MCDB encompasses about 90-95% of the privately fully insured market in Maryland and 25%-30% of the self-insured market (post-Gobeille, primarily non-ERISA). To determine the years for which data are available please check on the MHCC website. That site also contains information about the most current MCDB Release Version and a full list of elements in the release including the release record layouts, data dictionaries, and supporting documentation here.

Institutional Claims Medicaid Commercial

Years of Institutional Claims (Specify for Medicaid and Commercial if different) 2013-2023

Justification for Requesting Institutional Claims

The project will investigate hospital and post-acute care events and services; we will study transfers to institutional facilities, the length of stay at these facilities, and the type of care provided at these facilities.

Professional Claims Medicaid Commercial

Years of Professional Claims (Specify for Medicaid and Commercial if different) 2013-2023

Justification for Requesting Professional Claims

The project will examine utilization patterns in private settings. Professional claims are necessary to measure and characterize utilization patterns in private settings.

Pharmacy Claims

Medicaid | Commercial

Years of Pharmacy Claims (Specify for Medicaid and Commercial if different)

2013-2023

Justification for Requesting Pharmacy Claims

The project will examine the use, frequency of fill, and quantity of various medications for patients whose care is directed by private providers. Prescription drugs are part of the overall utilization pattern that we will study and compare to that which happens in the VHA.

Member Eligibility

Medicaid | Commercial

Years of Member Eligibility (Specify for Medicaid and Commercial if different)

2013-2023

Justification for Requesting Member Eligibility

Member eligibility is necessary to determine whether members switch plans and/or insurers, which can affect their utilization and the providers from which members seek care.

ATTACHMENT C: ADDITIONAL DATA SOURCES AND LINKAGE

1. Maryland Medicaid Data

Applications for access to Medicaid Managed Care data for studies comparing the privately insured to Medicaid Managed Care patients can be submitted but require a separate approval from the Maryland Medicaid Administration. The fields available on the Medicaid MCO data sets have been aligned with MD APCD fields to the extent possible.

a. Indicate whether you are seeking Medicaid data:

Yes

b. Do you intend to merge or link MD APCD data with Medicaid data?

Yes

If yes, provide a brief justification.

This project will examine the differences in utilization, outcomes, and costs among patients covered by different payers, including VHA, Medicaid, Medicare, and various commercial insurance. Medicaid data is necessary to perform these evaluations.

c. Federal law (42 USC 1396a (a) 7) restricts the use of individually identifiable data of Medicaid recipients to uses that are directly connected to the administration of the Medicaid program. If you are requesting Maryland Medicaid Data, please describe, in the space below, why your use of the Data meets this requirement.

This project will examine the differences in utilization, outcomes, and costs among patients covered by different payers, including VHA, Medicaid, Medicare, and various commercial insurance. The results will be directly applicable to the administration of the Medicaid program by showing similarities and differences

in the way recipients receive care and the providers that are available. We will examine factors that affect utilization and outcomes. Our findings may help inform policy, depending on the findings.

2. Medicare Data

If requesting Medicare data, the request is reviewed in accordance with the State Agency DUA and CMS State Data Request Memo.

Privacy Board Approval: As required by HIPAA, all data disclosures for research must be approved by the Privacy Board. For the Privacy Board to approve any data release, it must conclude that several criteria laid out at 45 CFR 164.512(i)(2)(ii) are met. Specifically the requesting agency must provide:

a. A plan to protect the data from the improper use or disclosure and assurances that the data will not be reused or disclosed to any other person or entity, except as required by law, for authorized oversight of the research for which the data was requested, or for other research for which the use or disclosure of PHI would be permitted under 45 CFR 164.512(i)(2)(ii). In the space below, explain how your request for Medicare data meets this requirement.

Servers storing Confidential and Restricted Use data are kept in secure rooms with strong physical access controls. Video surveillance of these areas are in place. File system access controls are implemented to ensure that data is not accessed by unauthorized users. Two- factor authentication will be required to access the data. System- and device-based firewalls are used where it is reasonable to do so, such as on systems with Restricted Use data. Sensitive Information is encrypted in transit where reasonable to do so using VPN, SSL, or similar technologies. Encryption in transit is strongly recommended for Confidential data and required for Restricted Use.

