Syntaxe

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Installation et importation des packages

Dans cette section, nous installons tous les packages qui servirons dans la suite.

```
packages <- c("readr","haven","utils","dplyr","gtsummary","labelled")


for (package in packages) {
  if (!requireNamespace(package, quietly = TRUE)) {   # Vérifie si le package n'est pas encore installé
    install.packages(package)
  }
  library(package, character.only = TRUE) # nom du package en nom ou chaine de caractère ()
}
```

Travail avec base ménage

Chargement des bases

```
## Base ménage

base_men <-  haven::read_dta("../Data/ehcvm_menage_ben2021.dta")
base_men
```

```
## # A tibble: 8,032 x 38
##    country  hhid grappe menage vague logem            mur  toit   sol eauboi_ss
##    <chr>   <dbl>  <dbl>  <dbl> <dbl> <dbl+lbl>       <dbl> <dbl> <dbl>     <dbl>
##  1 BEN      1005      1      5     2 2 [Proprietair~     0     1     1         0
##  2 BEN      1019      1     19     2 3 [Locataire]       1     1     1         0
##  3 BEN      1031      1     31     2 2 [Proprietair~     1     1     1         0
##  4 BEN      1032      1     32     2 1 [Proprietair~     1     1     1         0
##  5 BEN      1046      1     46     2 2 [Proprietair~     1     1     1         0
##  6 BEN      1053      1     53     2 2 [Proprietair~     1     1     1         1
##  7 BEN      1060      1     60     2 3 [Locataire]       0     1     1         0
##  8 BEN      1073      1     73     2 3 [Locataire]       1     1     1         0
##  9 BEN      1080      1     80     2 2 [Proprietair~     1     1     1         0
## 10 BEN      1087      1     87     2 2 [Proprietair~     1     1     0         0
## # i 8,022 more rows
## # i 28 more variables: eauboi_sp <dbl>, elec_ac <dbl>, elec_ur <dbl>,
## #   elec_ua <dbl>, ordure <dbl>, toilet <dbl>, eva_toi <dbl>, eva_eau <dbl>,
## #   year <dbl>, tv <dbl>, fer <dbl>, frigo <dbl>, cuisin <dbl>, ordin <dbl>,
```

```
## #   decod <dbl>, car <dbl>, superf <dbl>, grosrum <dbl>, petitrum <dbl>,
## #   porc <dbl>, lapin <dbl>, volail <dbl>, sh_id_demo <dbl>, sh_co_natu <dbl>,
## #   sh_co_eco <dbl>, sh_id_eco <dbl>, sh_co_vio <dbl>, sh_co_oth <dbl>
```

