Quality Measures Specification

Massachusetts Health Data Consortium

Version 2.0.0, December 2025

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Introduction and Background

The Quality Measures Specification (formerly called the Quality Measures Project Specification) was the inaugural initiative of the Massachusetts Health Data Consortium (MHDC) Data Governance Collaborative (DGC). Initially released in December 2019 and refined in January 2021, this project represents a foundational effort to standardize and automate data exchange for quality measures between payers and providers.

The primary objective of the project was to establish and document a common data format for exchanging quality measures information across organizations. This effort resulted in a technical specification that defines the mechanisms and protocols for transferring text files via secure File Transfer Protocol (FTP), supported by mutually agreed-upon data structures and file formats. While the current version of the specification does not yet require full standardization, it provides guidance on the requirements necessary to support movement toward interoperability.

Since its initial release, the specification has been widely adopted by payer and provider organizations, who recognize it as a valuable framework for exchanging quality measure data. In response to community feedback, the DGC introduced significant updates to include health equity data required by the Commonwealth of Massachusetts and other reporting programs.

Key enhancements in this version 2.0 update include:

- Added four new data groups to support the ability to capture screening data, social determinants of health (SDOH) interventions, and disability information.
- Expanded demographic properties to support collection of sexual orientation and gender identity (SOGI), religion, written/spoken language, English proficiency, and housing status.
- Support collection of validations data (updated/verified dates) for race, ethnicity, language, disability (RELD) SOGI data.
- Metadata fields to track updates and verification dates of demographic data elements.

To inform these updates, MHDC referenced numerous materials as source inputs, see References for details.

Looking ahead, MHDC plans to migrate this specification to HL7® FHIR® to facilitate Bulk FHIR (i.e., a common pot of data) exchange of quality measures data between payers and providers via the New England Healthcare Exchange Network (NEHEN) FHIR service. MHDC will continue to support and update this flat file specification as needed, recognizing that data exchange requirements for quality measures are evolving.

How to Read this Specification

There are four major sections of this guide.

- The Process section includes documentation describing the general process and guidelines for Quality Measures data exchange.
- The File Exchange section includes documentation describing the file transfer process and the file format.

- The Data Dictionary includes documentation describing the organization of data and the rules for each field.
- The Appendices include supporting documentation, including a directory of provider names and corresponding value sets referenced by data groups to support implementation of the specification.

Process

This section includes information related to the general process of exchanging Quality Measures data.

Process Overview

The data exchange process according to this specification will continue to be manual, using flat text files exchanged over secure File Transfer Protocol (FTP). Providers may automate the secure FTP process in some way if they desire, but such automation is outside the scope of this specification.

To enable limited flexibility between the types of data shared between payers and providers, the specification uses a valid values file to indicate what data is expected by a payer from each provider. The allowed values are determined by these files and are manually enforced by people at both ends of the transfer. Thus, the high-level Quality Measures process is as follows:

1. A payer creates a valid values file and a list of desired patients and places the files on the secure FTP server
2. The requisite provider downloads these files
3. That provider gathers the requested data for the defined patients
4. The data are compiled using the format described by the MHDC Quality Measures Specification
5. The resulting files are spot checked per the guidance described in the MHDC Quality Measures Specification
6. Files are corrected as needed and checked again
7. Once files pass the spot checks, they are posted to the secure FTP server
8. The payer downloads the submitted files and uses the information to calculate Quality Measurement results

Various steps of this process are discussed in more detail in later sections of this specification.

Basic Rules

The following basic rules guide the data collection process:

- data is collected over the course of the current calendar year and for previous calendar years as indicated in the data range rules section of this specification
- data cutoff for each file is the end of a calendar month
- data request files do not roll over; new files must be sent for each data request even if the only change is the deadline
- providers must have at least one week to process data before it's due
- providers must have at least ten days after the end of a month to process data for that month

- data is cumulative over the course of the year; new data collected is appended to the data sent in previous months prior to sending the entire data set to payers (if it is easier for a provider they may choose to collect the entire data set from scratch each time rather than physically appending new records into existing files so long as the result is the same; i.e. that each new set of data contains all of the available data from the entire relevant time span)
- data for patients who are not still active in the plan at the time of the request may or may not be included; providers will include any requested data they have available but may not retain access to all prior information or be able to use old member IDs to access all historical information
- any data that does not fit into the prescribed rules and guidelines of this specification should be immediately brought to the attention of MHDC so a solution can be found and added to the specification.

Data Range Rules

Although Quality Measures evaluation is an annual process, the data used for relevant measure calculations predates the current year. The following data must be sent for full compliance with the MHDC Quality Measures Specification:

- All patient data for the last three completed calendar years
- All patient data for the current calendar year through the last completed month that is 10 or more days before the requested data exchange date. Data sent on October 8 should include data through the end of the month of August while data sent on October 11 should include data through the end of the month of September
- All applicable cervical cancer screening tests performed within the past 5 years
- All applicable colorectal cancer screening tests performed within the past 10 years
- All applicable adult immunizations administered anytime in history
- All applicable immunizations for adolescents administered within the past 5 years

Applicable Cervical Cancer Screening Tests

The following tests are considered applicable cervical cancer screening tests:

- pap smear/cervical cytology
- human papillomavirus (HPV)

Applicable Colorectal Cancer Screening Tests

The following tests are considered applicable colorectal cancer screening tests:

- colonoscopy
- flexible sigmoidoscopy
- fecal occult blood test
- computed tomography colonography

- stool DNA test

Applicable Immunizations for Adolescents

- HPV vaccination
- Tdap (tetanus, diphtheria toxoids and acellular pertussis) vaccination
- meningococcal vaccination

Applicable Adult Immunizations

- influenza vaccination
- pneumococcal vaccination
- Td/Tdap (tetanus, diphtheria, and acellular pertussis) vaccination
- herpes zoster (shingles) vaccination
- COVID-19 vaccination
- hepatitis B vaccination

Data Range Examples

Data sent in 2025 would include:

- patient data for 2022, 2023, and 2024
- patient data for 2025 as the year progresses and it becomes available
- All pap smears performed since 2020, if any
- All human papillomavirus tests performed since 2020, if any
- All colonoscopies performed since 2015, if any
- All flexible sigmoidoscopies performed since 2015, if any
- All fecal occult blood tests performed since 2015, if any
- All computed tomography colonographies performed since 2015, if any
- All stool DNA tests performed since 2015, if any
- All HPV, Tdap, and meningococcal vaccinations since 2020 for adolescents, if any
- All influenza, pneumococcal, Td/Tdap, herpes zoster, COVID-19 and hepatitis B vaccinations administered anytime in history for adults

Case Considerations

This documentation outlines the casing rules used across data elements, files, and fields. In general, camelCase is applied, meaning multiple words are combined into a single string where the first letter is lowercase and the first letter of each subsequent word is uppercase. The following are examples using camelCase:

- firstName

- pacificIslander
- patientId

Case Sensitivity

In general, all data and names are case-sensitive by default. Values that differ only by letter case are not permitted. Any exceptions to this rule will be explicitly documentated.

When Case Has Meaning

If case has meaning, it may be retained, even if the rules for a specific piece of data would indicate otherwise so long as it does not violate the casing of a supplied enumerated value or unit designator (enumerated values and unit designators must always match the documented values exactly, including case). For example, proper nouns may have their first letter capitalized even if general guidelines indicate that letter should be lower cased. Conversely, names of fields will always be presented in camelCase in the documentation even in headings or if starting a sentence (but sentences will generally be written to avoid this situation).

Per industry standards, acronyms or abbreviations, which are typically presented in all capital letters, are not covered by this exception; they should use the case as indicated by the specification. Note in the examples of camelCase above, the abbreviation ID is specified as *Id when it is the second term of a compound camelCase name. Similarly, a field named id is correct nomenclature for a field containing an ID.

Patients

Each patient covered by any insurance plan must have a patient ID number based on their member ID and personal information. See Representing Patients with Patient IDs for specific information on patient IDs.

Identifying Patients to Include

There are two options supported:

1. Send data for all patients on any payer plan
2. Send data only for the patients requested by the payer

Each payer may decide which option it wants each provider to use. A payer is not required to use the same option for all its providers.

Regardless of the option chosen, each data exchange contains data through the end of a particular calendar month.

Send Data for All Patients

If a payer wants a provider to send data for all patients using one of their plans, no action is needed on a monthly basis. The valid values file sent by the payer to the provider will define the deadlines for data exchange.

Send Data for Specific Patients

If a payer wants a provider to send data for specific patients using one of their plans, a file containing the list of requested patients, which will hereafter be referred to as the patients file, should be uploaded to the secure FTP server.

This patients file should conform to the file naming conventions outlined here. If present, it should list the following in pipe-delimited rows, in the specified order:

- patient ID
- subscriber number
- first name
- last name
- date of birth in `YYYY-MM-DD` format

It is important to specify the effective period of the patients file. The date included in the patients file name is the effective period end date for the patients file.

This specification does not mandate the exact frequency at which payers must upload the patients file. As an example, if the patients file were uploaded monthly following the same schedule as valid values file, then the date in the patients file name should follow the same date rules as specified in the valid values file and agree with the date within the file name of the corresponding valid values file (see Deadlines in Valid Values Files) or both files should be rejected.

Patients Who Leave a Plan Mid-Year

Once a patient is no longer part of a plan, some or all of their data may no longer be associated with their former member ID and thus not accessible when using that ID to determine the data to include in a file transfer.

Providers should make every effort to include all relevant data for the period during which a patient was covered by a particular payer when preparing data submissions. However, some data may be incomplete or entirely unavailable.

Patients Who Join a Plan Mid-Year

When new patients join a plan in the middle of the reporting year, their data should be included (if requested or if all patients are requested) for the covered dates in any files generated after the patient joins the relevant plan.

Valid Values

The MHDC Quality Measures Specification allows for some flexibility in the data exchanged between payers and providers. This flexibility falls into two categories:

- Required Data Fields: Offers flexibility to define the data fields within the data groups that are required to contain data (data may be sent in other fields as optional additions that may be ignored by the payer).

- Specific Services to Include: Offers the ability to define the specific diagnoses, disabilities, exceptions, interventions, immunizations, laboratory services, medications, observations and vital signs, procedures, and screenings that should be sent for patients. This flexibility is independently supported for the services outlined in each data group, except for memberships and, when applicable, membershipsAdditional data group.

This flexibility is implemented through a valid values file provided by each payer to each provider. The file specifies the required data fields and the services to include, as outlined above, and forms part of the data exchange contract. All items listed in the valid values file must be supplied for any patient who has relevant data. For example, not every patient will have an A1c score, but if A1c is listed in the valid values file, then A1c results must be sent for every patient who has them. Importantly, the MHDC Quality Measures Specification does not allow payers to choose which patients' data to include—only which data elements are required when they exist.

This valid values file does not change the available fields as defined in the MHDC Quality Measures Specification. It merely indicates which fields a payer wants a particular provider to populate and the services it supports for each relevant data group.

If a valid values file includes fields or services that are not part of or supported by the specification, ignore them (do not include the field in any way) and make sure the payer is aware of this action so that they properly align the data to the fields that are defined in this specification. If the payer determines such fields or services are important, they should contact MHDC so these requirements can be considered for addition to the specification.

This valid values file should conform to the file naming conventions outlined here.

Deadlines in Valid Values Files

The date included in the file name of a valid values file is a deadline for the related return of data. This date must be at least

1. seven days after the valid values file is uploaded, and
2. ten days after the end of the calendar month.

Valid values files with deadlines must provide a seven-day window to respond or they will be rejected. Valid values files with deadlines that meet the first requirement (seven days after the valid values file is uploaded) but not the second requirement (ten days after the end of the calendar month) should result in sending data for the previous calendar month. For example, a valid values file uploaded on September 30 with a deadline of October 8 should be fulfilled with data through the end of August. However, a valid values file uploaded on September 30 with a deadline of October 10 should be fulfilled with data through the end of September.

This specification does not provide a common notification mechanism and allows the option of scheduling actions on a regular basis (i.e. for the same time each month). If a payer-provider pair is using this option, the payer must still conform to the date requirements in file names and the times for action outlined in this

documentation. See Notifications for more information.

Contents of Valid Values Files

Include the following in a valid values file:

- lists of expected services in each data group
- lists of expected fields in each data group file

These lists should be underneath the name of the services category heading or the pertinent data group (e.g., memberships, observations, etc.) as indicated by the list of headings defined in the Valid Value Services Category Headings table, and as described in the Valid Value File Format section below, one data point per line.

Categories in Valid Values Files

Each list above is considered a single category of the valid values file and contains data for either the services to include within each data group or the fields that should be populated in each data group.

If a category that lists services for a given data group is not included in the valid values file, then all data for all supported services within that category must be submitted. If no data is required for a particular category, omit both the category and its corresponding data group. Conversely, if a category that lists fields for a data group is not included in the valid values file, then no fields are expected for that data group. In this case, the corresponding file for the data group should still be included in the data transfer, but it must be empty.

Including a list of expected services for a specific data group in the valid values file does not replace the need to specify expected fields to include in the data groups themselves; these are independent requirements. Furthermore, if a list of expected fields is not provided for a particular data group, then any expected services for that data group become irrelevant and should be disregarded.

Rows containing data (either fields or services) that are not listed for inclusion in the data set according to the valid values file will be ignored by the payer. However, such rows will not cause errors or affect fault tolerance levels during the payer's evaluation.

If a data group in the valid values file specifically lists other fields for inclusion, then the patient ID must also be included in that data group's field list.

A payer can decide what to include for each category independently and can choose different options for different providers. The included options may change on a month-by-month basis.

Valid Value File Format

A valid value file consists of a series of groupings containing a heading followed by the list of expected fields or expected services pertinent to that heading.

Each grouping must be separated by at least one empty line. Additional empty lines between

groupings should be ignored, and no empty lines should appear within a group's data. The lists of expected services must come first, followed by the lists of expected fields for each data group. The data groups may appear in any order in both lists, as long as all services appear before any expected data group field. The list of expected fields within each data group should be presented in the same order as defined for that data group. For example, if the first, second, and fifth fields are required for a data group, they should be listed in that order.

Headings

Headings for the expected services for each data group consist of an abbreviated term indicating the type of data, followed by a colon, as shown in the table below. Note that services category headings are not applicable to the memberships and membershipsAdditional data groups.

Headings for the expected fields for each data group are the data group names with the first letter capitalized, followed by a colon. For example, "Diagnoses:" and "LaboratoryServices:".

Table 1. Valid Value Services Category Headings

Services Category Heading	Data Group	Notes
Diags:	diagnoses	A list of diagnoses that should be included in the data exchange when they apply to any patients. If the category is not included in the valid values file, then all known diagnoses should be sent for each patient.
Disabs:	disabilities	A list of disabilities that should be included in the data exchange when they apply to any patients. If the category is not included in the valid values file, then all known disabilities should be sent for each patient.
Exs:	exceptions	A list of exceptions that should be included in the data exchange. If the category is not included in the valid values file, then all known exceptions should be sent.
Intervs:	interventions	A list of interventions that should be included in the data exchange when they apply to any patients. If the category is not included in the valid values file, then all known interventions for all supported interventions should be sent for each patient.
Labs:	laboratoryServices	A list of laboratory tests that should be included in the data exchange when they have been performed within the normal data range on any patients. If the category is not included in the valid values file, then all known laboratory results for all supported laboratory services should be sent for each patient.

