

What's New in the 2023-2024 Area Health Resources File (AHRF)

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INTRODUCTION

The Health Resources and Services Administration (HRSA) of the Department of Health and Human Services (DHHS) releases a new version of the Area Health Resources Files (AHRF) annually. The 2023-2024 Area Health Resources Files are the most current release and provide the latest health resource requirements and supply data available. These files include extensive health professions and sociodemographic data available at the county level as well as broader health professions demographic, workforce and training data available at the state and national levels. While these data have been made available annually for many years, the content and formats are different on this new release, particularly for the county level file.

The 2023-2024 AHRF contains a number of changes introduced in the 2022-2023 release of the AHRF that were designed to facilitate usage of the data by a broader audience. These enhancements include:

- The provision of new, unique variable identifiers
- The availability of data in additional formats
- The addition of smaller, more focused subset files
- The elimination of redundant data and
- Expanded documentation to provide crosswalks between earlier file naming conventions and new variable names, as well as more explanatory notes.

Also new on the 2023-2024 AHRF is the inclusion of additional records for the State of Connecticut which now reports data at the Planning Region rather than county level. Beginning with data being reported for 2022 and later, the U.S. Census started reporting Connecticut data by the nine designated Planning Regions rather than the eight counties. Other data sources have also begun to adopt reporting data for Connecticut at this geographic level.

This document describes in some detail the differences that will be found in the 2023-2024 AHRF. Users familiar with AHRF products over time will notice marked differences in the current components as compared to previous releases. Both the composition of the 2023-2024 AHRF products and the differences between the new release and earlier releases are described in the sections that follow.

WHAT'S NEW

In an effort to make the AHRF data more accessible and more easily used by a broader range of users, a number of enhancements were incorporated into the AHRF products beginning with the 2022-2023 AHRF. The major differences between this release and releases prior to 2022-2023 include:

1. The 2023-2024 AHRF includes files in CSV format;
2. The new county AHRF includes only the most recent two years of data for each variable, largely eliminating redundant historical data across releases and making the file a more manageable size;
3. To also reduce file size and facilitate usage, focused subsets of the county file have been created for users to easily access specific targeted subsets of data in CSV format; these include:

County Subfiles

| |
|------------------------------|
| 1. Codes and classifications |
| 2. Health professions |
| 3. Health facilities |
| 4. Utilization |
| 5. Expenditures |
| 6. Population |
| 7. Environment |

The 2023-2024 version of the state/national AHRF continues to be organized as follows within each health profession:

State/National Files

| |
|------------|
| Workforce |
| Employment |
| Training |

4. The User and Technical Documentation supporting the 2023-2024 AHRF are complementary and linked to one another – by clicking on the Source link for any variable listed in the county Technical Documentation, detailed descriptive information for the variable is accessed including data source, definitions, suppression, geographic coverage and any changes in data definitions or other considerations;
5. As noted, the most recent two years of data for each source on the county AHRF are included; any changes or differences in data definitions between the two years are described in this documentation;
6. The most current data available are provided for those data sources that are updated on a regular basis; these can be combined with earlier releases of the AHRF to analyze change across time; and

7. A new unique data variable naming convention is provided with the current release of the AHRF replacing the Field numbers used in prior releases – a cross-walk between these conventions is included in the AHRF documentation describing how to navigate between the new release and earlier releases.

Relative to the 2022-2023 release of the AHRF, we adjusted the variable name of 14 variables in the county level files. These changes were to align the variable name with the goals of the new variable naming convention implemented with the 2022-2023 release and make the variables internally consistent with other variables from the same data source. The 14 variables with variable names that differ from the 2022-2023 release (along with 2022-2023 variable name and the pre-2022-2023 name) are noted in the table below.

| FIELD_OLD_NAME | FIELD_NEW_NAME23 (2022-2023 Variable name) | FIELD_NEW_NAME24 (2023-2024 Variable name) |
|-----------------------|---|---|
| F11273-21 | md_fed_gp_pc_rsdnt_21 | md_fed_all_gp_pc_rsdnt_21 |
| F11274-21 | md_fed_gp_pc_hosp_ft_21 | md_fed_all_gp_pc_hosp_ft_21 |
| F11275-21 | md_fed_gp_othprofl_21 | md_fed_all_gp_othprofl_21 |
| F11279-21 | md_fed_genintmed_pc_othprofl_21 | md_fed_genintmed_othprofl_21 |
| F11291-21 | md_fed_gen_surg_pc_othprofl_21 | md_fed_gen_surg_othprofl_21 |
| F11299-21 | md_fed_othsurgsub_pc_othprofl_21 | md_fed_othsurgsub_othprofl_21 |
| F11303-21 | md_fed_psych_pc_othprofl_21 | md_fed_psych_othprofl_21 |
| F11307-21 | md_fed_oth_subsp_pc_othprofl_21 | md_fed_oth_subsp_othprofl_21 |
| F11737-21 | md_fed_gen_ped_pc_othprofl_21 | md_fed_gen_ped_othprofl_21 |
| F11741-21 | md_fed_othmedsub_pc_othprofl_21 | md_fed_othmedsub_othprofl_21 |
| F11743-21 | md_fed_gen_obgyn_pc_rsdnt_21 | md_fed_obgyn_gen_pc_rsdnt_21 |
| F11744-21 | md_fed_gen_obgyn_pc_hosp_ft_21 | md_fed_obgyn_gen_pc_hosp_ft_21 |
| F11745-21 | md_fed_gen_obgyn_pc_othprofl_21 | md_fed_obgyn_gen_othprofl_21 |
| F11749-21 | md_fed_obgyn_subs_pc_othprofl_21 | md_fed_obgyn_subs_othprofl_21 |

