# Package 'nhanesA'

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**Title** NHANES Data Retrieval

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**Depends** R (>= 3.0.0)

**Imports** stringr, Hmisc

**Description**
Utility to retrieve data from the National Health and Nutrition Examination Survey (NHANES).

**License** GPL (>= 2)

**LazyData** TRUE

**URL** https://github.com/cjendres1/nhanes

## R topics documented:

## nhanes *Download an XPT table and return as a data frame*

### Description

Download an XPT table and return as a data frame

### Usage

```
nhanes(year, nh_table)
```

### Arguments

| | |
|---|---|
| year | The year in yyyy format where 1999 <= yyyy <= 2012 |
| nh_table | The name of the specific table to retrieve |

### Details

Currently, a table is downloaded in its entirety. Other than nhanesAttr, this is the only function that actually accesses data from the nhanes site directly.

### Value

The table is returned as a data frame

### Examples

```
nhanes(2007, 'BPX_E')
nhanes(2009, 'FOLATE_F')
```

## nhanesAttr *Returns the attributes of an NHANES data table*

### Description

Returns the attributes of an NHANES data table

### Usage

```
nhanesAttr(year, nh_table)
```

### Arguments

| | |
|---|---|
| year | The year in yyyy format where 1999 <= yyyy <= 2012 |
| nh_table | The name of the specific table to retrieve |

### Details

nhanesAttr allows one to check the size and other charactersistics of a data table before importing into R. To retrieve these characteristics, the specified table is downloaded, characteristics are determined, then the table is deleted.

### Value

The following attributes are returned as a list
nrow = number of rows
ncol = number of columns
names = name of each column
unique = true if all SEQN values are unique
na = number of 'NA' cells in the table
size = total size of table in bytes
types = data types of each column

### Examples

```
nhanesAttr(2007, 'BPX_E')
nhanesAttr(2009, 'FOLATE_F')
```

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## nhanesTables *Returns a list of table names for the specified survey group*

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### Description

Returns a list of table names for the specified survey group

### Usage

```
nhanesTables(nh_surveygroup, year, details = FALSE)
```

### Arguments

| | |
|---|---|
| nh_surveygroup | The type of survey (DEMOGRAPHIC, DIETARY, EXAMINATION, LABORATORY, QUESTIONNAIRE) |
| year | The year in yyyy format where 1999 <= yyyy <= 2012 |
| details | If true then a more detailed description of the tables is returned |

### Details

The first step in browsing NHANES data is to display the table names. The table names are stored internal to the nhanes package, i.e. the information is retrieved from internal tables such as vars_EXAMINATION_2005-2006.

### Value

The names of the tables in the specified survey group

### Examples

```
nhanesTables('EXAM', 2007)
nhanesTables('LAB', 2009, details=TRUE)
```

## nhanesTableVars *Displays a list of variables in the specified NHANES table.*

### Description

If truncated = TRUE then only the field names and field descriptions are returned.

### Usage

```
nhanesTableVars(nh_surveygroup, year, nh_table, truncated = FALSE,
  nchar = 100)
```

### Arguments

| | |
|---|---|
| nh_surveygroup | The type of survey (DEMOGRAPHIC, DIETARY, EXAMINATION, LABORATORY, QUESTIONNAIRE) |
| year | The year in yyyy format where 1999 <= yyyy <= 2012 |
| nh_table | The name of the specific table to retrieve |
| truncated | If true then only the variable names and descriptions are returned, which is often sufficient |
| nchar | The number of characters in the Variable Description to print. Values are limited to 0<=nchar<=127. This is used to enhance readability, cause variable descriptions can be very long. |

### Details

Each data table contains multiple, sometimes more than 100, fields. It is helpful to list the field descriptions to ascertain quickly if a data table is of interest.

### Value

The names of the tables in the specified survey group

### Examples

```
nhanesTableVars('EXAM', 2007, 'BPX_E')
nhanesTableVars('EXAM', 2007, 'OHX_E', truncated=TRUE)
```

## nhanesTranslate *Translates code to it's text value*

### Description

Many of the NHANES data tables have encoded values. E.g. 1 = 'Male', 2 = 'Female' We want to access the code as needed either by simply displaying the code translation, or applying the translation directly to the table. E.g, for gender we may want to translate the code (1,2) to the represented values (Male, Female).

## Usage

```
nhanesTranslate(nh_surveygroup, colname)
```

## Arguments

| | |
|---|---|
| nh_surveygroup | The survey group that contains the columns to be translated. |
| colname | The name of the column to translate |

## Details

Any coded column will have a specific data code, and many columns may share the same code translation.

Code translations are done internally in the nhanes package. Specifically, the translations are indicated in the nhanesCodeMapXXXXX lists.

## Value

The code translation

## Examples

```
nhanesTranslate('DEMO', 'DMQADFC')
nhanesTranslate('LAB', 'DCD030')
```

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