

Application for Massachusetts All-Payer Claims Data (Non-Government) [Exhibit A – Data Application]

I. INSTRUCTIONS

This form is required for all Applicants, Agencies, or Organizations, hereinafter referred to as “Organization”, except Government Agencies as defined in [957 CMR 5.02](#), requesting protected health information. All Organizations must also complete the [Data Management Plan](#), and attach it to this Application. The Application and the Data Management Plan must be signed by an authorized signatory. This Application and the Data Management Plan will be used by CHIA to determine whether the request meets the criteria for data release, pursuant to 957 CMR 5.00. Please complete the Application documents fully and accurately. Prior to receiving CHIA Data, the Organization must execute CHIA’s [Data Use Agreement](#). Organizations may wish to review that document prior to submitting this Application.

Before completing this Application, please review the data request information on CHIA’s website:

- [Data Availability](#)
- [Fee Schedule](#)
- [Data Request Process](#)

After reviewing the information on the website and this Application, please contact CHIA at apcd.data@chiamass.gov if you have additional questions about how to complete this form.

The Application and all attachments must be uploaded to IRBNet. All Application documents can be found on the [CHIA website](#).

Information submitted as part of the Application may be subject to verification during the review process or during any audit review conducted at CHIA’s discretion.

Applications will not be reviewed until the Application and all supporting documents are complete and the required application fee is received.

A [Fee Remittance Form](#) with instructions for submitting the application fee is available on the CHIA website. If you are requesting a fee waiver, a copy of the Fee Remittance Form and any supporting documentation must be uploaded to IRBNet. Please be aware that if your research is funded and under that funding you are required to release raw data to the funding source, you may not receive CHIA Data.

II. FEE INFORMATION

1. Consult the most current [Fee Schedule](#) for All-Payer Claims Database data.
2. After reviewing the Fee Schedule, if you have any questions about the application or data fees, contact apcd.data@chiamass.gov.
3. If you believe that you qualify for a fee waiver, complete and submit the [Fee Remittance Form](#) and attach it and all required supporting documentation with your application. Refer to the [Fee Schedule](#) (effective Feb 1, 2017) for fee waiver criteria.
4. Applications will not be reviewed until the application fee is received.
5. Data for approved Applications will not be released until the payment for the Data is received.

III. ORGANIZATION & INVESTIGATOR INFORMATION

Project Title:	The Impact of Including Pregnancy as a Qualifying Life Event for Marketplace Special Enrollment on Child and Maternal Health
IRBNet Number:	2181011-1
Organization Requesting Data (Recipient):	Harvard Pilgrim Health Care Institute
Organization Website:	https://www.populationmedicine.org
Authorized Signatory for Organization:	Sheila Fireman
Title:	VP Administration and Finance, Harvard Pilgrim Health Care Institute
E-Mail Address:	Sheila_Fireman@hphci.harvard.edu
Telephone Number:	617-867-4981
Address, City/Town, State, Zip Code:	401 Park Drive, Suite 401 East Boston, MA 02215
Data Custodian: (individual responsible for organizing, storing, and archiving Data)	Ed Rosen
Title:	Lead Analyst, Research Support Data Center, Harvard Pilgrim Health Care Institute
E-Mail Address:	Edward_Rosen@hphci.harvard.edu
Telephone Number:	617-867-4263
Address, City/Town, State, Zip Code:	401 Park Drive, Suite 401 East Boston, MA 02215
Primary Investigator (Applicant): (individual responsible for the research team using the Data)	Laura Garabedian, PhD, MPH
Title:	Assistant Professor, Harvard Pilgrim Health Care Institute
E-Mail Address:	Laura_Garabedian@hphci.harvard.edu
Telephone Number:	617-867-4921
Address, City/Town, State, Zip Code:	401 Park Drive, Suite 401 E, Boston, MA 02215
Names of Co-Investigators:	Alison Galbraith, Anna Sinaiko, Sarah Gordon, Anjali Kaimal, Darren Toh, Fang Zhang
E-Mail Addresses of Co-Investigators:	Alison.Galbraith@bmc.org , asinaiko@hsph.harvard.edu , gordonsh@bu.edu , akaimal@usf.edu , darren_toh@hphci.harvard.edu , fang_zhang@hphci.harvard.edu

IV. PROJECT INFORMATION

IMPORTANT NOTE: Organization represents that the statements made below as well as in any study or research protocol or project plan, or other documents submitted to CHIA in support of the Data Application are complete and accurate and represent the total use of the CHIA Data requested. Any and all CHIA Data released to the Organization under an approved application may ONLY be used for the express purposes identified in this section by the Organization, and for no other purposes. Use of CHIA Data for other purposes requires a separate Data Application to CHIA **or** written request to CHIA, with approval being subject to CHIA's regulatory restrictions and approval process. Unauthorized use is a material violation of your Organizations' Data Use Agreement with CHIA.