Additionally, as noted above, effective with the 2023-2024 release of the AHRF, nine additional records are included on the AHRF for the state of Connecticut. The additional records represent the state's Councils of Governments (COG)/Planning Regions (PR). The Census Bureau adopted these nine planning regions as the county-equivalent geographic units for purposes of collecting, tabulating, and disseminating statistical data beginning with data year 2022. On the 2023-2024 AHRF release, data for specific variables are included for the Connecticut counties or for the county-equivalent Planning Regions depending on which geographic unit is reported by each specific data source.

The 2023-2024 release of the AHRF is available in the following formats: CSV and as a SAS dataset. The documentation includes complete Technical and User Documentation which

describes the data definitions, characteristics, sources, geography, and data anomalies for each variable on the files. The technical details for each variable are defined in the Technical Documentation. The data source and detailed variable definitions are defined in the User Documentation. Details in the User Documentation can be accessed for each specific variable by clicking on the Source link of the Technical Documentation.

Because of the substantial changes in the 2023-2024 AHRF compared to earlier releases, users are cautioned that formats, names and characteristics of the data may have changed. It is recommended that users refer to prior documentation for earlier releases when comparing the current release to earlier AHRF releases.

Users can access the 2023-2024 AHRF products via the HRSA Data Warehouse / Data Downloads website (<https://data.hrsa.gov/data/download>). When opening the AHRF link on the site, the AHRF products can be downloaded by clicking on the links provided – county or state/national data files; SAS or CSV format; and documentation. Users interested in a specific set of data variables (e.g., physicians) can select the associated subfile (e.g., Health Professions) and obtain only that subset of data from the complete county file. Similarly with other data needs, specific data of interest can be selected and obtained.

Instructions on how to convert the CSV file into other formats

CSV is a straightforward and easy to use format that requires minimal additional specifications. Each record is on one line, and the new variable names appear in the first row of a file with all variables and values separated by a comma. Values that have special characters (e.g., commas, quotes) are double-quoted.

The CSV format can accommodate many users and their tool of choice. Most of the statistical software packages (e.g., Stata, R, Python) have point-and-click wizards that import CSV easily. Below are a few examples of code to read in a CSV file in different languages on a Windows PC.

| | |
|---------------|---|
| Stata | <code>import delimited "c:\test\file.csv"</code> |
| R | <code>read_csv = read.csv('c:\\test\\file.csv', header=TRUE)</code> |
| Python | <code>import pandas as pd df= pd.read_csv('c:\\test\\file.csv', sep=",")</code> |

SUPPORT DOCUMENTATION

AHRF documentation has been expanded to offer users both more information and easier access to the information.

AHRF User Documentation

The AHRF User Documentations focuses on the data sources and specific data variables that comprise the AHRF county and the state/national files. Data source and variable definitions offer clear descriptions of the data as well as information on further breakdowns of the data by

sub-category (e.g., short-term general hospital, office-based physician by specialty). Additionally, details as to the sources of the data are provided, including: name of the source data file, year of the data, suppression, and any anomalies and/or restrictions on the data imposed by the data source. For example, data suppression is applied as dictated by the specific data sources and will vary from source to source.

AHRF Technical Documentation

The 2023-2024 AHRF Technical Documentation provides a listing of each data element included on the files. Technical data element descriptor information is provided as follows:

- New Names – see below
- Data Category – the category of data on the CSV file/subfile
- Year of Data – the year of the data
- Variable Name – the full name of the data element
- Characteristics – additional descriptors of the data
- Source - the name and link to the original data source
- Date On - the date the data variable was first included on the AHRF

The 2023-2024 version of the AHRF files contain a new set of data element names that are more descriptive of the elements than the Field number and also provide details of the characteristics of the data variable. For example, in the county file, Field number F09949-20 is:

- MD physicians, in general practice, in an office-based setting, the practitioner is Non-Federal and provided direct patient care in 2020;
- The new name for this element is: `md_nf_gp_pc_ofc_20`.

The name and characteristics of the data element can be inferred from the new name. The State/National Technical Documentation includes the same presentation as shown above, including New Names.

As a final note on the Technical Documentation, the Source reference listed for each data variable in the document is hyperlinked to the specific location in the User Documentation where the source is described and the associated data elements are defined. Users can click on an element in the Source column in the Technical Documentation and be linked directly to the appropriate descriptive source information in the User Documentation.