

PINC AI™ Healthcare Data Special Release: COVID-19

PINC AI™ Applied Sciences

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This white paper provides a detailed description of the attributes and capabilities of the HIPAA-compliant PINC AI™ Healthcare Data (PHD) as it relates to COVID-19.

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INTRODUCTION

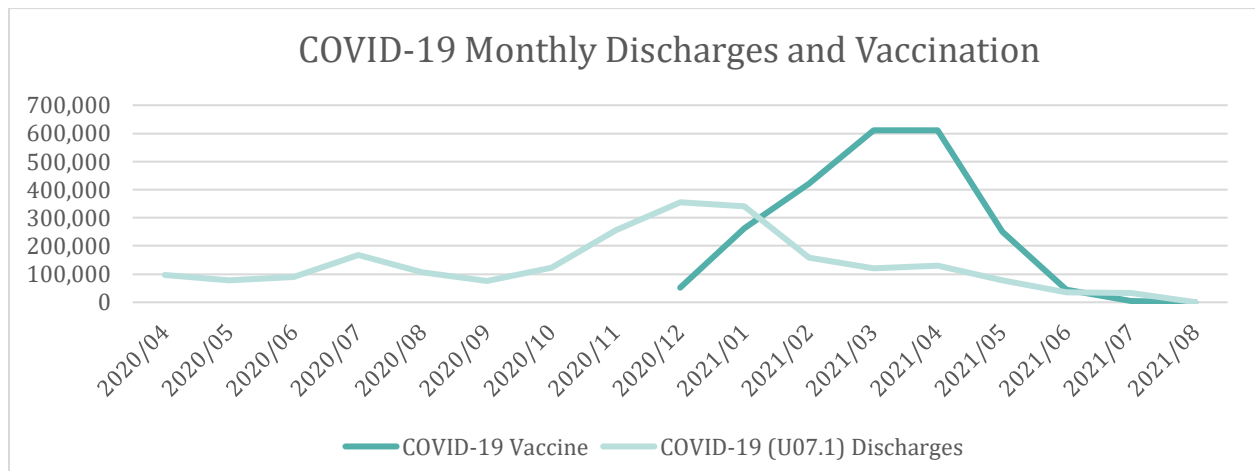
As the number of infections and deaths continues to rise globally, clinicians, scientists and researchers worldwide are struggling to understand all facets of COVID-19. Having sufficient data is the first step in evaluating the impact of this virus and designing adequate local and national public health responses to help manage and contain this pandemic. The PINC AI™ Healthcare Data (PHD) is equipped with HIPAA-compliant, de-identified patient data to support COVID-19-related research needs. Research that may be conducted from the PHD includes market assessments, comparative effectiveness analyses, risk and policy assessments, and cost-effectiveness research, among others.

Whether an organization is interested in evaluating novel testing and treatment options, supplying health systems with lifesaving medications and equipment, or ensuring patients can continue managing their chronic conditions, the PHD offers a robust and comprehensive trove of data that will be vital in the COVID-19 era.