1. What will be the use of the CHIA Data requested? [Check all that apply]

- | | | |
|---|--|---|
| <input type="checkbox"/> Epidemiological | <input type="checkbox"/> Health planning/resource allocation | <input type="checkbox"/> Cost trends |
| <input checked="" type="checkbox"/> Longitudinal Research | <input type="checkbox"/> Quality of care assessment | <input type="checkbox"/> Rate setting |
| <input type="checkbox"/> Reference tool | <input checked="" type="checkbox"/> Research studies | <input type="checkbox"/> Severity index tool (or other derived input) |
| <input type="checkbox"/> Surveillance | <input type="checkbox"/> Student research | <input type="checkbox"/> Utilization review of resources |
| <input type="checkbox"/> Inclusion in a product | <input type="checkbox"/> Other (describe in box below) | |

This research study will be conducted by an academic study team at the Harvard Pilgrim Health Care Institute, which is a Harvard Medical School appointing department (Department of Population Medicine) and also part of Point32Health. The Institute is a limited liability corporation of Harvard Pilgrim Health Care, and operates independently of the health plan (i.e., data shared with the Institute will not be shared with Point32Health).

For the project, we will use longitudinal data to describe the role of the Marketplace in providing health insurance coverage and access to prenatal care for pregnant people in Massachusetts, and evaluate the impact of a policy that aims to facilitate pregnant peoples' access to the Marketplace plans. (Since Massachusetts has not yet implemented this policy, it will serve as a control group in the policy analysis.)

2. Provide an abstract or brief summary of the specific purpose and objectives of your Project. This description should include the research questions and/or hypotheses the project will attempt to address, or describe the intended product or report that will be derived from the requested data and how this product will be used. Include a brief summary of the pertinent literature with citations, if applicable.

Timely, high-quality prenatal care is associated with improved child and maternal health outcomes, and comprehensive health insurance coverage during pregnancy facilitates access to prenatal care. The Affordable Care Act (ACA) included prenatal and maternity care as one of the ten essential health benefits that must be covered in Marketplace plans (i.e., commercial insurance plans for individuals). ACA Marketplaces are an important source of health insurance for pregnant people who are not eligible for Medicaid or employer-sponsored insurance. However, current Marketplace enrollment policies make it challenging to enroll in a Marketplace plan early in pregnancy, which may have adverse consequences for access to prenatal care and child and maternal health outcomes.

All Marketplace plans have an annual open enrollment period (OEP) from approximately November to January. An individual can enroll in a Marketplace plan outside of the annual OEP only through a special enrollment period (SEP), which is a limited time window after a qualifying life event (e.g., loss of insurance coverage, or household change [including childbirth]). The ACA did not include pregnancy as a qualifying event for SEP Marketplace coverage. Therefore, people who become pregnant outside of the OEP must delay Marketplace enrollment until they have an eligible SEP-qualifying event, the next annual OEP, or give birth. In recent years, seven U.S. states, plus Washington, D.C., have enacted policy to include pregnancy as a Marketplace SEP qualifying event, meaning that people in these states can enroll in a Marketplace plan when they become pregnant. We hypothesize that this policy facilitates Marketplace enrollment earlier in pregnancy, increases the percent of pregnant people on the Marketplace who receive timely, high-quality prenatal care, and improves maternal and infant health outcomes for Marketplace enrollees.