Services Category Heading	Data Group	Notes
Meds:	medications	A list of medications that should be included in the data exchange when they have been prescribed for any patients. If the category is not included in the valid values file, then data for all known prescriptions should be sent for each patient.
Procs:	procedures	A list of procedures that should be included in the data exchange when they have been performed on any patients. If the category is not included in the valid values file, then data for all known procedures should be sent for each patient.
Scrns:	screenings	A list of screenings that should be included in the data exchange when they apply to any patients. If the category is not included in the valid values file, then all known screenings should be sent for all supported screenings for each patient.
Vax:	immunizations	A list of immunizations that should be included in the data exchange when they have been performed on any patients. If the category is not included in the valid values file, then data for all known immunizations should be sent for each patient.
Vitals:	observations	A list of vital signs that should be included in the data exchange when they have been performed on any patients. If the category is not included in the valid values file, then data for all supported vital signs should be sent for each patient.

Rows

The lists of expected services for a data group use a pipe ("|") delimiter to separate individual fields within each row. No delimiter is used to indicate the row start or row end positions; if a row ends with a delimiter, it indicates that the last field in the row is blank.

Each list of expected services for a data group consists of rows, with each row containing three values in the following order:

1. A description or name that provides context for the service
2. The code system expected for the service
3. The allowed code that specifies the service within that code system

If a particular service allows more than one code or more than one code system, each code system-code pair should be given a separate line in the list.

If the payer does not specify a preferred code system for a field (as defined in the MHDC Quality Measures Specification), then the code system and allowed code fields should be blank.

Each list of expected fields for a data group consists of rows, with each row containing a single value: the field name as defined within that data group. This amounts to a simple text list with one item per row.

An exception applies to the race and hispanicEthnicity fields in the memberships data group, and the detailedRace1, detailedRace2, and detailedEthnicity fields in the membershipsAdditional data group, where an optional second value can be included following a pipe ("|") delimiter to indicate which specified value set is allowed. For example, the race field supports both raceCode and raceString value sets, a row with “race|raceCode” for the memberships data group means the payer requires the race field to use the raceCode value set rather than the raceString value set. If either value set is allowed, do not include the optional second field, and do not end the row with a pipe delimiter.

Example Valid Values File

The following is an example of a valid values file that might be used in a payer request for data:

```
Vitals:
height|loinc|8302-2
height|loinc|3137-7
height|snomed|50373000
weight|loinc|29463-7
weight|snomed|27113001
systolic < 130|cpt2|3074F
systolic 130-139|cpt2|3075F
systolic >= 140|cpt2|3077F
systolic|loinc|8480-6
systolic|snomed|271649006
diastolic < 80|cpt2|3078F
diastolic 80-89|cpt2|3079F
diastolic >= 90|cpt2|3080F
diastolic|loinc|8462-4
diastolic|snomed|271650006
temperature|snomed|386725007
temperature|snomed|431807005
pulse||

Labs:
a1c|cpt|83036
a1c|mapped|a1c
a1c|snomed|365845005
potassium|cpt|001180
```

```
potassium|loinc|6298-4

Vax:
rubella and mumps|cvx|38
measles, mumps, rubella|snomed|38598009

Memberships:
patientId
lastName
firstName
gender
birthDate
race
hispanicEthnicity

LaboratoryServices:
patientId
serviceCode
codeSystem
serviceDate
result
unit

Observations:
patientId
serviceDate
observationCode
codeSystem
value
unit
```

According to the above example valid values file, blank files would be sent for all data groups except memberships, laboratoryServices, and observations. Note that in this example, a blank file would also be sent for immunizations. That is because, although the list of expected services is defined for the immunizations data group as shown with the heading "Vax:", the example valid values file does not include "Immunizations:" listing the expected fields for the immunizations data group. Therefore, this provider should not populate and send any immunization fields to the payer, hence a blank file.

The example valid value file above does not does not include an optional second value for race under the "Memberships:". Therefore, either the raceCode or raceString value set is acceptable. The same flexibility applies to the hispanicEthnicity field in this example.

Summary of Included Data

If desired, provider may upload a summary file listing the total number of rows included in each of the data group files associated with a data request.

The summary file should conform to the file naming conventions outlined under the File

Names/Summary Files section. It should be placed at the top level of the directory alongside the data group files and should be moved to the archived subdirectory once all related files have been addressed.

Summary File Contents

If present, the summary file should list the following in order, in pipe-delimited rows:

- The camelCase name of a valid data group
- The total number of records (rows) included in that data group file

The valid data groups include:

- diagnoses
- disabilities
- exceptions
- immunizations
- interventions
- laboratoryServices
- medications
- memberships
- membershipsAdditional
- observations
- procedures
- screenings

Data groups should be listed in alphabetical order within the summary file, and any data groups without records (rows) should be omitted from the summary file.

Summary Files when Replacement Data Is Uploaded

If some of the initial data uploaded for a particular request is rejected and replacement data is later uploaded, the following rules should be followed for summary files:

- If no summary file was uploaded with the original data, do not add one when uploading any replacement data
- Summary files should not be supplied for partial file replacements
- If a summary file was previously uploaded with the original data, and full replacement files change the record counts for any data groups, a new summary file appending *_N* to the name (where *N* matches the suffix number of the corrected file) is required
    - The new summary file should include data for all previously accepted data groups from previous uploads with the same deadline, as well as all replacement files
    - The record counts in the new summary file must agree with the record counts from

previous files for data groups that were previously accepted

- If a summary file was previously uploaded with the original data, uploading a new summary file is optional when all full replacement files contain the same number of records as the previous versions of the same files

See Resending Rejected Data for more information on how to resend rejected data or on the file suffixes referenced above.

File Exchange

Quality measures data is sent by each provider to each payer monthly, by secure FTP, in the format described in this documentation.

File Structure

The quality measures data is currently split into groups of related content, sent in separate flat text files containing rows of data each representing a specific instance of that type of data associated with a specific patient.

These files use a pipe ("|") delimiter to separate individual fields within the row. No delimiter is used to indicate the row start or row end positions; if a row ends with a delimiter, it indicates that the last field in the row is blank.

The fields are order dependent, meaning they must be presented in the order listed in the data specification.

In addition, there are several helper files that provide information about patients and data requests to the provider.

File Names

The quality measures data exchange has several different types of files. Files sent from the payer to the provider may include:

- Patients Files
- Valid Values Files

These files are control files that indicate the patient data to send.

Files sent from the provider to the payer contain the actual patient data in Data Group Files. Optional Summary Files may also be included for each payer indicating the total number of rows supplied for each data group.

Files that do not conform to this naming convention will be rejected by the sender, and the recipient will be expected to provide new versions that do conform within three days.

Using Directories

The MHDC Quality Measures Specification assumes that each payer maintains a separate directory on its secure FTP server for each provider. All files from that provider are identified as being for or from that provider by virtue of their placement inside this directory, and thus the file names do not need to include the provider name for clarity. More information about the directory structure can be found in the Directory Structure section.

Patients Files

These files are used to request specific patient data from a provider.

These files should be named `patients_forPayer_date`, where *date* is in `YYYY-MM-DD` format and *Payer* indicates the payer requesting the data as follows:

- Allways - Allways
- BCBS - Blue Cross
- CCA - Commonwealth Care Alliance
- Fallon - Fallon
- HealthNet - BMC HealthNet
- HPHC - Harvard Pilgrim
- HNE - Health New England
- P32H - Point32Health
- MassHealth - MassHealth
- MGBHP - Mass General Brigham Health Plan
- Tufts - Tufts Health Plan
- WellSense - WellSense Health Plan

for example, patients_forTufts_2024-10-15

More information about patients files is available in the Send Data for Specific Patients section of the documentation.

Valid Values Files

These files are used to indicate what data a payer expects to receive from a provider.

These files should be named `validValues_forPayer_date`, where *date* is the deadline for receiving the data in `YYYY-MM-DD` format and *Payer* indicates the payer requesting the data as follows:

- Allways - Allways
- BCBS - Blue Cross
- CCA - Commonwealth Care Alliance
- Fallon - Fallon
- HealthNet - BMC HealthNet
- HPHC - Harvard Pilgrim
- HNE - Health New England
- P32H - Point32Health
- MassHealth - MassHealth
- MGBHP - Mass General Brigham Health Plan

- Tufts - Tufts Health Plan
- WellSense - WellSense Health Plan

for example, validValues_forHPHC_2024-11-15

More information about valid value files is available in the Valid Values section of the documentation.

Data Group Files

The files containing the actual quality measures data are split into data groups representing different types of data. The current data groups are:

- diagnoses
- disabilities
- exceptions
- immunizations
- interventions
- laboratoryServices
- medications
- memberships
- membershipsAdditional
- observations
- procedures
- screenings

These files should be named `dataGroup_forPayer_date`, where *dataGroup* is the camelCase name of a valid data group (listed above), *date* is the deadline for receiving the data in `YYYY-MM-DD` format, and *Payer* indicates the payer requesting the data as follows:

- Allways - Allways
- BCBS - Blue Cross
- CCA - Commonwealth Care Alliance
- Fallon - Fallon
- HealthNet - BMC HealthNet
- HPHC - Harvard Pilgrim
- HNE - Health New England
- P32H - Point32Health
- MassHealth - MassHealth
- MGBHP - Mass General Brigham Health Plan
- Tufts - Tufts Health Plan

- WellSense - WellSense Health Plan

for example, laboratoryServices_forHPHC_2024-11-15

More information about the data groups and the data expected in each group's file is available in the Data Dictionary.

Summary Files

These files are optional and indicate the total number of rows included for each data group in a specific data upload.

These files should be named `summary_forPayer_date`, where *date* is the deadline for receiving the data in `YYYY-MM-DD` format and *Payer* indicates the payer requesting the data as follows:

- Allways - Allways
- BCBS - Blue Cross
- CCA - Commonwealth Care Alliance
- Fallon - Fallon
- HealthNet - BMC HealthNet
- HPHC - Harvard Pilgrim
- HNE - Health New England
- P32H - Point32Health
- MassHealth - MassHealth
- MGBHP - Mass General Brigham Health Plan
- Tufts - Tufts Health Plan
- WellSense - WellSense Health Plan

for example, summary_forHPHC_2024-11-15

More information about summary files is available in the Summary of Included Data section of the documentation.

Zip Files

If desired, providers may group all of the files related to a specific data request inside a zip file. This file may then be uploaded instead of the individual files provided the contents of the zip file unpack to the expected file structure using the expected file names.

Zip files should be named `allDataGroups_forPayer_date.zip`, where *date* is the deadline for receiving the data in `YYYY-MM-DD` format and *Payer* indicates the payer requesting the data as follows:

- Allways - Allways
- BCBS - Blue Cross
- CCA - Commonwealth Care Alliance

- Fallon - Fallon
- HealthNet - BMC HealthNet
- HPHC - Harvard Pilgrim
- HNE - Health New England
- P32H - Point32Health
- MassHealth - MassHealth
- MGBHP - Mass General Brigham Health Plan
- Tufts - Tufts Health Plan
- WellSense - WellSense Health Plan

for example, allDataGroups_forHPHC_2024-11-15.zip

Directory Structure

Rather than saving numerous flat files into a single area for processing, which can be time-consuming to view and maintain, the MHDC Quality Measures Specification utilizes a directory structure for its adopters to use.

Our basic approach to defining a directory structure is:

- To clearly identify space specific on each payer's secure FTP server
- To provide a mechanism for archiving files that have been addressed
- To provide a mechanism for clearly identifying rejected data

Validation rules are included as recommended guidelines in this specification. Participating organizations are not required to strictly enforce validation or mark rejected data in any way. Thus, while recommended, there is no requirement that the mechanism for identifying rejected data be used.

Use of an errors directory or marking of errors in files is beyond the scope of the specification.

At a high level, the directory structure will be used to do the following:

- Provide a clearly marked space for each provider using the provider name or a recognizable abbreviation.
  - All files for or from a provider are placed in this directory
  - Only files for or from the provider are placed in this directory
- Provide an archived directory under the main provider directory
  - Files should be archived for at least 12 months once consumed (longer is acceptable).
  - Files for the provider should be archived by the payer after the provider fulfills the related requests to acknowledge receipt of the uploaded files.

    - Files for the payer should be archived by the payer once they have been successfully consumed. All rejected rows should be addressed before this happens.
- Include a rejected directory under the main provider directory
    - Any files that are rejected because of the error rules or fault tolerance limits should be moved here.
    - Files should remain here until substitute files are accepted. At that point, they may be deleted or moved to an archived subdirectory of the rejected directory at the discretion of the payer.
    - Files not rejected wholesale but with rejected rows should remain in the top-level directory; rejected rows within those files should be marked as rejected by prepending a field containing R to the row.

Basic Directory Structure

Each payer's secure FTP server should include a top-level directory for each provider. This directory should have the same name across all payers and be commonly recognizable as representing the provider. The list of these directory names is maintained by MHDC and considered part of this specification. Generally, it will be a common short form of the provider's name with all spaces removed and all letters in lower case.

For a list of valid directory names, refer to Appendix A: Provider Directory Names

Requesting Additional Directory Names

To request additional supported provider directory names, do the following:

1. email dgc@mahealthdata.org with the name of the new provider
2. MHDC will determine the proper directory name
3. MHDC will announce the new directory name at the next DGC Working Group meeting
4. MHDC will make adjustments, if requested at the meeting
5. MHDC will email the new name to the requestor and to all individuals belonging to the DGC
6. MHDC will open an issue to add the name to the next version of the MHDC Quality Measures Specification
7. Each new version of the specification will include any directory names adopted since the previous version

Note: Exchange members may begin using the new directory name as soon as it is mailed out to DGC membership.

Files from the payer to the provider

The payer currently provides either one or two files to the provider each time data is requested: valid values file and a list of desired patients. The valid values file is required, and the list of desired patients is optional (if not provided, all patients will be included in the response data).

These files should be placed at the top-level of the directory and archived per archival rules once the relevant data has been sent back. Currently there are no standardized rules for file upload or archival notifications. See Notifications for more information.

See Valid Values Files and Patients Files for more information about these files.

Files from the provider to the payer

The provider submits individual files containing the requested data in each data group.

These files should be placed at the top-level of the directory and archived per archival rules once the files have been processed and accepted by the payer. Currently there are no standardized rules for file upload or archival notifications. See Notifications for more information.

See the Data Group Files documentation for more information about these files.

Resending Rejected Data

Any rejected files should be resent wholesale and _2, _3, etc. should be appended to the file name to indicate version 2, version 3, etc. until a version is fully accepted.

Files with rejected rows should be resent with just the corrected rows and _p2, _p3 should be appended to indicate partial version 2, partial version 3, etc. This indicates all archived files must be collated together to get a complete picture of the data should it be needed at a later date.

Currently there are no standardized rules for file upload notifications for replacement files. See Notifications for more information.

Validation rules are included as recommended guidelines in this specification. Participating organizations are not required to strictly enforce validation or mark rejected data in any way. Thus, while recommended, there is no requirement that this process for uploading corrections be used.

