Clinical Data Research Network (CDRN)

The Promise

The electronic health record is a rich source of clinical data that can be used to support health research and improve patient care in many ways:

- Identify potential research participants, especially for comparative effectiveness studies.
- Analyze clinical data to answer a research question, without burdening patients.
- Help researchers study health care delivery and the effects on patients in the real world.

The Challenge

There is a growing need to conduct research on clinical data across health care systems; however, this can be challenging.

The data in UNC Health Care System's EHR are structured for clinical and billing needs unique to our health system. Similarly, other health care systems format their clinical data in a manner unique to their institutions.

Researchers conducting inter-institutional research based on electronic health record data can find it overwhelming, time-consuming, and costly to compare data from different health care systems.

Researchers will also need to navigate several different regulatory processes at each site.

Interested in learning more or beginning a project within a CDRN?

Request a consult from NC TraCS Institute: tracs.unc.edu/consultation

At your consultation, a TraCS analyst will determine the best network for your project, help you refine your request, and let you know about data availability.

A Solution

Clinical Data Research Networks (CDRNs) seek to address this challenge and support larger scale research on electronic health record data.

A CDRN is a group of institutions that agree to store their electronic health record data in the same format, thus harmonizing data elements to standardized definitions so that clinical data queries can be run across all member sites.

Investigators also benefit from the governance and regulatory structures that have been put in place across these institutions to help streamline processes. In addition, investigators gain support in locating collaborators at participating sites.

Researchers can **request patient counts** from a CDRN to assess the feasibility of a project. Following the appropriate regulatory approvals, research teams can **request harmonized data sets** to support secondary data research and recruitment.

UNC
THE NORTH CAROLINA
TRANSLATIONAL & CLINICAL
SCIENCES INSTITUTE

v.20170412

tracs.unc.edu/cdrn

CDRN at UNC

PCORnet *pcornet.org* Nationwide network of clinical data research networks and patient powered research networks. UNC-Chapel Hill is part of a sub-network called the Mid-South CDRN. **midsouthcdrn.mc.vanderbilt.edu** Funded by PCORI Covers 110 million patients across the US	**Carolinas Collaborative** *carolinascollaborative.org* *Partners:* UNC-Chapel Hill, Duke University, Wake Forest Baptist Health, Health Sciences South Carolina (which includes Medical University of South Carolina) Funded by the Duke Endowment Clinical data from approximately 12 million patient records

What types of data are available?

Readily-available, harmonized electronic health record data in the CDRNs include:

- Patient Demographics
- Encounter Details
- Diagnoses
- Procedures
- Vitals
- Lab Results
- Medication
- Insurance Payor*

* Insurance Payor is currently only available for the Carolinas Collaborative network.

Examples of CDRN-facilitated projects

ADAPTABLE

ADAPTABLE, the Aspirin Study compares two aspirin doses in a large, three-year pragmatic clinical trial to determine the best dose to prevent heart disease while reducing side effects.

HEART Pathway

The HEART Pathway project is a regional project that includes all the Carolinas Collaborative partners. The intent is to evaluate if a decision support tool, used along with clinical judgment, may improve outcomes and reduce unnecessary testing and hospitalizations for low-risk patients with chest pain.

Patient-Reported Outcomes

The Patient-Reported Outcomes pilot project aims to harmonize patient-reported outcomes across the four of the Carolinas Collaborative sites.

TraCS' role

UNC's involvement in these data networks is managed by the NC TraCS Institute.

The North Carolina Translational & Clinical Sciences (NC TraCS) Institute is one of over 60 CTSA medical research institutions, a national consortium created to improve how biomedical research is conducted across the country.

The CTSA (Clinical and Translational Science Awards) program is led by the NIH's National Center for Advancing Translational Sciences (NCATS).

Our mission is to accelerate clinical and translational research from health science to discovery to dissemination to patients and communities. We seek to overcome barriers to translation by improving efficiency, training the research workforce, and sharing successful research methods.

We combine the research strengths, resources, and opportunities of the UNC-Chapel Hill campus and our partners RTI International in the Research Triangle Park and North Carolina Agricultural and Technical State University (N.C. A&T) in Greensboro.

For more information, visit **tracs.unc.edu**.

UNC
THE NORTH CAROLINA
TRANSLATIONAL & CLINICAL
SCIENCES INSTITUTE

v.20170412
tracs.unc.edu/cdrn