**Golden Table Introduction**

May 2025

Note - Material in this presentation is for informational purposes only and should be considered a draft. Policy is in development. The content in this presentation was originally shared as part of the Quality and Equity Incentive Program (QEIP) Office Hours in March 2025. Content has been revised as of May 2025.

# Golden Table Introduction and Impact

## Presentation Purpose

This presentation will socialize the MassHealth Race, Ethnicity, Language, Disability, Sexual Orientation, and Gender Identity (RELD SOGI) Golden Table and describe, how the Golden Table logic selects the “best” available RELD SOGI records for each MassHealth member.

## MassHealth’s RELD SOGI Golden Table Background

* MassHealth built a RELD SOGI Golden Table that stores a single member record for each RELD SOGI element (for each MassHealth member).
* The “best” available records for each member are selected based on a set of business rules unique to each data element (e.g., race) and stored in the MassHealth Data Warehouse (MH DW).
* The Golden Table Pilot is live in the MHDW. Enhancements are expected through Summer 2025.

## Golden Table Impact

* The Golden Table can be an instrumental tool in identifying and reducing disparities in the MassHealth population.
* A key component of this effort includes using the golden records to evaluate entities across critical Quality and Equity Incentive Program (QEIP) measures.

# MassHealth ingests RELD SOGI data from internal systems and external entities into the MH DW as part of operations and as required for MassHealth programs.

* MassHealth collects data through 2 ingestion pathways:
  + Pathway 1 includes paper and electronic Medicaid Applications that flow into the eligibility systems that are aggregated into the Medicaid Management Information System (MMIS).
  + Pathway 2 includes point of care organizations and systems such as Managed Care Entities (MCEs), Acute Hospitals, and Community Behavioral Health Centers (CBHCs).
* Data from both pathways are sent into the MassHealth Data Warehouse (MH DW) into four source tables:
  + MMIS data tables
  + MCE data tables
  + Acute hospital data tables
  + CBHC data tables
* Data is stored in siloed, source-specific tables for analysis. In this state, data use is limited without the ability to consolidate and integrate sources. To solve for this, MassHealth is developing a Golden Table.

# The Golden Table logic looks at member records across all sources to select a single member record for each RELD SOGI data element.

MassHealth uses a 4-step process for selecting and utilizing Golden Table values.

* Step 1: Aggregate data.
  + RELD SOGI data is ingested into the MH DW for MassHealth members across ~100 sources.
* Step 2: Apply Golden Table Logic.
  + Golden Table logic is applied to member records using the Executive Office of Health and Human Services (EOHHS) Master Data Management (MDM) solution.
  + Golden Table logic is informed by the following five factors *(defined on following slides):*
    - Source Prioritization
    - Data Integrity
    - Substantive Value Tiering
    - Recency
    - Element-Specific Tiebreakers
* Step 3: Store Records.
  + The Golden Table record includes the member’s “best” available record for each data element across sources in the MH DW.
* Step 4: Utilize the Golden Table to Identify and Reduce Disparities.
  + The Golden Table data from each member’s golden record can be used to support MassHealth’s efforts to identify and reduce disparities.
  + The Golden Table will be refreshed at a predetermined cadence to allow for new data to be ingested and evaluated to update Golden Table values over time.

# Golden Table Data Flow Diagram

* MassHealth collects data through 2 ingestions pathways:
  + Pathway 1 includes paper and electronic Medicaid Applications that flow into the eligibility systems that are aggregated into MMIS.
  + Pathway 2 includes point of care organizations and systems such as MCEs, Acute Hospitals, and CBHCs.
* Data from both pathways are sent into the MassHealth Data Warehouse (MH DW) into four source tables:
  + MMIS data tables
  + MCE data tables
  + Acute hospital data tables
  + CBHC data tables
* All data is then aggregated into a Golden Table dataset and run in a Golden Table rules engine.
* Winning records selected by the Golden Table rules engine are stored in a Golden Table
* Note - Golden records are refreshed as new values are available, and logic is refined.