Example

The Partners area within Tufts Health Plan's secure FTP server would be a directory called partners that contains the following files after Tufts requests new data from Partners but before they respond:

```
archived
rejected
patients_forTufts_2024-10-15
validValues_forTufts_2024-10-15
```

Once Partners uploads the data requested for 10/15 but before Tufts consumes it in any way, the directory might look like this:

```
archived
```

```
rejected
diagnoses_forTufts_2024-10-15
disabilities_forTufts_2024-10-15
exceptions_forTufts_2024-10-15
immunizations_forTufts_2024-10-15
interventions_forTufts_2024-10-15
laboratoryServices_forTufts_2024-10-15
medications_forTufts_2024-10-15
memberships_forTufts_2024-10-15
membershipsAdditional_forTufts_2024-10-15
observations_forTufts_2024-10-15
other_forTufts_2024-10-15
patients_forTufts_2024-10-15
procedures_forTufts_2024-10-15
screenings_forTufts_2024-10-15
validValues_forTufts_2024-10-15
```

And after Tufts acknowledges receipt of the files, it might look like this (with the patients and valid values files moved under archived):

```
archived
rejected
diagnoses_forTufts_2024-10-15
disabilities_forTufts_2024-10-15
exceptions_forTufts_2024-10-15
immunizations_forTufts_2024-10-15
interventions_forTufts_2024-10-15
laboratoryServices_forTufts_2024-10-15
medications_forTufts_2024-10-15
memberships_forTufts_2024-10-15
membershipsAdditional_forTufts_2024-10-15
observations_forTufts_2024-10-15
other_forTufts_2024-10-15
procedures_forTufts_2024-10-15
screenings_forTufts_2024-10-15
```

And once all files have been processed and either accepted or rejected, it might look like this:

```
- archived
- rejected
```

with all the files either under archived or rejected.

However, there might be files with rejected data that were not rejected wholesale. If medications were rejected wholesale and laboratoryServices had some rejected rows, the directory might look like this before any corrections are made:

```
- archived
- rejected
- laboratoryServices_forTufts_2024-10-15
```

And the directory with replacement data present might look like this:

```
- archived
- rejected
- laboratoryServices_forTufts_2024-10-15
- laboratoryServices_forTufts_2024-10-15_p2
- medications_forTufts_2024-10-15_2
```

Note that the original laboratoryServices file is still present because it was neither rejected wholesale or accepted. When the updated file is accepted, they should be moved to the archived directory together.

Notifications

In general, notifications should be sent to payers and providers when new files are uploaded that need to be addressed, and whenever file rejections or errors that need to be fixed occur. Each payer-provider pair must determine the form of notification.

In lieu of notifications, scheduled timeframes for specific actions are allowed in this version of the specification, provided both parties involved agree. If monthly schedules are used, file name conventions and requirements related to the amount of time each party has to perform specific actions must still be followed. For example, a regular data upload deadline on the 6th of the month means that uploads will not contain data from the just completed month but rather will be a month in arrears (per the requirement that providers have 10 days after the end of a month to process data from that month).

File Validation

In an ideal world, every field in every row of every file would be checked for accuracy in both format and content and the data sent would contain no errors. Unfortunately, that's not realistic in the real world in a primarily manual system.

While the ultimate validation responsibility rests with the payers, each provider is expected to spot check the files per the spot checking guidelines below for data that looks wrong in some way. This data may be in the incorrect format or may be in the correct format but just isn't sensible. Then, once received by the payer, the data is again checked per the error handling guidelines below (primarily for formatting issues) and either rows or entire files may be rejected based on the defined rules.

Validation rules are included as recommended guidelines in this specification. Participating organizations are not required to strictly enforce either the spot checking or error handling rules outlined below. They are provided as guidance

and to help identify potential problems that could occur during data preparation and data absorption processes.

As the data exchange process matures, more validation may be required.

Spot Checking Data

Manually checking the data within the current flat file system is an onerous, time consuming, and unpleasant process. However, some form of manual checking may be needed to determine how the process is working. Thus, the MHDC Quality Measures Specification has defined recommendations for spot checking data before files are transferred from the provider to the payer.

Recommendations

The following recommendations should be used to spot check data:

1. Identify and fix recurring issues with data so they can be fixed in both the current files and in the preparation of future data files
2. Fix one-off errors in the data while looking for recurring issues. Identifying and fixing every one-off error is not within the scope of this plan
3. Find the right balance between striving for clean data and managing the time it takes to manually check large volumes of data to manage a reasonable return on (time) investment
4. Reward providers for producing clean data by reducing the burden of spot checks over time when no issues are found

Approach

To expedite an inherently slow process, spot checks will not involve manually comparing the data files to the source data. The assumption is that most errors will manifest themselves in other ways.

The biggest risk to this approach is if the ID is incorrect and thus the data is ascribed to the wrong patient. If deemed an unacceptable risk, this risk could be mitigated by checking just the ID against the actual data source. This will increase the time required to complete spot checks.

We should not be overly concerned with the case where an incorrect patient ID is not assigned to an actual patient. This case should be detectable by the payer and cause a rejection of the row. Further, the consequences of associating the wrong data with a patient are more severe than not having a patient to associate with the data.

Data to Check

The following should be checked in each row identified for a spot check:

- correct delimiter - fields are separated by pipes.
- correct number of fields - the expected number of delimiters are in each row
- order of fields - the order of fields in a row has meaning and thus must be preserved. If data is

not in the expected order, it will be misinterpreted upon receipt.

- ID - the ID is in the correct format
- data type of fields - the data should be in the expected data type for the field.
  - Strings should not be inside quotations
  - Dates should be in YYYY-MM-DD format
  - Booleans should be either true or false
  - Numbers should use Arabic numerals with no leading zeros (except for values between 0 and 1)
- defined constraints of fields - the data should be within maximum value and character ranges, should be present if required, should be one of the valid enumerated values for enumerated fields, etc.

Case and spacing matters when checking enumerated values.

- fields with no data should be empty (the two pipes denoting the left and right boundary of the field data should be next to each other with no space between them).
- The row does not have a hard wrap, line breaks, or other control characters that would be interpreted as an end of line. It should extend out on a single line until completed.
- The data provided in a row falls within the set of data requested in any applicable valid values file.
- The data provided in a field matches the expected data for that field. If expected to be a valid blood pressure, it falls within the range of values possible for a blood pressure reading.
- The data provided in a field matches the expected units for that value. If the height is supposed to be in inches, it does not appear to be in centimeters or in feet and inches.
- The unit designation provided in fields specifying units exactly matches one of the units supported by the MHDC Quality Measures Specification.

Unit designations are expected in exactly the format listed in the specification: %, per, Per, and percent are considered four different values for purposes of matching unit designations

- The data matches the expectations for any standard it claims to be meeting. If it's supposed to be a LOINC code it is in the format used for LOINC codes.

In keeping with the general approach of not cross-checking data at its source, there is no proposal to check that it is, in fact, the correct LOINC code for the type of data presented. If the tester is knowledgeable enough to notice inconsistencies in the values provided, they should be flagged, but manual cross-checking is not expected.

Logging and Classifying Errors

The tester should keep a log of all errors found. This log should include the row #, the pertinent

field, and the type of error at a minimum. Additional information may be tracked if deemed useful.

If an error is found in a row that is randomly selected for spot checking, the tester should also examine a minimum of two rows above and two rows below it to look for the same error in the same field. Other errors in those rows should be noted and addressed if noticed but they do not need to be sought out. If found in one of these rows, the error should be noted in a list of repeated problems. If found in two or more of these rows, the error should be noted as a recurring problem. If the same issue appears in the list of repeated problems more than N times it, too, should be considered a recurring problem.

If an error does not also occur in any of the rows immediately above or below it, it should be considered a one-off error by default. However, an ongoing tally of the combination of field and type of error should be kept to look for recurring but intermittent problems. If the same error occurs in the same type of field in more than 10% of sampled rows, it should be identified as a recurring issue and treated the same way as errors repeated in nearby rows. Similarly, if the same general error type, such as a typo, occurs in any field in more than 5% of sampled rows, it should be identified as a recurring general issue and addressed as such. Any errors that are close to these thresholds, but not over them, should be compared to the list of repeated errors from the non-sampled rows examined when issues are found, and considered for inclusion in the list of recurring problems if found there as well.

Amount of Data to Check

If a file contains less than 2000 rows:

- a minimum of the larger of 40 or 3% of rows should be checked
- these rows should be randomly selected throughout the file
- rows checked because of issues found in nearby rows do not count toward these requirements

If a file contains between 2000-10000 rows:

- the file should be (virtually) split into four quadrants
- a minimum of the larger of 25 or 2% of the rows in each quadrant should be randomly checked
- rows checked because of issues found in nearby rows do not count toward these requirements

If a file contains more than 10000 rows:

- the file should be (virtually) split into at least six equal sections
- a minimum of the larger of 50 or 1% of the rows in each section should be randomly checked
- you can adjust these numbers proportionally if more than six sections are used, as long as the results are at least the number of rows outlined above are checked in the whole file.
    - you could split the file into eight sections and use a formula of checking the larger of 40 or 1%
    - you could split the file into ten sections and use a formula of checking the larger of 30 or 1%
- rows checked because of issues found in nearby rows do not count toward these requirements

Rewards for Good Data

If a provider has three versions of the same file in a row without any recurring issues, or two versions in a row without any errors, they can halve the amount of rows needed for spot checks.

When a provider halves their spot check quotas, they restart their counts over. If they have another three versions in a row without recurring issues, or two versions in a row without errors, they may halve the number of rows being checked again. A provider with six consecutive versions with no errors will only have to check 1/8 of the number of rows outlined in the specification, while a provider with some random one-off errors here or there, but six consecutive versions with no recurring issues, will only have to check 1/4 of the number of rows outlined in the specification.

However, any version with recurring issues resets the spot check requirements back to the initial levels agreed upon by the specification. A single version with more than M one-off errors resets back one level; if the spot check requirements had been halved twice, they would go back to only being halved once.

In addition, any errors or issues found by the payer automatically reset the spot check requirements back to the initial levels agreed upon by the specification.

Addressing Errors

Errors and issues found during the spot check process should be addressed, and the file checked again before being approved for submission. In addition, recurring issues should be investigated, and the file creation process should be adjusted to eliminate (if possible) or reduce the occurrence of these issues.

Addressing One-Off Errors

Any one-off errors that do not meet the threshold for recurring issue should be fixed before the file is approved for transfer to the requesting payer.

Addressing Repeated Errors

Repeated errors that do not meet the designated threshold for recurring issues may be treated as one-off issues if a provider wishes. However, if resources permit, it would be better to investigate them as if they did meet the recurring threshold errors, using the process described below.

Addressing Recurring Issues

If the tester identifies one or more recurring issues while examining a file, the transfer process should be halted while the errors are fixed.

The expectation for these errors is that they occur in sufficiently large number across the data rows not examined by the tester, that the related data must be redone (or at least checked) for the entire file, unless it can be proven the issue is isolated to a particular portion of the file.

The provider has two possible courses of action:

1. Manually check every row of the file for these specific problems and fix them, then later figure out what happened and how to fix it moving forward

or

2. Determine the cause of the issue and address it, then reproduce the relevant data the correct way.

The second option may or may not require touching every row of data in the file. For example, the issue may be that a single person who prepared the second 500 and the last 500 rows of a 4000 row file misunderstood how to enter data in a particular field. The other 3000 rows are unaffected, so only the 1000 rows touched by this particular preparer need to be redone. The solution in this case may be to fix those 1000 rows and provide updated training to that preparer, so he or she doesn't make the same mistake again. Whether it is more efficient to do the analysis to figure this out, or to just redo every row correctly (or even if this can be determined without examining all 4000 rows in detail) is left to the determination of the provider.

Error Handling and Fault Tolerance

In an ideal world there would be strict error handling, but not everyone will adopt this right away. Instead, we will determine some rules and guidelines that impose some error handling and fault tolerance expectations but that allow for some flexibility in what payers will tolerate and accept.

To clarify, error handling is about identifying any specific problems with the files and data while fault tolerance is about how many and what type of errors to accept and absorb (as opposed to rejecting either specific rows or files).

Validation rules are included as recommended guidelines in this specification. Participating organizations are not required to strictly enforce validation or mark rejected data in any way. Deadlines for file processing or for resending corrected data are agreed upon between each payer-provider pair.

File Rejection

The following errors should cause the entire file to be rejected immediately:

- bad file name
- bad file format
- wrong encoding
- wrong end of line characters
- data not in English
- bad delimiter
- deadline dates that do not match request deadlines
- inconsistent deadline dates in file names
- a required field (as defined by the relevant valid values file) is not present in any row in the file

The following errors should cause the entire file to be rejected if they occur with the indicated frequency:

- any error in more than 1% of ID fields
- wrong data type for any field in more than 1% of that field
- wrong number of delimiters in more than 5% of rows
- data out of range for any field in more than 5% of that field
- any specific error in more than 10% of rows

Row Rejections

The following errors should cause the entire row to be rejected:

- wrong number of delimiters in the row
- ID does not match a known patient
- missing required fields
- wrong data type for any field
- data out of range for any field
- unexpected end of line characters
- any field explicitly containing null
- malformed empty fields
- malformed enumerated values
- malformed booleans
- invalid dates
- any field with a disallowed enumerated value
- any units field with a disallowed units designator
- units that do not match the data value provided
- data that clearly doesn't match what it's supposed to be (if noticed)

Rejected rows should be marked as rejected by prepending a field containing R to the row.

Fixable Issues

The following issues may be fixed if noticed:

- infrequent simple typos where the intent was clear

Ignorable Issues

The following issues should be ignored:

- extraneous content outside of the table format
- valid rows that contain data that wasn't requested (e.g. cbc results when only a1c was requested)

If correctly formatted extra data is being sent regularly, mention it to the provider to save them the extra work in future data sets

Dealing with Rejected Data

All errors and row rejections should be logged. This log should include the row #, the pertinent field (if field specific), and the type of error at a minimum. Additional information may be tracked if deemed useful.

In addition, the type of error and the field it occurred in should be kept in a running tally for each file to track fault tolerance levels and determine whether the file needs to be rejected wholesale.

Data Dictionary

Quality measures information is sent by each provider to each payer monthly by secure FTP in the format described in this documentation.

Data Structure

The quality measures data is currently split into groups of related content sent in separate flat text files containing rows of data each representing a specific instance of that type of data associated with a specific patient.

Data Rules

This specification includes rules and guidelines on how to represent different types of data.

Expectations for Data

The following expectations are not enforceable as part of this specification but are considered good citizen behaviors adopted by the group:

1. If a provider has a piece of data, they will send it even if not required to do so
2. If a provider has data that is readily available in multiple formats, they will use the same format for it across a single data exchange

Representing Unknown Values

Unless otherwise specified for a specific field, unknown values or nulls should be represented by providing no data for the relevant field. This includes whitespace of any sort - the delimeter to the left of the field and the delimeter to the right of the field should be right next to each other. If the value of the first field in a row is not required and is not known, the row should start with the delimiter indicating the end of the first value. If the value of the last field in a row is not known, the row should end with the delimiter indicating the end of the previous field.

If a specific field explicitly supports an explicit unknown value, that value should be supplied. However, not doing so should not result in rejection of that data so long as the null value as described above is used instead.

Representing Patients with Patient IDs

Patient IDs uniquely identify the patient whose data is being sent in each row of the Quality Measures data exchange.

ID Format Rules

The current ID format has four components separated by hyphens. Each component may contain alphabetic characters, numbers, or hyphens as indicated below. No other characters are allowed.

