MDGuidelines® API: Durations Population

v2 Specification 1.3

Date: January 12, 2023

1 Overview

1.1 Purpose and Intended Audience

The purpose of this document is to provide detailed descriptions and specifications for the Population v2 API.

The Durations Population API is intended to be used by MDGuidelines clients and partners who have integrated MDGuidelines into their own products and wish to display Population Durations within their application(s).

The Durations Population API is part of the MDGuidelines API product offering.

1.2 Description

Population Durations and other statistics may be obtained via the Durations Population API.

The Durations Population API accepts a diagnosis code returns several statistics from the MDGuidelines Population Database related to the supplied diagnosis.

Terminology

Term	Definition
Durations	The number of calendar days elapsed between the start and end of an injury/illness episode. For disability claims purposes, the start and end date refer to the period of approved disability.
Population Durations	Statistics related to the duration and return to full duty outcomes based on a primary diagnosis.
Mean Duration	The arithmetic mean duration of the selected cases.

Term	Definition

Medical Code	An alpha-numeric code representing a diagnosis, procedure, or other condition of a patient. For the purposes of this API, the following types of medical codes are supported: ICD-9-CM, ICD-10-CM, and CPT® (with additional license, see Section 2.3 Authorization, below). Medical Codes are limited to the current edition from the code provider. Medical codes are updated annually in the January timeframe. • ICD-9-CM (2015, frozen) • ICD-10-CM • CPT®
Geometric Mean Duration	The geometric mean duration of the selected cases. A geometric mean reduces the effect of outlier values on the calculation, which can give a better indication of the "average" duration.
Count Category	An indication of how frequently the supplied primary diagnosis occurs with the MDGuidelines Population Database. For the purposes of Population Durations, only diagnoses with more than 20 cases are included. Low = 20 to 99 records Medium = 100 – 499 records High = 500+ records
Percentile	A number where a certain percentage of durations fall below that percentile. For example, the 5th Percentile value of 10 days means that 5 percent of the population has a duration of 10 days or fewer.
Median Duration	Median is another term for the 50th Percentile of a population, meaning that half of the population has a duration less than the Median Duration for a given diagnosis. MDGuidelines recommends using the Median Duration as a benchmark for measuring case management for optimizing return to activity.

2 API Specification

This section documents the technical usage of the Population v2 API. General information about any of the MDGuidelines APIs can be found at https://api.mdguidelines.com/help.

MDGuidelines APIs are RESTful.

Responses may be formatted as XML or JSON (see Section 2.4 Input Parameters, below).

2.1 Endpoint

The Population API endpoint is: https://api.mdguidelines.com/api/v2/durations/population/

2.2 Authentication

The Client's API license key must be provided via the request headers as "RG-LICENSE-KEY". This key will be provided by the Client's MDGuidelines Account Executive.

2.3 Authorization

The Client's MDGuidelines API license key provides access to all API end points without requiring additional configuration. Some of the APIs optionally include content related to CPT® treatment codes. To obtain use of APIs for CPT® content, an additional licensing agreement is required. Clients may obtain additional information and licensing through their MDGuidelines Account Executive.

2.4 Version Information

The current stable version of this API is v2.

The currently supported version(s) of this API are:

Version	Support End Date
v2	N/A - Not announced

API product enhancements providing new response elements will require customers to upgrade in order to take advantage of the new capabilities. However, additional request parameters and/or enhanced algorithms or data

in the response elements will not require an upgrade. Changes to data responses will be communicated at least 30 days in advance of publication.

2.5 Request Parameters

Data Element	Data Type	Req?	Data Element Description	Default Value
medicalCode	String	Yes	For the purposes of this API, a billable diagnosis code. Codes may be be ICD-9-CM (diagnosis or procedure), ICD-10-CM (diagnosis), or CPT® (with additional license, see Section 2.3 Authorization). Include the decimal, if applicable. The medical code is provided as part of the URL. Example of URI: https://api.mdguidelines.com/api/v2/durations/population/354.0 Examples of codes: 354.0 G56.01 G35 04.43 64721 Note: Code type is not required. The system will detect the code type for the supplied code.	N/A

2.6 Response

Data can be returned as JSON or XML.

