# Package 'mosaicData'

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Description Data sets from Project MOSAIC ( <a href="http://www.mosaic-web.org">http://www.mosaic-web.org</a> ) used to teach mathematics, statistics, computation and modeling. Funded by the NSF, Project MOSAIC is a community of educators working to tie together aspects of quantitative work that students in science, technology, engineering and mathematics will need in their professional lives, but which are usually taught in isolation, if at all.
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Alcohol

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# Description

These data provide per capita alcohol consumption values for many countries in 2005 and 2008. There are also a few countries for which there are data in other years.

## Usage

data(Alcohol)

#### **Format**

A data frame with 411 observations on the following variables.

- country country name
- year year
- alcohol estimated per capita alcohol consumption for adults (15+) in litres pure alcohol

Birthdays 3

#### **Source**

```
Gapminder (https://www.gapminder.org/data/)
```

## **Examples**

```
data(Alcohol)
# There are only a few observations in years other than 2005 and 2008
subset(Alcohol, ! year %in% c(2005,2008))
```

Birthdays

US Births in 1969 - 1988

## **Description**

A day by day record of the number of births in each US State.

#### Usage

```
data(Birthdays)
```

#### **Format**

A data frame with 374221 observations on the following variables.

- state state where child was born
- year year (1969-1988)
- month month (1-12)
- · day day of month
- date date as a date object
- births number of births

## See Also

Births, Births78, Births2015, BirthsSSA, BirthsCDC for data sets that are aggregated at the level of the entire country.

```
data(Birthdays)
if (require(mosaic)) {
  MI <- Birthdays %>% filter(state == "MI")
  gf_point(births ~ date, Birthdays, data = MI)
  gf_line(births ~ date, Birthdays, data = MI, color = ~ wday)
  gf_line(births ~ date,
    data = Birthdays %>% group_by(date) %>% summarise(births = sum(births)))
}
```

4 Births

Births US Births

#### **Description**

Number of births in the United States. There are several data sets covering different date ranges and obtaining data from different sources.

## Usage

```
data(Births)
data(Births78)
data(Births2015)
data(BirthsSSA)
data(BirthsCDC)
```

#### **Format**

A data frame with the following 8 variables.

- date Date
- births Number of births on date (integer)
- wday Day of week (ordered factor)
- year Year (integer)
- month Month (integer)
- day\_of\_year Day of year (integer)
- day\_of\_month Day of month (integer)
- day\_of\_week Day of week (integer)

#### **Details**

There are some overlapping dates in the various data sets, but the number of births does **not** always agree due to the different sources of the data. See the examples.

# Source

- Data source for Births: National Vital Statistics System natality data, as provided by Google BigQuery and exported to csv by Robert Kern http://www.mechanicalkern.com/static/birthdates-1968-1988.csv.
- Data source for BirthsSSA US Social Security Administration, as curated at https://github.com/fivethirtyeight/data/tree/master/births

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• Data source for BirthsCDC US Centers for Disease Control, as curated at https://github.com/fivethirtyeight/data/tree/master/births

• Data source for Births2015: Obtained from the National Center for Health Statistics, National Vital Statistics System, Natality, 2015 data.

#### See Also

Birthdays for a data set aggregated at the state level.

```
data(Births78)
data(Births2015)
data(Births)
data(BirthsSSA)
data(BirthsCDC)
# date ranges for the different data sets
lapply(
 list(Births = Births, Births78 = Births78, Biths2015 = Births2015, BirthsSSA = BirthsSSA,
       BirthsCDC = BirthsCDC),
       function(x) range(x$date))
range(Births78$date)
range(Births2015$date)
range(Births$date)
range(BirthsSSA$date)
range(BirthsCDC$date)
# Births and Births78 have slightly different numbers of births
if(require(ggplot2)) {
 ggplot(data = Births, aes(x = date, y = births, colour = \sim wday)) +
    stat_smooth(se = FALSE, alpha = 0.8, geom = "line")
 ggplot(data = Births, aes(x = day_of_year, y = births, colour = ~ wday)) +
    geom_point(size = 0.4, alpha = 0.5) +
    stat_smooth(se = FALSE, geom = "line", alpha = 0.6, size = 1.5)
 if (require(dplyr)) {
    ggplot(
    data = bind_cols(Births %>% filter(year == 1978),
                       Births78 %>% rename(births78 = births)),
    aes(x = births - births78)
     geom_histogram(binwidth = 1)
 }
}
if(require(ggplot2)) {
 ggplot(data = Births, aes(x = date, y = births, colour = \sim wday)) +
    stat_smooth(se = FALSE, alpha = 0.8, geom = "line")
 ggplot(data = Births, aes(x = day_of_year, y = births, colour = ~ wday)) +
   geom_point(size = 0.4, alpha = 0.5) +
    stat_smooth(se = FALSE, geom = "line", alpha = 0.6, size = 1.5)
 if (require(dplyr)) {
```

6 Cards

Cards

Standard Deck of Cards

# Description

A character vector with two or three character representations of each card in a standard 52-card deck.

## Usage

Cards

## **Details**

The 2 of clubs is represented as "2C", while the 10 of diamonds is "10D".

```
if (require(mosaic)) {
  deal(Cards, 13)  # bridge hand
  deal(Cards, 5)  # poker hand
  shuffle(Cards)  # shuffled deck
}
```

Cooling Water 7

CoolingWater

**CoolingWater** 

# Description

Temperature of a mug of water as it cools

# Usage

```
data(CoolingWater)
```

#### **Format**

A data frame with 222 observations of the following variables.

- time time in minutes
- temp temperature in Celsius

# **Details**

The water was poured into a mug and a temperature probe inserted into the water with a few seconds of the pour.

## **Source**

These data were collected Stan Wagon to help his mathematical modeling students explore Newton's Law of Cooling and the ways that the law is really only an approximation. More about Stan: http://stanwagon.com.

```
data(CoolingWater)
if (require(ggformula)) {
   gf_point(temp ~ time, data = CoolingWater, alpha = 0.5)
}
```

8 CPS85

Countries

**Countries** 

## **Description**

A data frame containing country names as used by Gapminder and the maps package to facilitate conversation between the two.

#### Usage

```
data(Countries)
```

#### **Format**

A data frame with 258 observations on the following variables.

- worldmap region name http://mappinghacks.com/ data sets
- gapminder country name in Gapminder data sets
- maps region name in maps data sets

#### **Details**

The "countries" in the maps data include several other geographic regions (bodies of water, islands belonging to other countries, Hawaii, etc.) that are not countries. Furthermore, the maps countries do not include many of the countries that have been created since ca. 2000. The mapping is therefore many-to-many, and also includes some NAs when there is no appropriate mapping. Bodies of water in the maps data, for example, are not assigned a country in the Gapminder.

## **Examples**

```
data(Countries)
subset(Countries, maps=="Yugoslavia")  # Where has Yugoslavia gone?
subset(Countries, is.na(gapminder))  # Things from maps with no Gapminder equivalent
subset(Countries, is.na(maps))  # Things from Gapminder with no maps equivalent
```

CPS85

Data from the 1985 Current Population Survey (CPS85)

## **Description**

The Current Population Survey (CPS) is used to supplement census information between census years. These data consist of a random sample of persons from the CPS85, with information on wages and other characteristics of the workers, including sex, number of years of education, years of work experience, occupational status, region of residence and union membership.

CPS85

#### Usage

```
data(CPS85)
```

#### **Format**

A data frame with 534 observations on the following variables.

- wage wage (US dollars per hour)
- educ number of years of education
- race a factor with levels NW (nonwhite) or W (white)
- sex a factor with levels F M
- hispanic a factor with levels Hisp NH
- south a factor with levels NS S
- married a factor with levels Married Single
- exper number of years of work experience (inferred from age and educ)
- union a factor with levels Not Union
- age age in years
- sector a factor with levels clerical const manag manuf other prof sales service

### **Details**

Data are from 1985. The data file is recoded from the original, which had entirely numerical codes.

## Source

```
Data are from https://dasl.datadescription.com
```

#### References

Berndt, ER. The Practice of Econometrics 1991. Addison-Wesley.

```
data(CPS85)
```

10 Galton

Dimes

Weight of dimes

## **Description**

Weights of a sample of dimes.

## Usage

data(Dimes)

## **Format**

A data frame with 30 observations on the following 2 variables.

- mass mass of dime in grams
- · year year the dime was minted

## **Details**

These data were collected on a sample taken from a large sack of dimes for the purpose of estimating the total number of dimes in the sack based on the weights of the individual dimes.

## **Source**

Data were collected by Michael Stob.

Galton

Galton's dataset of parent and child heights

#### **Description**

In the 1880's, Francis Galton was developing ways to quantify the heritability of traits. As part of this work, he collected data on the heights of adult children and their parents.

#### Usage

data(Galton)

Gestation 11

#### **Format**

A data frame with 898 observations on the following variables.

- family a factor with levels for each family
- father the father's height (in inches)
- mother the mother's height (in inches)
- sex the child's sex: F or M
- height the child's height as an adult (in inches)
- nkids the number of adult children in the family, or, at least, the number whose heights Galton recorded.

#### **Details**

Entries were deleted for those children whose heights were not recorded numerically by Galton, who sometimes used entries such as "tall", "short", "idiotic", "deformed" and so on.

#### **Source**

The data were transcribed by J.A. Hanley who has published them at http://www.medicine.mcgill.ca/epidemiology/hanley/galton/

#### References

"Transmuting" women into men: Galton's family data on human stature. (2004) *The American Statistician*, 58(3):237-243.

# Examples

data(Galton)

Gestation

Data from the Child Health and Development Studies

#### **Description**

Birth weight, date, and gestational period collected as part of the Child Health and Development Studies in 1961 and 1962. Information about the baby's parents — age, education, height, weight, and whether the mother smoked is also recorded.

## Usage

data(Gestation)

12 Gestation

#### **Format**

A data frame with 1236 observations on the following variables.

- id identification number
- plurality all "single fetus" in this data set
- outcome all "live birth" (survived at least 28 days) in this data set
- date birth date where 1096=January 1, 1961
- gestation length of gestation (in days)
- wt birth weight (in ounces)
- parity total number of previous pregnancies (including fetal deaths and still births)
- race mother's race: "asian", "black", "mex", "mixed", or "white"
- · age mother's age in years at termination of pregnancy
- ed mother's education
- ht mother's height in inches to the last completed inch
- wt.1 mother's prepregnancy weight (in pounds)
- · drace father's race
- dage father's age (in years)
- · ded father's education
- dht father's height in inches to the last completed inch
- dwt father's weight (in pounds)
- marital marital status,
- inc family yearly income in \$2500 increments
- smoke does mother smoke? (never, smokes now, until current pregnancy, once did, not now)
- time time since quitting smoking (never smoked, still smokes, during current preg, within 1 year, 1 to 2 years ago, 2 to 3 years ago, 3 to 4 years ago, 5 to 9 years ago, 10+ years ago, quit and don't know
- number number of cigarettes smoked per day for past and current smokers (never, 1-4, 5-9, 10-14, 15-19, 20-29, 30-39, 40-60, 60+, smoke but don't know)

#### **Details**

The data were presented by Nolan and Speed to address the question of whether there is a link between maternal smoking and the baby's health for male births.

#### Source

The book by Nolan and Speed describes the data in more detail and provides an Internet site for accessing them: https://www.stat.berkeley.edu/users/statlabs/

#### References

D Nolan and T Speed. Stat Labs: Mathematical Statistics Through Applications (2000), Springer-Verlag.

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#### **Examples**

```
data(Gestation)
```

GoosePermits

Goose Permit Study

#### **Description**

237 hunters were each offered one of 11 cash amounts (bids) ranging from \$1 to \$200 in return for their goose permits. Hunters returned either their permit or the cash.

# Usage

```
data(GoosePermits)
```

#### **Format**

A data frame with 11 observations on the following 3 variables.

itemcodebid amount offered for permit (US \$) (numeric) itemcodekeep number of hunters who kept the permit and returned the cash (numeric) itemcodesell number of hunters who kept the cash and returned the permit (numeric)

## Source

Bishop and Heberlein. "Measuring values of extramarket goods: are indirect measures biased?". Amer. J. Agr. Econ. 61, 1979. Available at https://onlinelibrary.wiley.com/doi/abs/10. 2307/3180348

```
data(GoosePermits)
goose.model <-
   glm( cbind(keep, sell) ~ log(bid), data = GoosePermits, family = binomial())
if (require(ggformula)) {
   y.hat <- makeFun(goose.model)
   gf_point( (keep/(keep+sell)) ~ bid, data = GoosePermits, ylim = c(0,1.05)) %>%
   gf_fun(y.hat(b) ~ b, add = TRUE, color = "red", alpha = 0.5)
}
```

14 HeatX

HeatX

Data from a heat exchanger laboratory

# Description

These data were collected by engineering students at Calvin College. The apparatus consists of concentric pipes insulated from the environment so that as nearly as can be managed the only heat exchange is between the hot and cold water.

## Usage

```
data(HeatX)
```

#### **Format**

A data frame with 6 observations on the following variables.