Table 2. Patient ID components

Position	Name	Allowed Characters	Description
1	Member ID	Alphanumeric	The payer provided member ID for this patient. This consists of the patient's subscriber ID concatenated with the patient's two-digit dependent code with no punctuation added between the two values.  This value is not guaranteed to be constant throughout the lifetime of a patient or even throughout a given calendar or plan year as dependentCodes may be reordered when a dependent loses coverage for any reason. Each payer is responsible for notifying providers of any such changes for auditing purposes only; providers are expected to use the current value for a patient at the time data is collected or sent.
2	Gender	Alphabetic	The single character code indicating the gender of the patient. Allowed options are M,F, and O for male, female, and other respectively. If the gender field itself is null, this segment of the ID should also be null, meaning the hyphens on either side appear with no whitespace between them.

Position	Name	Allowed Characters	Description
3	Date of Birth	Numeric with Hyphens	The patient's date of birth in the standard date format, YYYY-MM-DD. If the birthDate field itself is null, this segment of the ID should also be null, meaning the hyphens on either side appear with no whitespace between them.
4	Partial First Name	Alphabetic	The first five characters of the patient's first name. All letters should be capitalized. If the patient's name is less than five characters long, the full first name should be supplied and any remaining character spaces should be omitted. If the patient's name is unknown for any reason and the firstName field itself is null, this segment of the ID should also be null, meaning the hyphen before this segment is the last character of the ID value.

Examples

Sample lines from memberships data group:

```
O45695946s953301-F-1970-03-27-KATHE|O45695946s9533|01|Smith|Katherine| ...
O45645433f245700-M-1956-11-11-TIM|O45645433f2457|01|Corcoran|Tim| ...
O5946s9545693302--1993-11-11-CHRIS|O5946s95456933|2|Perez|Chris| ...
33f245O456454703-F-2020-10-31-|33f245O4564547|3|Li|| ...
```

Sample lines from observations data group:

```
O45695946s953301-F-1970-03-27-KATHE | 2024-08-27 | 1234567890 | 56 |...
O45695946s953301-F-1970-03-27-KATHE | 2024-08-27 | 1234567890 | 163 |...
O45695946s953301-F-1970-03-27-KATHE | 2024-08-27 | 1234567890 | 89 |...
```

Other data groups will be similar.

Representing Numbers

The following rules and guidelines should be used when sending numerical data through the Quality Measures data exchange:

- All numerical values should use base 10

- All numerical values should be included in Arabic numerals without scientific notation, punctuation (other than a decimal point if needed), or abbreviation.

  Use 1000 not 1,000 or 1.000 or 1K or 10^3 or 10^3 or M.

- Numbers are assumed to be floating point values unless otherwise restricted in specific field or unit descriptions
- Always use 0 for zero. -0 is not considered a valid value.
- Always include a leading 0 before the decimal point in numbers between 0 and 1

  Use 0.1 not .1.

- Only significant digits are included and precision is not tracked by trailing decimal zeros.

  Use 0.1 not 0.10.

- Limit values to no more than two significant decimal places unless there is a meaningful reason not to do so

  Values like 0.00056 are allowed but values like 0.100056 should be shortened to 0.1.

Representing Booleans

The following rules and guidelines should be used when sending boolean data through the Quality Measures data exchange:

- Allowed values are true|false

  Do not use t|f or 1|0 or True|False

- Default is assumed to be unknown unless otherwise stated

  If not supplied, no inference about the value can be inferred

  If a particular boolean should be true or false by default the data dictionary will state so. The name of any such field should match the expected default value

Representing Enumerated Values

The following rules and guidelines should be used when sending enumerated values through the Quality Measures data exchange:

- Enumerated values should use complete words (no abbreviations and acronyms)
- Enumerated values should be a single term string (no spaces, dashes, underscores or other punctuation)
- Enumerated values should use camelCase for their names (nativeAmerican, pacificIslander, male, other)
- The allowed enumerated values will be listed in the description of each relevant field in alphabetical order (allowed unit values will be listed separately and referenced in the relevant

field descriptions)

- If the value is unknown, leave the field blank unless directed otherwise in a specific field definition
- Exceptions can be made but must be explicitly noted and approved by the group

Representing Dates

The following rules and guidelines should be used when sending dates through the Quality Measures data exchange:

- All dates should use the standard date format, YYYY-MM-DD

  Single digit months and single digit days should be represented as 0N. Use 2014-11-04 not 2014-11-4, 2016-09-12 not 2016-9-12, 2019-04-06 not 2019-4-6 or 2019-04-6 or 2019-4-06

- Some dates may not be known exactly.

  The portion of the date that is known should be supplied; the rest of the date should be omitted. For example:

  - If only a year is known, use YYYY to represent the date
  - If only a year and month is known, use YYYY-MM to represent the date

Representing Units

The following rules and guidelines should be used when dealing with units in the Quality Measures data exchange:

- The units field is always required for observations and laboratory tests
- Each type of measurement will have one and only one valid unit type

  

  If a test has more than one type of measurement each type of measurement will be treated as a different unit

  - All provider data must be converted to this unit prior to submission
  - All unit information must be stripped from the value and presented only in the matching units field.
- Each unit will have a single unit designator that represents that unit in the data. This is the value submitted in any units fields throughout the data set.
- Imperial/English/American units are favored over metric/SI units (mks or cgs) when both are common.

For example, internal height measurements of 5' 10" must be converted to a value field of 70 and a units field of inches.

Representing Trace Amounts

In some cases, the result of a test that normally provides numerical results may come back as containing trace amounts or some other designation of a value too small to measure. These values should be represented as -1 and associated with the normal unit designator of the test. All payers are expected to understand the meaning of this value and convert it to their internal representation of trace values rather than rejecting the value as out of range.

If any fields are added that allow negative values as valid values this will need to be adjusted. If such a case occurs, it should immediately be brought to the attention of MHDC.

Representing Unit Designators

The following rules and guidelines should be used when dealing with unit designators in the Quality Measures data exchange:

- Unit designators typically use complete words unless they are formulas comprised of multiple atomic units (such as m/s)
- Unit designators use camelCase unless the term itself typically uses an initial capital letter (such as Fahrenheit)
- Unit designators with formulas of atomic units should use flat ASCII text representations of the formulas (use m/s^2 not m/s^2 and not a horizontal line divider between the nominator and denominator of the unit)
- Unit designators must match the specified value below exactly

If additional units and unit designators are needed to adequately represent the data being exchanged, they should be negotiated through MHDC and added to the specification prior to use. Freeform values for units designators are not permitted.

Allowed Values

The following units and their corresponding unit designators are officially supported by MHDC:

Table 3. Supported Units

Unit Name	Unit Designator	Notes
general length	inches	Used for length measurements not specifically covered by other unit entries
general duration	seconds	Used for duration (time of a specific activity) measurements not specifically covered by other unit entries
general weight	pounds	Used for weight measurements not specifically covered by other unit entries
general volume	gallons	Used for volume measurements not specifically covered by other unit entries

Unit Name	Unit Designator	Notes
A1c result	percent	The average amount of glucose found in a patient's blood
albumin result	mg/dL	The amount of albumin found in a patient's urine
body height	inches	Used for height measurements taken during medical visits
body mass index (BMI)	kg/m^2	The calculated BMI value. This should be used for most adult BMI measurements. In keeping with using basic ASCII characters for unit designators, the caret character is used rather than an actual superscripted 2 (i.e. kg/m^2 is wrong).
body mass index percentile	percentile	BMI as a percentile measured against a historical reference population of the same age. This should be used primarily for BMI measurements of juvenile and adolescent patients. This should be paired with a value that's an integer between 0 and 100.
body temperature	Fahrenheit	Used for body temperature measurements taken during medical visits. Temperature readings taken in degrees Celsius should be converted to degrees Fahrenheit
body weight	pounds	Used for weight measurements taken during medical visits
diastolic blood pressure	mmHg	Used for the diastolic portion (bottom number) of a blood pressure reading taken during medical visits
glucose management indicator	percent	Used for the Continuous Glucose Monitoring metric Glucose Management Indicator (GMI). This should be paired with a value that's a number between 0 and 100.
hematocrit result	percent	The result of a hematocrit screening for anemia. This should be paired with a value that's a number between 0 and 100.
hemoglobin result	g/dL	The result of a hemaglobin screening for anemia
LDL cholesterol level result	mg/dL	The results of an LDL cholesterol screening test or the LDL portion of a lipid screening panel.
lead test result	microg/dL	The results of a lead screening test in micrograms per deciliter. In keeping with using basic ASCII characters for unit designators, microg is used instead of `\mu`g.

Unit Name	Unit Designator	Notes
oxygen level	percent	The percentage of oxygen saturation in a patient's blood as read from a pulse oximeter during medical visits. This should be paired with a value that's a number between 0 and 100.
pulse	beatsPerMinute	The number of heartbeats per minute as recorded during medical visits
systolic blood pressure	mmHg	The systolic portion (top number) of a blood pressure reading taken during medical visits

Data Groups

The quality measures data is organized in the following groups:

- diagnoses
- disabilities
- exceptions
- immunizations
- interventions
- laboratoryServices
- medications
- memberships
- membershipsAdditional
- observations
- procedures
- screenings

This data dictionary will describe the expected fields for each data group, identify its field type, list any constraints on those fields, and provide additional notes and comments on fields as needed. Each constraint is independent; just because a field has a minimum value does not mean the field is required to have a value present, just that if a value is supplied it must not be less than that minimum.

Each data group is an independent entity sent to payers as a separate file. The groups are listed alphabetically to make specific information easier to find.

While the data groups are independent, the fields within each group are not and must be included in the related data file in the order presented within the documentation.

Every data group contains a patient ID as its first field. This acts as a primary key that links patient-specific data together across the entire data domain.

The diagnoses Data Group

The diagnoses data group defines diagnosis data. Rather than being tied directly to each patient as an independent diagnosis that's included once per patient, each diagnosis record is tied to a specific event that warrants an associated diagnosis. Diagnoses may be tied to encounters, claims, or other events as indicated by the diagnosis source. Each patient diagnosis may be relevant to multiple events and each event may have multiple diagnoses associated with it (represented by individual records).

Fields

The diagnoses data group includes the following fields:

Table 4. diagnoses Fields

Field Name	Field Type	Constraints	Description
patientId	string	required if any data is present	The identifier used to map data to a specific patient (i.e., a specific member of the insurance plan). This field is defined in every data group. See Representing Patients with Patient IDs for more information about IDs.
diagnosisCode	string	must be a valid code for the code system specified in the codeSystem field.	A code representing the diagnosis being reported in the current record.
codeSystem	enumerated string	The allowed values are: • icd9 • icd10 • snomed	The code system used for the supplied diagnosis in the diagnosisCode field.
status	enumerated string	The allowed values are: • active • inactive	Indicates whether the diagnosis is currently applicable or no longer applies.
startDate	date	date must be in the past; date must be before endDate if one exists.	The date the diagnosis started. The date must be in the standard date format, YYYY-MM-DD. This could map to a field containing the onset date in some provider systems.

<table>
<tr><th>Field Name</th><th>Field Type</th><th>Constraints</th><th>Description</th></tr>
<tr><td>endDate</td><td>date</td><td>date must be in the past; date must be after startDate if one exists.</td><td>The date the diagnosis ended. The date must be in the standard date format, YYYY-MM-DD.

This could map to a field containing the abatement date in some provider systems.</td></tr>
<tr><td>reportedDate</td><td>date</td><td>date must be in the past</td><td>The date of the event associated with the diagnosis. The date must be in the standard date format, YYYY-MM-DD. The specific date used depends on the source event for the diagnosis:

<table><tr><th>Event</th><th>Date</th></tr><tr><td>billing</td><td>The reportedDate should be the date of service associated with the bill or claim generating the diagnosis</td></tr><tr><td>encounter</td><td>The reportedDate should be the date of the related encounter generating the diagnosis</td></tr><tr><td>problemList</td><td>The reportedDate should be the date the problem that generated the diagnosis was added to the problem list if that date is known. Otherwise, the date of the last update to the problem list should be used.</td></tr><tr><td>thirdParty</td><td>The reportedDate should be date the diagnosis was made by the third party reporting the data if that date is known. Otherwise, the date of the interaction with the third party conveying the diagnosis should be used.</td></tr></table></td></tr>
</table>

Field Name	Field Type	Constraints	Description
source	enumerated string	The allowed options are: • billing • encounter • problemList • thirdParty	Indicates where the diagnosis originated.
diagnosingProviderNpi	integer	minimum value= 1000000000. Maximum value= 29999999999	The NPI number of the diagnosing provider.

Examples

The following rows conform to the general structure of the diagnoses data group. However, they may or may not be valid for any given payer-provider pair depending on the valid values file in use.

```
O45695946s953301-F-1970-03-27-KATHE|276.8|icd9|inactive|2014-08-12|2019-05-
06||encounter|24466897751
O45695946s953301-F-1970-03-27-KATHE|K52.9|icd10|active|2019-10-
24|||thirdParty|24466897751
O45645433f245700-M-1956-11-11-TIM|E11.9|icd10|active|2018-10-31||2018-10-31|encounter|
```

The disabilities Data Group

The disabilities data group defines the collection of disability data to identify patients with disabilities to mitigate disparities in health care.

This data group supports the data collection and reporting standards for disability status adopted by the Massachusetts Quality Measure Alignment Taskforce (QMAT). See the Massachusetts QMAT Health Equity Data Standards. It includes the six-question disability set established by the Department of Health and Human Services (HHS) for their implementation guidance on data collection standards for disability status and additional disability questions included in the QMAT Health Equity Data Standards. The use of a six-question set is derived from the American Community Survey (ACS) to assess disability status from a functional perspective. The six questions address difficulty with hearing, vision, cognition, mobility, self-care (in particular bathing or dressing), and independent living. These questions represent a minimum standard for uniform data collection on disability in all surveys conducted or sponsored by HHS. To support the Race, Ethnicity, Language, Disability, Sexual Orientation, and Gender Identity (RELDSOGI) Data Completeness measure, this data group includes updated date and verified date for each of these six disability questions.

Fields

The disabilities data group includes the following fields:

Table 5. disabilities Fields

Field Name	Field Type	Constraints	Description
patientId	string	required if any data is present	The identifier used to map data to a specific patient (i.e., a specific member of the insurance plan). This field is defined in every data group. See Representing Patients with Patient IDs for more information about IDs.
disabilityStatus	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates the overall disability status of the patient. Note that the allowed values use the following LOINC codes. • LA33-6 Yes • LA32-8 No
disabilitySource	enumerated string	The allowed values are: • patient • claims • provider • legal • other	Indicates the source of the disability-related information.
hearingDisability	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient is deaf or has serious hearing difficulty. Disability question: Are you deaf or do you have serious difficulty hearing?
hearingDisabilityUpdatedDate	date	date must be in the past	Date the patient's hearing disability was updated.
hearingDisabilityVerfiedDate	date	date must be in the past	Date the patient's hearing disability was verified.

