

Agency for Healthcare Research and Quality (AHRQ)

Prevention TaskForce API

Instructions for Use



Agency for Healthcare Research and Quality

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About Prevention TaskForce

The Prevention TaskForce is an application designed to help primary care clinicians identify the screening, counseling, and preventive medication services that are appropriate for their patients. The Prevention TaskForce is available both as a web application, and as a mobile application. The Prevention TaskForce information is based on the current recommendations of the U.S. Preventive Services Task Force (USPSTF) and can be searched by keywords and specific patient characteristics, such as age, sex, and selected behavioral risk factors. The Prevention TaskForce Web application can be accessed at <https://www.uspreventiveservicestaskforce.org/>. For more information on additional Prevention TaskForce products, visit <https://www.uspreventiveservicestaskforce.org/>.

Prevention TaskForce API Implementation

The Prevention TaskForce API is a web service that returns a filtered USPSTF recommendations data set according to the keywords and specific patient characteristics, such as age, sex, selected behavioral risk factors, and recommendation grades as described in the Prevention TaskForce API Data Usage and Format section using JSON. The following instructions provide field descriptions, object format, and sample code/queries to implement and request JSON formatted Prevention TaskForce content. Access to Recommendations data API requires the use of an authorized token key. We recommend downloading and caching the entire JSON data set locally for better data performance. JSON API can be refreshed about once a week. In addition, the REST API support Last-Modified and ETag to determine topic data updates.

Key Request

To request a key, please contact: uspsifpda@ahrq.gov.

Email subject: Requesting a Prevention TaskForce API Key

Email body:

Organization Name: ABC Company

Point of Contact: John Smith

Website URL: <https://www.yourwebsiteurl.com>

Filtering Prevention TaskForce Data

The following is a sample query string to send to the Prevention TaskForce API server containing all the parameters.

```
? age=36&sex=Female&pregnant=Y&tobacco=N&sexuallyActive=N&grade=A&grade=B&grade=C&grade=D&grade=I&tools=N
```

- age: integer
- sex: Male, Female
- pregnant: Y, N (requires sex of Female) *
- tobacco: Y, N
- sexuallyActive: Y, N
- grade: A, B, C, D, I (multiple values)
- tools: Y, N (returns only tools if Y)

Omitting a search parameter typically, means return all results for that category. For example if age is omitted, all ages are included, or if grade is omitted, all grades are included.

The following are more search query string examples. :

?age=15

?age=36&sex=Female&pregnant=Y

?tobacco=N

?tobacco=N&grade=A&grade=B

Additionally a set of recommended online resources may be fetched by setting:

?tools=Y.

This action overrides all other parameters. The Tools response is detailed at the end of the document.

The following is a basic format of the search response object. See the USPSTF Data Structure section for a more complete sample object:

```
specificRecommendations: [ {"key": "string/integer" .. } ],
grades: { "key": ["string", "string"] .. },
generalRecommendations: { "key": { "key": "string/ integer array" .. } .. },
tools: { "key": { "key": "string" .. },
categories: { "key": { "key": "string" } }
```

Specific Recommendations

The specificRecommendations array is sorted in the same order as the standard Prevention TaskForce Web search. Each object in the array represents a single specific recommendation aimed at a target population. The following are specificRecommendations fields:

- id: integer identifying this specific recommendation
- title: title
- grade: grade the recommendation was given. Indexes into the grades object. see grades
- gradeVer: the version of the grade. index into the grade array. see grades
- sex: The sex of the target population
- ageRange: The ages the recommendation applies to
- text: HTML format - text of the recommendation
- rationale: (optional) HTML format - rationale for this recommendation. A fallback if a general rationale is not provided
- servFreq (optional) frequency of service
- riskName (optional) risk factor name
- riskText (optional) HTML format - risk factor comments
- general: integer to index into the generalRecommendations object. see generalRecommendations
- tool: Array of numbers identifying tools associated with this specific. see tools (*This has been deprecated)
- bmi: (optional) Weight categories based on BMI
 - "UW": Underweight - BMI is less than 18.5
 - "N": Normal weight - BMI is 18.5 to 24.9

