



# National Telehealth Data Warehouse

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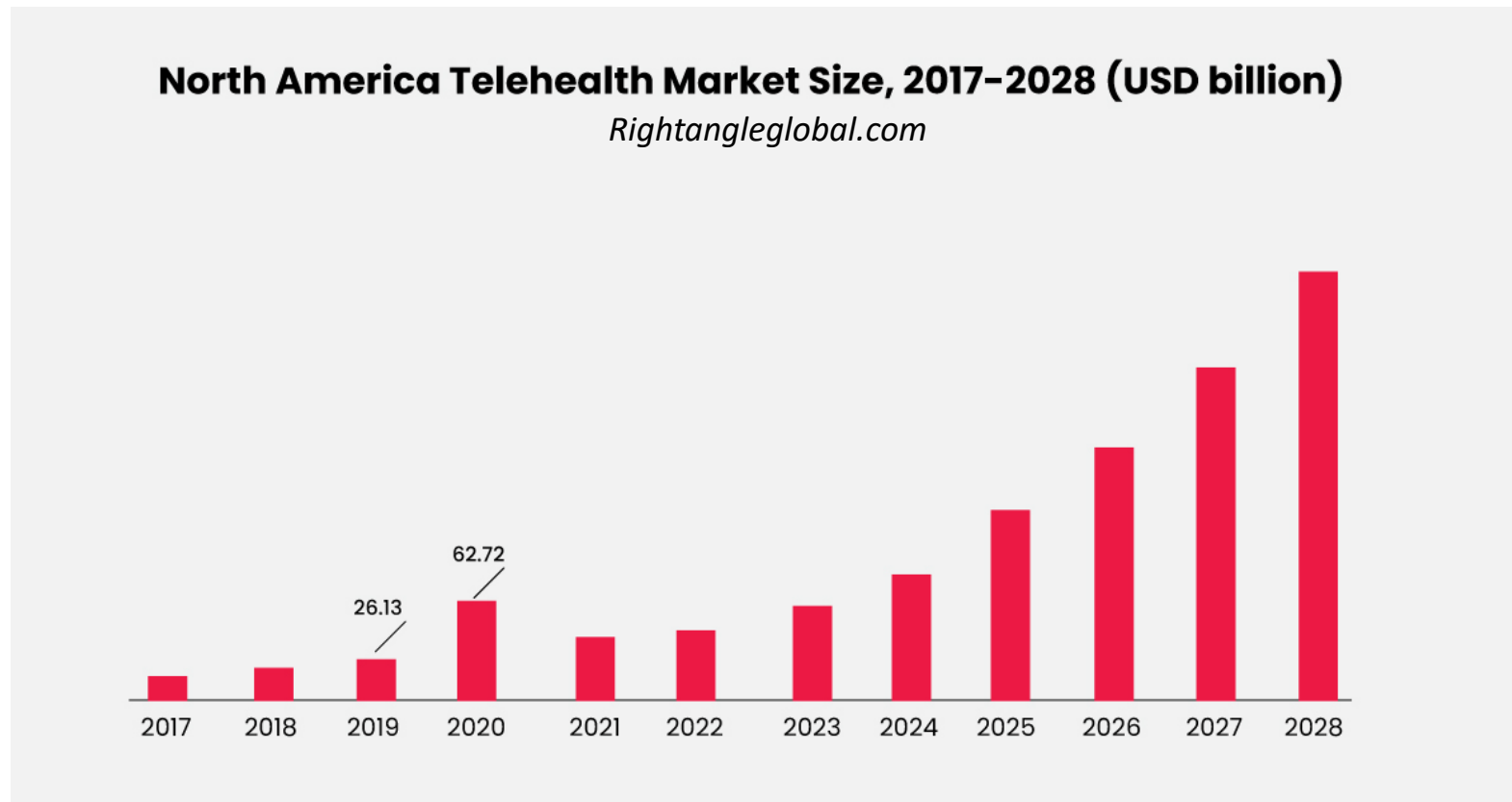
Telehealth Centers of Excellence Webinar Series

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## Disclaimer

Studies described in the presentation are supported by the Office for the Advancement of Telehealth, Health Resources and Services Administration, and U.S. Department of Health and Human Services under cooperative agreement award no. 6 U66RH31459-05-02.