Structure de la base

```
utils::str(base_men)
```

```
## tibble [8,032 x 38] (S3: tbl_df/tbl/data.frame)
##  $ country   : chr [1:8032] "BEN" "BEN" "BEN" "BEN" ...
##   ..- attr(*, "format.stata")= chr "%3s"
##  $ hhid      : num [1:8032] 1005 1019 1031 1032 1046 ...
##   ..- attr(*, "label")= chr "Identifiant menage"
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ grappe    : num [1:8032] 1 1 1 1 1 1 1 1 1 1 ...
##   ..- attr(*, "label")= chr "grappe"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ menage    : num [1:8032] 5 19 31 32 46 53 60 73 80 87 ...
##   ..- attr(*, "label")= chr "Identifiant du ménage"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ vague     : num [1:8032] 2 2 2 2 2 2 2 2 2 2 ...
##   ..- attr(*, "label")= chr "Vague"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ logem     : dbl+lbl [1:8032] 2, 3, 2, 1, 2, 2, 3, 3, 2, 2, 1, 3, 2, 3, 2, 3, 3, 3,...
##    ..@ label       : chr "Occupation logement"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:4] 1 2 3 4
##    .. ..- attr(*, "names")= chr [1:4] "Proprietaire titre" "Proprietaire sans titre" "Locataire" "Au
##  $ mur       : num [1:8032] 0 1 1 1 1 1 0 1 1 1 ...
##   ..- attr(*, "label")= chr "Mur en materiaux definitifs"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ toit      : num [1:8032] 1 1 1 1 1 1 1 1 1 1 ...
##   ..- attr(*, "label")= chr "toit en materiaux definitifs"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ sol       : num [1:8032] 1 1 1 1 1 1 1 1 1 0 ...
##   ..- attr(*, "label")= chr "Sol en materiaux definitifs"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ eauboi_ss : num [1:8032] 0 0 0 0 0 1 0 0 0 0 ...
##   ..- attr(*, "label")= chr "eau potable saison seche"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ eauboi_sp : num [1:8032] 0 0 0 0 0 1 0 0 0 0 ...
##   ..- attr(*, "label")= chr "eau potable saison pluie"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ elec_ac   : num [1:8032] 0 0 0 0 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Acces reseau electrique"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ elec_ur   : num [1:8032] 0 0 0 0 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Utilise elec. reseau"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ elec_ua   : num [1:8032] 1 1 1 1 1 1 1 0 1 0 ...
##   ..- attr(*, "label")= chr "Utilise elec. solaire/groupe"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ ordure    : num [1:8032] 0 0 0 0 1 1 0 0 1 1 ...
```

```
##   ..- attr(*, "label")= chr "Déchets évacués sainement"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ toilet    : num [1:8032] 0 1 0 0 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Toilettes saines"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ eva_toi   : num [1:8032] 0 1 0 0 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Excréments évacués sainement"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ eva_eau   : num [1:8032] 0 0 0 0 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Eaux usées évacuées sainement"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ year      : num [1:8032] 2021 2021 2021 2021 2021 ...
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ tv        : num [1:8032] 0 0 0 1 0 1 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Menage a TV"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ fer       : num [1:8032] 0 0 0 1 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Menage a fer electrique"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ frigo     : num [1:8032] 0 0 0 0 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Menage a frigo/congel"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ cuisin    : num [1:8032] 0 0 0 0 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Menage a cuisiniere elec/gaz"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ ordin     : num [1:8032] 0 0 0 0 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Menage a ordinateur"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ decod     : num [1:8032] 0 0 0 1 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Menage a decodeur/antenne"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ car       : num [1:8032] 0 0 0 0 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Menage a voiture"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ superf    : num [1:8032] 6 NA 3.99 2.05 1.57 ...
##   ..- attr(*, "label")= chr "Superficie agricole (en ha)"
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ grosrum   : num [1:8032] 2 0 0 0 0 3 0 0 2 0 ...
##   ..- attr(*, "label")= chr "Nbr gros ruminants"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ petitrum  : num [1:8032] 14 0 5 0 10 0 0 0 5 0 ...
##   ..- attr(*, "label")= chr "Nbr petits ruminants"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ porc      : num [1:8032] 0 0 0 0 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Nbr porcs"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ lapin     : num [1:8032] 0 0 0 0 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Nbr lapins"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ volail    : num [1:8032] 6 5 15 8 5 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Nbr volailles"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ sh_id_demo: num [1:8032] 1 0 0 1 1 1 0 0 0 1 ...
##   ..- attr(*, "label")= chr "Choc idio démographique"
```

Characteristic	N = 8,032[1]
Occupation logement	
Proprietaire titre	1,620 (20%)
Proprietaire sans titre	3,292 (41%)
Locataire	1,020 (13%)
Autre	2,100 (26%)
toit en materiaux definitifs	7,634 (95%)
Sol en materiaux definitifs	5,956 (74%)

[1] n (%)

```
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ sh_co_natu: num [1:8032] 1 0 0 0 0 0 0 0 1 0 ...
##   ..- attr(*, "label")= chr "Choc covariant naturel"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ sh_co_eco : num [1:8032] 0 0 0 1 1 0 1 0 1 0 ...
##   ..- attr(*, "label")= chr "Choc covariant économique"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ sh_id_eco : num [1:8032] 0 0 0 0 0 1 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Choc idio économique"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ sh_co_vio : num [1:8032] 0 0 0 0 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Choc covariant violence"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ sh_co_oth : num [1:8032] 0 0 0 0 0 0 0 0 0 0 ...
##   ..- attr(*, "label")= chr "Autres Chocs"
##   ..- attr(*, "format.stata")= chr "%8.0g"
```

Lister le nom des variables

```
colnames(base_men)
```

```
##  [1] "country"    "hhid"       "grappe"     "menage"     "vague"
##  [6] "logem"      "mur"        "toit"       "sol"        "eauboi_ss"
## [11] "eauboi_sp"  "elec_ac"    "elec_ur"    "elec_ua"    "ordure"
## [16] "toilet"     "eva_toi"    "eva_eau"    "year"       "tv"
## [21] "fer"        "frigo"      "cuisin"     "ordin"      "decod"
## [26] "car"        "superf"     "grosrum"    "petitrum"   "porc"
## [31] "lapin"      "volail"     "sh_id_demo" "sh_co_natu" "sh_co_eco"
## [36] "sh_id_eco"  "sh_co_vio"  "sh_co_oth"
```

Sortie de tableau avec labels

```
base_men %>%  labelled::to_factor() %>%  select(logem,toit,sol) %>%  tbl_summary()
```

```
base_men %>%
  select(logem,toit,sol) %>%
  labelled::to_factor() %>%
```