Our study will exploit a natural experiment created by state-level variation in Marketplace SEP eligibility rules to estimate the impact of a policy to include pregnancy as a SEP-qualifying event. Specifically, we will first (Aim 1) describe the role of the Marketplace in providing health insurance coverage and access to prenatal care for pregnant people (Aim 1). We will then use a robust quasi-experimental design to evaluate the impact of including pregnancy as an SEP-qualifying event on (Aim 2) timely prenatal care and (Aim 3) infant and maternal health outcomes for pregnant people who enroll in Marketplace. We will use all-payer claims data from Connecticut (intervention state) and Massachusetts (control state) from 2016-2022 which provide many advantages over data used in prior research of pregnant people on the Marketplace. The findings from our study will provide critical and timely information for state-level and federal-level policy-makers to ensure that Marketplace coverage is (i) accessible for pregnant people without other insurance coverage options, and (ii) effective in improving prenatal care and, ultimately, child and maternal health outcomes.

3. Has an Institutional Review Board (IRB) reviewed your Project?

- Yes [*If yes, a copy of the approval letter and protocol must be included with the Application package on IRBNet.*]
 No, this Project is not human subject research and does not require IRB review.

4. **Research Methodology:** Applications must include either the IRB protocol or a written description of the Project methodology (typically 1-2 pages), which should state the Project objectives and/or identify relevant research questions. This document must be included with the Application package on IRBNet and must provide sufficient detail to allow CHIA to understand how the Data will be used to meet objectives or address research questions.

V. PUBLIC INTEREST

1. Briefly explain why completing this Project is in the public interest. Use quantitative indicators of public health importance where possible, for example, numbers of deaths or incident cases; age-adjusted, age-specific, or crude rates; or years of potential life lost. *Uses that serve the public interest under CHIA regulations include, but are not limited to: health cost and utilization analysis to formulate public policy; studies that promote improvement in population health, health care quality or access; and health planning tied to evaluation or improvement of Massachusetts state government initiatives.*

This research is of public interest since it will inform public policies to improve access to prenatal care and maternal and child health outcomes – outcomes of high public health importance. Our study will describe the role of Massachusetts' Marketplace plans in providing health insurance coverage and access to timely, high quality prenatal care for pregnant people. Given current Marketplace enrollment policies in Massachusetts, we anticipate that there will be delays in receipt of high quality prenatal care among pregnant people on the Marketplace. We will then use Massachusetts as a control state to examine the impact of Connecticut's policy to facilitate earlier access to Marketplace plans for pregnant people by making pregnancy a special enrollment period (SEP) qualifying-event. The results of this policy analysis could inform future health insurance policy in Massachusetts to improve maternal and child health outcomes.

In previous work using data from a large national insurer, Dr. Garabedian and colleagues demonstrated that SEP Marketplace enrollees were two times more likely than open enrollment period (OEP) Marketplace enrollees to give birth, and that SEP members enroll in the Marketplace only 3.7 months (113.7 days) before giving birth, on average. Coupled with recent research by Dr. Gordon which found that nearly 40% of pregnant women with short-term enrollment in Marketplace plans report being uninsured before Marketplace enrollment, this evidence suggests that many pregnant people that enroll during a Marketplace SEP do not have coverage for prenatal care early in their pregnancy. Indeed, Dr. Gordon's work has also showed that pregnant people who have continuous enrollment in a Marketplace plan from pre-conception through the post-partum period have a higher rate of timely and adequate prenatal care, compared to pregnant people who enrolled in the Marketplace later in their pregnancy.

This study is funded by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD 1R01HD11508).

VI. DATASETS REQUESTED

The Massachusetts All-Payer Claims Database is comprised of medical, pharmacy, and dental claims and information from the member eligibility, provider, and product files that are collected from health insurance payers licensed to operate in the Commonwealth of Massachusetts. This information encompasses public and private payers as well as data from fully-insured and self-insured plans. APCD data are refreshed and updated annually and made available to approved data users. For more information about APCD Data, including

available years of data and a full list of elements in the database please refer to layouts, data dictionaries and similar documentation included on [CHIA's website](#).

Data requests are typically fulfilled on a one time basis, however; certain Projects may require future years of data that will become available in a subsequent release. Projects that anticipate a need for future years of data may request to be considered for a subscription. Approved subscriptions will receive, upon request, the same data files and data elements included in the initial Release annually or as available. Please note that approved subscription requests are subject to the Data Use Agreement, will require payment of fees for additional Data for Non-Government Entities, and subject to the limitation that the Data can be used only in support of the approved Project.