- "O": Overweight - BMI is 25 to 29.9
- "OB": Obese - BMI is 30 or more

Grades

The grades object consists of letter grade keys associated with an array of grade versions. Each array element consists of the text of the USPSTF recommendation for that grade and version. The following is a JavaScript code example of a grade look up using a specific recommendation:

```
var recom = results.specificRecommendations[0];  
var gradeText = results.grades[recom.grade][recom.gradeVer];
```

General Recommendations

The generalRecommendations object consists of integer keys associated with a general recommendation object. The specific recommendation is targeted at a population. The general recommendation is broader. The following is an example of the general recommendation look up for a specific recommendation:

```
var recom = results.specificRecommendations[0];  
var general = results.generalRecommendations[recom.general];
```

The following are the generalRecommendations fields:

- topicType: topic type in string
- topicYear: topic year in string
- uspstfAlias: uspsf alias to reference the uspsf page
- specific: Array of integers identifying specific recommendations associated with this general
- title: title
- rationale (optional): HTML format - rationale for this recommendation. If rationale is not defined at the general level, display the specific rationale instead.
- clinical: HTML format - text of the clinical consideration
- clinicalUrl (optional): URL associated with the clinical consideration
- discussion: HTML format - text of discussion
- other (optional): HTML format - other recommendation text
- otherUrl (optional): URL associated with the other recommendation text
- topic: this recommendation's topic
- keywords: a string of keywords list separated by '|'
- categories: an array of category ids
- tool: Array of numbers identifying tools associated with this specific. see tools

Tools

The format of the tools object is as follows.

- If tools=y was provided, tools: [{"key": "string" ..}] - an array ordered by title for displaying a list of tools.
- If tools=y was NOT provided, tools: {"key": {"key": "string" ..} ..} - an object for indexing tools by id associated with a specific recommendation.

The fields for each tool are:

- id: number identifying this tool
- title: title
- url: optional - URL where the tool is located.
- text: HTML format - text describing the tool

Categories

The format of the categories object is as follows.

- categories: {"key": {"key": "string" ..} ..} - an object for indexing categories by id associated with a specific recommendation.

The fields for each category are:

- name: name of the category

Sample Prevention TaskForce API Data Structure

```
{
  "specificRecommendations":
  [
    {
      "id": 1,
      "title": "<b>Sample Specific Recommendation</b>",
      "grade": "A",
      "gradeVer": 1,
      "sex": "male",
      "ageRange": [1,30],
      "text": "<br>Sample recommendation text",
      "rationale": "<p>Sample rationale</p>",
      "servFreq": "<p>Sample frequency of service</p>",
      "riskName": "Other",
      "riskText": "<br>Sample risk",
      "general": "1",
      "tool": [1], (Note: this is deprecated)
      "bmi": "0"
    }
  ],
  "grades":
  {
    "A": [
      "The USPSTF strongly recommends that clinicians provide [the service] to eligible patients. ",
      "The USPSTF recommends the service. There is high certainty that the net benefit is substantial. Offer or provide this service."
    ],
    "B": [
      "The USPSTF recommends that clinicians provide [the service] to eligible patients. ",
      "The USPSTF recommends the service."
    ],
    "C": [
      "The USPSTF makes no recommendation for or against routine provision of [the service]. ",
      "The USPSTF recommends against routinely providing the service."
    ],
    "I": [
      "The USPSTF concludes that the evidence is insufficient to recommend for or against routinely providing [the service]. ",
      "The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service."
    ]
  },
  "generalRecommendations":
  {
    "1":
    {
```

```
"topicType": "Sample Topic",
"topicYear": "2020",
"uspstfAlias": "sample-alias",
"specific": [1],
"title": "<b>Sample title</b>",
"rationale": "Sample rationale",
"clinical": "<p>Sample clinical consideration</p>",
"clinicalUrl": "http://localhost",
"discussion": "<p>Sample discussion</p>",
"other": "Sample other",
"otherUrl": "http://localhost",
"topic": "Sample topic",
"keywords": "Keyword1|Keyword2|Keyword3",
"categories": [1],
"tool": [1]
}
},
"tools":
{
  "1":
  {
    "url": "http://localhost",
    "title": "Sample title",
    "text": "Sample text"
  }
},
"categories":
{
  "1":
  {
    "name": "Sample Category Name"
  }
}
}
```