# Background – Overview of Telehealth



## Background – Need RWD and RWE for Telehealth

- Using **Real-World Data (RWD)** to facilitate telehealth associated research and generate associated **Real-World Evidence (RWE)**
- FDA Definition
  - “**Real-world data** are data relating to patient health status and/or the delivery of health care routinely collected from a variety of sources.”
  - Examples of RWD: data derived from electronic health records, medical claims data, data from product or disease registries, and data gathered from other sources

*<https://www.fda.gov/science-research/science-and-research-special-topics/real-world-evidence>*

## Background



- Challenges of Telehealth Data Management
  - Data source and integration
  - Data standardization
  - Data integrity: accuracy, completeness, consistency, and validity
  - Access, Privacy, and Security

# National Telehealth Data Warehouse

- Serve as a central repository for standardized telehealth services data from diverse sources.
- Objectives:
  - Provide telehealth data standards through the National Telehealth Data Dictionary
  - Facilitate telehealth research and strengthen interoperability across telehealth programs
  - Support evidence-based decision-making in telehealth policy and practice

## **National Telehealth Data Warehouse will include...**

- Data since 2017
- Telehealth encounters and their associated
  - Medical data
  - Medication data
  - Billing data
- No patient health information



## BENEFITS

### GET DETAILED INFORMATION

The Warehouse will include information from around the United States and include data on patient diagnoses, procedures, medications, medical history, and others

### ACCESS PROVIDER AND PAYER DATA

The Warehouse will include data on primary and specialty provider and payers of all types

### HIPAA COMPLIANT

The data collected for and stored in the Warehouse is fully compliant with HIPAA privacy and security laws



[www.laurelhealthadvisors.net](http://www.laurelhealthadvisors.net)

This project is supported by the Office for the Advancement of Telehealth, Health Resources and Services Administration, U.S. Department of Health and Human Services under cooperative agreement award no. 2 U66RH31459-04-00.



The National Telehealth Data Warehouse from the University of Mississippi Medical Center (UMMC) is a groundbreaking resource that provides researchers with unparalleled data on telehealth usage and trends. With its detailed information on reimbursement, policy, and quality metrics, the Warehouse is essential for anyone interested in telehealth research and innovation