- Please indicate below whether this is a one-time request, or if the described Project will require a subscription.
 One-Time Request **OR** Subscription
- CHIA is currently supporting requests for claims data from 2016 to 2022. Requests made outside of these years may not be supported by CHIA and will be considered on a case-by-case basis. Please specify the years of data that are being requested: 2016-2022.
- Specify below the data files requested for this Project, and provide your justification for requesting each file.

<input checked="" type="checkbox"/> Medical Claims
Describe how your research objectives require Medical Claims data: We will use medical claims to measure: receipt and timing of high quality prenatal care; infant health outcomes; maternal health outcomes; and maternal health characteristics (e.g., chronic conditions, parity).
<input checked="" type="checkbox"/> Pharmacy Claims
Describe how your research objectives require Pharmacy Claims data: We will use pharmacy claims to measure: maternal health characteristics (e.g., chronic conditions).
<input type="checkbox"/> Dental Claims
Describe how your research objectives require Dental Claims data: Click here to enter text.
<input checked="" type="checkbox"/> Member Eligibility
Describe how your research objectives require Member Eligibility data: We will use member eligibility files to identify members in Marketplace plans (our population of interest) using the "Purchased through Massachusetts Exchange Flag." We will also use member eligibility files to measure: enrollment prior to Marketplace coverage (i.e., Medicaid, employer-sponsored insurance); Marketplace enrollment timing (e.g., number of weeks prior to birth, special enrollment vs. open enrollment); demographic characteristics (e.g., age, sex); and plan characteristics (e.g., metal level, individual or family plan). We will also use member zip codes to link to: (1)

the American Community survey to get data on zip-code level race/ethnicity, income, and education level, and (2) the Rural Urban Commuting Area codes to get data on rurality.

Provider

Describe how your research objectives require Provider data:

We will use provider variables to help construct the prenatal care and maternal and child health outcomes, particularly for outcomes in the period during/right after birth when the birthing parent and infant may have the same member ID (e.g., if a particular service was performed by an Ob/Gyn or a neonatologist). We will use data from National Plan and Provider Enumeration System (NPPES) to identify a provider's specialty.

Product

Describe how your research objectives require Product data:

We will use the product file to identify additional plan characteristics (e.g., HMO, PPO).

VII. DATA ENHANCEMENTS REQUESTED

State and federal privacy laws limit the release and use of CHIA Data to the minimum amount of data needed to accomplish a specific Project objective.

All-Payer Claims Database data is released in Limited Data Sets (LDS). All Organizations receive the "Core" LDS, but may also request the data enhancements listed below for inclusion in their analyses. Requests for enhancements will be reviewed by CHIA to determine whether each represents the minimum data necessary to complete the specific Project objective.

For a full list of elements in the release (i.e., the core elements and additional elements), please refer to [release layouts, data dictionaries](#) and similar documentation included on CHIA's website.

1. Specify below which enhancements you are requesting in addition to the "Core" LDS, provide your justification for requesting each enhancement.

a. Geographic Subdivisions

ZIP code and state geographic subdivisions are available for Massachusetts residents and providers only. Small population ZIP codes are combined with larger population ZIP codes. One ZIP Code per person (MEID) per year has been assigned based on the ZIP code/state reported in the member eligibility record's earliest submission year month. If the record does not have an MEID, assignment is based on distinct OrgID/Carrier Specific Unique Member ID.

Non-Massachusetts ZIP codes and state codes except for CT, MA, ME, NH, NY, RI, and VT are suppressed.

Select one of the following options.

<input type="checkbox"/> 3-Digit Zip Codes (standard)	<input checked="" type="checkbox"/> 5-Digit Zip Codes***
***If requested, provide justification for requesting 5-Digit Zip Code. Refer to specifics in your methodology:	
We will use 5-digit member zip codes to link to: (1) the U.S. Census Bureau's American Community Survey to get data on zip-code level race/ethnicity, income, and education level, and (2) the Rural Urban Commuting Area codes to get data on rurality.	

b. Date Resolution

Select one option from the following options.