- trial trial number
- T. cold. in temperature (C) of the cold water as it enters the apparatus
- T. cold. out temperature (C) of the cold water as it leaves the apparatus
- m. cold flow rate (L/min) of the cold water
- T. hot. in temperature (C) of the hot water as it enters the apparatus
- T. hot. out temperature (C) of the hot water as it leaves the apparatus
- m. hot flow rate (L/min) of the hot water

```
# We can test for heat exchange with the environment by checking to see if the
# heat gained by the cold water matches the heat lost by the hot water.
C_p <- 4.182 / 60 # / 60 because measuring m in L/min
HeatX2 <-
    dplyr::mutate(HeatX,
        Q.cold = m.cold * C_p * (T.cold.out - T.cold.in),
        Q.hot = m.hot * C_p * (T.hot.out- T.hot.in),
        Q.env = Q.cold + Q.hot
    )
if (require(ggformula)) {
    gf_jitter( "" ~ Q.env, data = HeatX2, alpha = 0.6, size = 4,
        width = 0, height = 0.1, seed = 123) %>%
    gf_labs(y = "")
}
if (require(mosaic)) {
    t.test( ~Q.env, data = HeatX2 )
}
```

**HELPfull** 

Health Evaluation and Linkage to Primary Care

#### **Description**

The HELP study was a clinical trial for adult inpatients recruited from a detoxification unit. Patients with no primary care physician were randomized to receive a multidisciplinary assessment and a brief motivational intervention or usual care, with the goal of linking them to primary medical care.

## Usage

data(HELPfull)

#### **Format**

A data frame with 1472 observations on the following variables.

- ID Subject ID
- A10 Marital Status (1=Married, 2=Remarried, 3=Widowed, 4= Separated, 5=Divorced, 6=Never Married
- A11A Do you currently have a living mother? (0=No, 1= Yes
- A11B Do you currently have a living father? (0=No, 1=Yes
- A11C Do you currently have siblings? (0=No, 1=Yes
- A11D Do you currently have a partner (0=No, 1=Yes)
- A11E Do you currently have children? (0=No, 1=Yes)
- A12B\_REC Hollingshead category (recode) (0=Cat 1,2,3, 1=Cat 4,5,6, 2=Cat 7,8,9)
- A12B Hollingshead categories (1=Major profess, 2=Lesser professional, 3=Minor professional, 4=Clerical/sales, 5=Skilled manual, 6=Semi-skilled, 7=Unskilled, 8= Homemaker, 9=No occupation)
- A13 Usual employment pattern in last 6 months (1=Full time, 2=Part time, 3=Student, 4=Unemployed, 5=Control envir)
- A14A Lived alone-last 6 months (0=No, 1=Yes)
- A14B Lived with a partner-last 6 months (0=No, 1=Yes
- A14C Lived with parent(s)-last 6 months (0=No, 1=Yes)
- A14D Lived with children-last 6 months (0=No, 1=Yes)
- A14E Lived with other family-last 6 months (0=No, 1=Yes
- A14F Lived with friend(s)-last 6 months (0=No, 1=Yes)
- A14G\_T a factor with levels 1/2 WAY HOUSE 3/4 HOUSE ANCHOR INN ARMY ASSOCIATES BOARDERS
  BOYFRIENDS MOM CORRECTIONAL FACILIT CRACK HOUSE DEALER ENTRE FAMILIA FENWOOD GAVIN
  HSE GIRLFRIENDS DAUGHTE GIRLFRIENDS SON GIRLFRIENDS CHILDREN GIRLFRIENDS DAUGHTER
  GROUP HOME HALF-WAY HOUSE HALFWAY HOUSE HALFWAY HOUSES HALFWAY HSE HOLDING UNIT
  HOME BORDER HOMELESS HOMELESS SHELTER IN JAIL IN PROGRAMS INCARCERATED JAIL JAIL

HALFWAY HOUSE JAIL, SHELTER JAIL, STREET JAIL/PROGRAM JAIL/SHELTER JAILS LANDLADY LANDLORD LODGING HOUSE MERIDIAN HOUSE NURSING HOME ON THE STREET PARTNERS MOTHER PARTNERS CHILD PARTNERS CHILDREN PRDGRAMS PRISON PROGRAM PROGRAM MTHP PROGRAM ROOMMATES PROGRAM SOBER HOUSE PROGRAM-RESIDENTIAL PROGRAM/HALFWAY HOUS PROGRAM/JAIL PROGRAM/SHELTER PROGRAM/SHELTERS PROGRAMS PROGRAMS SUBSTANCE PROGRAMS/SHELTER PROGRAMS/SHELTERS/DE PROJECT SOAR RESIDENTIAL FACILITY RESIDENTIAL PROGRAM ROOMING HOUSE ROOMING HOUSE (RELIG ROOMMATE ROOMMATES ROOMMATES AT TRANSIT RYAN HOUSE SALVATION ARMY SHELTER SHELTER/HALFWAY HSE SHELTER/HOTEL SHELTER/PROGRAM SHELTERS SHELTERS/HOSPITALS SHELTERS/JAIL SHELTERS/PROGRAMS SHELTERS/STREETS SOBER HOUSE SOBER HOUSING SOUTH BAY JAIL STEPSON STREET STREETS SUBSTANCE ABUSE TREA TRANSITIONAL HOUSE VA SHELTER

- A14G Lived w/ other-last 6 months (0=No, 1=Yes)
- A15A #nights in overnight shelter-last 6 months
- A15B # nights on street-last 6 months
- A15C # months in jail-last 6 months
- A16A # months in overnight shelter-last 5 years
- A16B # moths on street-last 5 years
- A16C # months in jail-last 5 years
- A17A Received SSI past 6 months (0=No, 1=Yes)
- A17B Received SSDI past 6 months (0=No, 1=Yes)
- A17C Received AFDC past 6 months (0=No, 1=Yes)
- A17D Received EAEDC past 6 months (0=No, 1=Yes)
- A17E Received WIC past 6 months (0=No, 1=Yes)
- A17F Received unemployment benefits past 6 months (0=No, 1=Yes)
- A17G Received Workman's Compensation past 6 months (0=No, 1=Yes)
- A17H Received Child Support past 6 months (0=No, 1=Yes)
- A17I\_T a factor with levels DISABLED VETERAN EBT (FOOD STAMPS) EMERGENCY FOOD STAMP
  FOOD STAMP FOOD STAMPS FOOD STAMPS/VETERAN FOOD STAMPS/VETERANS INSURANCE SETTLEMENT
  PENSION CHECK SECTION 8 SERVICE CONNECTED DI SOCIAL SECURITY SSDI FOR SON SURVIVORS
  BENEFITS TEMPORARY DISABILITY VA BENEFITS-DISABILI VA COMPENSATION VA DISABILITY
  PENSIO VETERAN BENEFITS VETERANS SERVICES VETERANS AFFAIRS
- A17I Received other income past 6 months (0=No, 1=Yes)
- A18\_REC1 Most money made in 1 year (recode) (0=\$19,000 or less, 1=\$20,000-\$49,000, 2=\$50,000 or more)
- A18\_REC2 Most money made-continuous recode
- A18 Most money made in any 1 year-last 5 years (1=<5000, 2=5000-10000, 3=11000-19000, 4=20000-29000, 5=30000-39000, 6=40000-49000, 7=50000+
- A1 Gender (1=Male, 2=Female)
- · A9 Years of education completed
- ABUSE2 Type of abuse (0=No abuse, 1=Physical only, 2=Sexual only, 3=Physical and sexual)
- ABUSE3 Type of abuse (0=No abuse, 1=Physical only, 2=Sexual +/- physical (0=No, 1=Yes)

• ABUSE Abuse-physical or sexual (0=No abuse, 1=Family abuse, 2=Stranger only abuse)

- · AGE Age in years
- ALCOHOL 1st/2nd drug of coice=Alcohol (0=No, 1=Yes)
- ALCQ\_30 Total number drinks past 30 days
- ALONE6M Usually lived alone past 6 months (0=No, 1=Yes)
- ALT\_TRT Alternative tratments (0=No, 1=Yes)
- ANYSUBSTATUS Used alcohol, heroin, or cocaine since leaving detox-6 months
- ANY\_INS Did you have health insurance in past 6 months (0=No, 1=Yes)
- ANY\_UTIL Any recent health utilization (0=No, 1=Yes)
- ANY\_VIS\_CUMUL Cumulative # visits to regular doctor's office
- ANY\_VIS # visits to regular doctor's office—This time point
- B10 Any physical/emotional problem interfere with social activities-last 4 weeks (1=All of the time, 2=Most of the time, 3=Some of the time, 4= A lttle of time, 5= None of the time)
- B11A I seem to get sick easier than other people (1=Definitely true, 2=Mostly True, 3=Don't know, 4=Mostly false, 5=Definitely false)
- B11B I am as healthy as anybody I know (1=Definitely true, 2=Mostly true, 3=Don't know, 4=Mostly false, 5=Definitely False)
- B11C I expect my health to get worse (1=Definitely true, 2=Mostly true, 3=Don't know, 3=Mostly false, 5=Definitely false)
- B11D My health is excellent (1=Definitely true, 2=Mostly true, 3=Don't know, 4=Mostly false, 5=Definitely false)
- B1 In general, how is your health (1=Excellent, 2=Very Good, 3=Good, 4=Fair, 5=Poor)
- B2 Compared to 1 year ago, how is your health now (1=Much better, 2=Somewhat better, 3=About the same, 4=Somewhat worse, 5=Much worse)
- B3A Does health limit you in vigorous activity (1=Limited a lot, 2=Limited a little, 3=Not limited)
- B3B Does your health limit you in moderate activity (1=Limited a lot, 2=Limited a little, 3=Not limited)
- B3C Does health limit you in lift/carry groceries (1=Limited a lot, 2=Limited a little, 3=Not limited)
- B3D Does health limit you in climb several stair flights (1=Limited a lot, 2=Limited a little, 3=Not limited)
- B3E Does health limit you in climb 1 stair flight (1=Limited a lot, 2=Limited a little, 3=Not limited)
- B3F Does health limit you in bend/kneel/stoop (1=Limited a lot, 2=Limited a little, 3=Not limited)
- B3G Does health limit you in walking >1 mile (1=Limited a lot, 2=Limited a little, 3=Not limited)
- B3H Does health limit you in walking sevral blocks (1=Limited a lot, 2=Limited a little, 3=Not limited)

• B3I Does health limit you in walking 1 block (1=Limited a lot, 2=Limited a little, 3=Not limited)

- B3J Does health limit you in bathing/dressing self (1=Limited a lot, 2=Limited a little, 3=Not limited)
- B4A Cut down work/activity due to physical health-last 4 weeks (0=No, 1=Yes)
- B4B Accomplish less due to phys health-last 4 weeks (0=No, 1=Yes)
- B4C Lim wrk/act type due to phys health-last 4 weeks (0=No, 1=Yes)
- B4D Diff perf work due to phys health-last 4 weeks (0=No, 1=Yes)
- B5A Cut wrk/act time due to emot prbs-last 4 weeks (0=No, 1=Yes)
- B5B Accomplish ess due to emot probs-last 4 weeks (0=No, 1=Yes)
- B5C <carefl w/wrk/act due to em prb-last 4 weeks (0=No, 1=Yes)
- B6 Ext phys/em intf w/norm soc act-last 4 weeks (1=Not al all, 2=Slightly, 3=Moderately, 4=Quite a bit, 5=Extremely)
- B7 Amount of bodily pain past 4 weeks (1=None, 2=Very mild, 3= Mild, 4=Moderate, 5= Severe, 6= Very severe)
- B8 Amount of pain interfering with normal work-last 4 weeks (1=Not at all, 2=A little bit, 3=Moderately, 4=Quite a bit, 5=Extremely
- B9A Did you feel full of pep past 4 weeks (1=All of the time, 2=Most of the time, 3 = Good bit of the time, 4=Some of the time, 5=A little of time, 6=None of the time)
- B9B Have you been nervous past 4 weeks (1=All of the time, 2=Most of the time, 3 = Good bit of the time, 4=Some of the time, 5=A little of time, 6=None of the time)
- B9C Felt nothing could cheer you-last 4 weeks (1=All of the time, 2=Most of the time, 3 = Good bit of the time, 4=Some of the time, 5=A little of time, 6=None of the time)
- B9D Have you felt calm/peaceful past 4 weeks (1=All of the time, 2=Most of the time, 3 = Good bit of the time, 4=Some of the time, 5=A little of time, 6=None of the time)
- B9E Did you have a lot of energy past 4 weeks (1=All of the time, 2=Most of the time, 3 = Good bit of the time, 4=Some of the time, 5=A little of time, 6=None of the time)
- B9F Did you feel downhearted past 4 weeks (1=All of the time, 2=Most of the time, 3 = Good bit of the time, 4=Some of the time, 5=A little of time, 6=None of the time)
- B9G Did you feel worn out past 4 weeks (1=All of the time, 2=Most of the time, 3 = Good bit of the time, 4=Some of the time, 5=A little of time, 6=None of the time)
- B9H Have you been a happy pers past 4 weeks (1=All of the time, 2=Most of the time, 3 = Good bit of the time, 4=Some of the time, 5=A little of time, 6=None of the time)
- B9I Did you feel tired past 4 weeks (1=All of the time, 2=Most of the time, 3 = Good bit of the time, 4=Some of the time, 5=A little of time, 6=None of the time)
- BIRTHPLC Where born (recode) (0=USA, 1=Foreign)
- BP SF-36 pain index (0-100)
- C1A Tolf by MD had seix, epil, convuls (0=No, 1=Yes)
- C1B Told by MD had asthma, emphysema, chr lung dis (0=No, 1=Yes)
- C1C Told by MD had MI (0=No, 1=Yes)