Caractéristiques de l'habitat	**N = 8,032**[1]
Logement du chef de ménage	
Proprietaire titre	1,620 (20%)
Proprietaire sans titre	3,292 (41%)
Locataire	1,020 (13%)
Autre	2,100 (26%)
Toit de la maison du chef de ménage	7,634 (95%)
Type de sol de la maison du chef de ménage	5,956 (74%)

[1] n (%)

Caractéristiques de l'habitat	**N = 8,032**[1]
Logement du chef de ménage	
Proprietaire titre	1,620 (20%)
Proprietaire sans titre	3,292 (41%)
Locataire	1,020 (13%)
Autre	2,100 (26%)
Toit de la maison du chef de ménage	7,634 (95%)
Type de sol de la maison du chef de ménage	5,956 (74%)
Superficie agricole (en ha)	3.11(6.96)
Unknown	4,345
Nbr gros ruminants	1.55(12.32)
Nbr petits ruminants	2.4(7.8)

[1] n (%); Mean(SD)

```
  tbl_summary(
    label = list(logem~ "Logement du chef de ménage",
                 toit ~"Toit de la maison du chef de ménage",
                 sol ~ "Type de sol de la maison du chef de ménage")
    )%>% modify_header(label="Caractéristiques de l'habitat")
```

Ajout des statistiques

```
base_men %>%
  select(logem,toit,sol,superf,grosrum,petitrum) %>%
  labelled::to_factor() %>%
  tbl_summary(
    label = list(logem~ "Logement du chef de ménage",
                 toit ~"Toit de la maison du chef de ménage",
                 sol ~ "Type de sol de la maison du chef de ménage"),
    statistic = list(superf~"{mean}({sd})",
                     grosrum ~ "{mean}({sd})",
                     petitrum ~"{mean}({sd})")
    )%>% modify_header(label="Caractéristiques de l'habitat")
```

Gestion des valeurs manquantes

Caractéristiques de l'habitat	**N = 8,032**[1]
Logement du chef de ménage	
Proprietaire titre	1,620 (20%)
Proprietaire sans titre	3,292 (41%)
Locataire	1,020 (13%)
Autre	2,100 (26%)
Valeurs manquantes	0
Toit de la maison du chef de ménage	7,634 (95%)
Valeurs manquantes	0
Type de sol de la maison du chef de ménage	5,956 (74%)
Valeurs manquantes	0
Superficie agricole (en ha)	3(7)
Valeurs manquantes	4,345
Nbr gros ruminants	2(12)
Valeurs manquantes	0
Nbr petits ruminants	2(8)
Valeurs manquantes	0

[1] n (%); Mean(SD)

```
base_men %>%
  select(logem,toit,sol,superf,grosrum,petitrum) %>%
  labelled::to_factor() %>%
  tbl_summary(
    label = list(logem~ "Logement du chef de ménage",
                 toit ~"Toit de la maison du chef de ménage",
                 sol ~ "Type de sol de la maison du chef de ménage"),
    statistic = list(superf~"{mean}({sd})",
                     grosrum ~ "{mean}({sd})",
                     petitrum ~"{mean}({sd})"),
    digits = everything()~c(0,0,0),
    missing = "always",
    missing_text = "Valeurs manquantes",
    )%>% modify_header(label="Caractéristiques de l'habitat")
```

TRAVAIL AVEC LA BASE WELFARE

Importation

```
## Base welfare

data <- haven::read_dta("../Data/ehcvm_welfare_ben2021.dta")
data
```

```
## # A tibble: 8,032 x 46
##    grappe menage country  year  hhid vague month      zae             departement
##     <dbl>  <dbl> <chr>   <dbl> <dbl> <dbl> <date>     <dbl+lbl>       <dbl+lbl>
```

```
##  1      1    107 BEN      2021  1107     2 2022-05-01 3 [Transition] 1 [alibori]
##  2      1     46 BEN      2021  1046     2 2022-05-01 3 [Transition] 1 [alibori]
##  3      1     53 BEN      2021  1053     2 2022-05-01 3 [Transition] 1 [alibori]
##  4      1     19 BEN      2021  1019     2 2022-05-01 3 [Transition] 1 [alibori]
##  5      1     80 BEN      2021  1080     2 2022-05-01 3 [Transition] 1 [alibori]
##  6      1     87 BEN      2021  1087     2 2022-05-01 3 [Transition] 1 [alibori]
##  7      1     32 BEN      2021  1032     2 2022-05-01 3 [Transition] 1 [alibori]
##  8      1     73 BEN      2021  1073     2 2022-05-01 3 [Transition] 1 [alibori]
##  9      1     31 BEN      2021  1031     2 2022-05-01 3 [Transition] 1 [alibori]
## 10      1      5 BEN      2021  1005     2 2022-05-01 3 [Transition] 1 [alibori]
## # i 8,022 more rows
## # i 37 more variables: milieu <dbl+lbl>, hhweight <dbl>, hhsize <dbl>,
## #   eqadu1 <dbl>, eqadu2 <dbl>, hgender <dbl+lbl>, hage <dbl>,
## #   hmstat <dbl+lbl>, hreligion <dbl+lbl>, hnation <dbl+lbl>,
## #   hethnie <dbl+lbl>, halfa <dbl>, halfa2 <dbl>, heduc <dbl+lbl>,
## #   hdiploma <dbl+lbl>, hhandig <dbl+lbl>, hactiv7j <dbl+lbl>,
## #   hactiv12m <dbl+lbl>, hbranch <dbl+lbl>, hsectins <dbl+lbl>, ...
```