Field Name	Field Type	Constraints	Description
visionDisability	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient is blind or has serious vision difficulty, even with glasses. Disability question: Are you blind or do you have serious difficulty seeing, even when wearing glasses?
visionDisabilityUpdatedDate	date	date must be in the past	Date the patient's vision disability was updated.
visionDisabilityVerfiedDate	date	date must be in the past	Date the patient's vision disability was verified.
cognitiveDisability	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient has serious difficulty concentrating, remembering, or making decisions due to a physical, mental, or emotional condition. Disability question: Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?
cognitiveDisabilityUpdatedDate	date	date must be in the past	Date the patient's cognitive disability was updated.
cognitiveDisabilityVerfiedDate	date	date must be in the past	Date the patient's cognitive disability was verified.
ambulatoryDisability	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient has serious difficulty walking or climbing stairs. Disability question: Do you have serious difficulty walking or climbing stairs?

Field Name	Field Type	Constraints	Description
ambulatoryDisabilityUpdatedDate	date	date must be in the past	Date the patient's ambulatory disability was updated.
ambulatoryDisabilityVerfiedDate	date	date must be in the past	Date the patient's ambulatory disability was verified.
dressingBathingDisability	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient has difficulty dressing or bathing. Disability question: Do you have difficulty dressing or bathing?
dressingBathingDisabilityUpdatedDate	date	date must be in the past	Date the patient's dressing or bathing disability was updated.
dressingBathingDisabilityVerfiedDate	date	date must be in the past	Date the patient's dressing or bathing disability was verified.
independenceDisability	enumerated string	Indicates whether the patient has difficulty with independent living, i.e. difficulty doing errands alone such as visiting a doctor's office or shopping. • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient has difficulty doing errands alone due to physical, mental, or emotional condition. Disability question: Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping?
independenceDisabilityUpdatedDate	date	date must be in the past	Date the patient's independence disability was updated.
independenceDisabilityVerfiedDate	date	date must be in the past	Date the patient's independence disability was verified.

Field Name	Field Type	Constraints	Description
selfCareDisability	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient has difficulty with self-care. Use this field for broader self-care domain than difficulties with bathing or dressing specifically.
emotionalDisability	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient has emotional disability, a condition characterized by a long-term and marked degree of emotional or mental health challenges that adversely affect an individual's ability to function, particularly in learning or social environments.
physicalDisability	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient has physical disability, it broadly refers to conditions that limit basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying.
communicationDifficulty	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient has difficulty communicating using their usual language. Disability question: Using your usual language, do you have difficulty communicating, for example understanding or being understood?

Field Name	Field Type	Constraints	Description
learningDisability	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient has serious difficulty learning how to do things most people their age can learn. Disability question: Do you have serious difficulty learning how to do things most people your age can learn?
psychiatricDisability	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient has serious difficulty with mood, intense feelings, controlling behavior, or experiencing delusions or hallucinations. Disability question: Do you have serious difficulty with the following: mood, intense feelings, controlling your behavior, or experiencing delusions or hallucinations
otherDisability	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient has some other type of disability that limits activities in any way. Use this field if the disability type is not covered by other fields.
otherDisabilityDetails	string	This field is expected to be significantly longer than the typical string value; this should be accounted for when consuming the data so no information is lost.	A freeform string represents the details about the type of disability tied to the otherDisability field.

Field Name	Field Type	Constraints	Description
disabilitySelf Identified	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient has self identified as having a disability. Disability question: Do you identify as having a disability.

Examples

The following rows conform to the general structure of the disabilities data group. However, they may or may not be valid for any given payer-provider pair depending on the valid values file in use.

```
O45695946s953301-F-1970-03-27-KATHE||patient|LA33-6|2023-03-15|2023-03-15|LA32-8|2023-
03-15|2023-03-15|LA32-8|2023-03-15|2023-03-15|LA32-8|2023-03-15|2023-03-15|LA32-
8|2023-03-15|2023-03-15|LA32-8|2023-03-15|2023-03-15|||||||||
O45645433f245700-M-1956-11-11-TIM|LA33-6|provider|LA32-8|2024-04-12|2024-06-07|LA33-
6|2024-04-12|2024-06-07|LA33-6|2024-04-12|2024-06-07|LA33-6|2024-04-12|2024-06-
07|LA32-8|2024-04-12|2024-06-07|LA33-6|2024-04-12|2024-06-07|||||||||LA33-6
```

The exceptions Data Group

The exceptions data group defines patient-specific exceptions and exemptions. This will help determine if specific patients should be added or removed from denominators when calculating quality measures or other performance-related values. Some of this information may also be captured by or inferred from specific diagnosis or procedure data.

For example, some patients may be expected to have colonoscopies every 2, 3, or 5 years instead of the more standard every 10 years or may be expected to start them at a younger age than the general population. Providing an exception outlining this allows payers to judge adherence based on these expectations. Similarly, if someone can’t afford specific treatments, they may be removed from the denominator if the payer deems it appropriate.

This data does not have to be used specifically for formal quality measurements but may be used for other related programs such as a pay for performance agreement.

Fields

The exceptions data group includes the following fields:

Table 6. exceptions Fields

Field Name	Field Type	Constraints	Description
patientId	string	required if any data is present	The identifier used to map data to a specific patient (i.e., a specific member of the insurance plan). This field is defined in every data group. See Representing Patients with Patient IDs for more information about IDs.
measureCode	enumerated string	The allowed options are: see measureCodes Appendix for details	Indicates which screening or care management item is affected by the exception.
exceptionCode	string with preferred values	The preferred values are: • age • medicalHistory • medicallyNotPossible • notAffordable • notApplicable • postponed	The preferred values should be used if applicable but other values may also be used; this is not a strict enumeration. However, if you find another value is necessary, please report it to MHDC so it can be added to the preferred list and included when this preferred list becomes an enforced enumerated list in the future.

Field Name	Field Type	Constraints	Description
reason	string	This field is expected to be significantly longer than the typical string value; this should be accounted for when consuming the data so no information is lost.	A freeform description of the exception and why the exception is valid. This expands on the provided exception code. For example, if a patient needs to get a colonoscopy every two years because of a combination of frequent abnormal benign polyps and unexplained gastrointestinal symptoms, a valid reason field might be: Patient has exhibited numerous hamartomatous polyps on each of his last three colonoscopies. Further, patient has complained of frequent nausea, constipation, and diarrhea without known cause. Patient has declined genetic testing; colonoscopies should be performed every two years as long as hamartomatous polyps and symptoms persist. If polyps persist without symptoms, colonoscopy schedule may be readjusted to every three years. If no polyps of any kind are found in two consecutive colonoscopies, colonoscopy schedule may be readjusted to every five years.
frequency	string	none	Indicates a change in frequency rather than an exception to including data at all. For example, some patients have medical conditions that warrant having colonoscopies every 2, 3, or 5 years rather than every 10 years. These exceptions to the normal expectations would be noted here by supplying a frequency value for colonoscopies.
startDate	date	date must be in the past; date must be before endDate if one exists.	The date the exception started. The date must be in the standard date format, YYYY-MM-DD.
endDate	date	date must be in the past; date must be after startDate if one exists.	The date the exception ended. The date must be in the standard date format, YYYY-MM-DD.

Examples

The following rows conform to the general structure of the exceptions data group. However, they may or may not be valid for any given payer-provider pair depending on the valid values file in use.

```
045645433f245700-M-1956-11-11-TIM|COL|medicalHistory|Patient has exhibited numerous
hamartomatous polyps on each of his last three colonoscopies. Further, patient has
complained of frequent nausea, constipation, and diarrhea without known cause. Patient
has declined genetic testing; colonoscopies should be performed every two years as
long as hamartomatous polyps and symptoms persist. If polyps persist without symptoms,
colonoscopy schedule may be readjusted to every three years. If no polyps of any kind
are found in two consecutive colonoscopies, colonoscopy schedule may be readjusted to
every five years.|once every two years|2009-10-10|
045695946s953301-F-1970-03-27-KATHE|CHL|notApplicable|Patient not sexually active; one
year waiver renewable if still pertinent|2018-10-01|2019-09-30
045695946s953301-F-1970-03-27-KATHE|CHL|notApplicable|Patient not sexually active; one
year waiver renewable if still pertinent|2019-10-01|2020-09-30
```

The immunizations Data Group

The immunizations data group defines patient immunization data.

Fields

The immunizations data group includes the following fields:

Table 7. immunizations Fields

Field Name	Field Type	Constraints	Description
patientId	string	required if any data is present	The identifier used to map data to a specific patient (i.e., a specific member of the insurance plan). This field is defined in every data group. See Representing Patients with Patient IDs for more information about IDs.
serviceProviderNpi	integer	minimum value= 1000000000. Maximum value= 29999999999	The NPI number of the service provider.
serviceDate	date	date must be in the past	The date the service was performed. The date must be in the standard date format, YYYY-MM-DD. This could map to a field containing the administered date in some provider systems.

Field Name	Field Type	Constraints	Description
immunizationCode	string	must be a valid code for the code system specified in the codeSystem field.	A code representing the immunization being reported in the current record.
codeSystem	enumerated string	The allowed values are: • cpt • cvx • hcpcs • mapped • snomed	The code system used for the supplied immunization in the immunizationCode field. If mapped is used, it means that a freeform value will be supplied in the corresponding immunizationCode field; this value will not conform to any of the standard code systems supported by the MHDC Quality Measures Specification.
immunizationName	string	none	A freeform string representing the common name of the immunization.

Examples

The following rows conform to the general structure of the immunizations data group. However, they may or may not be valid for any given payer-provider pair depending on the valid values file in use.

```
O45695946s953301-F-1970-03-27-KATHE|24466897751|2018-09-18|88|cvx|influenza vaccine
O45645433f245700-M-1956-11-11-TIM|25673453483|2018-11-03|86198006|snomed|flu vaccine
O45695946s953301-F-1970-03-27-KATHE|24466897751|2018-10-04|88|cvx|influenza vaccine
O45645433f245700-M-1956-11-11-TIM|25673453483|2018-11-03|12866006|snomed|pneumonia
vaccine
O45645433f245700-M-1956-11-11-TIM|25673453483|2019-09-15|tetanus|mapped|
```

The interventions Data Group

The interventions data group defines SDOH intervention data. This data group collects data on interventions received by patients who were screened and found to have unmet social needs. Each instance of a multi-instance intervention has its own entry.

Fields

The interventions data group includes the following fields:

Table 8. interventions Fields

Field Name	Field Type	Constraints	Description
patientId	string	required if any data is present	The identifier used to map data to a specific patient (i.e., a specific member of the insurance plan). This field is defined in every data group. See Representing Patients with Patient IDs for more information about IDs.
referringProviderNpi	integer	minimum value= 1000000000. Maximum value= 29999999999	The NPI number of the referring provider.
orderDate	date	date must be in the past	The date the intervention was ordered. The date must be in the standard date format, YYYY-MM-DD.
servicingProvider	string	none	The provider who carried out the intervention.
socialNeedType	enumerated string	The allowed values are: • food • transportation • housing • utility • employment • education • violence • socialSupport • digitalAccess • nutrition • exercise • liveAlone • physicalAndMental • other	Indicates the type of social need support identified for the patient. Match social needs screening types. If other is used, details should be included at the start of the notes data element.

Field Name	Field Type	Constraints	Description
interventionType	enumerated string	The allowed values are: • assistance • assessment • counseling • coordination • education • evaluation • provision • referral • other	Type of intervention. If other is used, details should be included at the start of the notes data element.
interventionDate	date	date must be in the past; date must be after orderDate if one exists	The date the intervention took place. The date must be in the standard date format, YYYY-MM-DD.
notes	string	This field is expected to be significantly longer than the typical string value; this should be accounted for when consuming the data so no information is lost.	Notes about the intervention. If other is used for the socialNeedType and/or interventionType, details should be included at the start of this notes data element.

Examples

The following rows conform to the general structure of the interventions data group. However, they may or may not be valid for any given payer-provider pair depending on the valid values file in use.

```
O45695946s953301-F-1970-03-27-KATHE|26363522106|2025-05-07||food|assistance|2025-05-
24|food assistance provided by social services
O45695946s953301-F-1970-03-27-KATHE|26363522106|2025-05-07||housing|referral|2025-05-
19|referred to charitable organization for housing needs
O45695946s953301-F-1970-03-27-KATHE|26363522106|2025-05-07||housing|assistance|2025-
05-30|
```

The laboratoryServices Data Group

The laboratoryServices data group defines patient laboratory test results data.

Fields

The laboratoryServices data group includes the following fields:

Table 9. laboratoryServices Fields

Field Name	Field Type	Constraints	Description
patientId	string	required if any data is present	The identifier used to map data to a specific patient (i.e., a specific member of the insurance plan). This field is defined in every data group. See Representing Patients with Patient IDs for more information about IDs.
orderingProviderNpi	integer	minimum value= 1000000000. Maximum value= 29999999999	The NPI number of the ordering provider.
labId	string	none	An identifier for the laboratory analyzing the test and providing the results. In version 2.0.0 use the freeform name of the laboratory. MHDC plans to standardize this field in future versions, possibly using the CLIA code preferred by the CDC.
serviceCode	string	must be a valid code for the code system specified in the codeSystem field.	A code representing the service being reported in the current record.
codeSystem	enumerated string	The allowed values are: • cpt • hcpcs • loinc • mapped • snomed	The code system used for the supplied service in the serviceCode field. If mapped is used, it means that a freeform value will be supplied in the corresponding serviceCode field; this value will not conform to any of the standard code systems supported by the MHDC Quality Measures Specification.
serviceDate	date	date must be in the past	The date the service was performed. The date must be in the standard date format, YYYY-MM-DD. This could map to a field containing the collection date in some provider systems.
resultDate	date	date must be in the past; date must be after serviceDate if one exists	The date the results were processed by the laboratory. The date must be in the standard date format, YYYY-MM-DD.

Field Name	Field Type	Constraints	Description
result	number	must be -1 or greater or equal to 0	The numerical result of a specific test in the units system specified in the units field. A value of -1 indicates that trace amounts of the substance being measured are present. Results that cannot be represented as a single number in an allowed unit should be reported using the summaryOfFindings field which supports more verbose and freeform results. No test results captured in version 2.0.0 of the MHDC Quality Measures Specification include negative numbers as valid results; if this is expected to change in the future, contact MHDC immediately to start discussion of handling this case in future versions.
unit	enumerated string	See Allowed Values in the section on representing units for information about the allowed unit designators and what they mean.	The unit designator for the service. Only one unit is valid per type of measurement; you may need to convert your source data to report it in the specified unit. If the desired type of unit is not represented in the list of allowed values, contact MHDC to have it added to the specification.
summaryOfFindings	string	This field is expected to be significantly longer than the typical string value; this should be accounted for when consuming the data so no information is lost.	Provides a summary of a collection of findings rather than the results of an individual test or measurement when such a summary is appropriate. For example, while individual blood chemistry results should be sent as separate laboratory entries as appropriate with each test result as a single piece of data stored in the result/unit field pair, discussions of the complete chemistry panel and its implications might be sent separately as a summary of findings.