- C1D Told by MD had CHF (0=No, 1=Yes)
- C1E Told by MD had other heart dis (req med) (0=No, 1=Yes)
- C1F Told by MD had HBP (0=No, 1=Yes)
- C1G Told by MD had chronic liver disease (0=No, 1=Yes)
- C1H Told by MD had kidney failure (0=No, 1=Yes)
- C1I Told by MD had chronic art, osteoarth (0=No, 1=Yes)
- C1J Told by MD had peripheral neuropathy (0=No, 1=Yes)
- C1K Ever told by MD had cancer (0=No, 1=Yes)
- C1L Ever told by MD had diabetes (0=No, 1=Yes)
- C1M Ever told by MD had stroke (0=No, 1=Yes)
- C2A1 Have you ever had skin infections (0=No, 1=Yes)
- C2A2 Have you had skin infections past 6 months (0=No, 1=Yes)
- C2B1 Have you ever had pneumonia (0=No, 1=Yes)
- C2B2 Have you had pneumonia past 6 months (0=No, 1=Yes)
- C2C1 Have you ever had septic arthritis (0=No, 1=Yes)
- C2C2 Have you had septic arthritis past 6 months (0=No, 1=Yes)
- C2D1 Have you ever had TB (0=No, 1=Yes)
- C2D2 Have you had TB-last 6 months (0=No, 1=Yes)
- C2E1 Have you ever had endocarditis (0=No, 1=Yes)
- C2E2 Have you had endocarditis past 6 months (0=No, 1=Yes)
- C2F1 Have you ever had an ulcer (0=No, 1=Yes)
- C2F2 Have you had an ulcer past 6 months (0=No, 1=Yes)
- C2G1 Have you ever had pancreatitis (0=No, 1=Yes)
- C2G2 Have you had pancreatitis past 6 months (0=No, 1=Yes)
- C2H1 Ever had abdom pain req overnt hosp stay (0=No, 1=Yes)
- C2H2 Abdom pain req ovrnt hosp stay-last 6 months (0=No, 1=Yes)
- C2I1 Have you ever vomited blood (0=No, 1=Yes)
- C2I2 Have you vomited blood past 6 months (0=No, 1=Yes)
- C2J1 Have you ever had hepatitis (0=No, 1=Yes)
- C2J2 Have you had hepatitis past 6 months (0=No, 1=Yes)
- C2K1 Ever had blood clots in legs/lungs (0=No, 1=Yes)
- C2K2 Blood clots in legs/lungs past 6 months (0=No, 1=Yes)
- C2L1 Have you ever had osteomyelitis (0=No, 1=Yes)
- C2L2 Have you had osteomyelitis past 6 months (0=No, 1=Yes)
- C2M1 Chest pain using cocaine req ER/hosp (0=No, 1=Yes)
- C2M2 Chest pain using coc req ER/hosp-last 6 months (0=No, 1=Yes)
- C2N1 Have you ever had jaundice (0=No, 1=Yes)

- C2N2 Have you had jaundice past 6 months (0=No, 1=Yes)
- C201 Lower back pain > 3 months req med attn (0=No, 1=Yes)
- C202 Lwr back pain >3 months req med attention-last 6 months (0=No, 1=Yes)
- C2P1 Ever had seizures or convulsions (0=No, 1=Yes)
- C2P2 Had seizures or convulsions past 6 months (0=No, 1=Yes)
- C2Q1 Ever had drug/alcohol overdose requiring ER attention (0=No, 1=Yes)
- C2Q2 Drug/alcohol overdose req ER attn (0=No, 1=Yes)
- C2R1 Have you ever had a gunshot wound (0=No, 1=Yes)
- C2R2 Had a gunshot wound past 6 months (0=No, 1=Yes)
- C2S1 Have you ever had a stab wound (0=No, 1=Yes)
- C2S2 Have you had a stab wound past 6 months (0=No, 1=Yes)
- C2T1 Ever had accident/falls req med attn (0=No, 1=Yes)
- C2T2 Had accident/falls req med attn past 6 months (0=No, 1=Yes)
- C2U1 Ever had fract/disloc to bones/joints (0=No, 1=Yes)
- C2U2 Fract/disloc to bones/joints past 6 months (0=No, 1=Yes)
- C2V1 Ever had injury from traffic accident (0=No, 1=Yes)
- C2V2 Had injury from traffic accident past 6 months (0=No, 1=Yes)
- C2W1 Have you ever had a head injury (0=No, 1=Yes)
- C2W2 Have you had a head injury past 6 months (0=No, 1=Yes)
- C3A1 Have you ever had syphilis (0=No, 1=Yes)
- C3A2 # times had syphilis
- C3A3 Have you had syphilis in last 6 months (0=No, 1=Yes)
- C3B1 Have you ever had gonorrhea (0=No, 1=Yes)
- C3B2 # times had gonorrhea
- C3B3 Have you had gonorrhea in last 6 months (0=No, 1=Yes)
- C3C1 Have you ever had chlamydia (0=No, 1=Yes)
- C3C2 # of times had Chlamydia
- C3C3 Have you had chlamydia in last 6 months (0=No, 1=Yes)
- C3D Have you ever had genital warts (0=No, 1=Yes)
- C3E Have you ever had genital herpes (0=No, 1=Yes)
- C3F1 Have you ever had other STD's (not HIV) (0=No, 1=Yes)
- C3F2 # of times had other STD's (not HIV)
- C3F3 Had other STD's (not HIV)-last 6 months (0=No, 1=Yes)
- C3F\_T a factor with levels 7 CRABS CRABS TRICHONOMIS CRABS, HEP B DOESNT KNOW NAME HAS HAD ALL 3 ABC HEP B HEP B, TRICAMONAS HEP. B HEPATITIS B HEPATITS B TRICHAMONAS VAGINALA TRICHAMONIS TRICHOMONAS TRICHOMONIASIS TRICHOMONIS TRICHOMONIS VAGINITI TRICHOMORAS TRICHONOMIS
- C3G1 Have you ever been tested for HIV/AIDS (0=No, 1=Yes)

- C3G2 # times tested for HIV/AIDS
- C3G3 Have you been tested for HIV/AIDS-last 6 months (0=No, 1=Yes)
- C3G4 What was the result of last test (1=Positive, 2=Negative, 3=Refused, 4=Never got result, 5=Inconclusive
- C3H1 Have you ever had PID (0=No, 1=Yes)
- C3H2 # of times had PID
- C3H3 Have you had PID in last 6 months (0=No, 1=Yes)
- C3I Have you ever had a Pap smear (0=No, 1=Yes)
- C3J Have you had a Pap smear in last 3 years (0=No, 1=Yes)
- C3K\_M How many months pregnant
- C3K Are you pregnant (0=No, 1=Yes)
- CESD\_CUT CES-D score > 21 y/n (0=No, 1=Yes)
- CES\_D CES-D score, measure of depressive symptoms, high scores are worse
- CHR\_6M Chronic medical conds/HIV past 6m y/n (0=No, 1=Yes)
- CHR\_EVER Chronic medical conds/HIV-ever y/n (0=No, 1=Yes)
- CHR\_SUM Sum chronic medical conds/HIV ever
- CNTRL InDUC-2L-Control score
- COC\_HER 1st/2nd drug of choice=cocaine or heroine (0=No, 1=Yes)
- CUAD\_C CUAD-Cocaine
- CUAD\_H CUAD-Heroin
- CURPHYAB Current abuse-physical (0=No, 1=Yes)
- CURPHYSEXAB Curent abuse-physical or sexual (0=No abuse, 1=Physical only, 2=Sexual +/-physical)
- CURSEXAB Current abuse-sexual (0=No, 1=Yes)
- C\_AU ASI-Composite score for alcohol use
- C\_DU ASI-Composite score for drug use
- C\_MS ASI-Composite medical status
- D1 \$ of times hospitalized for med probs
- D2 Take prescription mediculation regularly for physical problem (0=No, 1=Yes)
- D3\_REC Any medical problems past 30d y/n (0=No, 1=Yes)
- D3 # days had med probs-30 days bef detox
- D4\_REC Bothered by medical problems y/n (0=No, 1=Yes)
- D4 How bother by med prob-30days bef detox (0=Not at all, 1=Slightly, 2=Moderately, 3=Considerably, 4=Extremely)
- D5\_REC Medical trtmt is important y/n (0=No, 1=Yes)
- D5 How import is trumt for these med probs (0=Not at all, 1=Slightly, 2= Moderately, 3= Considerably, 4= Extremely
- DAYSANYSUB time (days) from baseline to first alcohol, heroin, or cocaine since leaving detox-6m

- DAYSDRINK Time (days) from baseline to first drink since leaving detox-6m
- DAYSLINK Time (days) to linkage to primary care within 12 months (by administrative record)
- DAYS\_SINCE\_BL # of days from baseline to current interview
- DAYS\_SINCE\_PREV # of days from previous to current interview
- DEAD a numeric vector
- DEC\_AM SOCRATES-Ambivalence-Decile
- DEC\_RE SOCRATES-Recognition-Decile
- DEC\_TS SOCRATES-Taking steps-Decile
- DRINKSTATUS Drank alcohol since leaving detox-6m
- DRUGRISK RAB-Drug risk total
- E10A have you been to med clinic-last 6 months (0=No, 1=Yes)
- E10B1\_R Mental health treatment past 6m y/n (0=No, 1=Yes)
- E10B1 # x visit ment health clin/prof-last 6 months
- E10B2\_R Med clinic/private MD past 6m y/n (0=No, 1=Yes)
- E10B2 # x visited med clin/priv MD-last 6 months
- E10C19 Visited private MD-last 6 months (0=No, 1=Yes)
- E11A Did you stay ovrnite/+ in hosp-last 6 months (0=No, 1=Yes)
- E11B # times ovrnight/+ in hosp-last 6 months
- E11C Total # nights in hosp-last 6 months
- E12A Visited Hosp ER for med care past 6 months (0=No, 1=Yes)
- E12B # times visited hosp ER-last 6 months
- E13 Tlt # visits to MDs-last 2 weeks bef detox
- E14A Recd trtmt from acupuncturist-last 6 months (0=No, 1=Yes)
- E14B Recd trtmt from chiropractor-last 6 months (0=No, 1=Yes)
- E14C Trtd by hol/herb/hom med prac-last 6 months (0=No, 1=Yes)
- E14D Recd trtmt from spirit healer-last 6 months (0=No, 1=Yes)
- E14E Have you had biofeedback-last 6 months (0=No, 1=Yes)
- E14F Have you underwent hypnosis-last 6 months (0=No, 1=Yes)
- E14G Received other treatment-last 6 months (0=No, 1=Yes)
- E15A Tried to get subst ab services-last 6 months (0=No, 1=Yes)
- E15B Always able to get subst ab servies (0=No, 1=Yes)
- E15C10 My insurance didn't cover services (0=No, 1=Yes)
- E15C11 There were no beds available at the prog (0=No, 1=Yes)
- E15C12 Other reason not get sub ab services (0=No, 1=Yes)
- E15C1 I could not pay for services (0=No, 1=Yes)
- E15C2 I did not know where to go for help (0=No, 1=Yes)
- E15C3 Couldn't get to services due to transp prob (0=No, 1=Yes)

- E15C4 The offie/clinic hrs were inconvenient (0=No, 1=Yes)
- E15C5 Didn't speak/understnd Englsh well enough (0=No, 1=Yes)
- E15C6 Afraid other might find out about prob (0=No, 1=Yes)
- E15C7 My substance abuse interfered (0=No, 1=Yes)
- E15C8 Didn't have someone to watch my children (0=No, 1=Yes)
- E15C9 I did not want to lose my job (0=No, 1=Yes)
- E16A10 I do not want to lose my job (0=No, 1=Yes)
- E16A11 My insurance doesn't cover charges (0=No, 1=Yes)
- E16A12 I do not feel I need a regular MD (0=No, 1=Yes)
- E16A13 Other reasons don't have regular MD (0=No, 1=Yes)
- E16A1 I cannot pay for services (0=No, 1=Yes)
- E16A2 I am not eligible for free care (0=No, 1=Yes)
- E16A3 I do not know where to go (0=No, 1=Yes)
- E16A4 Can't get to services due to trans prob (0=No, 1=Yes)
- E16A5 a numeric vectorOffice/clinic hours are inconvenient (0=No, 1=Yes)
- E16A6 I don't speak/understnd enough English (0=No, 1=Yes)
- E16A7 Afraid othrs find out about my health prob (0=No, 1=Yes)
- E16A8 My substance abuse interferes (0=No, 1=Yes)
- E16A9 I don't have someone to watch my children (0=No, 1=Yes)
- E16A\_DD Barrier to regular MD: dislike docs/system (0=No, 1=Yes)
- E16A\_IB Barrier to regular MD: internal barriers (0=No, 1=Yes)
- E16A\_RT Barrier to regular MD: red tape (0=No, 1=Yes)
- E16A\_TM Barrier to regular MD: time restrictions (0=No, 1=Yes)
- E18A I could not pay for services (0=No, 1=Yes)
- E18B I did not know where to go for help (0=No, 1=Yes)
- E18C Couldn't get to services due to transp prob (0=No, 1=Yes)
- E18D The office/clinic hrs were inconvenient (0=No, 1=Yes)
- E18F Afraid others might find out about prob (0=No, 1=Yes)
- E18G My substance abuse interfered (0=No, 1=Yes)
- E18H Didn't have someone to watch my children (0=No, 1=Yes)
- E18I I did not want to lose my job (0=No, 1=Yes)
- E18J My insurance didn't cover services (0=No, 1=Yes)
- E18K There were no beds available at the prog (0=No, 1=Yes)
- E18L I do not need substance abuse services (0=No, 1=Yes)
- E18M Other reason not get sub ab services (0=No, 1=Yes)
- E2A Detox prog for alcohol or drug prob-last 6 months (0=No, 1=Yes)
- E2B # times entered a detox prog-last 6 months

