

RESPONSE & RECOVERY **IN ACTION**

Your monthly resource for COVID-19 strategies and tools from NACHC, our health center community, and partners

(continued)

MULTI-STATE QUALITY IMPROVEMENT EFFORT

- Risk stratification (tier system by clinical and social factors)
- Geographic distribution
- Demographics and social determinants of health (SDoH) data that align to:
 - [Uniform Data System \(UDS\)](#)
 - [United States Core Data for Interoperability \(USCDI\) v1](#)
 - [PRAPARE](#)

DATA COLLECTION AND ANALYSIS CHALLENGES

This project faces several data collection challenges including moving health data collected across different information systems from a variety of health information systems into a common form and manner to work together during the analysis phase. These challenges were identified by project partners as significantly limiting their ability to respond optimally to the pandemic.

These interoperability challenges include:

- Lack of standardization
- Decentralization of data (multiple vendors, interoperability issues)
- Poor HIE data quality
- Patient matching challenges
- Inconsistent infrastructure and data requirements for public

- Data capture and element challenges consist of:
- Lack of LOINC standards
 - Inconsistent nomenclature
 - Inconsistent use of ICD-10 codes
 - Lack of access to pharmacy and laboratory data
 - Inconsistent access to admission, and reason for admissions
 - Poor access to claims data
 - Reliance on self-reported data with inconsistent documentation

To help address these data collection and interoperability challenges, each partner will use NACHC's COVID-19 Data Dictionary to create a map of standardized terminology (codes) from the various data collected locally. The goal of the project is to automate the extraction of this data so that it may be aggregated and analyzed monthly, weekly or even in near real time.

NACHC will then normalize the data into a COVID-19 Health Center Data Registry where the data will be further mapped, cleaned, and analyzed at the individual, household, facility, community, and population level. NACHC, its partners and public health agencies, including CDC will further analyze the data. As the data continue to be regularly extracted and refined, the data quality improves and new elements are introduced, leading to additional questions that the data may answer.

NACHC will deploy application programming interface (API) to send data to the registry from machine to machine. NACHC will further support interoperability efforts like connecting to HIEs, integration of HIT tools like clinical decision support or apps, and electronic case reporting for contact tracing and public health. Such integration and data sharing will enrich the data available to the registry. Registry data will be uploaded onto a dashboard to inform local, state, and national COVID-19 response efforts as the pandemic develops.