Examples

The following rows conform to the general structure of the laboratoryServices data group. However, they may or may not be valid for any given payer-provider pair depending on the valid

values file in use.

```
O45645433f245700-M-1956-11-11-TIM|12435687090|22D0075012|4548-4|loinc|2018-12-12|2018-
12-14|7.8|percent|
O45695946s953301-F-1970-03-27-KATHE|24466897751|22D0073159|102739008|snomed|2018-12-
20|2018-12-29|88|mg/dL|
O45645433f245700-M-1956-11-11-TIM|12435687090|22D0075012|4548-4|loinc|2019-03-28|2019-
03-29|7.3|percent|
O45645433f245700-M-1956-11-11-TIM|12435687090|22D0075012|4548-4|loinc|2019-06-30|2019-
07-03|6.8|percent|
O45645433f245700-M-1956-11-11-TIM|12435687090|22D0075012|4548-4|loinc|2019-10-04|2019-
10-05|7.1|percent|
O45695946s953301-F-1970-03-27-KATHE|26363522106|22D0074386|45378|cpt|2018-12-20|2018-
12-29|||two polyps removed during procedure analyzed at lab; one 2.22mm in diameter
and 2.54mm in diameter. Both benign.
O45645433f245700-M-1956-11-11-TIM|12435687090|22D0075012|4548-4|loinc|2019-12-22|2019-
12-27|7.0|percent|
```

The medications Data Group

The medications data group defines data related to the medications a patient has taken during the year including current medications.

Fields

The medications data group includes the following fields:

Table 10. medications Fields

Field Name	Field Type	Constraints	Description
patientId	string	required if any data is present	The identifier used to map data to a specific patient (i.e., a specific member of the insurance plan). This field is defined in every data group. See Representing Patients with Patient IDs for more information about IDs.
orderingProviderNpi	integer	minimum value= 1000000000. Maximum value= 29999999999	The NPI number of the ordering provider.
orderDate	date	date must be in the past; date must be before startDate if one exists	The date the medication was ordered. If this record is for a refill, this should be the date the refill was ordered and not the date of the initial order for the medication. The date must be in the standard date format, YYYY-MM-DD.

Field Name	Field Type	Constraints	Description
startDate	date	date must be in the past; date must be before endDate if one exists.	The date the medication started. The date must be in the standard date format, YYYY-MM-DD.
endDate	date	date must be in the past; date must be after startDate if one exists.	The date the medication ended. The date must be in the standard date format, YYYY-MM-DD.
status	enumerated string	The allowed values are: • active • continued • discontinued • increased • patientStopped • refilled • telephoneStart	Indicates whether the medication is currently applicable or no longer applies.
medicationCode	string	must be a valid code for the code system specified in the codeSystem field.	A code representing the medication being reported in the current record.
codeSystem	enumerated string	The allowed values are: • rxNorm • ndc	The code system used for the supplied medication in the medicationCode field.
medicationName	string	none	A freeform string representing the common name of the medication.
supplyLength	integer	minimum value=1	The number of days of medication included in each prescription fill
quantity	integer	minimum value=1	The total number of pills, shots, or other medication included in each prescription fill
frequency	string	none	How often the medication is taken by the patient.
dose	number	must be a positive number	The number of pills, puffs, injections, spoonfuls, etc. in each dose of the medication (i.e. how many items are taken at one time). Supports values like 0.5 to indicate taking half of a pill per dose.

Field Name	Field Type	Constraints	Description
strength	string	none	The amount of medication in each item taken by the patient in milligrams or any other appropriate unit. The strength should include both the value and the corresponding unit of measurement. The strength is per item, not per dose. If the patient takes 2 10mg pills per dose, the strength should be listed as 10mg. If the patient takes half of a 1mg pill per dose, the strength should be listed as 1mg.  Future versions of the MHDC Quality Measures Specification may split strength into two fields; one with the value and one with the unit to be more consistent with how we handle values with units generally.
deliveryMechanism	string	none	The medication form: pill, liquid, ointment, nasal inhaler, oral inhaler, injection, auto-injector, etc.  Future versions of the MHDC Quality Measures Specification should consider turning deliveryMechanism into an enumerated field

Examples

The following rows conform to the general structure of the medications data group. However, they may or may not be valid for any given payer-provider pair depending on the valid values file in use.

```
O45695946s953301-F-1970-03-27-KATHE|12323434567|2017-03-
13|||active|861007|rxNorm|metformin|30|60|twice daily|1|500 mg|pill
O45695946s953301-F-1970-03-27-KATHE|12323434567|2018-03-13||2019-10-
02|discontinued|0093-7254|ndc|glimiperide|15|30|once daily|0.5|1 mg|pill
O45695946s953301-F-1970-03-27-KATHE|12323434567|2019-10-02|||active|0093-
7254|ndc|trulicity|28|4|once weekly|1|1.5 mg/.5mL|auto-injector
```

The memberships Data Group

The memberships data group defines patient identification and demographic data.

Fields

The memberships data group includes the following fields in the order specified below:

Table 11. memberships Fields

Field Name	Field Type	Constraints	Description
patientId	string	required if any data is present	The identifier used to map data to a specific patient (i.e., a specific member of the insurance plan). This field is defined in every data group. See Representing Patients with Patient IDs for more information about IDs.
subscriberNumber	string	required	The subscriber ID assigned to this patient by the payer.
dependentCode	string	required. Must be two numeric characters long; leading 0 characters are acceptable.	Indicates the position of the patient in the family structure. Each payer may use its own scheme for assigning values. In general, the subscriber is assigned either 00 or 01 but this is not required. The combination of subscriberNumber and dependentCode values should uniquely identify the patient to the payer.  This value is not guaranteed to be constant throughout the lifetime of a patient or even throughout a given calendar or plan year as dependentCodes may be reordered when a dependent loses coverage for any reason. Each payer is responsible for notifying providers of any such changes for auditing purposes only; providers are expected to use the current value for a patient at the time data is collected or sent.

Field Name	Field Type	Constraints	Description
lastName	string	none	The last name of the patient. The name should use the casing, spacing, and punctuation of the actual name. Suffixes such as Jr., Sr., III should follow the alphabetic portion of the name with a single space between them.
firstName	string	none	The first name of the patient. The name should use the casing, spacing, and punctuation of the actual name. Prefixes such as titles should not be included.
middleInitial	string	maximum length=1	The middle initial of the patient. This letter should be capitalized and not followed by a period or any other punctuation.
gender	enumerated string	The allowed options are: • F • M • O	The current gender of the patient. The names of these values violate naming conventions per decision of the Data Governance Collaborative. O (for other) indicates a known gender that is not male or female. If the gender is unknown data for this field should be omitted.
birthDate	date	date must be in the past	The date of birth of the patient in YYYY-MM-DD format.
phoneNumber	string	minimum ten characters	The phone number of the patient. This number may be an international phone number. If no country code is supplied, the number is assumed to be a standard ten digit phone number from the United States or Canada. In general punctuation and spaces should be stripped out of the number; the exception to this is for supplying country codes which should be presented using the following syntax: `+ code number` where *code* is a valid country code and *number* is the local number within that country.

Field Name	Field Type	Constraints	Description
spokenLanguage	string	none	The spoken language of the patient. A freeform text to provide details about other spoken language identified by the patient, if other is used for the spokenLanguageEnumerated field.  Version 2.0.0 of the MHDC Quality Measures Specification added spokenLanguageEnumerated to the membershipsAdditional data group. The spokenLanguage field is retained for backward compatibility.
writtenLanguage	string	none	The written language of the patient. A freeform text to provide details about other written language identified by the patient, if other is used for the writtenLanguageEnumerated field.  Version 2.0.0 of the MHDC Quality Measures Specification added writtenLanguageEnumerated to the membershipsAdditional data group. The writtenLanguage field is retained for backward compatibility.

Field Name	Field Type	Constraints	Description
race	enumerated string	The allowed options are: raceCode • 2054-5 • 2028-9 • 2118-8 • 1002-5 • 2076-8 • 2106-3 • 2131-1 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown • 2135-2 raceString • africanAmerican • asian • middleEasternNorthAfrican • nativeAmerican • pacificIslander • white • other • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown • hispanic	The identified race category of the patient. Note that an explicit value of unknown is supplied; if the race is unknown this value should be used rather than supplying a blank field. MHDC recommends not mixing the code values and the string values representing specific races within the same data upload. This is not a strict requirement of the MHDC Quality Measures Specification.  Version 2.0.0 of the MHDC Quality Measures Specification made the following enhancements to the allowed values: • added 2118-8 (middleEasternNorthAfrican), refusedToSpecify, askedUnknown, and lacksClinicalCapacity; • both race code and string values are retained for backward compatibility but grouped into two value sets: raceCode and raceString. Payer may require either raceCode or raceString by setting the preference in valid values file; • note that the value hispanic is retained in the raceString value set for backward compatibility and the corresponding code 2135-2 is added. For hispanic, MHDC recommends to use hispanicEthnicity.

Field Name	Field Type	Constraints	Description
hispanicEthnicity	enumerated string	The allowed options are: ethnicityCode • 2135-2 • 2186-5 • refusedToSpecify • askedUnknown • lacksClinicalCapacity • unknown ethnicityString • isHispanic • isNotHispanic • refusedToSpecify • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient self-identifies as Hispanic. This value should agree with the value of the isHispanic field that follows, but is slightly more expansive. Note that an explicit value of unknown is supplied; if the ethnicity is unknown this value should be used rather than supplying a blank field. MHDC recommends not mixing the code values and the string values representing specific ethnicities within the same data upload. This is not a strict requirement of the MHDC Quality Measures Specification.  Version 2.0.0 of the MHDC Quality Measures Specification made the following enhancements to the allowed values: • added askedUnknown and lacksClinicalCapacity; • both ethnicity code and string values are retained for backward compatibility but grouped into two value sets: ethnicityCode and ethnicityString. Payer may require either ethnicityCode or ethnicityString by setting the preference in valid values file; • note that, OMB has combined race and ethnicity into a single question, the code 2186-5 and string value isNotHispanic are retained for backward compatibility. The value refusedToSpecify is also retained rather than changing it to askedDeclined for backward compatibility.

Field Name	Field Type	Constraints	Description
isHispanic	boolean	none	Indicates whether the patient is Hispanic. If not supplied, the value is assumed to be unknown. This value should not contradict the value of the earlier hispanicEthnicity field, but provides fewer options. This field is retained for backward compatibility in version 2.0.0 of the MHDC Quality Measures Specification. MHDC recommends to use the hispanicEthnicity field.

Examples

The following rows conform to the general structure of the memberships data group. However, they may or may not be valid for any given payer-provider pair depending on the valid values file in use.

```
O45695946s953301-F-1970-03-27-KATHE|O45695946s9533|01|Montgomery|Katherine|J|F|1970-
03-27|6175551212|||2054-5|2135-2|
O45645433f245700-M-1956-11-11-TIM|O45645433f2457|00|Fredricks Jr|Tim|O|M|1956-11-
11||||2106-3|2186-5|
A67d88999BB56204-M-2001-03-24-VERNO|A67d88999BB562|04|Malick|Vernon|R|M|2001-03-
24|7815550045|||2028-9|2186-5|
A6755559HKK2502-O-1999-06-21-VERA|A6755559HKK25|02|Malnikova|Vera|N|O|1999-06-
21|9785553567|Russian||2106-3|2186-5|
```

The membershipsAdditional Data Group

The membershipsAdditional data group captures additional patient demographic details that are not specified in the memberships data group. To support the RELDSOGI Data Completeness measure, this data group also includes the updated date and verified date associated with the race, ethnicity, preferred language, sexual orientation, and gender identity data elements.

Fields

The membershipsAdditional data group includes the following fields in the order specified below:

Table 12. membershipsAdditional Fields

Field Name	Field Type	Constraints	Description
patientId	string	required if any data is present	The identifier used to map data to a specific patient (i.e., a specific member of the insurance plan). This field is defined in every data group. See Representing Patients with Patient IDs for more information about IDs.
race2	enumerated string	The allowed values are: • 2054-5 • 2028-9 • 2118-8 • 1002-5 • 2076-8 • 2106-3 • 2131-1	In addition to the race field in the memberships data group, this is the second race field for an additional patient's identified race category. If the code *2131-1 (Other Race)* is selected, the detailedRace fields may be used to provide details or use the detailedRaceOther field if a detailed race code is not available. Note that the allowed values use the following CDCREC codes. • 1002-5 American Indian or Alaska Native • 2028-9 Asian • 2054-5 Black or African American • 2118-8 Middle Eastern or North African. • 2076-8 Native Hawaiian or Other Pacific Islander • 2106-3 White • 2131-1 Other Race

Field Name	Field Type	Constraints	Description
detailedRace 1	enumerated string	The allowed values are: detailedRaceCDC • codes from the Detailed race including absence reasons value set • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown detailedRaceMA • codes from the detailedRaceMA value set • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Detailed race codes using the CDC Race and Ethnicity (CDCREC) code system. Payer may require either the detailedRaceCDC value set or the detailedRaceMA value set by setting the preference in valid values file. The detailedRaceMA value set is defined based on Massachusetts Department of Public Health Granular Ethnicity options adapted from the 2024 Office of Management and Budget (OMB) race and ethnicity data collection changes. If the code *2131-1 (Other Race)* is selected, the detailedRaceOther field may be used to provide details. The Detailed race including absence reasons value set includes codes asked-declined, ASKU, and UNK, which are equivalent to askedDeclined, askedUnknown, and unknown defined in this specification. For consistency with other data group fields in this specification, consider using askedDeclined, askedUnknown, and unknown when populate this field.

Field Name	Field Type	Constraints	Description
detailedRace 2	enumerated string	The allowed values are: detailedRaceCDC • codes from the Detailed race including absence reasons value set detailedRaceMA • codes from the detailedRaceMA value set	This is the second detailed race field for an additional patient's identified detailed race. Payer may require either the detailedRaceCDC value set or the detailedRaceMA value set by setting the preference in valid values file. The detailedRaceMA value set is defined based on Massachusetts Department of Public Health Granular Ethnicity options adapted from the 2024 OMB race and ethnicity data collection changes. Note that the Detailed race including absence reasons value set includes codes asked-declined, ASKU, and UNK, which are equivalent to askedDeclined, askedUnknown, and unknown defined in this specification. These absense reason codes are not applicable for the detailedRace2 field.
detailedRace Other	string	none	A freeform text to provide details about other race, if *2131-1 (Other Race)* is used for the race or detailedRace fields, or if additional detailed races need to be provided beyond the two detailed race fields already supplied.
raceUpdated Date	date	date must be in the past	Date the patient's race was updated.
raceVerfiedD ate	date	date must be in the past	Date the patient's race was verified.

Field Name	Field Type	Constraints	Description
detailedEthnicity	enumerated string	The allowed values are: detailedEthnicityCDC • codes from the Detailed Ethnicity value set • other • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown detailedEthnicityMA • codes from the detailedEthnicityMA value set • other • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Detailed ethnicity codes using the CDC Race and Ethnicity (CDCREC) code system. If the value *other* is used, use the detailedEthnicityOther to provide details or if multiple detailed ethnicities need to be reported. Payer may require either the detailedEthnicityCDC value set or the detailedEthnicityMA value set by setting the preference in valid values file. The detailedEthnicityMA value set is defined based on Massachusetts Department of Public Health Granular Ethnicity options adapted from the 2024 OMB race and ethnicity data collection changes.
detailedEthnicityOther	string	none	A freeform text to provide details about other detailed ethnicity if the value *other* is used for detailedEthnicity, or if additional detailed ethnicities need to be provided.
ethnicityUpdatedDate	date	date must be in the past	Date the patient's ethnicity was updated.
ethnicityVerifiedDate	date	date must be in the past	Date the patient's ethnicity was verified.