- E2C # nights ovrnight in detox prg-last 6 months
- E3A Holding unit for drug/alcohol prob-last 6 months (0=No, 1=Yes)
- E3B # times in holding unity=last 6 months
- E3C # total nights in holding unit-last 6 months
- E4A In halfway hse/resid facil-last 6 months (0=No, 1=Yes)
- E4B # times in hlfwy hse/res facil-last 6 months
- E4C Ttl nites in hlfwy hse/res fac-last 6 months
- E5A In day trtmt prg for alcohol/drug-last 6 months (0=No, 1=Yes)
- E5B Total # days in day trtmt prg-last 6 months
- E6 In methadone maintenance prg-last 6 months (0=No, 1=Yes)
- E7A Visit outpt prg subst ab couns-last 6 months (0=No, 1=Yes)
- E7B # visits outpt prg subst ab couns-last 6 months
- E8A1 Saw MD/H care worker regarding alcohol/drugs-last 6 months (0=No, 1=Yes)
- E8A2 Saw Prst/Min/Rabbi re alcohol/drugs-last 6 months (0=No, 1=Yes)
- E8A3 Employ Asst Prg for alcohol/drug prb-last 6 months (0=No, 1=Yes)
- E8A4 Oth source cnsl for alcohol/drug prb-last 6 months (0=No, 1=Yes)
- E9A AA/NA/slf-hlp for drug/alcohol/emot-last 6 months (0=No, 1=Yes)
- E9B How often attend AA/NA/slf-hlp-last 6 months (1=Daily, 2=2-3 Times/week, 3=Weekly, 4=Every 2 weeks, 5=Once/month
- EPI\_6M2B Episodic(C2A-C2O)-6m y/n (0=No, 1=Yes)
- EPI\_6M Episodic (C2A-C2O,C2R-C2U, STD)-6m y/n (0=No, 1=Yes)
- EPI\_SUM Sum episodic (C2A-C2O, C2R-C2U, STD)-6m
- F1A Bothered by things not generally bothered by (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1B My appetite was poor (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1C Couldn't shake blues evn w/fam+frnds hlp (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1D Felt I was just as good as other people (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1E Had trouble keeping mind on what doing (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1F I felt depressed (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1G I felt everything I did was an effort (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1H I felt hopeful about the future (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1I I thought my life had been a failure (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)

• F1J I felt fearful (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)

- F1K My sleep was restless (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1L I was happy (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1MI talked less than usual (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1N I felt lonely (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F10 People were unfriendly (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1P I enjoyed life (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1Q I had crying spells (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1R I felt sad (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1S I felt that people dislike me (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- F1T I could not get going (0=Rarely/never, 1=Some of the time, 2=Occas/moderately, 3=Most of the time)
- FAMABUSE Family abuse-physical or sexual (0=No, 1=Yes)
- FRML\_SAT Formal substance abuse treatment y/n (0=No, 1=Yes)
- G1A\_30 Diff contr viol beh-sig per last 30 days (0=No, 1=Yes)
- G1A Diff contr viol beh for sig time per evr (0=No, 1=Yes)
- G1B\_30 Had thoughts of suicide-last 30 days (0=No, 1=Yes)
- G1B\_REC Suicidal thoughts past 30 days y/n (0=No, 1=Yes)
- G1B Ever had thoughts of suicide (0=No, 1=Yes)
- G1C\_30 Attempted suicide-last 30 days (0=No, 1=Yes)
- G1C Attempted suicide ever (0=No, 1=Yes)
- G1D\_30 Prescr med for psy/emot prob-last 30 days (0=No, 1=Yes)
- G1D\_REC Prescribed psych meds past 30 days y/n (0=No, 1=Yes)
- G1D Prescr med for pst/emot prob ever (0=No, 1=Yes)
- GH SF-36 general health perceptions (0-100)
- GOV\_SUPP Received government support past 6 m (0=No, 1=Yes)
- GROUP Randomization Group (0=Control, 1=Clinic)
- H10\_30 # days in last 30 bef detox used cannabis
- H10\_LT # years regularly used cannabis
- H10\_PRB Problem sub: marijuana, cannabis (0=No, 1=Yes)

• H10\_RT Route of admin of cannabis (0=N/A. 1=Oral, 2=Nasal, 3=Smoking, 4=Non-IV injection, 5=IV)

- H11\_30 # days in last 30 bef detox used halluc
- H11\_LT # years regularly used hallucinogens
- H11\_PRB Problem sub: hallucinogens (0=No, 1=Yes)
- H11\_RT Route of admin of hallucinogens (0=N/A. 1=Oral, 2=Nasal, 3=Smoking, 4=Non-IV injection, 5=IV)
- H12\_30 # days in last 30 bef detox used inhalant
- H12\_LT # years regularly used inhalants
- H12\_PRB Problem sub: inhalants (0=No, 1=Yes)
- H12\_RT Route of admin of inhalants (0=N/A. 1=Oral, 2=Nasal, 3=Smoking, 4=Non-IV injection, 5=IV)
- H13\_30 # days used >1 sub/day-last 30 bef detox
- H13\_LT # years regularly used >1 subst/day
- H13\_RT Route of admin of >1 subst/day (0=N/A. 1=Oral, 2=Nasal, 3=Smoking, 4=Non-IV injection, 5=IV)
- H14 According to interviewer, which substance is main problem (0=No problem, 1=Alcohol, 2=Alcohol to intox, 3=Heroin 4=Methadone, 5=Other opiate/analg, 6=Barbituates, 7=Sed/hyp/tranq, 8=Cocaine, 9=Amphetamines, 10=Marij/cannabis, 15=Alcohol and one or more drug, 16=More than one drug
- H15A # times had alcohol DTs
- H15B # times overdosed on drugs
- H16A \$ spent on alcohol-last 30 days bef detox
- H16B \$ spent on drugs-last 30 days bef detox
- H17A # days had alcohol prob-last 30 days bef det
- H17B # days had drug prob-last 30 days bef det
- H18A How troubled by alcohol probs-last 30 days (0=Not at all, 1=Slightly, 2=Moderately, 3=Considerably, 4=Extremely)
- H18B How troubled by drug probs-last 30 days (0=Not at all, 1=Slightly, 2=Moderately, 3=Considerably, 4=Extremely)
- H19A How import is treatment for alcohol problems now (0=Not at all, 1=Slightly, 2=Moderately, 3=Considerably, 4=Extremely)
- H19B How important is trtmnt for drug probs now (0=Not at all, 1=Slightly, 2=Moderately, 3=Considerably, 4=Extremely)
- H1\_30 # days in past 30 bef detox used alcohol
- H1\_LT # years regularly used alcohol
- H1\_RT Route of administration use alcohol (0=N/A. 1=Oral, 2=Nasal, 3=Smoking, 4=Non-IV injection, 5=IV)
- H2\_30 #days in 3- bef detox use alcohol to intox
- H2\_LT # years regularly used alcohol to intox

- H2\_PRB Problem sub: alcohol to intox (0=No, 1=Yes)
- H2\_RT Route of admin use alcohol to intox (0=N/A. 1=Oral, 2=Nasal, 3=Smoking, 4=Non-IV injection, 5=IV)
- H3\_30 # days in past 30 bef detox used heroin
- H3\_LT # years regularly used heroin
- H3\_PRB Problem sub: heroin (0=No, 1=Yes)
- H3\_RT Route of administration of heroin (0=N/A. 1=Oral, 2=Nasal, 3=Smoking, 4=Non-IV injection, 5=IV)
- H4\_30 # days used methadone-last 30 bef detox
- H4\_LT # years regularly used methadone
- H4\_PRB Problem sub: methadone (0=No, 1=Yes)
- H4\_RT Route of administration of methadone (0=N/A. 1=Oral, 2=Nasal, 3=Smoking, 4=Non-IV injection, 5=IV)
- H5\_30 # days used opiates/analg-last 30 bef detox
- H5\_LT # years regularly used oth opiates/analg
- H5\_PRB Problem sub: other opiates/analg (0=No, 1=Yes)
- H5\_RT Route of admin of other opiates/analg (0=N/A. 1=Oral, 2=Nasal, 3=Smoking, 4=Non-IV injection, 5=IV)
- H6\_30 # days in past 30 before detox used barbiturates
- H6\_LT # years regularly used barbiturates
- H6\_PRB Problem sub: barbiturates (0=No, 1=Yes)
- H6\_RT Route of admin of barbiturates (0=N/A. 1=Oral, 2=Nasal, 3=Smoking, 4=Non-IV injection, 5=IV)
- H7\_30 # days used sed/hyp/trnq-last 30 bef det
- H7\_LT # years regularly used sed/hyp/trnq
- H7\_PRB Problem sub: sedat/hyp/tranq (0=No, 1=Yes)
- H7\_RT Route of admin of sed/hyp/trnq (0=N/A. 1=Oral, 2=Nasal, 3=Smoking, 4=Non-IV injection, 5=IV)
- H8\_30 # days in last 30 bef detox used cocaine
- H8\_LT # years regularly used cocaine
- H8\_PRB Problem sub: cocaine (0=No, 1=Yes)
- H8\_RT Route of admin of cocaine (0=N/A. 1=Oral, 2=Nasal, 3=Smoking, 4=Non-IV injection, 5=IV)
- H9\_30 # days in last 30 bef detox used amphet
- H9\_LT # years regularly used amphetamines
- H9\_PRB Problem sub: amphetamines (0=No, 1=Yes)
- H9\_RT Route of admin of amphetamines (0=N/A. 1=Oral, 2=Nasal, 3=Smoking, 4=Non-IV injection, 5=IV)
- HOMELESS Homeless-shelter/street past 6 m (0=No, 1=Yes)

- HS\_GRAD High school graduate (0=No, 1=Yes)
- HT Raw SF-36 health transition item
- I1 Avg # drinks in last 30 days bef detox
- 12 Most drank any 1 day in last 30 bef detox
- 13 On days used heroin, avg # bags used
- 14 Most bags heroin used any 1 day 30 before det
- 15 Avg \$ amt of heroin used per day
- 16A On days used cocaine, avg # bags used
- 16B On days used cocaine, avg # rocks used
- 17A Mst bgs cocaine use any 1 day-30 bef det
- 17B Mst rcks cocaine use any 1 day-30 bef det
- 18 Avg \$ amt of cocaine used per day
- IMPUL2 Inventory of Drug Use Consequences InDUC-2L-Impulse control-Raw (w/0 M23)
- IMPUL Inventory of Drug Use Consequences InDUL-2L-Impulse control-Raw
- INDTOT2 InDUC-2L-Total drlnC-Raw- w/o M23 and M48
- INDTOT InDUC-2LTotal drlnC sore-Raw
- INTER InDUC-2L-Interpersonal-Raw
- INTRA InDUC-2L-Intrapersonal-Raw
- INT\_TIME1 # of months from baseline to current interview
- INT\_TIME2 # of months from previous to current interview
- J10A Get physically sick when stop using heroin (0=No, 1=Yes)
- J10B Ever use heroin to prevent getting sick (0=No, 1=Yes)
- J1 Evr don't stop using cocaine when should (0=No, 1=Yes)
- J2 Ever tried to cut down on cocaine (0=No, 1=Yes)
- J3 Does cocaine take up a lot of your time (0=No, 1=Yes)
- J4 Need use > cocaine to get some feeling (0=No, 1=Yes)
- J5A Get physically sick when stop using cocaine (0=No, 1=Yes)
- J5B Ever use cocaine to prevent getting sick (0=No, 1=Yes)
- J6 Ever don't stop using heroin when should (0=No, 1=Yes)
- J7 Ever tried to cut down on heroin (0=No, 1=Yes)
- J8 Does heroin take up a lot of your time (0=No, 1=Yes)
- J9 Need use > heroin to get some feeling (0=No, 1=Yes)
- JAIL\_5YR Any jail time past 5 years y/n (0=No, 1=Yes)
- JAIL\_MOS Total months in jail past 5 years
- K1 Do you currently smoke cigarettes (1=Yes-every day, 2=Yes-some days, 3=No-former smoker, 4=No-never>100 cigarettes
- K2 Avg # cigarettes smoked per day

- K3 Considering quitting cigarettes within next 6 months (0=No, 1=Yes)
- L10 Have had blkouts as result of drinkng (0=No, never, 1=Sometimes, 2=Often, 3=Alm evry time drink)
- L11 Do you carry bottle or keep close by (0=No, 1=Some of the time, 2=Most of the time)
- L12 After abstin end up drink heavily again (0=No, 1=Sometimes, 2=Almost evry time)
- L13 Passed out due to drinking-last 12 months (0=No, 1=Once, 2=More than once)
- L14 Had convuls following period of drinkng (0=No, 1=Once, 2=Several times)
- L15 Do you drink throughout the day (0=No, 1=Yes)
- L16 After drinking heavily was thinking unclear (0=No, 1=Yes, few hrs, 2=Yes,1-2 days, 3=Yes, many days)
- L17 D/t drinking felt heart beat rapidly (0=No, 1=Once, 2=Several times)
- L18 Do you constntly think about drinkng/alcohol (0=No, 1=Yes)
- L19 D/t drinking heard things not there (0=No, 1=Once, 2= Several times)
- L1 How often drink last time drank (1=To get high/less, 2=To get drunk, 3=To pass out)
- L20 Had weird/fright sensations when drinkng (0=No, 1=Once or twice, 2=Often)
- L21 When drinking felt things rawl not there (0=No, 1=Once, 2=Several times)
- L22 With respect to blackouts (0=Never had one, 1=Had for <1hr, 2=Had several hrs, 3=Had for day/+)
- L23 Ever tried to cut down on drinking & failed (0=No, 1=Once, 2=Several times)
- L24 Do you gulp drinks (0=No, 1=Yes)
- L25 After taking 1 or 2 drinks can you stop (0=No, 1=Yes)
- L2 Often have hangovers Sun or Mon mornings (0=No, 1=Yes)
- L3 Have you had the shakes when sobering (0=No, 1=Sometimes, 2=Alm evry time drink)
- L4 Do you get physically sick as reslt of drinking (0=No, 1=Sometimes, 2=Alm evry time drink)
- L5 have you had the DTs (0=No, 1=Once, 2=Several times
- L6 When drink do you stumble/stagger/weave (0=No, 1=Sometimes, 2=Often)
- L7 D/t drinkng felt overly hot/sweaty (0=No, 1=Once, 2=Several times)
- L8 As result of drinking saw things not there (0=No, 1=Once, 2=Several times)
- L9 Panic because fear not have drink if need it (0=No, 1=Yes)
- LINKSTATUS Linked to primary care within 12 months (by administrative record)
- M10 Using alcohol/1 drug caused > use othr drugs (0=No, 1=Yes)
- M11 I have been sick/vomited aft alcohol/drug use (0=No, 1=Yes)
- M12 I have been unhappy because of alcohol/drug use (0=No, 1=Yes)
- M13 Lost weight/eaten poorly due to alcohol/drug use (0=No, 1=Yes)
- M14 Fail to do what expected due to alcohol/drug use (0=No, 1=Yes)
- M15 Using alcohol/drugs has helped me to relax (0=No, 1=Yes)
- M16 Felt guilt/ashamed because of my alcohol drug use (0=No, 1=Yes)

