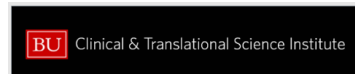
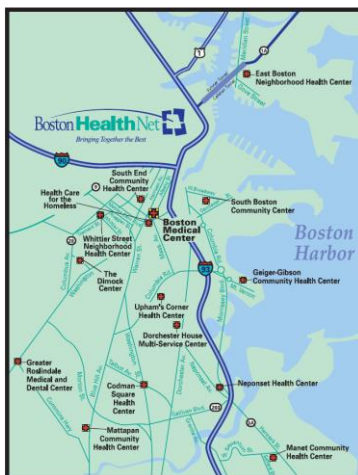


Translational Informatics Tools to Support Health Services and Equity Research at BMC and BU

William G. Adams, MD
Professor of Pediatrics
Director, BU-CTSI Biomedical Informatics Core
Informatics Director, Boston HealthNet



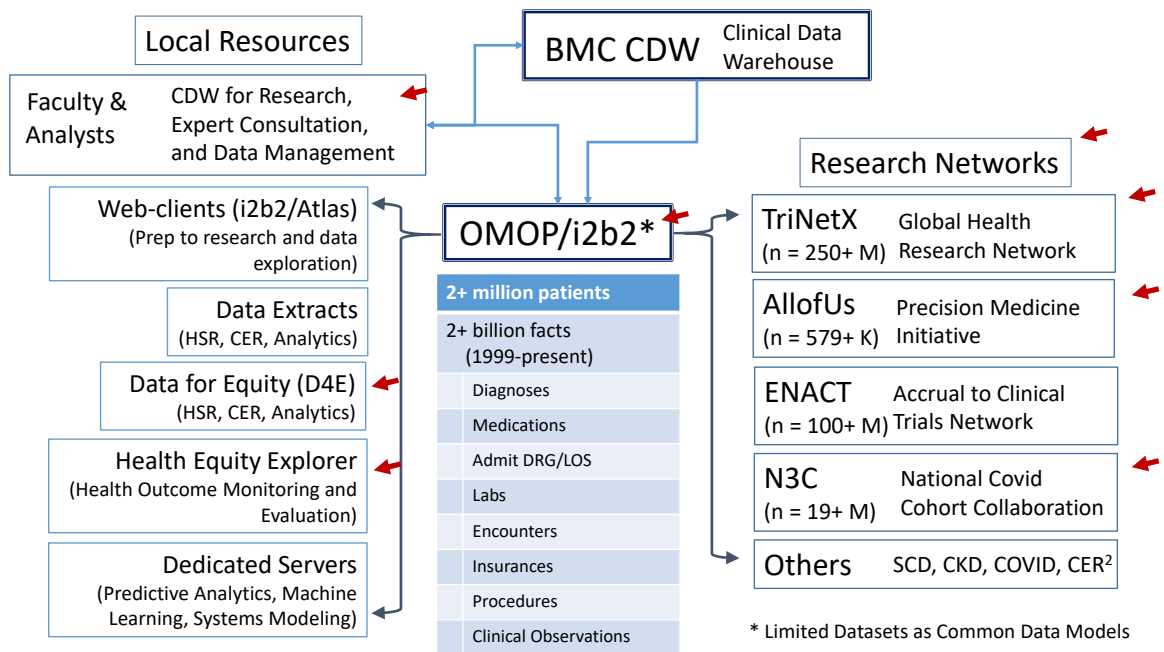
The Boston HealthNet “EcoSystem”



- Largest safety net provider in New England
- EHR-based care
 - BMC since 1999
 - CHCs since 2003

Our Vision

- Data are accessible - privacy is protected
- Broadest possible array of health data available for research
- Researchers focus on questions more than coding
- Data and tools are standardized so they can be shared on a national scale
- Advancing health equity is foundational



- About BMC
- Departments & Conditions
- Patients & Visitors
- For Medical Professionals
- Research

Home / Research at Boston Medical Center

BMC Clinical Data Warehouse (CDW) for Research

[BMC Clinical Data Warehouse \(CDW\)](#)

Data Available from the CDW

Services

How to Request Data

Student, Resident, & Fellow Research

Fees and Billing

FAQs

Other BMC Resources to Support Researchers

Contact Us

Access Clinical Data for Research

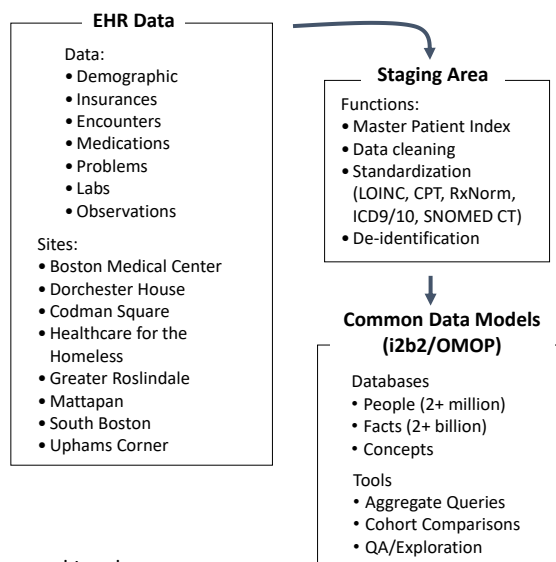
The Boston Medical Center (BMC) Clinical Data Warehouse (CDW) for Research is a **centralized resource to access patient-level and population-level data for research**. CDW for Research analysts extract clinical information from BMC's Electronic Health Records (EHR) and other health system-related data streams to **leverage data for research**. The CDW for Research also collaborates with Departments and Divisions to increase research infrastructure and better leverage data for research purposes.