<input type="checkbox"/> Year (YYYY) (Standard)	<input type="checkbox"/> Month (YYYYMM) ***	<input checked="" type="checkbox"/> Day (YYYYMMDD) *** [for selected data elements only]
*** If requested, provide justification for requesting Month or Day. Refer to specifics in your methodology:		
We need data on month, day and year of enrollment and health care use since our project aims to examine timing of Marketplace enrollment during pregnancy (which means we need to know date of enrollment and date of delivery), exact timing of prenatal care during pregnancy (to determine if the care was provided at the guideline-recommended time), and maternal and child health outcomes during the post-partum period.		

c. National Provider Identifier (NPI)

Select one of the following options.

<input type="checkbox"/> Encrypted National Provider Identifiers (standard)	<input checked="" type="checkbox"/> Decrypted National Provider Identifiers***
*** If requested, provide justification for requesting decrypted National Provider Identifier(s). Refer to specifics in your methodology:	
We need decrypted NPIs so that we can link to the National Plan and Provider Enumeration System (NPPES) in order identify the specialty type of providers (i.e., Ob/Gyn or neonatologist). This will help us construct the prenatal care and maternal and child health outcomes.	

VIII. MEDICAID (MASSHEALTH) DATA

1. Please indicate whether you are seeking Medicaid Data:

- Yes
 No

2. 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 MassHealth Data, please describe, in the space below, why your use of the Data meets this requirement. *Your description should focus on how the results of your project could be used by the Executive Office of Health and Human Services in connection with the administering the MassHealth program.* Requests for identifiable MassHealth Data will be forwarded to MassHealth for a determination as to whether the proposed use of the Data is directly connected to the administration of the MassHealth program. CHIA cannot release MassHealth Data without approval from MassHealth. This may introduce significant delays in the receipt of MassHealth Data.

Researchers must provide the following information for MassHealth to determine how the disclosure of identifiable MassHealth claims data is directly related to the administration of the MassHealth program:

- How does the project relate directly to the administration of the Medicaid program?
- What specific Medicaid program, policy, rule or law will be affected or changed based on the outcome of this project?
- How will MassHealth's objectives be helped or impaired by approving this project?
- Will the results of the research have the potential for:
 - reducing cost of the Medicaid program,
 - improving access for recipients, and/or
 - increasing quality of care to recipients?
- Please describe the project deliverables the researchers will provide to MassHealth
- Please describe how MassHealth can use the project deliverables in administration of the MassHealth program.

For this project, we will measure prenatal care and maternal/child health outcomes for pregnant people who give birth during Marketplace coverage. We need MassHealth data to answer our study questions for two important reasons:

- (1) To determine what source of insurance coverage (if any) a pregnant person had before Marketplace coverage.
- (2) To examine health outcomes among the infants born to people who gave birth during Marketplace coverage, since the infant may have a different coverage type than the mother (i.e., MassHealth).

Our project directly relates to infants covered by MassHealth born to mothers with Marketplace coverage, and we hypothesize that earlier Marketplace coverage during pregnancy will lead to improved prenatal care and infant health outcomes. It also directly relates to MassHealth coverage policies for pregnant people, since Medicaid and the Marketplace are two important safety net insurance programs for pregnant people and pregnant/postpartum people often transition between these two sources of coverage. In prior research using national Pregnancy Risk Assessment Monitoring System (PRAMS) data, study team member Dr. Sarah Gordon found that lack of continuous enrollment in a Marketplace plan during pregnancy was associated with reduced prenatal quality of care and inadequate timing of prenatal care. (Gordon et al., Health Affairs 2021: PMID: 34606350, DOI: [10.1377/hlthaff.2021.00581](https://doi.org/10.1377/hlthaff.2021.00581)) She also showed that pregnant people often moved between Medicaid and Marketplace plans in the time during and surrounding pregnancy. For instance, 15.2% of those who enrolled in a Marketplace plan during pregnancy were enrolled in Medicaid in the preconception period, and 49.8% of those enrolled in a Marketplace plan in the post-partum period were enrolled in Medicaid during their pregnancy. Nearly 40% of people with discontinuous prenatal Marketplace coverage reported being uninsured prior to Marketplace enrollment.

When considering how to improve maternal and child health for lower-income people in the state in a comprehensive and longitudinal way, it will be important to look at transitions between MassHealth and Marketplace plans, and periods of uninsurance. The Marketplace is an important source of coverage for pregnant people who are not eligible for MassHealth, and our study aims to inform policy to make it easier for pregnant people to obtain Marketplace coverage and receive high quality prenatal care earlier in their pregnancy.