- M17 Said/done emarras things when on alcohol/drug (0=No, 1=Yes)
- M18 Personality changed for worse on alcohol/drug (0=No, 1=Yes)
- M19 Taken foolish risk when using alcohol/drugs (0=No, 1=Yes)
- M1 Had hangover/felt bad aftr using alcohol/drugs (0=No, 1=Yes)
- M20 Gotten into trouble because of alcohol/drug use (0=No, 1=Yes)
- M21 Said cruel things while using alcohol/drugs (0=No, 1=Yes)
- M22 Done impuls thigs regret due to alcohol/drug use (0=No, 1=Yes)
- M23 Gotten in physical fights when use alcohol/drugs (0=No, 1=Yes)
- M24 My physical health was harmed by alcohol/drug use (0=No, 1=Yes)
- M25 Using alcohol/drug helped me have more + outlook (0=No, 1=Yes)
- M26 I have had money probs because of my alcohol/drug use (0=No, 1=Yes)
- M27 My love relat harmed due to my alcohol/drug use (0=No, 1=Yes)
- M28 Smoked tobacco more when using alcohol/drugs (0=No, 1=Yes)
- M29 My physical appearance harmed by alcohol/drug use (0=No, 1=Yes)
- M2 Felt bad about self because of alcohol/drug use (0=No, 1=Yes)
- M30 My family hurt because of my alcohol drug use (0=No, 1=Yes)
- M31 Close relationsp damaged due to alcohol/drug use (0=No, 1=Yes)
- M32 Spent time in jail because of my alcohol/drug use (0=No, 1=Yes)
- M33 My sex life suffered due to my alcohol/drug use (0=No, 1=Yes)
- M34 Lost interst in activity due to my alcohol/drug use (0=No, 1=Yes)
- M35 Soc life> enjoyable when using alcohol/drug (0=No, 1=Yes)
- M36 Spirit/moral life harmed by alcohol/drug use (0=No, 1=Yes)
- M37 Not had kind life want due to alcohol/drug use (0=No, 1=Yes)
- M38 My alcohol/drug use in way of personal growth (0=No, 1=Yes)
- M39 My alcohol/drug use damaged soc life/reputat (0=No, 1=Yes)
- M3 Missed days wrk/sch because of alcohol/drug use (0=No, 1=Yes)
- M40 Spent/lost too much \$ because alcohol/drug use (0=No, 1=Yes)
- M41 Arrested for DUI of alcohol or oth drugs (0=No, 1=Yes)
- M42 Arrested for offenses rel to alcohol/drug use (0=No, 1=Yes)
- M43 Lost marriage/love relat due to alcohol/drug use (0=No, 1=Yes)
- M44 Susp/fired/left job/sch due to alcohol/drug use (0=No, 1=Yes)
- M45 I used drugs moderately w/o having probs (0=No, 1=Yes)
- M46 I have lost a friend due to my alcohol/drug use (0=No, 1=Yes)
- M47 Had an accident while using alcohol/drugs (0=No, 1=Yes)
- M48 Physically hurt/injured/burned when using alcohol/drugs (0=No, 1=Yes)
- M49 I injured someone while using alcohol/drugs (0=No, 1=Yes)
- M4 Fam/frinds worry/compl about alcohol/drug use (0=No, 1=Yes)

- M50 Damaged things/prop when using alcohol/drugs (0=No, 1=Yes)
- M5 I have enjoyed drinking/using drugs (0=No, 1=Yes)
- M6 Qual of work suffered because of alcohol/drug use (0=No, 1=Yes)
- M7 Parenting ability harmed by alcohol/drug use (0=No, 1=Yes)
- M8 Trouble sleeping/nightmares aftr alcohol/drugs (0=No, 1=Yes)
- M9 Driven motor veh while undr inf alcohol/drugs (0=No, 1=Yes)
- MAR\_STAT Marital status (recode) (0=Married, 1=Not married)
- MCS Standardized mental component scale-00
- MD\_LANG Lang prefer to speak to MD (recode) (0=English, 1=Other lang)
- MH SF-36 mental health index (0-100)
- MMSEC MMSEC
- N1A My friends give me the moral support I need (0=No, 1=Yes)
- N1B Most people closer to friends than I am (0=No, 1=Yes)
- N1C My friends enjoy hearing what I think (0=No, 1=Yes)
- N1D I rely on my friends for emot support (0=No, 1=Yes)
- N1E Friend go to when down w/o feel funny later (0=No, 1=Yes)
- N1F Frnds and I open re what thnk about things (0=No, 1=Yes)
- N1G My friends sensitive to my pers needs (0=No, 1=Yes)
- N1H My friends good at helping me solve probs (0=No, 1=Yes)
- N1I have deep sharing relat w/ a # of frnds (0=No, 1=Yes)
- N1J When confide in frnds makes me uncomfort (0=No, 1=Yes)
- N1K My friends seek me out for companionship (0=No, 1=Yes)
- N1L Not have as int relat w/frnds as others (0=No, 1=Yes)
- N1M Recent good idea how to do something frm frnd (0=No, 1=Yes)
- N1N I wish my friends were much different (0=No, 1=Yes)
- N2A My family gives me the moral support I need (0=No, 1=Yes)
- N2B Good ideas of how do/make thngs from fam (0=No, 1=Yes)
- N2C Most peop closer to their fam than I am (0=No, 1=Yes)
- N2D When confide make close fam membs uncomf (0=No, 1=Yes)
- N2E My fam enjoys hearing about what I think (0=No, 1=Yes)
- N2F Membs of my fam share many of my intrsts (0=No, 1=Yes)
- N2G I rely on my fam for emot support (0=No, 1=Yes)
- N2H Fam memb go to when down w/o feel funny (0=No, 1=Yes)
- N2I Fam and I open about what thnk about thngs (0=No, 1=Yes)
- N2J My fam is sensitive to my personal needs (0=No, 1=Yes)
- N2K Fam memb good at helping me solve probs (0=No, 1=Yes)
- N2L Have deep sharing relat w/# of fam membs (0=No, 1=Yes)

- N2M Makes me uncomf to confide in fam membs (0=No, 1=Yes)
- N2N I wish my family were much different (0=No, 1=Yes)
- NUM\_BARR # of perceived barriers to linkage
- NUM\_INTERVALS Number of 6-month intervals from previous to current interview
- 01A # people spend tx w/who drink alcohol (1=None, 2= A few, 3=About half, 4= Most, 5=All)
- 01B\_REC Family/friends heavy drinkers y/n (0=No, 1=Yes)
- 01B # people spend tx w/who are heavy drinkrs (1=None, 2= A few, 3=About half, 4= Most, 5=All)
- O1C\_REC Family/friends use drugs y/n (0=No, 1=Yes)
- 01C # people spend tx w/who use drugs (1=None, 2= A few, 3=About half, 4= Most, 5=All)
- O1D\_REC Family/fiends support abst. y/n (0=No, 1=Yes)
- 01D # peop spend tx w/who supprt your abstin (1=None, 2= A few, 3=About half, 4= Most, 5=All)
- 02\_REC Live-in partner drinks/drugs y/n (0=No, 1=Yes)
- 02 Does live-in part/spouse drink/use drugs (0=No, 1=Yes, 2=N/A)
- P1A Physical abuse/assault by family members/person I know (0=No, 1=Yes, 7=Not sure)
- P1B Age first physically assaulted by person I know
- P1C Physically assaulted by person I know-last 6 months (0=No, 1=Yes)
- P2A Physical abuse/assault by stranger (0=No, 1=Yes, 7=Not sure)
- P2B Age first physically assaulted by stranger
- P2C Physically assaulted by stranger-last 6 months (0=No, 1=Yes)
- P3 Using drugs/alcohol when physically assaulted (1=Don't know, 2=Never, 3=Some cases, 4=Most cases, 5=All cases, 9=Never assaulted)
- P4 Person who physically assaulted you was using alcohol/drugs (1=Don't know, 2=Never, 3=Some cases, 4=Most cases, 5=All cases, 9=Never assaulted)
- P5A Sexual abuse/assault by family member/person you know (0=No, 1= Yes, 7=Not sure)
- P5B Age first sexually assaulted by person you know
- P5C Sexually assaulted by person you know-last 6 months (0=No, 1=Yes)
- P6A Sexual abuse/assault by stranger (0=No, 1=Yes, 7=Not sure)
- P6B Age first sexually assaulted by stranger
- P6C Sexually assaulted by stranger-last 6 months (0=No, 1=Yes)
- P7 Using drugs/alcohol when sexually assaulted (1=Don't know, 2=Never, 3=Some cases, 4=Most cases, 5=All cases, 9=Never assaulted)
- P8 Person who sexually assaulted you using alcohol/drugs (1=Don't know, 2=Never, 3=Some cases, 4=Most cases, 5=All cases, 9=Never assaulted)
- PCP\_ID a numeric vector
- PCS Standardized physical component scale-00

PC\_REC7 Primary cared received: Linked & # visits (0=Not linked, 1=Linked, 1 visit, 2=Linked, 2 visits, 3=Linked, 3 visits, 4=Linked, 4 visits, 5= Linked, 5 visits, 6=Linked, 6+visits)

- PC\_REC Primary care received: Linked & # visits (0=Not linked, 1=Linked, 1 visit, 2=Linked, 2+ visits)
- PF SF-36 physical functioning (0-100)
- PHSXABUS Any abuse (0=No, 1=Yes)
- PHYABUSE Physical abuse-stranger or family (0=No, 1=Yes)
- PHYS2 InDUC-2L-Physical 9Raw (w/o M48)
- PHYS InDUC-2L-Physical-Raw
- POLYSUB Polysubstance abuser y/n (0=No, 1=Yes)
- PREV\_TIME Previous interview time
- PRIMLANG First language (recode) (0=English, 1=Other lang)
- PRIMSUB2 First drug of choice (no marijuana) (0=None, 1=Alcohol, 2=Cocaine, 3=Heroin, 4=Barbituates, 5=Benzos, 6=Marijuana, 7=Methadone, 8=Opiates)
- PRIM\_SUB First drug of choice (0=None, 1=Alcohol, 2=Cocaine, 3=Heroin, 4=Barbituates, 5=Benzos, 6=Marijuana, 7=Methadone, 8=Opiates)
- PSS\_FA Perceived social support-family
- PSS\_FR Perceived social support-friends
- Q10 How would you describe yourself (0=Straight, 1=Gay/bisexual)
- Q11 # men had sex w/in past 6 months (0=0 men, 1=1 man, 2=2-3 men, 3=4+ men
- Q12 # women had sex w/in past 6 months (0=0 women, 1=1woman, 2=2-3 women, 3=4+women
- Q13 # times had sex In past 6 months (0=Never, 1=Few times or less, 2=Few times/month, 3=Once or more/week)
- Q14 How often had sex to get drugs-last 6 months (0=Never, 1=Few times or less, 2=Few times/month, 3=Once or more/week)
- Q15 How often given drugs to have sex-last 6 months (0=Never, 1=Few times or less, 2=Few times/month, 3=Once or more/week)
- Q16 How often were you paid for sex-last 6 months (0=Never, 1=Few times or less, 2=Few times/month, 3=Once or more/week)
- Q17 How often you pay pers for sex-last 6 months (0=Never, 1=Few times or less, 2=Few times/month, 3=Once or more/week)
- Q18 How often use condoms during sex=last 6 months (0=No sex/always, 1=Most of the time, 2=Some of the time, 3=None of the time)
- Q19 Condoms are too much of a hassle to use (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)
- Q1A Have you ever injected drugs (0=No, 1=Yes)
- Q1B Have you injected drugs-last 6 months (0=No, 1=Yes)
- Q20 Safer sex is always your responsibility (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)

- Q2 Have you shared needles/works-last 6 months (0=No/Not shot up, 3=Yes)
- Q3 # people shared needles w/past 6 months (0=No/Not shot up, 1=1 other person, 2=2-3 diff people, 3=4/+ diff people)
- Q4 How often been to shoot gall/hse-last 6 months (0=Never, 1=Few times or less, 2= Few times/month, 3= Once or more/week)
- Q5 How often been to crack house-last 6 months (0=Never, 1=Few times or less, 2=Few times/month, 3=Once or more/week)
- Q6 How often shared rinse-water-last 6 months (0=Nevr/Not shot up, 1=Few times or less, 2=Few times/month, 3=Once or more/week)
- Q7 How often shared a cooker-last 6 months (0=Nevr/Not shot up, 1=Few times or less, 2=Few times/month, 3=Once or more/week)
- Q8 How often shared a cotton-last 6 months (0=Nevr/Not shot up, 1=Few times or less, 2=Few times/month, 3=Once or more/week)
- Q9 How often use syringe to div drugs-last 6 months (0=Nevr/Not shot up, 1=Few times or less, 2=Few times/month, 3=Once or more/week)
- R1A I really want to change my alcohol/drug use (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)
- R1B Sometimes I wonder if I'm an alcohol/addict (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)
- R1C Id I don't change alcohol/drug probs will worsen (1=Strongly disagree, 2=Disagree, 3=Agree, 4=Strongly agree)
- R1D I started making changes in alcohol/drug use (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)
- R1E Was using too much but managed to change (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)
- R1F I wonder if my alcohol/drug use hurting othrs (1=Strongly disagree, 2=Disagree, 3=Agree, 4=Strongly agree)
- R1G I am a prob drinker or have drug prob (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)
- R1H Already doing things to change alcohol/drug use (1=Strongly disagree, 2=Disagree, 3=Agree, 4=Strongly agree)
- R1I have changed use-trying to not slip back (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)
- R1J I have a serious problem w/ alcohol/drugs (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)
- R1K I wonder if I'm in control of alcohol/drug use (1=Strongly disagree, 2=Disagree, 3=Agree, 4=Strongly agree)
- R1L My alcohol/drug use is causing a lot of harm (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)
- R1M Actively cutting down/stopping alcohol/drug use (1=Strongly disagree, 2=Disagree, 3=Agree, 4=Strongly agree)
- R1N Want help to not go back to alcohol/drugs (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)