CDW for Research Services

- Simple Counts**
 Provide aggregate counts for study planning, feasibility analysis, and grant/proposal submission.
- Recruitment/Cohort Lists**
 MRN, Name, DOB, Contact Information, Demographics, Fields used in the cohort inclusion. (as permitted by data policies)
- Data Extracts**
 Data extracted from the data warehouse for your study cohort, organized for data management and provided in excel files. (multiplying need for manual chart review)
- Custom Reports**
 Recurring data extractions, automatic prospective reports, and patient snapshots
- Linked Data Extracts**
 Data extracted from the data warehouse linked to community health center (CHC) data, claims data, and other external data.
- Department- or Division-wide Efforts**
 Describe specific patient populations, increase research infrastructure, and better leverage data for research.

<https://www.bmc.org/research/clinical-data-warehouse-cdw>

Common Data Model ETL*



* Extract, Transform, and Load

OHDSI at BMC/BUMC

- International network of researchers and observational health databases with a central coordinating center
- Open-source, community-developed and maintained
- Reproducible research, real-world evidence
- De-identified clinical data repository
- Data linked to standardized vocabularies (Common Data Model)
- Web-based query and analytic tools



www.ohdsi.org

Observational Medical Outcomes Partnership (OMOP) Common Data Model (CDM)

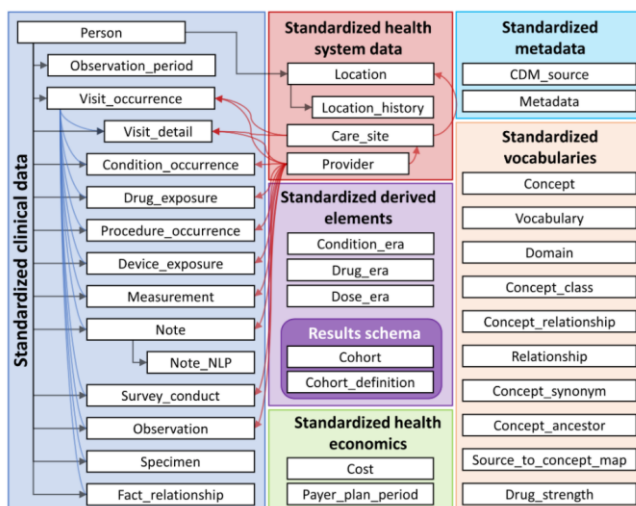
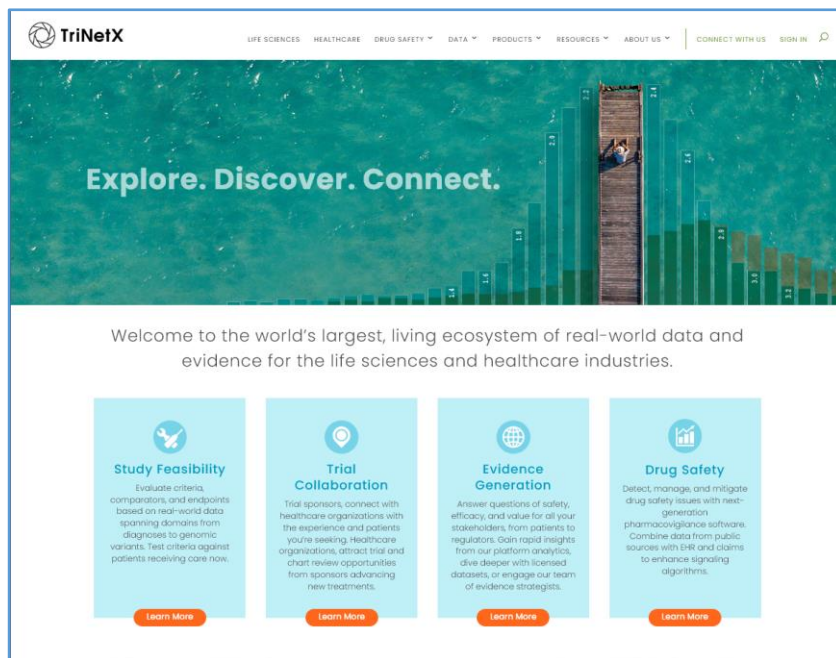


Figure 4.1: Overview of all tables in the CDM version 6.0. Note that not all relationships between tables are shown.