Our study examines the impact of including pregnancy as a Marketplace SEP qualifying-event, a policy that Massachusetts has not yet enacted. While our study aims to inform Marketplace policy, the results of this study have the potential to impact MassHealth in the following ways:

- Improve the health, and thereby reduce health care costs, for infants and children in Masshealth born to mothers with Marketplace coverage. We hypothesize that infants born to mothers in Marketplace plans in states with a Marketplace pregnancy SEP policy will have fewer complications at birth and be healthier throughout early childhood.
- Improve the health, and thereby reduce health care costs, for people who give birth during Marketplace coverage, many of whom move between Marketplace and Medicaid plans during their childbearing years.

- Improve access to health insurance and timely, high quality prenatal care for people who give birth during Marketplace coverage, many of whom move between Marketplace and Medicaid plans during their childbearing years.

We will provide MassHealth with a summary of the study findings and a policy memo that describes transitions between MassHealth and Marketplace plans for pregnant people in Massachusetts, and how implementing a Marketplace pregnancy SEP policy in the state could impact quality of prenatal care and maternal and child health outcomes. We will also share any conference abstracts and publications from this NICHD-funded project.

MassHealth can use these deliverables to: (1) inform communication about Marketplace plan options to MassHealth members who lose coverage eligibility to ensure smooth coverage transitions, and (2) advocate for policies to facilitate Marketplace coverage for lower-income pregnant people who do not qualify for MassHealth coverage.

3. Organizations approved to receive Medicaid Data will be required to execute a [Medicaid Acknowledgment of Conditions](#). MassHealth may impose additional requirements on applicants for Medicaid Data as necessary to ensure compliance with federal laws and regulations regarding Medicaid.

IX. DATA LINKAGE

Data linkage involves combining CHIA Data with other data to create a more extensive database for analysis. Data linkage is typically used to link multiple events or characteristics within one database that refer to a single person within CHIA Data.

1. Do you intend to link or merge CHIA Data to other data?

- Yes
 No linkage or merger with any other data will occur

2. If yes, please indicate below the types of data to which CHIA Data will be linked. [Check all that apply]

- Individual Patient Level Data (e.g. disease registries, death data)
 Individual Provider Level Data (e.g., American Medical Association Physician Masterfile)
 Individual Facility Level Data (e.g., American Hospital Association data)
 Aggregate Data (e.g., Census data)
 Other (please describe):

3. If yes, describe the dataset(s) to which the CHIA Data will be linked, indicate which CHIA Data elements will be linked and the purpose for each linkage.

We will use member zip codes to link to: (1) the American Community Survey to get data on zip-code level race/ethnicity, income, and education level, and (2) the Rural Urban Commuting Area codes to get data on rurality.

We will use NPIs to link to the National Plan and Provider Enumeration System (NPPES) in order identify the specialty type of providers (i.e., Ob/Gyn or neonatologist).

Note: For the state policy analysis, we will use data from the Massachusetts and Connecticut APCDs (CT will serve as the intervention state, and MA will serve as the control state). We will not link individual-level records across the two states' APCDs. We will:

(1) Identify the study population of pregnant people who give birth on the Marketplace, and their infants, in each state, and create a combined (i.e., stacked) dataset for analysis that includes only the study populations in the two states (i.e., not everyone in the state APCD).

(2) Remove any members in the study population who have a CT zip code of residence in the MA APCD (and vice-versa – i.e., remove anyone with a MA zip code of residence in the CT APCD). Since people can only purchase a Marketplace plan in their state of residence, we do not anticipate that many people will fall into this exclusion criteria.

4. If yes, for each proposed linkage above, please describe your method or selected algorithm (e.g., deterministic or probabilistic) for linking each dataset. If you intend to develop a unique algorithm, please describe how it will link each dataset.

We will use 5-digit zip codes as the unique identifier to link the APCD to the U.S. Census Bureau's American Community Survey and Rural Urban Commuting Areas Codes.

We will use decrypted NPIs to link to the National Plan and Provider Enumeration System (NPPES).

5. If yes, attach or provide below a complete listing of the variables from all sources to be included in the final linked analytic file.