Researchers will be asked to keep all files on specified secure servers and storage systems that are monitored. All analytical output will be compliant with cell suppression policies outlined in the data use agreement. Local computers that are used to access the server and network drive are encrypted and equipped with anti-malware software.

Only analysis results, which will be aggregated, will be shared with members outside of the research team. APCD files will not be shared with any individuals who are not allowed access to the data. Only team members who need access to the data to do analyses or data management and/or IT will have access to the data. The Principal Investigators will maintain an Excel file of team members who are allowed access. BU IT will also have access to the data. Again, file system access controls are implemented to ensure that the data are not accessed by unauthorized users. The Principal Investigators will inform BU IT and MHCC of any staffing changes in a timely manner.

b. A plan to destroy identifiers when the research is completed, unless there is a research justification for retaining the identifiers. In the space below, explain how your request for Medicare data meets this requirement.

In accordance with BU IT security policy, data destruction protocols outlined in the DUA will be followed. BU IT will undertake erasure of all files associated with the project when informed by the PI of the project's termination. Reusable media/disks will be securely erased when removed from service.

c. An assertion that the research could not practicably be conducted without access to and use of protected health information. In the space below, attest that your request for Medicare data meets this requirement.

The project will require access to protected health information. First, we will need patient and provider identifiers (zip codes, county codes, census tracts) to characterize geographic regions and to link to several other databases. These data will provide local area health, demographic, and economic characteristics. They include the Area Health Resource File, data from the Bureau of Labor Statistics, data from the VHA (to which the principal investigator already has access), and potentially other public data sources. For certain research questions, we may also link to VHA data using NPI, if feasible with the data. Second, we will need dates of service, admission, and discharge to develop measures that quantify

utilization, outcomes, and choice. For example, to calculate readmission rates, we will need date of discharge and date of admission to the emergency department or inpatient department. We will also develop measures that characterize relative timing of services, including how soon surgery occurs after a consult, episode durations, and prescription drug usage and fills.

3. Other Linkages

Data linkage involves combining MD APCD data with other data to create a more extensive database for analysis.

1. Do you intend to merge or link MD APCD Data with other data? If Yes, please complete questions a-e that follow.

Yes

a. What are the files to be linked?

Area Health Resource File (AHRF), data from the Bureau of Labor Statistics (BLS), Census data, NPPES, and to the extent possible VHA data (to which the principal investigator already has access)

We will link by zip code (or other geographic identifier) and month (or other unit of time), and potentially NPI if feasible.

b. Why is this linkage needed?

To reducing confounding explanations for differences in utilization and outcomes; AHRF, BLS, and Census data are necessary to control for area-level factors, including population, health, demographic, and economic characteristics. To compare utilization, outcomes, and choice between VHA and non-VHA systems, we need to link VHA with non-VHA data either by geographical unit (e.g., zip code) or NPI.

c. Which MD APCD data elements will be linked to the data elements in the external file?

5- digit zip code, county, and NPI

d. What methodology or algorithm will be used to create this match? If you intend to create a unique algorithm, describe how it will link each dataset.

If feasible, we will do a 1-1 merge. No algorithm will be needed.

e. Which variables from each of the source files will be included in the final linked analytic file?

Local economic and health care resource variables from the AHRF.
Population characteristics from the BLS and Census data.
Provider characteristics from the NPPES.

2. Explain why the linkages are needed.

To reducing confounding explanations for differences in utilization and outcomes; AHRF, BLS, and Census data are necessary to control for area-level factors, including population, health, demographic, and economic characteristics. To compare utilization, outcomes, and choice between VHA and non-VHA systems, we need to link VHA with non-VHA data either by geographical unit (e.g., zip code) or NPI.

3. Describe the specific steps you will take to prevent the identification of individuals in the linked files.

The data being requested do not contain identifiable information on patients, such as name or date of birth. All results will comply with the cell suppression rules. All personnel in contact with these data will be required to take IRB, HIPAA, privacy & protected health information, and data security training annually.

ATTACHMENT D: DATA MANAGEMENT PLAN