# Golden Table Factors

The Golden Table factors will be used to determine the “best” available value for a MassHealth member. The factors will be applied to the member records in a sequential order (i.e., if the first factor is able to determine a “best” value for a member, the other factors will not be applied).

Source Prioritization

Numeric value assigned to each source to determine where in the data hierarchy the source will fall based on how the source collects and reports member data according to the RELD SOGI Data Mapping Deliverable (e.g., if staff are trained).

## Data Integrity

Numeric value assigned to each source based on an assessment of the source’s data completeness and quality. This is based on the source’s full submission of RELD SOGI data to the MH DW.

Substantive Value Tiering

Values selected to prioritize affirmative and substantive records over non-substantive records (e.g., affirmative values such as “Black, Asian” vs. “Unknown”).

Recency

Values selected based on the date when the response was collected, ingested, or verified (Note – The date being used will change over time based on availability of date data).

Element-Specific Tiebreakers

Values selected based on element-specific business rules with the goal of prioritizing communities that have historically experienced marginalization.

# Operationalizing the Golden Table Factors

Note – The Golden Table factors and how to operationalize them will continue to be refined as new data is ingested and logic is tested.

## Source Prioritization

* Goal:
  + Prioritize sources that meet MassHealth’s RELD SOGI data collection standards based on source attested data
* How to Operationalize (i.e., How will the Golden Table prioritize sources in practice?)
  + Assess each source on three categories based on their responses to a standardized deliverable:
  + Application Interaction and Data Mapping (60% of total value): e.g., what questions do members see?
  + Data Management and Verification (30% of total value): e.g., does the source store multiple records?
  + Timestamp Collection (10% of total value): i.e., are date/timestamps collected for each member interaction?

## Data Integrity

* Goal:
  + Prioritize sources with complete and quality data
* How to Operationalize (i.e., How will the Golden Table prioritize sources in practice?)
  + Analyze each source’s entire dataset on quality and completeness
  + Data Quality: Percentage of affirmative values (i.e., actual values for the element) and distribution of the affirmative values (e.g., did the source submit 100% “white” for their population”)
  + Data Completeness: Percentage of substantive versus non-substantive values (e.g., are 100% of values “Unknown”)
  + Based on both metrics, each source is assigned a numeric value
  + Application Interaction and Data Mapping (60% of total value): e.g., what questions do members see?
  + Data Management and Verification (30% of total value): e.g., does the source store multiple records?
  + Timestamp Collection (10% of total value): i.e., are date/timestamps collected for each member interaction?

## Substantive Value Tiering

* Goal:
  + Prioritize records that contain affirmative member responses
* How to Operationalize (i.e., How will the Golden Table prioritize sources in practice?)
  + Sort each potential value being ingested into the MH DW into one of three tiers:
  + Tier 1: Affirmative values (i.e., actual element values, “Choose Not to Answer”);
  + Tier 3: Substantive (i.e., “Don’t Know”);
  + Tier 5: Non-Substantive (“Unable to Collect”, “Unknown”, “Missing”)

## Recency

* Goal:
  + Prioritize records that are most likely to reflect the member’s current identity
* How to Operationalize (i.e., How will the Golden Table prioritize sources in practice?)
  + Evaluate each member record based on available collection, verification, and ingestion dates in the MH DW.
  + The Golden Table will prioritize records based on:
    - (1) date verified;
    - (2) date collected;
    - (3) date ingested

## Element-Specific Tiebreakers

* Goal:
  + Prioritize records that enable MassHealth to identify communities that may have historically experienced marginalization
* How to Operationalize (i.e., How will the Golden Table prioritize sources in practice?)
  + Race/Ethnicity/Language/Sexual Orientation/Gender Identity: If all else is equal, select the least common value based on the number of times that value is present in the MH DW (i.e., choose the least common value captured for the current MassHealth population).
  + Disability: If all else is equal, select the value that would most likely result in an accommodation need (i.e., Select “Yes”).