TriNetX at BMC/BUMC

- TriNetX is a global health research network
- Two pathways for research
 - Query tool – user-friendly self-service tool for aggregate data exploration
 - Research network participation (including data downloads)
- De-identified and anonymized downloads available with BMC DUA and IRB approval

TriNetX My Studies Connect **NEW** Trial Connect Dashboard **LEGACY** Browse Network Bill Adams

My Studies > COVID Demo > Query Builder

Query Builder

Healthcare Organizations (HCOs) Explore Cohort Analyze Criteria Rate of Arrival Summary Statistics Analytics Pending Datasets Available Datasets Trial Connect **LEGACY** Connect **NEW** Study Management Design Assistance

☆ Unnamed

Boston Medical Center 1 of 1 HCOs online Any country 1 country in the network Any age / Any sex 1,468,280 patients on network

Count Patients

MUST HAVE **CANNOT HAVE**

Q Covid Q Search Term...

All D Demographics Dx Diagnoses P Procedures M Medications L Labs G Genomics V Visits

Code	Term Description	Patients
<input type="checkbox"/> TNX:LAB-9088	Sars coronavirus 2 and related na [presence] Covid	169,710
<input type="checkbox"/> 94309-2	Sars-cov-2 (covid-19) rna [presence] in specimen by naa with probe detection	168,410
<input type="checkbox"/> TNX:LAB-9089	Sars coronavirus 2 igg ab [presence] in serum or plasma Covid	13,310
<input type="checkbox"/> 94563-4	Sars-cov-2 (covid-19) igg ab [presence] in serum or plasma by immunoassay	13,180
<input type="checkbox"/> 94565-9	Sars-cov-2 (covid-19) rna [presence] in nasopharynx by naa with non-probe detection	9,090
<input type="checkbox"/> 94507-1	Sars-cov-2 (covid-19) igg ab [presence] in serum, plasma or blood by rapid immunoassay	590

☐ Show Terms with Zero Patients ☐ Show Deprecated **Add To Query** Cancel

TriNetX My Studies Connect **NEW** Trial Connect Dashboard **LEGACY** Browse Network Bill Adams

My Studies > COVID Demo > Query Builder

Query Builder

Healthcare Organizations (HCOs) Explore Cohort Analyze Criteria Rate of Arrival Summary Statistics Analytics Pending Datasets Available Datasets Trial Connect **LEGACY** Connect **NEW** Study Management Design Assistance

☆ COVID Counts

Oct 11, 2022 at 11:40 am by Bill Adams

Boston Medical Center 1 of 1 HCOs online Any country 1 country in the network Any age / Any sex 1,468,280 patients on network

Patients **169,710** HCOs **1** **Count Patients**

MUST HAVE **CANNOT HAVE**

Q Search Term... Q Search Term...

Ungrouped Terms

MUST HAVE **CANNOT HAVE**

9088 SARS coronavirus 2 and related RNA [Presence] 169,710

+ Create a New Group

COVID Counts

Oct 11, 2022 at 8:48 pm by Bill Adams

Patients
169,710

HCOs
1

[Count Patients](#)

All changes saved

COVID-19 Research Network
78 of 78 HCOs online


Any country
9 countries in the network

Any age / Any sex
103,568,804 patients on network


Select a network from the list below

Network Name Total Patients	Trial Connect	Analytics	Data sets
APAC Collaborative Network 1,629,635 Patients ● 5 of 5 Online Last Update: 4 hours ago			
Boston Medical Center 1,468,280 Patients ● 1 of 1 Online Last Update: 5 months ago			
COVID-19 Research Network 103,568,804 Patients ● 78 of 78 Online Last Update: 3 hours ago			
Diamond Network 213,167,031 Patients ● 92 of 92 Online			
EMEA Collaborative Network 13,221,331 Patients ● 20 of 21 Online Last Update: 14 hours ago			
Global Collaborative Network 114,013,146 Patients			

[Cancel](#)


TriNetX

[LIFE SCIENCES](#)
[HEALTHCARE](#)
[DRUG SAFETY](#)
[DATA](#)
[PRODUCTS](#)
[RESOURCES](#)
[ABOUT US](#)

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Journal Articles

--No Tag Selected--

--No Tag Selected--

COVID-19 (236 items)

Infectious disease (224 items)

TriNetX Advanced Analytics (136 items)

TriNetX co-author (117 items)

Cardiology (117 items)

TriNetX Research Network (94 items)

Oncology (83 items)

Neurology (71 items)

Dermatology (70 items)

Surgery (70 items)

Gastroenterology (44 items)

TriNetX Analytics Network (43 items)

TriNetX COVID-19 Research Network (39 items)

Nephrology (38 items)

Psychiatric (37 items)

Immunology (34 items)

Pediatrics (30 items)

Surgical complications (29 items)

Vaccine (29 items)

JOURNAL ARTICLES

Thandassery, R. B., Sharma, S., Syed, M., & Perisetti, A. (2022). A global multi referral due to cirrhosis in hospitalized patients with COVID-19. *J Clin Tran* <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9536185/>

Wang, L., Wang, W., Xu, R., & Berger, N. A. (2022). SARS-CoV-2 primary and b care. *Best Practice & Research Clinical Haematology*, 101384. <https://doi.org/10.1016/j.bpr.2022.101384>

Cordova Sanchez, A., Khokhar, F., Olonoff, D. A., & Carhart, R. L. (2022). Hydro arthrits. *Cardiovasc Drugs Ther*. <https://doi.org/10.1007/s10557-022-0738-8>