If using XML, the XSD may be found here: https://api.mdguidelines.com/xsd/DurationsPopulationV2.xsd

Data Element	Data Type	Req?	Data Element Description
MedicalCode	String	Yes	The supplied medical code from the request.

medicalCodeType	String	Yes	Indicator of medical code type. Valid values: ICD9CM ICD10CM CPT®
MedicalCodeShortDescription	String	Yes	The short description for the medical code.
MedicalCodeLongDescription	String	Yes	The long description for the medical code.

| publishDate | Date | Yes | The effective date of the Population statistics. |

Data Element	Data Type	Req?	Data Element Description
CountCategory	String	Yes	The Count Category for the supplied medical code. (See additional details and definition in Terminology section above.)
MeanDurationInDays	Integer	Yes	The Mean Duration for the supplied medical code. (See additional details and definition in Terminology section above.)
GeometricMeanDurationIn Days	Integer	Yes	The Geometric Mean Duration for the supplied medical code. (See additional details and definition in Terminology section above.)
MedianDurationInDays	Integer	Yes	The Median Duration for the supplied medical code. (See additional details and definition in Terminology section above.)
ReturnToWorkProbability	Decimal	Yes	The percentage of claims which return to full duty work for the supplied medical code.
_5thPercentileDurationIn D ays	Integer	No	The 5th Percentile duration for the supplied medical code. (See additional details and definition in Terminology section above.) Note: A value of -1 means that the duration at that percentile of the population is "Indefinite" and the patient may not return to work.
_25thPercentileDurationIn Days	Integer	No	The 25th Percentile duration for the supplied medical code. (See additional details and definition in Terminology section above.) Note: A value of -1 means that the duration at that percentile of the population is "Indefinite" and the patient may not return to work.
_50thPercentileDurationIn Days	Integer	No	The 50th Percentile duration for the supplied medical code. (See additional details and definition in Terminology section above.) Notes This value is identical to the MedianDurationInDays. A value of -1 means that the duration at that percentile of the population is "Indefinite" and the patient may not return to work.
_75thPercentileDurationIn Days	Integer	No	The 75th Percentile duration for the supplied medical code. (See additional details and definition in Terminology section above.) Note: A value of -1 means that the duration at that percentile of the population is "Indefinite" and the patient may not return to work.
_95thPercentileDurationIn Days	Integer	No	The 95th ercentile duration for the supplied medical code. (See additional details and definition in Terminology section above.) Note: A value of -1 means that the duration at that percentile of the population is "Indefinite" and the patient may not return to work.

2.7 Exception Conditions and Troubleshooting

The service may provide response codes, for success or errors. The common response codes implemented in the MDGuidelines® API are documented at https://api.mdguidelines.com/help.

Response Status

Status Code	Cause(s)
204	Message: • Insufficient data for the supplied code. This response will be returned in the following scenarios: • The MedicalCodeType parameter is missing • The MedicalCodeType is a mismatch for all requested codes.
400	Message: • The following parameter is required: [medicalCodes] This response will be returned in the following scenarios: • The medicalCode value is missing from the URI
401	Message: • License code not authorized. This response will be returned in the following scenarios: • License key is expired • License key is missing • License key is otherwise invalid
404	Message: • Entered medical code was not found. This response will be returned in the following scenarios: • The supplied medical code is not found in billable ICD-9-CM, ICD10-CM, or CPT® codes.

406	Message:
	• Medical code must be billable to retrieve population data.
	This response will be returned in the following scenarios:
	• The supplied medical code is valid but non-billable.

Status Code	Cause(s)
500	Server error.
	If the server, API site, or this service failed, the response will be a 500 Server error.

2.8 Testing

MDGuidelines offers a test harness for integration testing:

https://api.mdguidelines.com/help/durationsPopulation-v2.html

Note: use of the test harness requires production license key configuration (RG-LICENSE-KEY).

2.9 Sample Code

JQUERY
```
var uri = "https://api.mdguidelines.com/api/v2/durations/population/";
  uri += "354.0";

$.ajax({ url: uri,
  type: 'GET',
  dataType: 'json',
  headers: { 'RG-LICENSE-KEY': 'XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX', },
  success: function (data) { handleData(data) },
  error: function (xhr, status, error) { handleError(xhr, status, error) } })
```

Document Revision History

Date	Reason For Changes	Document Version
06/22/2017	Initial Version	1.0
08/03/2017	Minor clarification: • Clarified that ICD-9-CM primary diagnosis may include diagnosis or procedure codes.	1.1
10/13/2017	Added Medical Code version information (Section 1.2, Terminology), update to CPT® copyright text. Fixed other typographical errors.	1.2
1/12/2023	Minor Changes and Corrections	1.3

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