We will use data from the American Community Survey to assign each member to the following neighborhood socioeconomic characteristics as defined by their zip-code level or residence:

Lower and higher income (based on % of residents below poverty level in the zip code)

Lower and higher education (based on % of residents with less than or equal to a high school diploma in the zip code)

Predominantly white, black or Hispanic (based on % of residents of each race/ethnicity in the zip code)

(<https://www.census.gov/programs-surveys/acs>)

We will use data from the Rural Urban Commuting Areas Codes to assign each member as living in an urban or rural area as defined by their zip-code level of residence. (<https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes/>)

We will use data from National Plan and Provider Enumeration System (NPPES) to identify a provider's specialty (i.e., taxonomy codes).

6. If yes, please identify the specific steps you will take to prevent the identification of individual patients in the linked dataset.

The American Community Survey and Rural Urban Commuting Areas Codes datasets are linked at the zip-code level and do not facilitate the identification of individual patients (rather they describe the population living in the same zip code as the patient).

The National Plan and Provider Enumeration System (NPPES) is linked at the provider level and does not facilitate the identification of individual patients.

X. PUBLICATION / DISSEMINATION / RE-RELEASE

1. Do you anticipate that the results of your analysis will be published or made publically available? If so, how do you intend to disseminate the results of the study (e.g.; publication in professional journal, poster presentation, newsletter, web page, seminar, conference, statistical tabulation)? Any and all publication of CHIA Data must comply with CHIA's cell size suppression policy, as set forth in the Data Use Agreement. Please explain how you will ensure that any publications **will not disclose a cell less than 11**, and percentages or other mathematical formulas that result in the display of a cell less than 11.

We will disseminate results of this project via conferences presentations, academic seminars, and manuscripts in peer-review journals. We also plan to create a memo for policy-makers that summarizes the results of our study.

We will report sample sizes for each cell. If the sample size in a cell is <11, we will not report the results for that cell and will include a note that that the sample size was insufficient for reporting.

2. Describe your plans to use or otherwise disclose CHIA Data, or any Data derived or extracted from such Data, in any paper, report, website, statistical tabulation, seminar, or other setting that is not disseminated to the public.

We have no plans to use or otherwise disclose CHIA data outside of the research findings dissemination plans noted above.

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

State level, no maps

4. Will you be using CHIA Data for consulting purposes?

- Yes
 No

5. Will you be selling standard report products using CHIA Data?

- Yes
 No

6. Will you be selling a software product using CHIA Data?

- Yes
 No

7. Will you be using CHIA Data as in input to develop a product (i.e., severity index tool, risk adjustment tool, reference tool, etc.)

- Yes
 No

8. Will you be reselling CHIA Data in any format not noted above?

- Yes
 No

If yes, in what format will you be reselling CHIA Data?

Click here to enter text.

9. If you have answered “yes” to questions 5, 6, 7 or 8, please provide the name and a description of the products, software, services, or tools.

Click here to enter text.

10. If you have answered “yes” to questions 5, 6, 7 or 8, what is the fee you will charge for such products, software, services or tools?

Click here to enter text.

XI. APPLICANT QUALIFICATIONS

1. Describe your previous experience using claims data. This question should be answered by the primary investigator and any co-investigators who will be using the Data.

Drs. Garabedian, Galbraith, Toh and Fang all have extensive experience working with Harvard Pilgrim Health Care claims data, and claims data from other commercial insurers (e.g., Optum, Marketscan). Dr. Sinaiko has conducted research with the MA APCD, and Dr. Gordon has worked with APCDs in other states (e.g., Utah and Colorado).

Note that the MA APCD data will be stored at Harvard Pilgrim Health Care Institute and will only be accessible to the investigators based at that site (i.e., Drs. Garabedian, Toh and Fang). Co-investigators at other institutions (i.e., Drs. Galbraith, Gordon and Sinaiko) will not be able to access the MA APCD data for this project and will only see aggregate results; their institutions’ IRBs have determined that they are not engaged in human subjects research.

2. **Resumes/CVs:** When submitting your Application package on IRBNet, include résumés or curricula vitae of the principal investigator and co-investigators. (These attachments will not be posted on the internet.)