• R10 I know that I have an alcohol/drug problem (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)

- R1P I wonder if I use alcohol/drugs too much (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)
- R1Q I am an alcoholic or drug addict (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)
- R1R I am working hard to change alcohol/drug use (1=Strongly disagree, 2=Disagree, 3=Agree, 4=Strongly agree)
- R1S Some changes-want help from going back (1=Strongly disagree, 2=Disagree, 3= Agree, 4=Strongly agree)
- RABSCALE RAB scale sore
- RACE2 Race (recode) (1=White, 2=Minority)
- RACE Race (recode) (1=Afr Amer/Black, 2=White, 3=Hispanic, 4=Other)
- RAWBP Raw SF-36 pain index
- RAWGH Raw SF-36 general health perceptions
- RAWMH Raw SF-36 mental health index
- RAWPF Raw SF-36 physical functioning
- RAWRE Raw SF-36 role-emotional
- RAWRP Raw SF-36 role-physical
- RAWSF Raw SF-36 social functioning
- RAWVT Raw SF-36 vitality
- RAW\_ADS ADS score
- RAW\_AM SOCRATES-Ambivalence-Raw
- RAW\_RE SOCRATES-Recognition-Raw
- RAW\_TS SOCRATES-Taking steps-Raw
- RCT\_LINK Did subject link to primary care (RCT)—This time point (0=No, 1=Yes)
- REALM2 REALM score (dichotomous) (1=0-60, 2=61-66)
- REALM3 REALM score (categorical) (1=0-44), 2=45-60), 3=61-66)
- REALM REALM score
- REG\_MD Did subject report having regular doctor–This time point (0=No, 1=Yes)
- RE SF-36 role-emotional (0-100)
- RP SF-36 role physical (0-100)
- S1A At interview pt obviously depressed/withdrawn (0=No, 1=Yes)
- S1B at interview pt obviously hostile (0=No, 1=Yes)
- S1C At interview patient obviously anxious/nervous (0=No, 1=Yes)
- S1D Trouble with real tst/thght dis/par at interview (0=No, 1=Yes)
- S1E At interview pt trbl w/ compr/concen/rememb (0=No, 1=Yes)
- S1F At interview pt had suicidal thoughts (0=No, 1=Yes)

- SATREAT Any BSAS substance abuse this time point (0=No, 1=Yes)
- SECD\_SUB Second drug of choice (0=None, 1=Alcohol, 3=Cocaine, 3=Heroine, 4=Barbituates, 5=Benzos, 6=Marijuana, 7=Methadone, 8=Opiates)
- SER\_INJ Recent (6m) serious injury y/n (0=No, 1=Yes)
- SEXABUSE Sexual abuse-stranger or family (0=No, 1=Yes)
- SEXRISK RAB-Sex risk total
- SF SF-36 social functioning (0-100)
- SMOKER Current smoker (every/some days) y/n (0=No, 1=Yes)
- SR InDUC-2L-Social responsibility-Raw
- STD\_6M Had an STD past 6m y/n (0=No, 1=Yes)
- STD\_EVER Ever had an STD y/n (0=No, 1=Yes)
- STRABUSE Stranger abuse-physical or sexual (0=No, 1=Yes)
- T1B # days in row continued to drink
- T1C Longest period abstain-last 6 months (alcohol)
- T1 Have used alcohol since leaving River St. (0=No, 1=Yes)
- T2B # days in row continued to use heroin
- T2C Longest period abstain-last 6 months (heroin)
- T2 Have used heroin since leaving River St (0=No, 1=Yes)
- T3B # days in row continued to use cocaine
- T3C Longest period abstain-last 6 months (cocaine)
- T3 Have used cocaine since leaving River St (0=No, 1=Yes)
- TIME Interview time point
- TOTALRAB RAB-Total RAB sore
- U10A # times been to regular MDs office-pst 6 months
- U10B # times saw regular MD in office-pst 6 months
- U10C # times saw oth prof in office-pst 6 months
- U11 Rate convenience of MD office location (1=Very poor, 2=Poor, 3=Fair, 4=Good, 5=Very good, 6=Excellent)
- U12 Rate hours MD office open for medical appointments (1=Very poor, 2=Poor, 3=Fair, 4=Good, 5=Very good, 6=Excellent)
- U13 Usual wait for appointment when sick (unscheduled) (1=Very poor, 2=Poor, 3=Fair, 4=Good, 5=Very good, 6=Excellent)
- U14 Time wait for appointment to start at MD office (1=Very poor, 2=Poor, 3=Fair, 4=Good, 5=Very good, 6=Excellent)
- U15A DO you pay for any/all of MD visits (0=No, 1=Yes)
- U15B How rate amt of \$ you pay for MD visits (1=Very poor, 2=Poor, 3=Fair, 4=Good, 5=Very good, 6=Excellent)
- U16A Do you pay for any/all of prescript meds (0=No, 1=Yes)

• U16B Rate amt \$ pay for meds/prescript trtmnts (1=Very poor, 2=Poor, 3=Fair, 4=Good, 5=Very good, 6=Excellent)

- U17 Ever skip meds/trtmnts because too expensive (1=Yes, often, 2=Yes, occasionally, 3=No, never)
- U18A Ability to reach MC office by phone (1=Very poor, 2=Poor, 3=Fair, 4=Good, 5=Very good, 6=Excellent)
- U18B Ability to speak to MD by phone if need (1=Very poor, 2=Poor, 3=Fair, 4=Good, 5=Very good, 6=Excellent)
- U19 How often see regular MD when have regular check-up (1=Always, 2=Almost always, 3=A lot of the time, 4=Some of the time, 5=Almost never, 6=Never)
- U1 It is important to have a regular MD (1=Strongly agree, 2=Agree, 3=Uncertain, 4=Disagree, 5=Strongly Disagree)
- U20 When sick + go to MD how often see regular MD (1=Always, 2=Almost always, 3=A lot of the time, 4=Some of the time, 5=Almost never, 6=Never)
- U21A How thorough MD exam to check health prb (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U21B How often question if MD diagnosis right (1=Always, 2=Almost always, 3=A lot of the time, 4=Some of the time, 5=Almost never, 6=Never)
- U22A Thoroughness of MD questions re symptoms (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U22B Attn MD gives to what you have to say (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U22C MD explanations of health problems/treatments need (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U22D MD instructions re symptom report/further care (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U22E MD advice in decisions about your care (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U23 How often leave MD office with unanswd quests (1=Always, 2=Almost always, 3=A lot of the time, 4=Some of the time, 5=Almost never, 6=Never)
- U24A Amount of time your MD spends with you (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U24B MDs patience w/ your questions/worries (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U24C MDs friendliness and warmth toward you (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U24D MDs caring and concern for you (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U24E MDs respect for you (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U25A Reg MD ever talked to you about smoking (0=No, 1=Yes)
- U25B Reg MD ever talked to you about alcohol use (0=No, 1=Yes)

- U25C Reg MD ever talk to you about seat belt use (0=No, 1=Yes)
- U25D Reg MD ever talked to you about diet (0=No, 1=Yes)
- U25E Reg Mdever talked to you about exercise (0=No, 1=Yes)
- U25F Reg MD ever talked to you about stress (0=No, 1=Yes)
- U25G Reg MD ever talked to you about safe sex (0=No, 1=Yes)
- U25H Reg MD ever talked to you about drug use (0=No, 1=Yes)
- U25I Reg MD ever talked to you about HIV testing (0=No, 1=Yes)
- U26A Cut/quit smoking because of MDs advice (0=No, 1=Yes)
- U26B Tried to drink less alcohol because of MD advice (0=No, 1=Yes)
- U26C Wore my seat belt more because of MDs advice (0=No, 1=Yes)
- U26D Changed diet because of MDs advice (0=No, 1=Yes)
- U26E Done more exercise because MDs advice (0=No, 1=Yes)
- U26F Relax/reduce stress because of MDs advice (0=No, 1=Yes)
- U26G Practiced safer sex because of MDs advice (0=No, 1=Yes)
- U26H Tried to cut down/quit drugs because MD advice (0=No, 1=Yes)"
- U26I Got HIV tested because of MDs advice (0=No, 1=Yes)"
- U27A I can tell my MD anything (1=Strongly agree, 2= Agree, 3= Not sure, 4=Disagree, 5=Strongly disagree)"
- U27B My MD pretends to know things if not sure (1=Strongly agree, 2= Agree, 3= Not sure, 4=Disagree, 5=Strongly disagree)"
- U27C I trust my MDs judgment re my med care (1=Strongly agree, 2= Agree, 3= Not sure, 4=Disagree, 5=Strongly disagree)"
- U27D My MD cares > about < costs than my health (1=Strongly agree, 2= Agree, 3= Not sure, 4=Disagree, 5=Strongly disagree)"
- U27E My MD always tell truth about my health (1=Strongly agree, 2= Agree, 3= Not sure, 4=Disagree, 5=Strongly disagree)"
- U27F My MD cares as much as I about my health (1=Strongly agree, 2= Agree, 3= Not sure, 4=Disagree, 5=Strongly disagree)"
- U27G My MD would try to hide a mistake in trtmt (1=Strongly agree, 2= Agree, 3= Not sure, 4=Disagree, 5=Strongly disagree)"
- U28 How much to you trust this MD (0=Not at all, 1=1, 2=2, 3=3, 4=4, 5=5, 6=6, 7=7, 8=8, 9=9, 10=Completely)"
- U29A MDs knowledge of your entire med history (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)"
- U29B MD knowledge of your response-home/work/sch (1=Very poor, 2=Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)"
- U29C MD knowledge of what worries you most-health (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)"
- U29D MDs knowledge of you as a person (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)"

- U2A I cannot pay for services (0=No, 1=Yes)
- U2B I am not eligible for free care (0=No, 1=Yes)
- U2C I do not know where to go (0=No, 1=Yes)
- U2D Can't get services due to transport probs (0=No, 1=Yes)
- U2E Office/clinic hours are inconvenient (0=No, 1=Yes)
- U2F I do not speak/understand English well (0=No, 1=Yes)
- U2G Afraid others discover health prb I have (0=No, 1=Yes)
- U2H My substance abuse interferes (0=No, 1=Yes)
- U2I I do not have a babysitter (0=No, 1=Yes)
- U2J I do not want to lose my job (0=No, 1=Yes)
- U2K My insurance does not cover services (0=No, 1=Yes)
- U2L Medical care is not important to me (0=No, 1=Yes)
- U2M I do not have time (0=No, 1=Yes)
- U2N Med staff do not treat me with respect (0=No, 1=Yes)
- U20 I do not trust my doctors or nurses (0=No, 1=Yes)
- U2P Often been unsatisfied w/my med care (0=No, 1=Yes)
- U2Q\_T a factor with many levels
- U2Q Other reason hard to get regular med care (0=No, 1=Yes)
- U2R a factor with levels 7 ABCDEFGHIJKLMNOPQ
- U30 MD would know what want done if unconscious (1=Strongly agree, 2=Agree, 3=Not sure, 4= Disagree, 5=Strongly disagree)"
- U31 Oth MDs/RNs who play role in your care (0=No, 1=Yes)" \*
- U32A Their knowledge of you as a person (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U32B The quality of care they provide (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U32C Coordination between them and your regular MD (1=Very poor, 2=Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U32D\_T N/A, only my regular MD does this
- U32D Their explanation of your health prbs/trtmts need (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U33 Amt regular MD knows about care from others (1=Knows everything, 2=Knows almost everything, 3=Knows some things, 4=Knows very little, 5=Knows nothing)
- U34 Has MD ever recommended you see MD specialists (0=No, 1=Yes)
- U35A How helpful MD in deciding on specialist (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U35B How helpful MD getting appointment with specialist (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U35C MDs involvement when you trtd by specialist (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)

• U35D MDs communication w/your specialists/oth MDs (1=Very poor, 2=Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)