McKintie, A. M., Job, K. M., Nelson, R., Sherwin, C. M. T., Watt, K. M., & Brewer, S. of pediatric hemodialysis patients in an electronic health record databas <https://doi.org/10.1016/j.jmu.2022.101104>

Dorney, L., Ottosen, T., & Kaelber, D. C. (2022). Epidemiology of eustachian tu achondroplasia. *Int J Ped Oto*, Online ahead of print, 111339. <https://doi.org/10.1016/j.ijpoto.2022.111339>

Kaminsky, L. W., Ghahramani, A., Hussein, R., & Al-Shaikhly, T. (2022). Penicil pneumonia. *J Allergy Clin Immunol Pract*, Online ahead of print, S2213-2198(22)00552-5. <https://doi.org/10.1016/j.jaip.2022.08.027>

DeJesus, J., Shah, N. R., Franco-Mesa, C., Walters, E. T., Palackic, A., & Wolf, S. E. (2022). Risk factors for opioid use disorder after severe burns in adults. *Am J Surg*, Online ahead of print, S0002-9610(22)00570-0. <https://doi.org/10.1016/j.amjsurg.2022.09.023>

Kumar, S., Arnold, M., James, G., & Padman, R. (2022). Developing a common data model approach for DISCOVER CKD: A retrospective, global cohort of real-world patients with chronic kidney disease. *PLoS ONE*, 17(9), e0274131. <https://doi.org/10.1371/journal.pone.0274131>

Hout, M., Arbelaez, M. C. S., Nackeeran, S., Blachman-Braun, R., Shah, K., Towe, M., Chanamoli, D. K., Marcovich, R., Ramasamy, R., & Shah, H. N. (2022). Impact of COVID-19 pandemic on diagnosis and surgical management of common urological conditions: results from multi-institutional database analysis from the United States. *World J Urol*. <https://doi.org/10.1007/s00345-022-04167-0>

Wang, J., Dasari, S., Elantobly, D., Alkrekshi, A., & Kim, Y. D. (2022). Use of PD-1 Inhibitors in patients with end-stage renal disease: safety and clinical outcomes from real-world data. *Acta Oncologica*, 0(0), 1-5. <https://doi.org/10.1080/0284186X.2022.212171>

PAGE

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September 23, 2022



Association of SARS-CoV-2 Infection With New-Onset Type 1 Diabetes Among Pediatric Patients From 2020 to 2021

Ellen K. Kendall, BA¹; Veronica R. Olaker, BS¹; David C. Kaelber, MD, PhD²; [et al](#)

[» Author Affiliations](#) | [Article Information](#)

JAMA Netw Open. 2022;5(9):e2233014. doi:10.1001/jamanetworkopen.2022.33014

Research Letter

January 20, 2022

FREE

Comparison of mRNA-1273 and BNT162b2 Vaccines on Breakthrough SARS-CoV-2 Infections, Hospitalizations, and Death During the Delta-Predominant Period

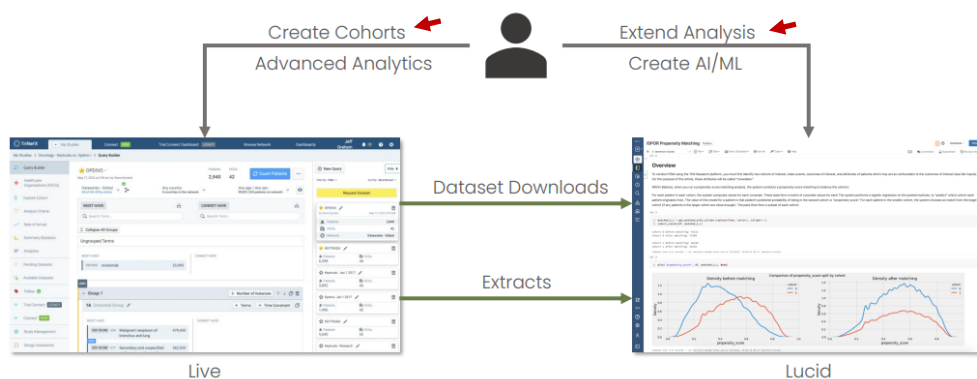
Lindsey Wang¹; Pamela B. Davis, MD, PhD²; David C. Kaelber, MD, PhD, MPH³; [et al](#)

[» Author Affiliations](#) | [Article Information](#)

JAMA. 2022;327(7):678-680. doi:10.1001/jama.2022.0210

Lucid – Trusted Research Environment

16



(Anonymized, scalable cloud architecture, Python, R, SQL, Scala, and hundreds of millions of potential patients)

U.S. Department of Health & Human Services

National Institutes of Health

National Institutes of Health
All of Us Research Program

Log In

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Questions about COVID-19?
VISIT cdc.gov/coronavirus | [Español](#)

[Learn how the All of Us Research Program is addressing COVID-19.](#)

The future of health begins with you.

The *All of Us* Research Program is inviting one million people across the U.S. to help build one of the most diverse health databases in history. We welcome participants from all backgrounds. Researchers will use the data to learn how our biology, lifestyle, and environment affect health. This may one day help them find ways to treat and prevent disease.