Field Name	Field Type	Constraints	Description
sexAssignedAtBirth	enumerated string	The allowed values are: • 248152002 • 248153007 • 32570691000036108 • other • askedDeclined • askedUnknown • unknown	Patient sex that is assigned at birth. If the value *other* is used, provide details in sexAssignedAtBirthOther. Note that the allowed values use the following SNOMED codes. • 248152002 Female • 248153007 Male • 32570691000036108 Intersex
sexAssignedAtBirthOther	string	none	A freeform text to provide details about other sex assigned at birth, if the value *other* is provided for sexAssignedAtBirth.
spokenLanguageEnumerated	enumerated string	The allowed values are: • english • spanish • portuguese • capeVerdeanCreole • chinese • haitianCreole • signLanguage • french • vietnamese • russian • arabic • other • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	The preferred spoken language of the patient. If the value *other* is selected, use the spokenLanguage field under the memberships data group to provide the details. If no language is supplied, the default language is English. If only one language is known for the patient, assume it is the spoken language of the patient.
spokenLanguageUpdatedDate	date	date must be in the past	Date the patient's preferred spoken language was updated.
spokenLanguageVerfiedDate	date	date must be in the past	Date the patient's preferred spoken language was verified.

Field Name	Field Type	Constraints	Description
writtenLanguageEnumerated	enumerated string	The allowed values are: • english • spanish • portuguese • chineseSimplified • chineseTraditional • haitianCreole • french • vietnamese • russian • arabic • other • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	The preferred written language of the patient. If the value *other* is selected, use the writtenLanguage field under the memberships data group to provide the details. If no written language is supplied, the default is to use the spokenLanguage value. If no language is supplied in either field, the default language is English.
writtenLanguageUpdatedDate	date	date must be in the past	Date the patient's preferred written language was updated.
writtenLanguageVerifiedDate	date	date must be in the past	Date the patient's preferred written language was verfied.
englishProficiency	enumerated string	The allowed values are: • veryWell • well • notWell • notAtAll • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Levels of proficiency for English.
englishProficiencyUpdatedDate	date	date must be in the past	Date the patient's English proficiency was updated.

Field Name	Field Type	Constraints	Description
englishProficiencyVerfiedDate	date	date must be in the past	Date the patient's English proficiency was verified.
religion	enumerated string	The allowed values are: • codes from the HL7 V3 ReligiousAffiliation value set • other • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	The patient's professed religious affiliation. If the value *other* is used or if additional religions are identified, the religionOther field may be used to provide details.
religionOther	string	none	A freeform text to provide details about other religions identified by the patient. This field may also be used to provide additional religious affiliations if more than one is identified.
sexualOrientation	enumerated string	The allowed values are: • 20430005 • 38628009 • 42035005 • 765288000 • queer • pansexual • questioning • other • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Sexual orientation identified by the patient. If the value *other* is used or if additional sexual orientations are identified, the sexualOrientationOther field may be used to provide details.  Note that SNOMED codes are used for the allowed values wherever corresponding SNOMED codes are available for sexual orientation. • 20430005 Heterosexual • 38628009 Homosexual • 42035005 Bisexual • 765288000 Sexually attracted to neither male nor female sex

Field Name	Field Type	Constraints	Description
sexualOrientationOther	string	none	A freeform text to provide details about other sexual orientation identified by the patient, if the value *other* is used for the sexualOrientation field. This field may also be used to report additional sexual orientations if more than one is identified.
sexualOrientationUpdatedDate	date	date must be in the past	Date the patient's sexual orientation was updated.
sexualOrientationVerfiedDate	date	date must be in the past	Date the patient's sexual orientation was verfied.
genderIdentity	enumerated string	The allowed values are: • 446141000124107 • 446151000124109 • 33791000087105 • 407376001 • 407377005 • other • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Gender identity of the patient. If the value *other* is used or if additional gender identities are identified, the genderIdentityOther field may be used to provide details. Note that the allowed values use the following SNOMED codes. • 446141000124107 Identifies as female gender • 446151000124109 Identifies as male gender • 33791000087105 Identifies as nonbinary gender • 407376001 Male-to-female transsexual • 407377005 Female-to-male transsexual
genderIdentityOther	string	none	A freeform text to provide details about other gender identity identified by the patient, if the value *other* is used for the genderIdentity field. This field may also be used to report additional gender identities if more than one is identified.

Field Name	Field Type	Constraints	Description
genderIdentityUpdatedDate	date	date must be in the past	Date the patient's gender identity was updated.
genderIdentityVerfiedDate	date	date must be in the past	Date the patient's gender identity was verified.
pronoun	enumerated string	The allowed values are: • LA29518-0 • LA29519-8 • LA29520-6 • other • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Pronoun identified by the patient. If the value *other* is used or if additional pronouns need to be reported, the pronounOther field may be used to provide details. Note that the allowed values use the following LOINC codes. • LA29518-0 he/him • LA29519-8 she/her • LA29520-6 they/them
pronounOther	string	none	A freeform text to provide details about other pronoun identified by the patient, if the value *other* is used for the pronoun field. This field may also be used to report additional pronouns if more than one is identified.
isHomeless	enumerated string	The allowed values are: • LA33-6 • LA32-8 • askedDeclined • askedUnknown • lacksClinicalCapacity • unknown	Indicates whether the patient is known to be homeless. Note that the allowed values use the following LOINC codes. • LA33-6 Yes • LA32-8 No
isHomelessUpdatedDate	date	date must be in the past	Date whether the patient is homeless was updated.
isHomelessVerfiedDate	date	date must be in the past	Date whether the patient is homeless was verified.

Examples

The following rows conform to the general structure of the membershipsAdditional data group.

However, they may or may not be valid for any given payer-provider pair depending on the valid values file in use.

```
O45695946s953301-F-1970-03-27-KATHE||||2023-03-10|2024-05-11|2180-8||2023-03-10|2024-
05-11|248152002||english|2023-03-10|2024-05-11|english|2023-03-10|2024-05-11|very
well|2023-03-10|2024-05-11|unknown||unknown||||unknown||||unknown||LA32-8|2024-02-
08|2024-02-08
O45645433f245700-M-1956-11-11-TIM|2106-3|2110-5|||2024-11-12|2025-04-16|||2024-11-
12|2025-04-16|248153007||english|2025-04-16|2025-04-16|english|2025-04-16|2025-04-
16|unknown|||||askedDeclined||2025-04-16||askedDeclined||2025-04-
16||askedDelined||unknown|2025-04-16|
A67d88999BB56204-M-2001-03-24-VERNO|2106-3||||2023-09-18|2024-01-06|||2023-09-18|2024-
01-06|248152002||english|||english|||very well|||unknown||20430005||2023-09-
18||askedUnknown||2023-09-18||unknown||LA32-8|2024-10-15|
A6755559HKK2502-O-1999-06-21-VERA||||||||||248153007||english|2023-06-
08||english|2023-06-08||well|||askedDeclined||38628009||2023-06-
08||446141000124107|2023-06-08|||LA29519-8|||||
```

The observations Data Group

The observations data group defines patient vital signs and other observational data taken during medical visits.

Fields

The observations data group includes the following fields:

Table 13. observations Fields

Field Name	Field Type	Constraints	Description
patientId	string	required if any data is present	The identifier used to map data to a specific patient (i.e., a specific member of the insurance plan). This field is defined in every data group. See Representing Patients with Patient IDs for more information about IDs.
serviceProviderNpi	integer	minimum value= 1000000000. Maximum value= 29999999999	The NPI number of the service provider.
serviceDate	date	date must be in the past	The date the service was performed. The date must be in the standard date format, YYYY-MM-DD.
observationCode	string	must be a valid code for the code system specified in the codeSystem field.	A code representing the observation being reported in the current record.

Field Name	Field Type	Constraints	Description
codeSystem	enumerated string	The allowed values are: • cpt • cpt2 • hcpcs • loinc • mapped • snomed	The code system used for the supplied observation in the observationCode field. If mapped is used, it means that a freeform value will be supplied in the corresponding observationCode field; this value will not conform to any of the standard code systems supported by the MHDC Quality Measures Specification. The code system selected for each record must adequately describe the unique observation supplied for that record. For example, the code system must explicitly distinguish between diastolic and systolic blood pressure and allow providers to explicitly indicate the record provides one or the other. Systems that only supply a code for blood pressure generally may not be used to supply blood pressure results.
value	number	none	The numerical value of the vital sign or observation in the units indicated by the unit field.
unit	enumerated string	See Allowed Values in the section on representing units for information about the allowed unit designators and what they mean.	The unit designator for the observation. Only one unit is valid per type of measurement; you may need to convert your source data to report it in the specified unit. If the desired type of unit is not represented in the list of allowed values, contact MHDC to have it added to the specification.

Examples

The following rows conform to the general structure of the observations data group. However, they may or may not be valid for any given payer-provider pair depending on the valid values file in use.

```
O45645433f245700-M-1956-11-11-TIM|12435687090|2019-05-23|8480-6|loinc|142|mmHg
O45645433f245700-M-1956-11-11-TIM|12435687090|2019-05-23|8462-4|loinc|82|mmHg
O45645433f245700-M-1956-11-11-TIM|12435687090|2019-05-23|162763007|snomed|188|pounds
O45645433f245700-M-1956-11-11-TIM|12435687090|2019-05-
23|386725007|snomed|97.7|Fahrenheit
```

The procedures Data Group

The procedures data group defines data related to procedures the patient has undergone throughout the year.

Fields

The procedures data group includes the following fields:

Table 14. procedures Fields

Field Name	Field Type	Constraints	Description
patientId	string	required if any data is present	The identifier used to map data to a specific patient (i.e., a specific member of the insurance plan). This field is defined in every data group. See Representing Patients with Patient IDs for more information about IDs.
orderingProviderNpi	integer	minimum value= 1000000000. Maximum value= 29999999999	The NPI number of the ordering provider.
serviceProviderNpi	integer	minimum value= 1000000000. Maximum value= 29999999999	The NPI number of the service provider.
procedureCode	string	must be a valid code for the code system specified in the codeSystem field.	A code representing the procedure being reported in the current record.
codeSystem	enumerated string	The allowed values are: • cpt • cpt2 • hcpcs • icd9 • icd10 • mapped • snomed	The code system used for the supplied procedure in the procedureCode field. If mapped is used, it means that a freeform value will be supplied in the corresponding procedureCode field; this value will not conform to any of the standard code systems supported by the MHDC Quality Measures Specification.
serviceDate	date	date must be in the past	The date the service was performed. The date must be in the standard date format, YYYY-MM-DD.

Field Name	Field Type	Constraints	Description
results	string	This field is expected to be significantly longer than the typical string value; this should be accounted for when consuming the data so no information is lost.	A freeform string indicating the contents of the procedure report or other pertinent results from the procedure itself. This is not meant to include results from biopsies or other laboratory services performed later even if they are performed on tissue or other substances removed during the procedure; those should be recorded as laboratoryServices records.
source	enumerated string	The allowed options are: • billing • encounter • problemList • thirdParty	Indicates where the procedure originated.
modifierCode	string	must be a valid code for the code system specified in the codeSystem field.	Modifier code for the procedure code.
modifierCodeSystem	enumerated string	The allowed values are: • cpt-modifiers • hcpcs • mapped	The code system used for the modifier code. If mapped is used, it means that a freeform value will be supplied in the corresponding modifierCode field; this value will not conform to any of the standard code systems supported by the MHDC Quality Measures Specification.

Examples

The following rows conform to the general structure of the procedures data group. However, they may or may not be valid for any given payer-provider pair depending on the valid values file in use.

```
O45645433f245700-M-1956-11-11-TIM|12120045645|12004744127|45378|cpt|2019-11-
11||encounter||
O45695946s953301-F-1970-03-27-KATHE|20001203055|11114680257|90226004|snomed|2015-05-
14|Pap smear normal|encounter||
O45695946s953301-F-1970-03-27-KATHE|20001203055|24956700021|58570|cpt|2018-06-
06|Uterus removed as precaution based on genetic screening. Laproscopic procedure
successful.|thirdParty||
O45695946s953301-F-1970-03-27-KATHE|20001203055|24956700021|45378|cpt|2019-05-
06|||53|cpt-modifiers
```

The screenings Data Group

The screenings data group in this specification supports exchanging SDOH-related screening data. SDOH screening identifies specific social risks and needs such as housing insecurity, food insecurity, transportation barriers, exposure to violence, financial strain, social support deficits, utilities access including heating and internet, educational attainment, and employment status. Example common screening instruments for health-related social needs include the Accountable Health Communities (AHC) screening tool, the Protocol for Responding to and Assessing Patients' Risks and Experiences (PRAPARE), and the American Academy of Family Physicians (AAFP) screen tool.

The screenings data group may also be used to capture screenings such as depression screening, which uses screening instruments including Patient Health Questionnaire (PHQ-9) and PHQ-2.

Fields

The screenings data group includes the following fields:

Table 15. screenings Fields

Field Name	Field Type	Constraints	Description
patientId	string	required if any data is present	The identifier used to map data to a specific patient (i.e., a specific member of the insurance plan). This field is defined in every data group. See Representing Patients with Patient IDs for more information about IDs.
screeningToolCode	string	must be a valid code for the code system specified in the screeningToolCodeSystem field.	A code representing the screening tool/instrument used for screening. For example, LOINC code 96777-8 for AHC HRSN screening tool, 93025-5 for the PREPARE Tool, 99595-1 for the AAFP Screening Tool.
screeningToolCodeSystem	enumerated string	The allowed values are: • loinc • mapped	The code system used for the supplied screening in the screeningCode field. If mapped is used, it means that a freeform value will be supplied in the corresponding screeningCode field; this value will not conform to any of the standard code systems supported by the MHDC Quality Measures Specification.

Field Name	Field Type	Constraints	Description
screeningType	enumerated string	The allowed values are: • socialNeeds • food • transportation • housing • utility • employment • education • violence • socialSupport • digitalAccess • nutrition • exercise • liveAlone • physicalAndMental • other	Type of screening. Use “socialNeeds” for general SDOH tools; if specific to a particular type of SDOH, use the other allowed values, for example, “food”.
orderingProviderNpi	integer	minimum value= 1000000000. Maximum value= 29999999999	The NPI number of the ordering provider.
screeningProvider	string	none	Who conducted the screening. Provider or non-clinical staff (e.g., patient navigator, community health workers, medical assistants, and social workers).
screeningCode	string	must be a valid code for the code system specified in the codeSystem field.	A code representing a specific item or question within the screening tool/instrument. For example, LOINC code 71802-3 represents the specific question "What is your living situation today?" from the AHC HRSN screening tool.

Field Name	Field Type	Constraints	Description
screeningCodeSystem	enumerated string	The allowed values are: • loinc • mapped	The code system used for the supplied screening item or question in the screeningCode field. If mapped is used, it means that a freeform value will be supplied in the corresponding screeningCode field; this value will not conform to any of the standard code systems supported by the MHDC Quality Measures Specification.
screeningDate	date	date must be in the past	The date the screening was performed. The date must be in the standard date format, YYYY-MM-DD.
screeningResponseCode	string	must be a valid code for the code system specified in the codeSystem field.	A code representing the response to the screening item or question that is provided in the screeningCode field. For example, LOINC answer code LA31998-0 for "lack of heat" as a response for the question "What is your living situation today?" from the AHC HRSN screening tool.
screeningResponseCodeSystem	enumerated string	The allowed values are: • loinc • mapped	The code system used for the supplied screening response in the screeningResponseCode field. If mapped is used, it means that a freeform value will be supplied in the corresponding screeningResponseCode field; this value will not conform to any of the standard code systems supported by the MHDC Quality Measures Specification.
screeningScore	number	none	A measured value/score to the screening item or question.
screeningResult	string	none	The outcome of the screening, for example, based on the screening responses, whether the patient screened positive or negative for social needs.

