

Telehealth

NEW FRONTIERS IN TELEHEALTH RESEARCH

A National Telehealth Data Warehouse

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Get started



INTRODUCTION

This significant increase in telehealth utilization provides an unrealized opportunity to evaluate its effectiveness in delivering clinical care, its impact on expanding access to care, and its overall value (including cost, quality, efficiency, and outcomes) to public and private payers.





The State of the Past

Localized, Narrowly Focused Telehealth Research

Most telehealth programs and their institution-based platforms utilize their own data fields and terminologies. This can result in overlooked synonymy and semantic conformities between concepts, producing actionable data that is only applicable to the program from which it was generated.

The inability to scale the extensive data available from multiple, discrete programs has previously prevented telehealth researchers from accurately ascertaining the impact of telehealth on quality, cost, and access to services across an array of clinical areas and payor types.

Expanding Telehealth Data

The State of the Future

The University of Mississippi Medical Center (UMMC), along with Laurel Health Advisors, is creating a National Telehealth Data Warehouse that identifies commonalities across different terminologies and provides a roadmap to articulate a common format with similar classifications that will enable the type of data analysis necessary for large-scale policy change

DATA



A data warehouse is particularly useful when programs use multiple coding formats and, at times, multiple definitions for a single concept

Purpose

The data warehouse will serve as a centralized, specific information data source about telehealth programs that can be used for numerous analytical activities. It is expected to contain information on the data such as names, meanings, values, types, formats, sources, and their relationship between the elements used in specific programs and the terminology and format needed for robust analysis

— Creating the Data Warehouse

BUILDING

This idea behind the data warehouse is to facilitate the creation of standardized national data files to be used for analysis; it is not intended to serve as a mechanism or guidebook to change the terminology or systems' coding of different telehealth programs.

Dictionary

Data dictionaries are commonly employed to describe datasets

Data Frame

A “linker” data frame where each variable description was added a

Main File

Using a combined and cleaned dataset

Appending

The dictionary was appended to the original datasets,



Building the Data Warehouse

Constructing the Blueprint

Data warehouses and the analytical systems based on them bring out the informational potential of telehealth data collected before and during the COVID-19 pandemic as well as afterward. On the basis of integrated, systematized, and consolidated data it is possible to take strategic direction in areas of telehealth such as cost, access, quality, fraud and abuse, and health disparities by developing complex analyses concerning telehealth activity, and data correlations, and forecasting future trends.

Top-Down

Synergizes the various data files that are submitted

Testing

We will develop programs for continually updating and refreshing data

Deployment

The production database is created

Governance

Access will be restricted to those who submit a data request only

Use of the Data Warehouse

The use of a standardized national telehealth data set can assist researchers will exploring how telehealth was leveraged to support healthcare delivery during the public health emergency and provide preliminary data to support future research



Efficacy

Research can be conducted on telehealth efficacy across the healthcare delivery system for sustained utilization post-pandemic



Utilization

Provide information on the various characteristics that affect an individual's likelihood of accessing and utilizing telehealth services



Quality

How telehealth can be measured in terms of quality outcomes

Patient Participation

The National Telehealth Data Warehouse provides insight into the demographic and socioeconomic factors associated with participation in telehealth before and during the pandemic.

A cohort study including all pediatric and adult patient encounters in various clinical settings, such as tertiary care, academic, multispecialty, and multistate practices with a focus on completed synchronous virtual and telephone visits can be accomplished with this data.



Quality Measurement

Having a set of consistent, reliable, and standardized data is a critical component in the development, testing, and implementation of quality measures.

To follow the recommendations of the National Quality Forum's (NQF) measure framework, the National Telehealth Data Warehouse will provide a series of common elements that can be employed in the development of measures specific to telehealth encounters.



Policy Analysis

A standardized data set accessible through the Data Warehouse allows organizations to assess changes in the volume of services provided before, during, and after COVID-19, along with changes in what type of services are being delivered, by whom, and the payer source.

It also allows the assessment of who is receiving different telehealth services and differences in treatment time for similar services and across treatment areas. This data can be used in data modeling to assess changes in the type and volume of telehealth services over time and for which populations as well as how telehealth use varies in response to external factors such as environmental changes, emergencies, and other unexpected events that could affect health care access and utilization.

Get Involved

Identify if your organization would like to participate

Set up a discussion with the Data Warehouse Team

Begin the DUA process to submit data next summer

Participate in the governance of the Warehouse





— CONTACT US

FOR MORE INFORMATION



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