JOIN NOW

All of Us Research Hub

National Institutes of Health
All of Us Research Program

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RESEARCHER LOGIN

Learn How to Join as a Participant >>

Welcome to the *All of Us* Research Hub

The *All of Us* Research Program, led by the National Institutes of Health, is building one of the largest biomedical data resources of its kind. The *All of Us* Research Hub stores health data from a diverse group of participants from across the United States.

Registered researchers can access *All of Us* data and tools to conduct studies to help improve our understanding of human health.

REGISTER FOR ACCESS

- Data Browser
- Data Snapshots
- Data Access Tiers
- Data Sources
- Data Methods
- Survey Explorer
- Researcher Workbench

[Data in the Data Browser >>](#)

<https://www.researchallofus.org/data-tools/>

Help

EHR Domains

Conditions

24,315

medical concepts

227,740 participants in this domain

[View Conditions](#)

Drug Exposures

29,166

medical concepts

214,040 participants in this domain

[View Drug Exposures](#)

Labs & Measurements

15,309

medical concepts

227,280 participants in this domain

[View Labs & Measurements](#)

Procedures

29,176

medical concepts

221,860 participants in this domain

[View Procedures](#)

Genomics

Genomic Variants

98,560

participants in the Whole Genome Sequencing (WGS) dataset

165,080

participants in the Genotyping Array dataset

[View Genomic Variants](#)

Physical Measurements and Wearables

Physical Measurements

8

Physical Measurements

311,300 participants in this domain

Participants have the option to provide a standard set of physical measurements.

[View Physical Measurements](#)

Fitbit

4

Fitbit Measurements

12,880 participants in this domain

Fitbit data includes heart rate and activity summaries.

[View Fitbit](#)

Survey Questions

The Basics

28

questions available

372,380 participants in this domain

This survey includes participant demographic information.

[View Complete Survey](#)

Overall Health

21

questions available

372,380 participants in this domain

Survey includes information about how participants report levels of individual health.

[View Complete Survey](#)

Lifestyle

26

questions available

372,380 participants in this domain

Survey includes information on participant smoking, alcohol and recreational drug use.

[View Complete Survey](#)

Personal Medical History

465

questions available

142,100 participants in this domain

This survey includes information about past medical history, including medical conditions and approximate age of diagnosis.

[View Complete Survey](#)

Health Care Access & Utilization

57

questions available

160,880 participants in this domain

Survey includes information about a participant's access to and use of health care.

[View Complete Survey](#)

Family Health History

104

questions available

145,620 participants in this domain

Survey includes information about the medical history of a participant's immediate biological family members.

[View Complete Survey](#)

COVID-19 Participant Experience (COPE)

191

questions available

100,320 participants in this domain

Survey includes information about the impact of COVID-19 on participant mental and physical health.

[View Complete Survey](#)

COPE Minute Survey

141

questions available

101,440 participants in this domain

Survey includes information regarding a participant's COVID-19 vaccination experience.

[View Complete Survey](#)

Social Determinants of Health

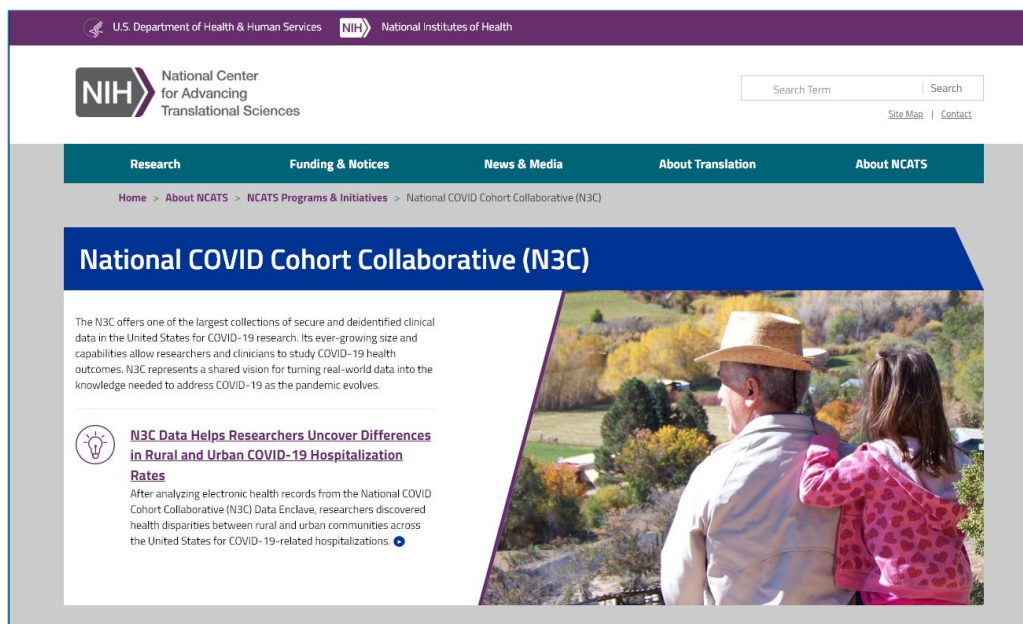
80

questions available

57,620 participants in this domain

Survey includes information about the social determinants of health, including a participant's neighborhood, social life, stress, and feelings about everyday life.