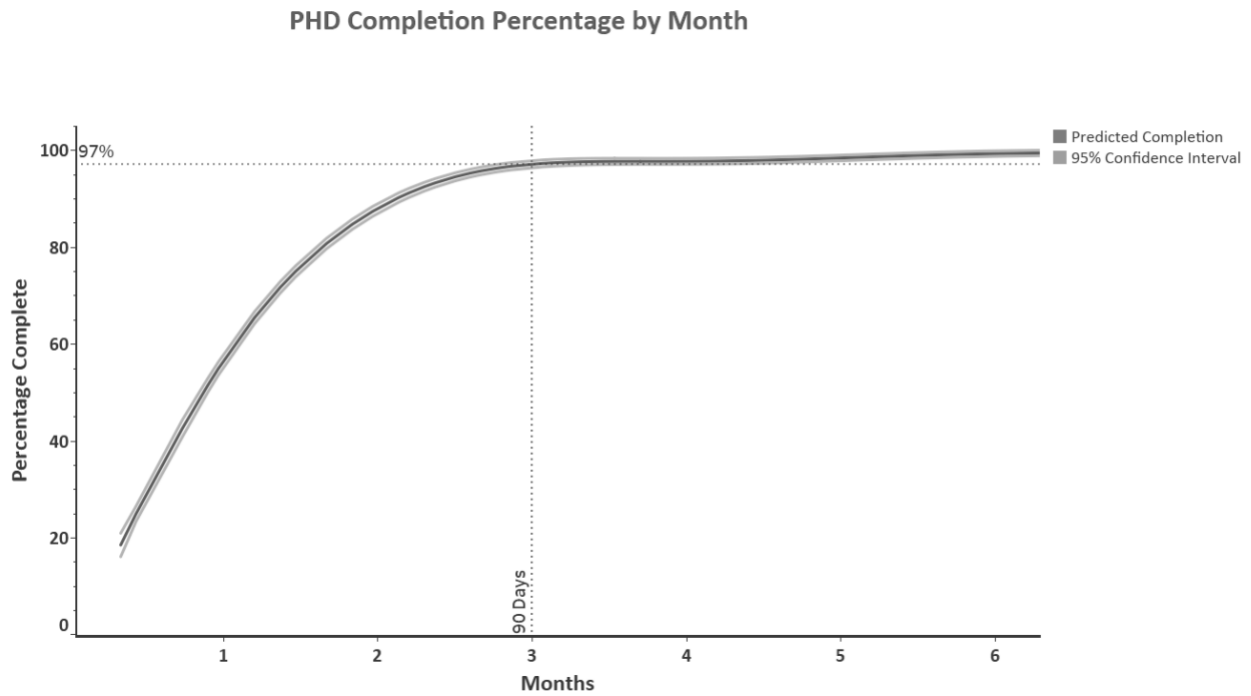
PHD SPECIAL RELEASE COVID-19

Using Data Related to COVID-19

This special release of the PHD is a standalone version of the existing database, called the PHD Special Release COVID-19 edition (PHD-SR COVID-19). The database will provide all records for patient's pre-pandemic, from Jan. 1, 2019, through the most current data available. The database will be refreshed on the first and third Monday of every month, as each new version of the database will be a complete refresh from the previous version. The PHD-SR COVID-19 will contain data from all facilities (approximately 850+), with 31 percent of those facilities submitting data to the PHD on a daily, weekly or bi-weekly basis, and 66 percent submitting data on a monthly basis. Currently, there are more than 2.2 million identified COVID-19 cases and a similar number of vaccines in the database.



To make the data available sooner, we are allowing the data to be sent out before passing all our internal validity checks. This reduces our typical PHD lag time of five months to having some data available as early as two weeks after discharge. However, not all data are available within two weeks of discharge. Approximately 80 percent of the hospital data are complete within 50 days after patient discharge, and 97 percent within 90 days as illustrated in the graphic below.



Laboratory Data (Microbiology, General Labs and Vitals data)

The database automatically includes our newly added electronic medical record (EMR)-sourced data, which includes microbiology results, general laboratory results and vitals information. Approximately 30 percent of the facilities will have these additional data available for their encounters. The microbiology table informs the positive COVID-19 tests performed during their encounters. All general labs that facilities perform, along with results, will be available. Vitals information including height, weight, blood pressure and heart rate are widely available. In addition, some ventilator information, such as oxygen saturation, tidal mode and other ventilator settings are available on a more limited basis.

What does the reduced lag time mean for the quality of the data?

Data Validation

The use of expedited data transfers for the PHD-SR COVID-19 means that Premier's usual validation processes will be modified. The implications of this are:

1. Not all elements of the charge master data will be mapped to standard product codes. These elements will still be available as provided directly from each facility. However, Premier's standardization mapping may not be completed in all cases. For example, a charge master description of a novel antiviral drug might not have been mapped as an antiviral drug in Premier standard description in this new database when the discharge encounter first appears. When conducting a search, both hospitals charge master descriptions and Premier standard descriptions will be included.
2. Cost data may not be fully validated.
3. The PHD COVID-19 database cannot be integrated with the standard PHD extract/license because of the difference in validation methods and the more frequent refreshes.

The PHD COVID-19 Database is built from the wider PHD, and a brief introduction of the PHD product's capabilities are included below.¹

PINC AI™ HEALTHCARE DATA

Overview

The PHD is a large, U.S. hospital-based, service-level, all-payer database that contains information on inpatient discharges, primarily from geographically diverse non-profit, non-governmental, community and teaching hospitals and health systems from rural and urban areas. Hospitals and health systems submit administrative healthcare utilization and financial data from patient encounters. Inpatient admission data include more than 135 million visits with more than 13 million per year since 2012, representing approximately 25 percent of annual U.S. inpatient admissions.² Outpatient encounters include more than 1 billion outpatient visits, with more than 115 million visits per year since 2012. Outpatient visits to emergency departments, ambulatory surgery centers and alternate sites of care are included. The PHD contains data from more than 260 million unique patients. Using a unique masked identifier, patients can be tracked in the same hospital across the inpatient and hospital-based outpatient settings, and their hospital length of stay and readmissions to the same hospital can be assessed. The PHD contains data that are de-identified and HIPAA-compliant in accordance with the HIPAA Privacy Rule, per [45 CFR 164.514\(b\)\(1\) through the “Expert Determination” method](#).

The PHD is a dynamic database that is updated weekly, with data accruing since January 2000. Since 2016, there have been more than 829 hospitals contributing data each year. To date, the PHD now maintains cumulative information from more than 1,030 hospitals.

The PHD contains information on hospital and visit characteristics, admitting and attending physician specialties, healthcare payers and patient data from standard hospital discharge billing files. These data includes demographics and disease states, admission and discharge diagnoses, information on billed services including costs at the departmental level such as medications and devices, laboratory tests performed, diagnostic and therapeutic services, microbiology test results (for a subset of hospitals), and patient disposition and discharge health status. For most data elements, less than 1 percent of patient records having missing information, and for key elements, such as demographics and diagnostic information, less than 0.01 percent have missing data.³

BIBLIOGRAPHY

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2. American Hospital Association. Fast Facts on US Hospitals, AHA Hospital Statistics. 2021. <https://www.aha.org/statistics/fast-facts-us-hospitals> Accessed October 12, 2021.
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ABOUT PINC AI

[PINC AI™](#) is the technology and services platform of [Premier Inc.](#) (NASDAQ: PINC). Made up of 20 years' worth of cost, quality and operational data gleaned from 45 percent of U.S. hospital discharges, as well as 812 million hospital outpatient and clinic encounters and 131 million physician office visits, PINC AI provides actionable intelligence that improves outcomes, supports improved financial performance and enables success in new, alternative payment models. PINC AI offerings rely on advanced analytics to identify improvement opportunities, consulting services for clinical and operational design, and workflow solutions to hardwire sustainable change. With a leading network of provider organizations, PINC AI accelerates ingenuity and serves as a large-scale innovation catalyst in healthcare. Headquartered in Charlotte, N.C., PINC AI can be followed on [Twitter](#) and [LinkedIn](#).