

# OCHIN Community Health Equity EHR Data Description

This is supporting information for the 2023 Health Data for Action (HD4A) Call for Proposals. To apply, or for more information about the funding opportunity, please visit [www.rwjf.org/cfp/hd4a4](http://www.rwjf.org/cfp/hd4a4).

OCHIN, a nonprofit healthcare innovation center with a core mission to advance health equity, operates the most comprehensive database on primary healthcare and outcomes of traditionally underserved patients in the United States. The OCHIN Health Equity EHR database aggregates electronic health record (EHR) and social determinants of health (SDH) data representing >6 million patients from 170 health systems and 1,600 clinic sites across 33 states (4.6 million patients are 'active,' with a visit in the last 3 years). Approved projects can obtain access to up to 12 years of longitudinal OCHIN Epic ambulatory EHR data, which is research-ready on the PCORnet Common Data Model (CDM). EHR data are supplemented with national mortality data, Medicaid claims (limited states), and geo-linked community level social determinants of health indicators.

Contributing health systems are outpatient community-based health care organizations, which deliver comprehensive, culturally responsive, high-quality primary care health care services for communities most impacted by health disparities. This includes individuals and families experiencing poverty, houselessness, migrant agricultural workers and veterans. Most of OCHIN's clinical members are Federally Qualified Health Centers (FQHCs) and other federally supported community health centers that provide services regardless of patients' insurance status or ability to pay. In addition to comprehensive primary care, these sites often provide on-site services such as dental, pharmacy, mental health, substance abuse treatment, and social work.

## Overall inclusion

- Data years available: 2012-2023 (>170 million total encounters)
- Patients with one or more ambulatory, telehealth, or dental visit at a member clinic site on or after 1/1/2012
- Excluded: records from institutionalized patients and neonates (<28 days old) are excluded

## Unique features

OCHIN is a national leader in the collection of patient-level social needs data; the database currently contains nearly 2 million screenings in domains such as food insecurity, housing status, and financial strain. Patient addresses are comprehensively geocoded, enabling geographic linkage to community-level indicators such as poverty and income inequality, employment status, educational attainment rates by census tract.

The OCHIN Community Health Equity Database includes patients across the life span, a large proportion of whom are children (22% under age 18) and women of reproductive age (28%). Over half (55%) of the patient population has household incomes under the federal poverty level; approximately one-quarter are uninsured (26%), and another 55% have public health insurance (predominantly Medicaid). The patient population is more racially and ethnically diverse than the general US population (e.g., 32% Latinx, 17% Black/African American, 26% best served in a language other than English). Leading chronic conditions among active adult patients include hypertension (22%), diabetes (11%), and mental/behavioral health diagnoses (26%).

The OCHIN clinical network has a single patient record across the entire system, allowing unduplicated and longitudinal analysis at the patient level. Despite data being available back to 2012, the number of patients and encounters in the OCHIN RDW has increased greatly over time, predominantly due to the growth in OCHIN's clinic membership. Member health systems may expand, reduce, or change their services over time. Consequently, the OCHIN RDW is an open cohort based on patient utilization and should not be considered a consistent longitudinal cohort of a fixed set of clinics or patients over time. However, most patients do have multiple visits over time and longitudinal patient-level analysis is possible.

The OCHIN Community Health Equity Database does not include information on emergency department use or hospital stays, nor should the data be considered a comprehensive picture of the totality of a given patient's outpatient medical care. The data represent all care received within the network of OCHIN member clinics, but care accessed outside the OCHIN network would not be represented in the database.

## Potential research topics

The OCHIN Community Health Equity Database is well-suited to address any primary care relevant health equity topic, as well as many policy-relevant questions. Examples include:

- Health care access, visit modalities, and screening before and after the Covid-19 pandemic
- Cardiovascular risks by levels of patient-reported social needs
- Diabetes care and management by levels of multimorbidity
- The association of state-level Medicaid eligibility limits on reproductive healthcare utilization
- Smoking status and cessation services in school-based health centers
- Racial/ethnic disparities in childhood immunizations and well child visits
- Association between neighborhood-level SDH and cancer screening
- Prescribing patterns among patients with and without behavioral health diagnoses

Linkage to other data sources may be possible, pending consultation with OCHIN. In general, direct identifiers are not released, but privacy-preserving record linkage via tokenization is a possibility depending on the data source. OCHIN receives linked mortality data from national sources via a partnership with Datavant; OCHIN also has an agreement with the state of Oregon to integrate statewide Medicaid claims data into its Research Data Warehouse. Approved projects may access linked data from either of these sources.

## Data access

Applicants may want to explore the OCHIN Community Health Equity Database for feasibility assessment as they write their proposals. OCHIN provides the means to do so through use of Cohort Discovery, a web-based software tool for obtaining counts of patients matching user-specified inclusion/exclusion criteria. To gain access to Cohort Discovery, HD4A program applicants must have completed and be up to date with standard training in Human Subjects Research and Responsible Conduct of Research such as those offered by the CITI Program. Please complete the [Access Agreement](#) to request access to OCHIN's Cohort Discovery.

Once awarded, grantees will work with experienced OCHIN health services researchers to specify a curated Limited Data Set meeting your specific study's needs. Prior to data release, each study must undergo IRB review (approval or exemption) and execute a Data Use Agreement with OCHIN. Datasets will be transferred via secure file transfer methods, and must be stored in an access-controlled encrypted environment. OCHIN will provide regulatory expertise to support study teams in meeting these requirements.

After data release, OCHIN researchers will be available to consult on data management, analysis, and interpretation. Grantees typically have data access for one year, with the possibility of extension based on period of funding.

**Data Dictionary:** The data dictionary is available [here](#).