[View Complete Survey](#)



How big is the N3C Data Enclave?

Data within the N3C Data Enclave is provided by **76 sites** from across the nation and contains information about **16.0 million anonymized persons**. The Enclave has **19.2 billion total rows** containing:

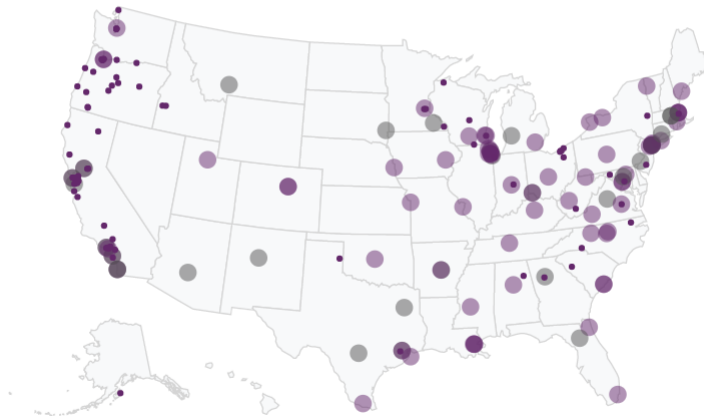
6,550,467 **COVID+ Cases** ⚙️
 1.7 billion **Clinical Observations** 🏥
 9.1 billion **Lab Results** 📄

3.0 billion **Medication Records** 💊
 879.1 million **Procedures** 🏠
 942.1 million **Visits** 📅

[National COVID-19 Cohort Collaborative \(cd2h.org\)](https://cd2h.org)

N3C Contributing Sites

- Data Available
- Data transfer signed, pending availability
- OCHIN contributing site



Access Requirements for Researchers by Data Level

Data Level	Data Description	Eligible Users	Access Requirements*
Limited Data Set (LDS)	Patient data that retain the following protected health information — <ul style="list-style-type: none"> • dates of service • patient ZIP code 	<ul style="list-style-type: none"> • Researchers from U.S.-based institutions 	<ul style="list-style-type: none"> • N3C registration • N3C Data Enclave account • Data Use Agreement (DUA) executed with NCATS • NIH IT training completion • Approved Data Use Request (DUR) • Human Subjects Research Protection training completion • Local Human Research Protection Program IRB determination letter
De-identified Data Set	Patient data from the LDS with the following changes — <ul style="list-style-type: none"> • Dates of service are algorithmically shifted to protect patient privacy. • Patient ZIP codes are truncated to the first three digits or removed entirely if the ZIP code represents fewer than 20,000 individuals. 	<ul style="list-style-type: none"> • Researchers from U.S.-based institutions • Researchers from foreign institutions 	<ul style="list-style-type: none"> • N3C registration • N3C Data Enclave account • DUA executed with NCATS • NIH IT training completion • Approved DUR • Human Subjects Research Protection training completion
Synthetic Data Set	Data that are computationally derived from the LDS that resemble patient information statistically but are not actual patient data.	<ul style="list-style-type: none"> • Researchers from U.S.-based institutions • Researchers from foreign institutions • Citizen scientists 	<ul style="list-style-type: none"> • N3C registration • N3C Data Enclave account • DUA executed with NCATS • NIH IT training completion • Approved DUR

*Data access requirements may change over time



Clinical, social, and policy factors in COVID-19 cases and deaths: methodological considerations for feature selection and modeling in county-level analyses.

 Publication

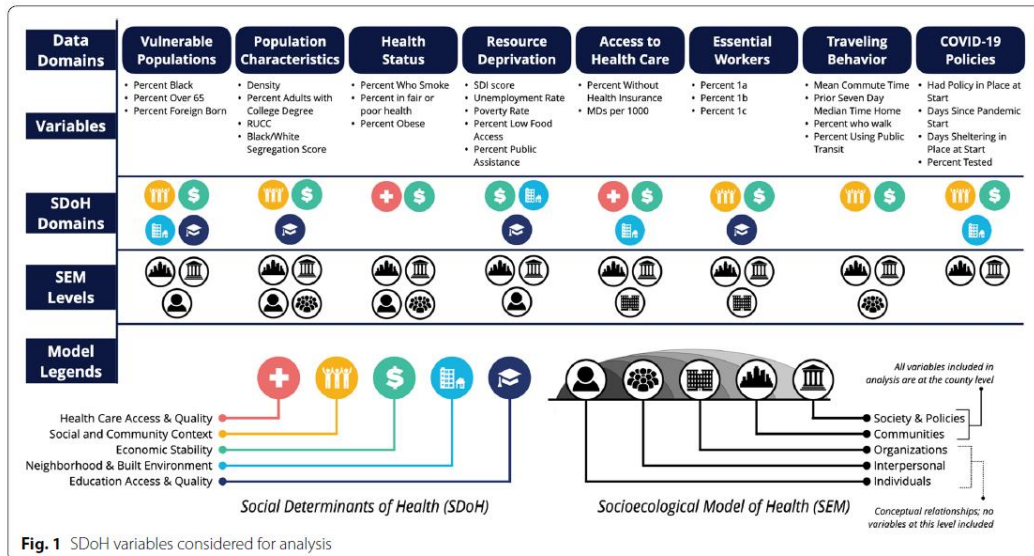
Date: 2022-04-14

Authors: Charisse Madlock-Brown, Ken Wilkens, Nicole Weiskopf, Nina Cesare, Sharmodeep Bhattacharyya, Naomi O Riches, Juan Espinoza, David Dorr, Kerry Goetz, Jimmy Phuong, Anupam Sule, Hadi Kharrazi, Feifan Liu, Cindy Lemon, William G Adams