- U35E MD help in explain what specialists said (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U35F Quality of specialists MD sent you to (1=Very poor, 2= Poor, 3=Fair, 4=Good, 5= Very good, 6= Excellent)
- U36 How many minutes to get to MDs office (1=<15, 2=16-30. 3=31-60, 4=More than 60)
- U37 When sick+call how long take to see you (1=Same day, 2=Next day, 3=In 2-3 days, 4=In 4-5 days, 5=in >5 days)
- U38 How many minutes late appointment usually begin (1=None, 2=<5 minutes, 3=6-10 minutes, 4=11-20 minutes, 5=21-30 minutes, 6=31-45 minutes, 7=>45 minutes)
- U39 How satisfied are you w/your regular MD (1=Completely satisfied, 2=Very satisfied, 3=Somewhat satisfied, 4=Neither, 5=Somewhat dissatisfied, 6=Very dissatisfied, 7=Completely dissatisfied)
- U3A Has MD evr talked to you about drug use (0=No, 1=Yes)
- U3B Has MD evr talked to you about alcohol use (0=No, 1=Yes)
- U4 Is there an MD you consider your regular MD (0=No, 1=Yes)
- U5 Have you seen any MDs in last 6 months (0=No, 1=Yes)
- U6A Would you go to this MD if med prb not emergency (0=No, 1=Yes)
- U6B Think one of these could be your regular MD (0=No, 1=Yes)
- U7A\_T a factor with levels ARTHRITIS DOCTOR CHIROPRACTOR COCAINE STUDY DETOX DOCTOR
  DO EAR DOCTOR EAR SPECIALIST EAR, NOSE, & THROAT. EAR/NOSE/THROAT ENT FAMILY PHYSICIAN
  GENERAL MEDICINE GENERAL PRACTICE GENERAL PRACTITIONER GENERAL PRACTITIONER HEAD
  & NECK SPECIALIST HERBAL/HOMEOPATHIC/ACUPUNCTURE ID DOCTOR MAYBE GENERAL PRACTITIONER
  MEDICAL STUDENT NEUROLOGIST NURSE NURSE PRACTITIONER NURSE PRACTITIONER ONCOLOGIST
  PRENATAL PRIMARY PRIMARY CARE PRIMARY CARE PRIMARY CARE DOCTOR PRIMARY CARE THERAPIST
  UROLOGIST WOMENS CLINIC BMC
- U7A What type of MD is your regular MD/this MD (1=OB/GYN, 2=Family medicine, 3=Pediatrician, 4=Adolescent medicine, 5=Internal medicine, 6=AIDS doctor, 7=Asthma doctor, 8=Pulmonary doctor, 9=Cardiologist, 10=Gastroen)
- U8A Only saw this person once (=Only saw once)
- U8B Saw this person for < 6 months (1 = < 6 months)
- U8C Saw this person for 6 months 1 year (2=Between 6 months & 1 year)
- U8D Saw this person for 1-2 years (3 = 1-2 years)
- U8E Saw this person for 3-5 years (4 = 3-5 years)
- U8F Saw this person for more than 5 years (5 = >5 years)
- UNEMPLOY Usually unemployed last 6 months (0=No, 1=Yes)
- V1 Ever needed to drink much more to get effect (0=No, 1=Yes)
- V2 Evr find alcohol had < effect than once did (0=No, 1=Yes)
- VT SF-36 vitality 0-100)
- Z1 Breath Alcohol Concentration:1st test
- Z2 Breath Alcohol Concentration:2nd test

HELPmiss 41

## **Details**

Eligible subjects were adults, who spoke Spanish or English, reported alcohol, heroin or cocaine as their first or second drug of choice, resided in proximity to the primary care clinic to which they would be referred or were homeless. Patients with established primary care relationships they planned to continue, significant dementia, specific plans to leave the Boston area that would prevent research participation, failure to provide contact information for tracking purposes, or pregnancy were excluded.

Subjects were interviewed at baseline during their detoxification stay and follow-up interviews were undertaken every 6 months for 2 years. A variety of continuous, count, discrete, and survival time predictors and outcomes were collected at each of these five occasions.

This dataset is a superset of the HELPmiss and HELPrct datasets which include far fewer variables. Full details of the survey instruments are available at the following link.

#### Source

https://nhorton.people.amherst.edu/help/

#### References

Samet JH, Larson MJ, Horton NJ, Doyle K, Winter M, and Saitz R. Linking alcohol and drug-dependent adults to primary medical care: A randomized controlled trial of a multi-disciplinary health intervention in a detoxification unit. *Addiction*, 2003; 98(4):509-516.

# See Also

HELPrct, and HELPmiss.

# **Examples**

data(HELPfull)

**HELPmiss** 

Health Evaluation and Linkage to Primary Care

## **Description**

The HELP study was a clinical trial for adult inpatients recruited from a detoxification unit. Patients with no primary care physician were randomized to receive a multidisciplinary assessment and a brief motivational intervention or usual care, with the goal of linking them to primary medical care.

# Usage

data(HELPmiss)

42 HELPmiss

## **Format**

Data frame with 470 observations on the following variables.

- age subject age at baseline (in years)
- any sub use of any substance post-detox: a factor with levels no yes
- cesd Center for Epidemiologic Studies Depression measure of depressive symptoms at baseline (higher scores indicate more symptoms)
- d1 lifetime number of hospitalizations for medical problems (measured at baseline)
- daysanysub time (in days) to first use of any substance post-detox
- dayslink time (in days) to linkage to primary care
- drugrisk Risk Assessment Battery drug risk scale at baseline
- e2b number of times in past 6 months entered a detox program (measured at baseline)
- female 0 for male, 1 for female
- sex a factor with levels male female
- g1b experienced serious thoughts of suicide in last 30 days (measured at baseline): a factor with levels no yes
- homeless housing status: a factor with levels housed homeless
- i1 average number of drinks (standard units) consumed per day, in the past 30 days (measured at baseline)
- i2 maximum number of drinks (standard units) consumed per day, in the past 30 days (measured at baseline)
- avg\_drinks average number of drinks (standard units) consumed per day, in the past 30 days (measured at baseline). Same as i1.
- max\_drinks maximum number of drinks (standard units) consumed per day, in the past 30 days (measured at baseline). Same as i2.
- · id subject identifier
- indtot Inventory of Drug Use Consequences (InDUC) total score (measured at baseline)
- linkstatus post-detox linkage to primary care (0 = no, 1 = yes)
- link post-detox linkage to primary care: no yes
- mcs SF-36 Mental Component Score (measured at baseline, higher scores are better)
- pcs SF-36 Physical Component Score (measured at baseline, higher scores are better)
- pss\_fr perceived social support by friends (measured at baseline)
- racegrp race/ethnicity: levels black hispanic other white
- satreat any BSAS substance abuse treatment at baseline: no yes
- sexrisk Risk Assessment Battery sex risk score (measured at baseline)
- substance primary substance of abuse: alcohol cocaine heroin
- treat randomized to HELP clinic: no yes

HELPrct 43

## **Details**

Eligible subjects were adults, who spoke Spanish or English, reported alcohol, heroin or cocaine as their first or second drug of choice, resided in proximity to the primary care clinic to which they would be referred or were homeless. Patients with established primary care relationships they planned to continue, significant dementia, specific plans to leave the Boston area that would prevent research participation, failure to provide contact information for tracking purposes, or pregnancy were excluded.

Subjects were interviewed at baseline during their detoxification stay and follow-up interviews were undertaken every 6 months for 2 years. A variety of continuous, count, discrete, and survival time predictors and outcomes were collected at each of these five occasions.

This dataset is a superset of the HELPrct data with 17 subjects with partially observed data on some of the baseline variables. This is a subset of the HELPfull data which includes 5 timepoints and many additional variables.

## **Source**

```
https://nhorton.people.amherst.edu/help/
```

## References

Samet JH, Larson MJ, Horton NJ, Doyle K, Winter M, and Saitz R. Linking alcohol and drug-dependent adults to primary medical care: A randomized controlled trial of a multi-disciplinary health intervention in a detoxification unit. *Addiction*, 2003; 98(4):509-516.

## See Also

```
HELPrct, and HELPfull.
```

# **Examples**

data(HELPmiss)

**HELPrct** 

Health Evaluation and Linkage to Primary Care

# Description

The HELP study was a clinical trial for adult inpatients recruited from a detoxification unit. Patients with no primary care physician were randomized to receive a multidisciplinary assessment and a brief motivational intervention or usual care, with the goal of linking them to primary medical care.

# Usage

```
data(HELPrct)
```

44 HELPret

## **Format**

Data frame with 453 observations on the following variables.

- age subject age at baseline (in years)
- any sub use of any substance post-detox: a factor with levels no yes
- cesd Center for Epidemiologic Studies Depression measure at baseline (high scores indicate more depressive symptoms)
- d1 lifetime number of hospitalizations for medical problems (measured at baseline)
- hospitalizations lifetime number of hospitalizations for medical problems (measured at baseline)
- daysanysub time (in days) to first use of any substance post-detox
- dayslink time (in days) to linkage to primary care
- drugrisk Risk Assessment Battery drug risk scale at baseline
- e2b number of times in past 6 months entered a detox program (measured at baseline)
- female 0 for male, 1 for female
- sex a factor with levels male female
- g1b experienced serious thoughts of suicide in last 30 days (measured at baseline): a factor with levels no yes
- homeless housing status: a factor with levels housed homeless
- i1 average number of drinks (standard units) consumed per day, in the past 30 days (measured at baseline)
- i2 maximum number of drinks (standard units) consumed per day, in the past 30 days (measured at baseline)
- id subject identifier
- indtot Inventory of Drug Use Consequences (InDUC) total score (measured at baseline)
- linkstatus post-detox linkage to primary care (0 = no, 1 = yes)
- link post-detox linkage to primary care: no yes
- mcs SF-36 Mental Component Score (measured at baseline, lower scores indicate worse status)
- pcs SF-36 Physical Component Score (measured at baseline, lower scores indicate worse status)
- pss\_fr perceived social support by friends (measured at baseline, higher scores indicate more support)
- racegrp race/ethnicity: levels black hispanic other white
- satreat any BSAS substance abuse treatment at baseline: no yes
- sexrisk Risk Assessment Battery sex risk score (measured at baseline)
- substance primary substance of abuse: alcohol cocaine heroin
- treat randomized to HELP clinic: no yes

HELPret 45

## **Details**

Eligible subjects were adults, who spoke Spanish or English, reported alcohol, heroin or cocaine as their first or second drug of choice, resided in proximity to the primary care clinic to which they would be referred or were homeless. Patients with established primary care relationships they planned to continue, significant dementia, specific plans to leave the Boston area that would prevent research participation, failure to provide contact information for tracking purposes, or pregnancy were excluded.

Subjects were interviewed at baseline during their detoxification stay and follow-up interviews were undertaken every 6 months for 2 years. A variety of continuous, count, discrete, and survival time predictors and outcomes were collected at each of these five occasions.

This data set is a subset of the HELPmiss data set restricted to the 453 subjects who were fully observed on the age, cesd, d1, female, sex, g1b, homeless, i1, i2, indtot, mcs, pcs, pss\_fr, racegrp, satreat, substance, treat, and sexrisk variables. (There is some missingness in the other variables.) HELPmiss contains 17 additional subjects with partially observed data on some of these baseline variables. This is also a subset of the HELPfull data which includes 5 timepoints and many additional variables.

#### Note

The \code{HELPrct} data set was originally named \code{HELP} but has been renamed to avoid confusion with the \code{help} function.

# Source

https://nhorton.people.amherst.edu/help/

## References

Samet JH, Larson MJ, Horton NJ, Doyle K, Winter M, and Saitz R. Linking alcohol and drug-dependent adults to primary medical care: A randomized controlled trial of a multi-disciplinary health intervention in a detoxification unit. *Addiction*, 2003; 98(4):509-516.

#### See Also

HELPmiss, and HELPfull.

# **Examples**

data(HELPrct)

46 KidsFeet

KidsFeet

Foot measurements in children

# **Description**

These data were collected by a statistician, Mary C. Meyer, in a fourth grade classroom in Ann Arbor, MI, in October 1997. They are a convenience sample — the kids who were in the fourth grade.

# Usage

data(KidsFeet)

## **Format**

A data frame with 39 observations on the following variables.

- name a factor with levels corresponding to the name of each child
- birthmonth the month of birth
- birthyear the year of birth
- length length of longer foot (in cm)
- width width of longer foot (in cm)
- sex a factor with levels B G
- biggerfoot a factor with levels L R
- domhand a factor with levels L R

## **Details**

Quoted from the source: "From a very young age, shoes for boys tend to be wider than shoes for girls. Is this because boys have wider feet, or because it is assumed that girls, even in elementary school, are willing to sacrifice comfort for fashion? To assess the former, a statistician measures kids' feet."

## References

Mary C. Meyer (2006) "Wider Shoes for Wider Feet?" *Journal of Statistics Education* 14(1), http://jse.amstat.org/v14n1/datasets.meyer.html.

# **Examples**

data(KidsFeet)

Marriage 47

Marriage Marriage records

# **Description**

Marriage records from the Mobile County, Alabama, probate court.

# Usage

data(Marriage)

## **Format**

A data frame with 98 observations on the following variables.

- bookpageID a factor with levels for each book and page (unique identifier)
- appdate date on which the application was filed
- ceremonydate date of the ceremony
- delay number of days between the application and the ceremony
- officialTitle a factor with levels BISHOP CATHOLIC PRIEST CHIEF CLERK CIRCUIT JUDGE ELDER MARRIAGE OFFICIAL MINISTER PASTOR REVEREND
- person a factor with levels Bride Groom
- dob a factor with levels corresponding to the date of birth of the person
- age age of the person (in years)
- race a factor with levels American Indian Black Hispanic White
- prevcount the number of previous marriages of the person, as listed on the application
- prevconc the way the last marriage ended, as listed on the application
- hs the number of years of high school education, as listed on the application
- college the number of years College education, as listed on the application. Where no number was listed, this field was left blank, unless less than 12 years High School was reported, in which case it was entered as 0.
- dayOfBirth the day of birth, as a number from 1 to 365 counting from January 1
- sign the astrological sign, with levels Aquarius Aries Cancer Capricorn Gemini Leo Libra Pisces Sagittarius Scorpio Taurus Virgo

## **Details**

The calculation of the astrological sign may not correctly sort people directly on the borders between signs. This variable is not part of the original record.

# Source

The records were collected through http://www.mobilecounty.org/probatecourt/recordssearch.htm

48 Mites

# **Examples**

```
data(Marriage)
```

Mites

Mites and Wilt Disease

## **Description**

Data from an experiment to test whether exposure to mites protects against Wilt Disease in cotton plants.