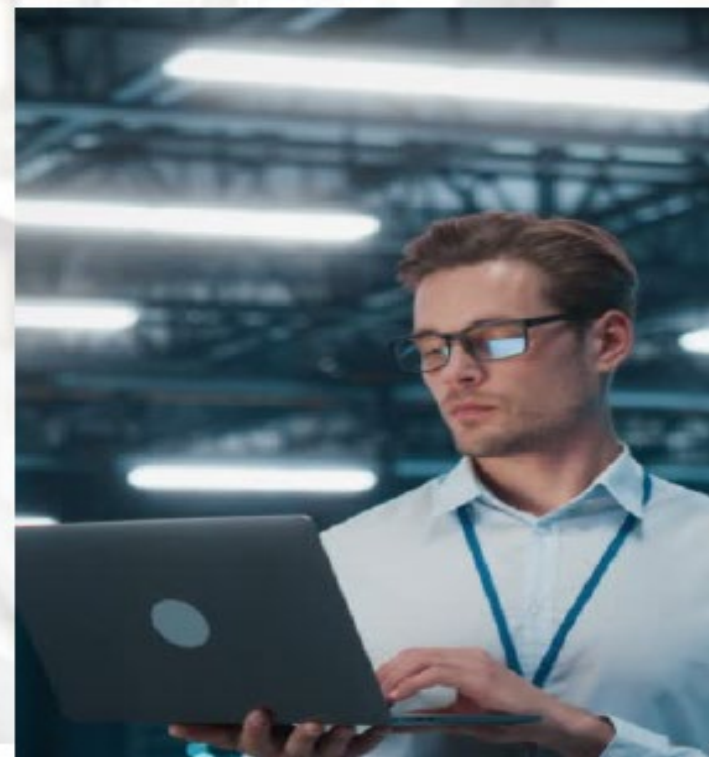


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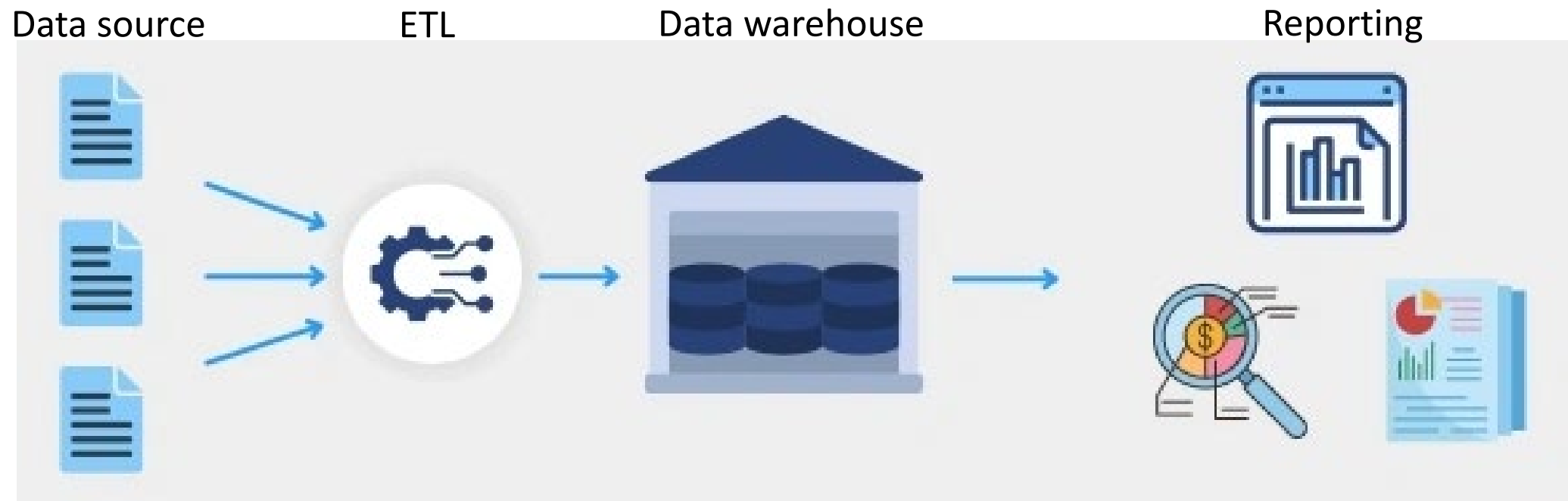
# A NATIONAL TELEHEALTH DATA WAREHOUSE

The most comprehensive resource for telehealth data anywhere





# Data Warehouse Diagram



- Source: <https://www.integrate.io/blog/what-is-a-data-warehouse/>

## Ongoing Efforts: Data Source



- **Data Use Agreement (DUA)** draft is completed and will be finalized for distribution to data contributors
- **Data contributors** are beginning to marshal resources to prepare the data file

# Ongoing Efforts: ETL (extract, transform, and load)

- **Data schema** and **data table** are finalized: Observational Medical Outcomes Partnership (OMOP) Common Data Model (CDM)



## Ongoing efforts: Data Warehouse



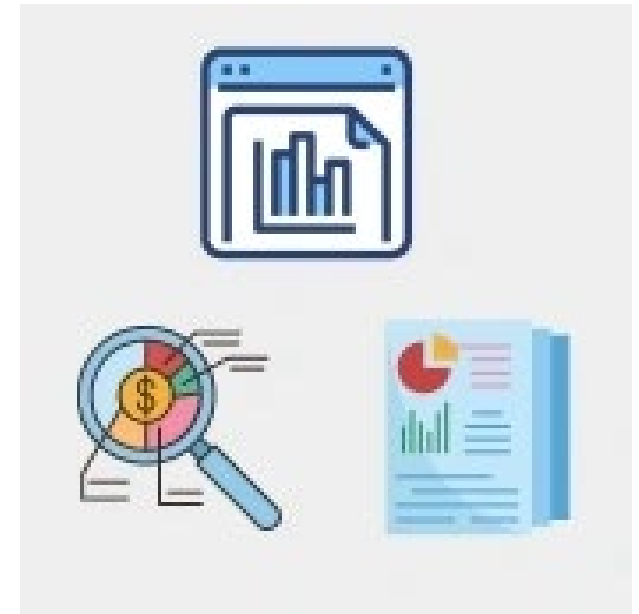
- **Azure warehouse** is in the process of being constructed
- Preparing data from 2017.



**Primary Goal of 2024:**  
To have the data warehouse  
live and function.

## Future work

- Data governance and sharing
- A front-end website describing the warehouse and producing dashboards/visualization
- Use cases





*Generated by DALL-E*

## Acknowledgment

- University of Mississippi Medical Center (UMMC) Telehealth Center of Excellence
- UMMC Center for Informatics and Analytics
- Laurel Health Advisors
- **All our current and future data contributors!**

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