BMC Public Health

<https://pubmed.ncbi.nlm.nih.gov/35421958/>





Madlock-Brown et al. BMC Public Health (2022) 22:747

Advancing Interoperability of Patient-level Social Determinants of Health Data to Support COVID-19 Research.

Publication

Date: null

Authors: Jimmy Phuong, Stephanie Hong, Matvey B Palchuk, Juan Espinoza, Daniella Meeker, David A Dor, Galina Lozinski, Charisse Madlock-Brown, William G Adams

AMIA Annu Symp Proc

<https://pubmed.ncbi.nlm.nih.gov/35854720/>

Place Patient Sticker Here

Please fill this out and give to the medical assistant when you are called into the exam room. Your answers will help your care team take better care of your health and connect you with resources. Thank you!

Please check "✓" your answers:

I am a ☐ Patient ☐ Parent / Caregiver

☐ I have a steady place to live

☐ I have a place to live today, but I am worried about losing it in the future

☐ I do not have a steady place to live (I am temporarily staying with others, in a hotel, in a shelter, living outside on the street, on a beach, in a car, abandoned building, bus or train station, or in a park)

☐ Often true
☐ Sometimes true
☐ Never true

☐ Often true
☐ Sometimes true
☐ Never true

Do you have trouble paying for medicines? ☐ Yes ☐ No

Do you have trouble getting transportation to medical appointments? ☐ Yes ☐ No

Do you have trouble paying your heating or electricity bill? ☐ Yes ☐ No

Do you have trouble taking care of a child, family member or friend? ☐ Yes ☐ No

Do you have trouble with day-to-day activities such as bathing, preparing meals, shopping, managing finances, etc.? ☐ Yes ☐ No

Are you currently unemployed and looking for a job? ☐ Yes ☐ No

Are you interested in more education? ☐ Yes ☐ No

Please check "✓" the resources you want help with:

Housing / Shelter ☐ Food ☐ Paying for Medicine ☐ Transport ☐ Utilities ☐ Childcare ☐ Care for older or disabled ☐ Daily Support ☐ Job search / training ☐ Education ☐

☐ I do not want to answer these questions

© 2017 Boston Medical Center

Question	Answer Options	Answer Concept Code
What is your current living situation?	I have housing	LOINC:LA30189-7
	I have a place to stay but am worried about losing it in the future	SOMD:410519009 (At Risk)
	I do not have housing (staying with others, in a hotel, in a shelter, living outside on the street, on a beach, in a car, or in a park)	LOINC:LA30190-5
• Concept Code: LOINC:71802-3 (Housing Status)		
• Source: PRAPARE		
Within the past 12 months the food you bought just didn't last and you didn't have money to get more.	Often True	LOINC:LA28397-0
• Concept Code: LOINC:88123-5 (Within the past 12 months the food we bought just didn't last and we didn't have money to get more)	Sometimes True	LOINC:LA6729-3
• Source: U.S. Household Food Security Survey	Never True	LOINC:LA28398-8
Within the past 12 months, you worried whether the food you bought would run out before you got money to buy more.	Often True	LOINC:LA28397-0
• Concept Code: LOINC:88122-7 (Within the past 12 months we worried whether our food would run out before we got money to buy more)	Sometimes True	LOINC:LA6729-3
• Source: U.S. Household Food Security Survey	Never True	LOINC:LA28398-8
Do you have trouble paying for medications?	Yes	LOINC:LA33-6
• Concept Code: SOMD:454061000124102 (Unable to afford medication)	No	LOINC:LA32-8
• Source: SNOMED		
Do you have trouble getting transportation to medical appointments?	Yes	LOINC:LA33-6
• Concept Code: LOINC:93030-5 (Has lack of transportation kept you from medical appointments, meetings, work, or from getting things needed for daily living)	No	LOINC:LA32-8
• Source: PRAPARE		
Do you have trouble paying your heating or electricity bill?	Yes	LOINC:LA33-6
• Concept Code: LOINC:93670-8 (Do you have trouble paying for your gas or electricity bills)	No	LOINC:LA32-8
• Source: WellRx		

AMIA Annu Symp Proc
<https://pubmed.ncbi.nlm.nih.gov/35854720/>

Boston Medical Center launches new plan to address racial disparities in health care

By [Pragya Singh](#) and [Suzanne K. Lurie](#) | October 18, 2021 | 10:27 a.m.



Dr. Fred Jones, MD, and Suzanne K. Lurie are the co-leaders of Boston Medical Center's new Health Equity Accelerator. SUZANNE K. LURIE, STAFF

Boston Medical Center, the safety-net hospital where the majority of patients identify as people of color, is launching a broad new effort to pinpoint racial inequities in health care and work to eliminate those disparities for Black and brown people.