# Usage

```
data(Mites)
```

## **Format**

A data frame with 47 observations on the following variables.

- treatment a factor with levels mites and no mites
- outcome a factor with levels wilt and no wilt

## **Details**

Researchers suspected that attack of a plant by one organism induced resistance to subsequent attack by a different organism. Individually potted cotton plants were randomly allocated to two groups: infestation by spider mites or no infestation. After two weeks the mites were dutifully removed by a conscientious research assistant, and both groups were inoculated with Verticillium, a fungus that causes Wilt disease. More information can be found at <a href="https://www.causeweb.org/cause/webinar/activity/2010-01/">https://www.causeweb.org/cause/webinar/activity/2010-01/</a>.

## **Source**

Statistics for the Life Sciences, Third Edition; Myra Samuels & Jeffrey Witmer (2003), page 409.

# **Examples**

```
data(Mites)
if (require(mosaic)) {
  tally(~ treatment + outcome, data=Mites)
  tally(~ outcome | treatment, format="percent", data=Mites)
}
```

RailTrail 49

RailTrail

Volume of Users of a Rail Trail

# **Description**

The Pioneer Valley Planning Commission (PVPC) collected data north of Chestnut Street in Florence, MA for ninety days from April 5, 2005 to November 15, 2005. Data collectors set up a laser sensor, with breaks in the laser beam recording when a rail-trail user passed the data collection station.

## **Usage**

data(RailTrail)

#### **Format**

A data frame with 90 observations on the following variables.

- hightemp daily high temperature (in degrees Fahrenheit)
- lowtemp daily low temperature (in degrees Fahrenheit)
- avgtemp average of daily low and daily high temperature (in degrees Fahrenheit)
- spring indicator of whether the season was Spring
- · summer indicator of whether the season was Summer
- fall indicator of whether the season was Fall
- cloudcover measure of cloud cover (in oktas)
- precip measure of precipitation (in inches)
- volume estimated number of trail users that day (number of breaks recorded)
- weekday logical indicator of whether the day was a non-holiday weekday
- dayType one of "weekday" or "weekend"

#### **Details**

There is a potential for error when two users trigger the infrared beam at exactly the same time since the counter would only logs one of the crossings. The collectors left the motion detector out during the winter, but because the counter drops data when the temperature falls below 14 degrees Fahrenheit, there is no data for the cold winter months.

## Source

Pioneer Valley Planning Commission

## References

http://www.fvgreenway.org/pdfs/Northampton-Bikepath-Volume-Counts%20\_05\_LTA.pdf

50 Riders

# **Examples**

```
data(RailTrail)
```

Riders

Volume of Users of a Massachusetts Rail Trail

# **Description**

The Pioneer Valley Planning Commission (PVPC) collected data north of Chestnut Street in Florence, MA for ninety days from April 5, 2005 to November 15, 2005. Data collectors set up a laser sensor, with breaks in the laser beam recording when a rail-trail user passed the data collection station.

# Usage

data(Riders)

## **Format**

A data frame with 90 observations on the following 12 variables.

date date of data collection (POSIXct)

day a factor with levels Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, and Sunday.

highT high temperature for the day (in degrees Fahrenheit)

lowT low temperature for the day (in degrees Fahrenheit)

hi shorter name for highT

lo shorter name for lowT

precip inches of precipitation

clouds measure of cloud cover (in oktas)

riders estimated number of trail crossings that day (number of breaks recorded)

ct shorter name for riders

weekday type of day: a factor with levels N (weekend or holiday) Y (non-holiday weekday)

wday shorter name for weekday

# **Details**

There is a potential for error when two users trigger the infrared beam at exactly the same time since the counter would only logs one of the crossings. The collectors left the motion detector out during the winter, but because the counter drops data when the temperature falls below 14 degrees Fahrenheit, there are no data for the coldest winter months.

SaratogaHouses 51

# Source

Pioneer Valley Planning Commission, http://www.fvgreenway.org/pdfs/Northampton-Bikepath-Volume-Counts%20\_05\_LTA.pdf

#### References

"Rail trails and property values: Is there an association?", Nicholas J. Horton and Ella Hartenian (Journal of Statistics Education, 2015), http://www.amstat.org/publications/jse/v23n2/horton.pdf

# **Examples**

```
data(Riders)
str(Riders)
```

SaratogaHouses

Houses in Saratoga County (2006)

# Description

Data on houses in Saratoga County, New York, USA in 2006

# Usage

```
data(SaratogaHouses)
```

## **Format**

A data frame with 1728 observations on the following 16 variables.

- price price (US dollars)
- lotSize size of lot (acres)
- age age of house (years)
- landValue value of land (US dollars)
- livingArea living are (square feet)
- pctCollege percent of neighborhood that graduated college
- bedrooms number of bedrooms
- fireplaces number of fireplaces
- bathrooms number of bathrooms (half bathrooms have no shower or tub)
- rooms number of rooms
- heating type of heating system
- · fuel fuel used for heating
- sewer type of sewer system
- waterfront whether property includes waterfront
- newConstruction whether the property is a new construction
- centralAir whether the house has central air

SAT

## Source

Data collected by Candice Corvetti and used in the "Stat 101" case study "How much is a Fireplace Worth". See also https://www.saratogacountyny.gov/departments/real-property-tax-service-agency/

SAT

State by State SAT data

# Description

SAT data assembled for a statistics education journal article on the link between SAT scores and measures of educational expenditures

# Usage

data(SAT)

#### **Format**

A data frame with 50 observations on the following variables.

- state a factor with names of each state
- expend expenditure per pupil in average daily attendance in public elementary and secondary schools, 1994-95 (in thousands of US dollars)
- ratio average pupil/teacher ratio in public elementary and secondary schools, Fall 1994
- salary estimated average annual salary of teachers in public elementary and secondary schools, 1994-95 (in thousands of US dollars)
- frac percentage of all eligible students taking the SAT, 1994-95
- verbal average verbal SAT score, 1994-95
- math average math SAT score, 1994-95
- sat average total SAT score, 1994-95

#### Source

http://www.amstat.org/publications/jse/secure/v7n2/datasets.guber.cfm

## References

Deborah Lynn Guber, "Getting what you pay for: the debate over equity in public school expenditures" (1999), *Journal of Statistics Education* 7(2).

SnowGR 53

# **Examples**

```
data(SAT)
if (require(ggformula)) {
   gf_point(sat ~ expend, data = SAT, color = "blue", alpha = 0.5) %>%
     gf_lm()
   gf_text(sat ~ expend, data = SAT, label = ~ abbreviate(SAT$state, 3),
     inherit = FALSE)
}
```

SnowGR

Snowfall data for Grand Rapids, MI

# **Description**

Official snowfall data by month and season for Grand Rapids, MI, going back to 1893.

# Usage

```
data(SnowGR)
```

# **Format**

A data frame with 119 observations of the following variables.

- SeasonStart Year in which season started (July is start of season)
- SeasonEnd Year in which season ended (June is end of season)
- Jul Inches of snow in July
- · Aug Inches of snow in August
- · Sep Inches of snow in September
- Oct Inches of snow in October
- Nov Inches of snow in November
- Dec Inches of snow in December
- · Jan Inches of snow in January
- Feb Inches of snow in February
- Mar Inches of snow in March
- Apr Inches of snow in April
- May Inches of snow in May
- Jun Inches of snow in June
- Total Inches of snow for entire season (July-June)

## Source

These data were compiled by Laura Kapitula from data available from NOAA. The original URL used (http://www.crh.noaa.gov/grr/climate/data/grr/snowfall/) is no longer in service.

54 SwimRecords

# **Examples**

SwimRecords

100 m Swimming World Records

# **Description**

World records for men and women over time from 1905 through 2004.

# Usage

```
data(SwimRecords)
```

## **Format**

A data frame with 62 observations of the following variables.

- time time (in seconds) of the world record
- · year Year in which the record was set
- sex a factor with levels M and F

# **Examples**

```
data(SwimRecords)
if (require(ggformula)) {
  gf_point(time ~ year, data = SwimRecords, color = ~ sex)
}
```

TenMileRace 55

TenMileRace

Cherry Blossom Race

# Description

The Cherry Blossom 10 Mile Run is a road race held in Washington, D.C. in April each year. (The name comes from the famous cherry trees that are in bloom in April in Washington.) The results of this race are published. This data frame contains the results from the 2005 race.

# Usage

```
data(TenMileRace)
```

#### **Format**

A data frame with 8636 observations on the following variables.

- state State of residence of runner.
- time Official time from starting gun to finish line.
- net The recorded time (in seconds) from when the runner crossed the starting line to when the runner crossed the finish line. This is generally less than the official time because of the large number of runners in the race: it takes time to reach the starting line after the gun has gone off.
- age Age of runner in years.
- sex A factor with levels F M.

# **Examples**

```
data(TenMileRace)
if (require(ggformula)) {
   gf_point(net ~ age | sex, data = TenMileRace, color = ~sex, alpha = 0.1) %>%
   gf_density2d(color = "gray40")
   lm(net ~ age + sex, data = TenMileRace)
}
```

Utilities

Utility bills

# Description

Data from utility bills at a residence. Utilities2 is a similar data set with some additional variables.

56 Utilities

# Usage

```
data(Utilities)
```

# **Format**

A data frame containing 117 observations for the following variables.

- month month (coded as a number)
- day day of month on which bill was calculated
- · year year of bill
- temp average temperature (F) for billing period
- kwh electricity usage (kwh)
- ccf gas usage (ccf)
- thermsPerDay a numeric vector
- billingDays number of billing days in billing period
- totalbill total bill (in dollars)
- gasbill gas bill (in dollars)
- elecbill electric bill (in dollars)
- notes notes about the billing period

# Source

Daniel T. Kaplan, Statistical modeling: A fresh approach, 2009.

# See Also

```
Utilities2.
```

# **Examples**

```
data(Utilities)
if (require(ggformula)) {
   gf_point(gasbill ~ temp, data = Utilities)
}
```

Utilities2 57

Utilities2

Utility bills

# **Description**

Data from utility bills at a private residence. This is an augmented version of Utilities.

# Usage

```
data(Utilities2)
```

## **Format**

A data frame containing 117 observations for the following variables.

- month month (coded as a number)
- · day day of month on which bill was calculated
- · year year of bill
- temp average temperature (F) for billing period
- kwh electricity usage (kwh)
- ccf gas usage (ccf)
- thermsPerDay a numeric vector
- · billingDays number of billing days in billing period
- totalbill total bill (in dollars)
- gasbill gas bill (in dollars)
- elecbill electric bill (in dollars)
- notes notes about the billing period
- ccfpday average gas usage per day (Utilities2 only)
- kwhpday average electric usage per day (Utilities2 only)
- gasbillpday gas bill divided by billing days (Utilities2 only)
- elecbillpday electric bill divided by billing days a numeric vector (Utilities2 only)
- totalbillpday total bill divided by billing days a numeric vector (Utilities2 only)
- therms thermsPerDay \* billingDays (Utilities2 only)
- monthsSinceY2K months since 2000 (Utilities2 only)

#### Source

Daniel T. Kaplan, Statistical modeling: A fresh approach, 2009.

# See Also

Utilities.

58 Weather

# **Examples**

```
data(Utilities2)
if (require(ggformula)) {
   gf_point(gasbillpday ~ temp, data = Utilities2)
}
```

Weather

Weather

# **Description**

2016-17 weather in several cities

# Usage

```
data(Weather)
```

## **Format**

A data frame with weather-related variables for several world cities.

city City name.

date Date.

year Numeric year.

month Numeric month.

day Numeric day.

high\_temp, avg\_temp, low\_temp High, average, and low temperature for the day in degrees F.

high\_dewpt, avg\_dewpt, low\_dewpt High, average, and low dew point for the day in degrees F.

high\_humidity, avg\_humidity, low\_humidity High, average, and low relative humidity.

high\_hg, avg\_hg, low\_hg High, average, and low sea level pressure in inches of mercury.

high\_vis, avg\_vis, low\_vis High, average, and low visability for the day in miles.

high\_wind, avg\_wind, low\_wind High, average, and low wind speed for the day in mph.

**precip** Precipitation for the day – a character vale; T means "trace amount".

events Character string naming weather events on the day (Rain, Fog, Snow, etc.)

## Source

These data were downloaded from Weather Underground in January 2018.

Whickham 59

# **Examples**

```
if (require(dplyr)) {
    Weather %>%
        group_by(city, year) %>%
        summarise(
        min_temp = min(low_temp),
        max_temp = max(high_temp)
        )
}

if (require(ggformula)) {
    Weather %>%
        gf_linerange(low_temp + high_temp ~ date | city ~ .,
        color = ~ (high_temp + low_temp) / 2, show.legend = FALSE) %>%
        gf_refine(scale_color_gradientn(colors = rev(rainbow(5))))
}
```

Whickham

Data from the Whickham survey

# **Description**

Data on age, smoking, and mortality from a one-in-six survey of the electoral roll in Whickham, a mixed urban and rural district near Newcastle upon Tyne, in the UK. The survey was conducted in 1972-1974 to study heart disease and thyroid disease. A follow-up on those in the survey was conducted twenty years later.

## Usage

data(Whickham)

## **Format**

A data frame with 1314 observations on women for the following variables.

- outcome survival status after 20 years: a factor with levels Alive Dead
- smoker smoking status at baseline: a factor with levels No Yes
- age age (in years) at the time of the first survey

# **Details**

This dataset contains a subset of the survey sample: women who were classified as current smokers or as never having smoked. The data were synthesized from the summary description tables given in the Appleton et al al paper.

Whickham

# References

DR Appleton, JM French, MPJ Vanderpump. "Ignoring a covariate: an example of Simpson's paradox". (1996) *American Statistician*, 50(4):340-341.

# **Examples**

data(Whickham)

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