Field Name	Field Type	Constraints	Description
notes	string	This field is expected to be significantly longer than the typical string value; this should be accounted for when consuming the data so no information is lost.	Notes about the screening and/or screening results.
source	enumerated string	The allowed values are: • mail • phone • email • in-person • portal • app • other	Indicates the method by which the screening was conducted. If other is used, details should be included at the start of the notes data element.

Examples

The following rows conform to the general structure of the screenings data group. However, they may or may not be valid for any given payer-provider pair depending on the valid values file in use.

```
O45695946s953301-F-1970-03-27-KATHE|96777-
8|loinc|Housing|26363522106|12435687090|71802-3|loinc|2025-05-04|LA31993-
1|loinc||||in-person
O45695946s953301-F-1970-03-27-KATHE|96777-
8|loinc|Housing|26363522106|12435687090|96778-6|loinc|2025-05-04|LA31998-
0|loinc||positive||in-person
O45695946s953301-F-1970-03-27-KATHE|96777-8|loinc|Food|26363522106|12435687090|88122-
7|loinc|2025-05-04|LA6729-3|loinc||positive||in-person
O45695946s953301-F-1970-03-27-KATHE|96777-8|loinc|Food|26363522106|12435687090|88123-
5|loinc|2025-05-04|LA28398-8|loinc||||in-person
O45695946s953301-F-1970-03-27-KATHE|96777-
8|loinc|Transportation|26363522106|12435687090|93030-5|loinc|2025-05-04|LA32-
8|loinc||||in-person
O45695946s953301-F-1970-03-27-KATHE|96777-
8|loinc|Utility|26363522106|12435687090|96779-4|loinc|2025-05-04|LA33-
6|loinc||positive||in-person
O45695946s953301-F-1970-03-27-KATHE|96777-
8|loinc|Violence|26363522106|12435687090|95618-5|loinc|2025-05-04|LA6270-
8|loinc|1|||in-person
O45695946s953301-F-1970-03-27-KATHE|96777-
8|loinc|Violence|26363522106|12435687090|95617-7|loinc|2025-05-04|LA10082-
8|loinc|3|||in-person
O45695946s953301-F-1970-03-27-KATHE|96777-
```

```
8|loinc|Violence|26363522106|12435687090|95616-9|loinc|2025-05-04|LA6270-
8|loinc|1|||in-person
O45695946s953301-F-1970-03-27-KATHE|96777-
8|loinc|Violence|26363522106|12435687090|95615-1|loinc|2025-05-04|LA10082-
8|loinc|3|||in-person
O45695946s953301-F-1970-03-27-KATHE|96777-
8|loinc|Violence|26363522106|12435687090|95614-4|loinc|2025-05-04|||8|negative||in-
person
O45645433f245700-M-1956-11-11-TIM|55757-9|loinc|Other|12435687090|Emma Smith,
RN|44250-9|loinc|2025-06-13|LA6569-3|loinc|1||depression screening|in-person
O45645433f245700-M-1956-11-11-TIM|55757-9|loinc|Other|12435687090|Emma Smith,
RN|44255-8|loinc|2025-06-13|LA6570-1|loinc|2||depression screening|in-person
O45645433f245700-M-1956-11-11-TIM|55757-9|loinc|Other|12435687090|Emma Smith,
RN|55758-7|loinc|2025-06-13|||3|positive|depression screening|in-person
```

References

MHDC referenced numerous materials as source inputs for the updates, including but not limited to:

- Center for Health Information and Analysis (CHIA) Electronic Health Record Dataset (EHRD) Data Collection File Submission Guide (Calendar Year 2024)
- Massachusetts Aligned Measure Set
- MassHealth Member Enrollment - Optional Health Equity Questions
- Massachusetts Quality Measure Alignment Task Force (QMAT) Health Equity Data Standards (2023 and draft recommended updates Sept 2025)
- MassHealth Quality Measure Set
- National Committee for Quality Assurance (NCQA) 2024 Health Equity and Health Equity Plus Accreditation Standards
- Technical Specifications for the MassHealth Quality and Equity Incentive Programs

Appendix A: Provider Directory Names

The following table lists each potential provider partner and the directory name to use for their files.

Table 16. Top-Level Directory Names

Organization	Short Forms	Directory Name
Atrius Health	Atrius	atrius
Baystate Health	Baystate	baystate
Berkshire Health System	Berkshire, BHS	berkshire
Beth Israel Lahey	Beth Israel, BIDMC, BIDCO, BIL, BILH, BILHPN	bethisrael
Boston Health Care for the Homeless Program	BHCHP	bostonhomeless
Boston Medical Center	BMC	bmc
Bowdoin Street Health Center	Bowdoin Street Health, BIDMC Bowdoin Street	bowdoinstreet
Brockton Neighborhood Health Center	Brockton, BNHC	brocktonnhc
Brookside Community Health Center	Brigham and Womens Brookside, Brookside	brookside
Cambridge Health Alliance	CHA	cha
Cape Cod Healthcare	Cape Cod Hospital, Cape Cod, CCHC	capecodhc
Caring Health Center	Caring	caring
Charles River Community Health	Charles River	charlesriver
Codman Square Health Center	Codman Square, Codman, Codman Sq	codmansq
Community Health Center of Cape Cod	CHC Cape Cod	chccapecod
Community Health Center of Franklin County	CHC Franklin County, CHC Franklin, CHCFC	chcfranklin
Community Health Connections	Community Health Connections, CHCFHC	chcfhc
Community Health Programs of the Berkshires	Community Health Programs, CHP	chpberkshires
Community Healthlink	UMassMemorial Community Healthlink, CHL	healthlink
Dartmouth-Hitchcock Health	Dartmouth-Hitchcock, D-HH	dartmouthhh

Organization	Short Forms	Directory Name
Dimock Center	Dimock	Dimock
Dorchester House Health Center	Dorchester House Health, Dorcester House	dorchesterhouse
Duffy Health Center	Duffy Health	duffyhealth
Edward M. Kennedy Community Health Center	Kennedy Community Health Center, Kennedy CHC	kennedychc
Emerson Hospital	Emerson	emerson
Family Care Center at SSTAR	SSTAR Family Health Care Center, SSTAR, The Family Health Care Center @ SSTAR	sstarfamilyhealth
Family Health Center of Worcester	FHCW	fhcworcester
Fenway Health	Fenway	fenwayhealth
Greater Lawrence Family Health Center	GLFHC	lawrencefhc
Greater Roslindale Medical and Dental Center	GRMDC	roslindalemdc
Hallmark Health	MelroseWakefield Healthcare	melrosewakefield
Harbor Health Services	Harbor Health, HHSI	harborhealth
Harrington Healthcare System	Harrington Hospital, Harrington	harrington
Harvard Street Neighborhood Health Center	Harvard Street NHC, Harvard Street	harvardstreet
Heywood Healthcare	Heywood Hospital, Heywood	heywood
HealthFirst Family Care Center	HealthFirst FCC, HealthFirst	healthfirst
Hilltown Community Health Center	Hilltown CHC, Hilltown, HCHC	hilltown
Holyoke Health Center	Holyoke Health, Holyoke	bmc
InterMed	InterMed	intermed
Island Health	Island Health Care, IHIMV	islandhealth
Lowell Community Health Center	Lowell Community Health, Lowell CHC	lowellchc
Lowell General Hospital	Lowell General	lowellgeneral
Lynn Community Health Center	Lynn CHC, Lynn Community Health, LCHC	lynnchc
MaineGeneral Health	Maine General	mainegeneral

Organization	Short Forms	Directory Name
Manet Community Health Center	Manet CHC, Manet	manetchc
Mass General Brigham	Mass General, MGB	mgb
Massachusetts League of Community Health Centers	League of Community Health Centers, LCHC, the League	massleague
Mattapan Community Health Center	MCHC	mattapanchc
MetroWest Medical Center	MetroWest	metrowest
MGH Charlestown HealthCare Center	Charlestown HealthCare Center	mghcharlestown
MGH Chelsea Healthcare Center	MGH Chelsea	mghchelsea
MGH Revere HealthCare Center	Revere HealthCare Center	mghrevere
NeighborHealth (previously East Boston Neighborhood Health)	East Boston Neighborhood Health, EBNHC, NeightborHealth	ebnhc
New Bedford Community Health Center (previously Greater New Bedford Community Health Center)	NBCHC	newbedfordchc
New England Quality Care Alliance (now part of Tufts Medicine Integrated Network/Tufts Medicine)	NEQCA	neqca
North End Waterfront Health	NEW Health	newhealth
North Shore Community Health	NSCHI	northshorehealth
Outer Cape Health Services	OCHS	outercapehealth
Partners Health Care	Partners	partners
Reliant Medical Group	Reliant	reliant
Revere Medical	Revere	revere
Southcoast Health	Southcoast	southcoast
South Boston Community Health Center	South Boston CHC, SBCHC	southbostonchc
South Cove Community Health Center	South Cove CHC	southcovechc

Organization	Short Forms	Directory Name
South End Community Health Center	South End CHC	southendchc
South Shore Hospital	South Shore Health	southshorehealth
Southern Jamaica Plain Health Center	Southern Jamaica Plain Health Center	sjphealth
Springfield Health Services for the Homeless Health Center	Community Care Cooperative	springfieldhomeless
Saint Vincent Hospital	Saint Vincent Hospital	saintvincent
Steward Health Care	Steward	steward
Tenet Healthcare	Tenet Health, Tenet	tenethealth
Trinity Health of New England	Trinity, THoNE	trinityhealth
Tufts Medicine	Tufts Medicine	tuftsmedicine
University of Massachusetts Memorial Hospital	UMass Memorial	umassmemorial
Boston Medical Center	BMC	bmc
Upham’s Corner Health Center	Upham’s Corner, Upham’s	uphamscorner
Wellforce (now Tufts Medicine)	Wellforce	Wellforce
Whittier Street Neighborhood Health Center	Whittier Street Health Center, Whittier Street	whittierstreet

Appendix B: The exceptions Data Group Measure Code

The following table contains the list of measureCodes for the exceptions data group.

Table 17. MeasureCode

Allowed Values	Measure Title
ADD	Follow-Up Care for Children Prescribed ADHD Medication
AIS	Adult Immunization Status
BCS	Breast Cancer Screening
BPD	Blood Pressure Control for Patients with Diabetes
CBP	Controlling High Blood Pressure
CCS	Cervical Cancer Screening
CHL	Chlamydia Screening
CIS	Childhood Immunization Status
COL	Colorectal Cancer Screening
EED	Eye Exam for Patients with Diabetes
GSD	Glycemic Status Assessment for Patients with Diabetes
IMA	Immunizations for Adolescents
KED	Kidney Health Evaluation for Patients with Diabetes
OMW	Osteoporosis Management in Women Who Had a Fracture
SPD	Statin Therapy for Patients with Diabetes
SPC	Statin Therapy for Patients with Cardiovascular Disease

The table below lists the measureCodes for the exceptions data group as specified in version 1.1 of this specification to maintain backward compatibility. It also includes notes that maps each legacy measure code to its corresponding updated code in the table above. MHDC recommends using the new measure codes going forward.

Table 18. MeasureCode from Version 1.1

Allowed Values	Measure Title	Notes
OCM-CDC-A1C	Diabetes Management Outcome: HbA1c Control	Maps to GSD
OCM-CDC-BP	Diabetes Management Outcome: Blood Pressure Control	Maps to BPD
OCM-CDC-LDL	Diabetes Management Outcome: Lipid Control	Maps to SPD
OCM-CVD-LDL	Cardiovascular: Lipid Control	Maps to SPC
OCM-HYP-BP	Hypertension Management Outcome: Blood Pressure Control	Maps to CBP

Allowed Values	Measure Title	Notes
PRC-BCS	Breast Cancer Screening Process	Maps to BCS
PRC-CCS	Cervical Cancer Screening Process	Maps to CCS
PRC-CDC-A1C	Diabetes Management Process: HbA1c Testing	Maps to GSD
PRC-CDC-EYE	Diabetes Management Process: Eye Exam	Maps to EED
PRC-CDC-NPH	Diabetes Management Process: Medical Attention for Nephropathy	Maps to KED
PRC-CHL	Chlamydia Screening Process	Maps to CHL
PRC-COL	Colorectal Cancer Screening Process	Maps to COL

The following descriptions of the measureCodes from version 1.1 of the specification are provided here for reference.

The code consists of three segments, the first two required and the third optional. The first segment indicates whether the affected item is a process or an outcome (denoted by PRC or OCM respectively). The second segment identifies the relevant top-level measure using a three character code and the third segment identifies a specific submeasure using another three character code. Some measures may have associated processes, some may have associated outcomes, and some may have both.

For example, diabetes management is a top-level measure with associated submeasures that has both specific processes and outcomes; A1c testing is a process denoted by PRC-CDC-A1C (process; clinical diabetes care; A1c) while A1c management is a submeasure denoted by OCM-CDC-A1C (outcome; clinical diabetes care; A1c).

Appendix C: Massachusetts Department of Public Health Race and Ethnicity Values

The tables below summarize the allowed values for detailedRace and detailedEthnicity based on the Massachusetts Department of Public Health Granular Ethnicity options adapted from the 2024 Office of Management and Budget (OMB) race and ethnicity data collection changes.

Note that the CDC Race and Ethnicity (CDCREC) Code System does not have codes for some of the detailed races. If a payer chooses to request providers to provide detailed race data using the detailedRaceCodeMA value set, for those races that cannot be mapped to a code, for example, Cape Verdean, use the detailedRaceOther to provide details.

Table 19. Massachusetts Department of Public Health detailedRace Allowed Values

Display	Race Code from the CDCREC Code System
Asian Indian	2033-9
Cape Verdean	(n/a)
Chamorro	2086-7
Chinese	2034-7
Dominican	2069-3
Egyptian	2120-4
English	2110-5
Fijian	2101-4
Filipino	2036-2
French	2111-3
German	2112-1
Ghanian	(n/a)
Guamanian	2087-5
Haitian	2071-9
Iranian	2121-2
Iraqi	2122-0
Irish	2113-9
Italian	2114-7
Jamaican	2072-7
Japanese	2039-6
Korean	2040-4
Lebanese	2123-8
Moroccan	(n/a)

Display	Race Code from the CDCREC Code System
Native Hawaiian	2079-2
Nigerian	2065-1
Polish	2115-4
Samoan	2080-0
Syrian	2125-3
Tongan	2082-6
Vietnamese	2047-9

Table 20. Massachusetts Department of Public Health detailedEthnicity Allowed Values

Display	Ethnicity Code from the CDCREC Code System
Colombian	2169-1
Guatemalan	2157-6
Mexican	2148-5
Puerto Rican	2180-8
Salvadoran	2161-8

Appendix D: Release History

Table 21. Release History

Version	Release Date	Description
2.0.0	December 2025	Version 2 release of the specification. See Changelog for details.
1.1.0	2021-01-22	Updates to the Version 1 release. See Changelog for details
1.0.3	2020-01-31	Minor updates to the Version 1 release.
1.0.0	2019-12-31	Initial release of the specification