XII. USE OF AGENTS AND/OR CONTRACTORS

By signing this Application, the Organization assumes all responsibility for the use, security and maintenance of the CHIA Data by its agents, including but not limited to contractors. The Organization must have a written agreement with the agent of contractor limiting the use of CHIA Data to the use

approved under this Application as well as the privacy and security standards set forth in the Data Use Agreement. CHIA Data may not be shared with any third party without prior written consent from CHIA, or an amendment to this Application. CHIA may audit any entity with access to CHIA Data.

Provide the following information for **all** agents and contractors who will have access to the CHIA Data. [*Add agents or contractors as needed.*]

AGENT/CONTRACTOR #1 INFORMATION	
Company Name:	Click here to enter text.
Company Website	Click here to enter text.
Contact Person:	Click here to enter text.
Title:	Click here to enter text.
E-mail Address:	Click here to enter text.
Address, City/Town, State, Zip Code:	Click here to enter text.
Telephone Number:	Click here to enter text.
Term of Contract:	Click here to enter text.

1. Describe the tasks and products assigned to the agent or contractor for this Project and their qualifications for completing the tasks.

Click here to enter text.

2. Describe the Organization's oversight and monitoring of the activities and actions of the agent or contractor for this Project, including how the Organization will ensure the security of the CHIA Data to which the agent or contractor has access.

Click here to enter text.

3. Will the agent or contractor have access to and store the CHIA Data at a location other than the Organization's location, off-site server and/or database?

Yes

No

4. If yes, a separate Data Management Plan **must** be completed by the agent or contractor.

AGENT/CONTRACTOR #1 INFORMATION	
Company Name:	Click here to enter text.
Company Website	Click here to enter text.
Contact Person:	Click here to enter text.
Title:	Click here to enter text.
E-mail Address:	Click here to enter text.
Address, City/Town, State, Zip Code:	Click here to enter text.
Telephone Number:	Click here to enter text.
Term of Contract:	Click here to enter text.

1. Describe the tasks and products assigned to the agent or contractor for this Project and their qualifications for completing the tasks.

Click here to enter text.

2. Describe the Organization's oversight and monitoring of the activities and actions of the agent or contractor for this Project, including how the Organization will ensure the security of the CHIA Data to which the agent or contractor has access.

Click here to enter text.

3. Will the agent or contractor have access to or store the CHIA Data at a location other than the Organization's location, off-site server and/or database?

- Yes
- No

4. If yes, a separate Data Management Plan **must** be completed by the agent or contractor.

[INSERT A NEW SECTION FOR ADDITIONAL AGENTS/CONTRACTORS AS NEEDED]

XIII. ATTESTATION

By submitting this Application, the Organization attests that it is aware of its data use, privacy and security obligations imposed by state and federal law *and* confirms that it is compliant with such use, privacy and security standards. The Organization further agrees and understands that it is solely responsible for any breaches or unauthorized access, disclosure or use of CHIA Data, including, but not limited to, any breach or unauthorized access, disclosure or use by any third party to which it grants access.

Organizations approved to receive CHIA Data will be provided with Data following the payment of applicable fees and upon the execution of a Data Use Agreement requiring the Organization to adhere to processes and procedures designed to prevent unauthorized access, disclosure or use of data.

By my signature below, I attest: (1) to the accuracy of the information provided herein; (2) this research is not funded by a source requiring the release of raw data to that source; (3) that the requested Data is the minimum necessary to accomplish the purposes described herein; (4) that the Organization will meet the data privacy and security requirements described in this Application and supporting documents, and will ensure that any third party with access to the Data meets the data use, privacy and security requirements; and (5) to my authority to bind the Organization.

Signature: (Authorized Signatory for Organization)	DocuSigned by: <i>Sheila Fireman</i> Drag signature image here or delete and physically sign 0.5238009316E748E
Printed Name:	Sheila Fireman
Title:	VP Administration and Finance, Harvard Pilgrim Health Care Institute
Date:	6/18/2024

Attachments:

A completed Application must have the following documents attached to the Application or uploaded separately to IRBNet:

- 1. IRB approval letter and protocol (if applicable), or research methodology (if protocol is not attached)
- 2. Data Management Plan (including one for each agent or contractor that will have access to or store the CHIA Data at a location other than the Organization's location, off-site server and/or database);
- 3. CVs of Investigators (upload to IRBNet)

APPLICATIONS WILL NOT BE REVIEWED UNTIL THEY ARE COMPLETE, INCLUDING ALL ATTACHMENTS.