The initiative announced Tuesday, called the [Health Equity Accelerator](#), will bring together researchers and clinicians and include feedback from patients to address longstanding discrepancies in health care and outcomes.

The Health Equity Accelerator at BMC

Transform healthcare to deliver health justice and well being

Clinical care

Research & education

Community & SDOH

Policy and advocacy

Health inequity areas



Maternal and child health



Infectious diseases



Behavioral health



Chronic conditions



Oncology & ESRO

Health Equity Accelerator

www.bmc.org/health-equity-accelerator

Contributions to Health Outcome Composite Score*:

- 47% socio-economic factors
- 34% health behaviors
- **16% clinical care**
- 3% physical environment

*Hood et al / Am J Prev Med 2016;50(2):129–135



Social Determinants of Health | Healthy People 2020

OMOP CDM

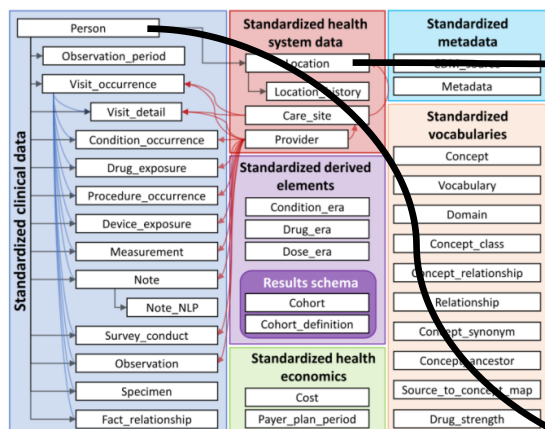
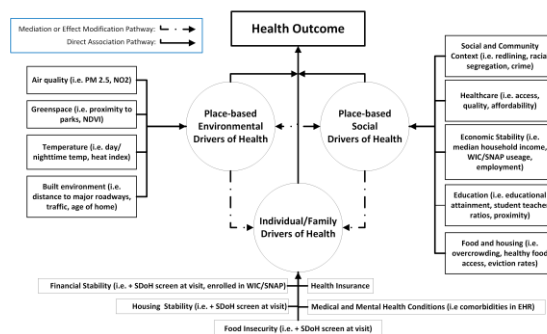


Figure 4.1: Overview of all tables in the CDM version 6.0. Note that not all relationships between tables are shown.

SEDoH Framework



Kevin Lane, PhD and William Adams, MD, unpublished

Mortality (National registries)

Data for Equity (D4E)

- 20-year integrated clinical dataset
 - CHCs (March 2023) and BMC
- Rich, place-based data and new mortality data
- Common data governance
- Common data model (OMOP CDM)
- Shared software and analytic code
- International learning community (OHDSI)
- De-identified population level research
 - HSR, CER, ML, AI, QI
- Support from Senior Health Equity Data Analyst

How can D4E data be used?

- Aggregate queries
 - Aggregate queries via Atlas or Data Analyst (SQL and R)
- Applications
 - Atlas
 - Health Equity Explorer
- Data extracts (limited data sets or anonymized)

Generating Outcome Measures:

- Approach 1: ATLAS
 - User interface for OMOP
 - Explore data visually, generate cohorts
- Approach 2: R code
 - Use OHDSI R packages to generate cohorts

Underlying code is exported; R code generates cohorts for multiple years

Code can be shared with other OMOP sites:

- As JSON or SQL files
- Visually via OHDSI Atlas instance
- Using Github
- Using OHDSI R packages

Getting started...

- OHDSI Home: <https://ohdsi.org>
- Overview of the OMOP Common Data Model and tables: <https://ohdsi.github.io/TheBookOfOhdsi/CommonDataModel.html#CommonDataModel>.
- Free training in the CDM can be found on the EHDEN Academy: <https://academy.ehden.eu/>.
- Atlas (public): <https://atlas-demo.ohdsi.org/#/home>

Health Equity Explorer: *

Tableau-based application to:

- **Explore health outcomes over time**
(e.g., HTN/diabetes control, cancer screening, food insecurity, life expectancy, many more...)
- **By a range of features**
(e.g., race, ethnicity, sex, housing, food insecurity, smoking status, BMI, SVI of residence, other SEDoH)
- Filtered by areas of interest
- With additional analytics (including stats) for each measure (trends, seasonality, age distribution, significance/effect size)
- **Goal: Shine a light on inequity and identify potential solutions**

* Sarah Gasman, developer/analyst



Health Equity Explorer:



Future Plans:

- Shared script library (Github) to allow generation of standard health outcomes and predictors on a national scale
- Open-source “R-shiny” app to support visualization
- Distributed Health Equity Analytics

Plan for remaining time...

- Health Equity Explorer demo
- Questions and feedback

Thank you for joining today!

For additional questions please contact:

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D4E Projects: Sarah Gasman (Sarah.Gasman@bmc.org)

Anything else: Bill Adams (Bill.Adams@bmc.org)

(or visit the BU-CTSI website and put in a request)

<https://bmchsbi.bmc.org/#/signin>