Structure de la base

```
utils::str(data)
```

```
## tibble [8,032 x 46] (S3: tbl_df/tbl/data.frame)
##  $ grappe              : num [1:8032] 1 1 1 1 1 1 1 1 1 1 ...
##   ..- attr(*, "label")= chr "grappe"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ menage              : num [1:8032] 107 46 53 19 80 87 32 73 31 5 ...
##   ..- attr(*, "label")= chr "Identifiant du ménage"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ country             : chr [1:8032] "BEN" "BEN" "BEN" "BEN" ...
##   ..- attr(*, "label")= chr "benin"
##   ..- attr(*, "format.stata")= chr "%3s"
##  $ year                : num [1:8032] 2021 2021 2021 2021 2021 ...
##   ..- attr(*, "label")= chr "Annee enquete"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ hhid                : num [1:8032] 1107 1046 1053 1019 1080 ...
##   ..- attr(*, "label")= chr "Idenfiant menage"
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ vague               : num [1:8032] 2 2 2 2 2 2 2 2 2 2 ...
##   ..- attr(*, "label")= chr "Vague"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ month               : Date[1:8032], format: "2022-05-01" "2022-05-01" ...
##  $ zae                 : dbl+lbl [1:8032] 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,...
##    ..@ label       : chr "Zone agroecologique"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:5] 1 2 3 4 5
##    .. ..- attr(*, "names")= chr [1:5] "Soudano-sahélien" "Précipations moyennes" "Transition" "Forte
##  $ departement         : dbl+lbl [1:8032] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,...
##    ..@ label       : chr "Region residence"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:12] 1 2 3 4 5 6 7 8 9 10 ...
##    .. ..- attr(*, "names")= chr [1:12] "alibori" "atacora" "atlantique" "borgou" ...
##  $ milieu              : dbl+lbl [1:8032] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,...
```

```
##    ..@ label       : chr "Milieu residence"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:2] 1 2
##    .. ..- attr(*, "names")= chr [1:2] "Urbain" "Rural"
##  $ hhweight            : num [1:8032] 216 216 216 216 216 ...
##   ..- attr(*, "label")= chr "Ponderation menage"
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ hhsize              : num [1:8032] 4 5 13 2 3 2 7 2 7 10 ...
##   ..- attr(*, "label")= chr "Taille menage"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ eqadu1              : num [1:8032] 3.31 4.65 9.59 1.45 2.76 ...
##   ..- attr(*, "label")= chr "Nbr adultes-equiv. FAO"
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ eqadu2              : num [1:8032] 2.61 3.01 6.35 1.44 2.2 ...
##   ..- attr(*, "label")= chr "Nbr adultes-equiv. alt."
##   ..- attr(*, "format.stata")= chr "%9.0g"
##  $ hgender             : dbl+lbl [1:8032] 1, 1, 1, 2, 1, 2, 1, 1, 1, 1, 2, 1, 1, 2, 1, 1, 1, 1,...
##    ..@ label       : chr "Genre du CM"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:2] 1 2
##    .. ..- attr(*, "names")= chr [1:2] "Masculin" "Féminin"
##  $ hage                : num [1:8032] 34 40 62 45 50 61 36 24 52 48 ...
##   ..- attr(*, "label")= chr "Age du CM"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ hmstat              : dbl+lbl [1:8032] 7, 2, 2, 6, 2, 1, 2, 1, 2, 2, 5, 1, 1, 5, 2, 6, 2, 2,...
##    ..@ label       : chr "Situation famille du CM"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:7] 1 2 3 4 5 6 7
##    .. ..- attr(*, "names")= chr [1:7] "Célibataire" "Marié(e) monogame" "Marié(e) polygame" "Union li
##  $ hreligion           : dbl+lbl [1:8032] 1, 1, 1, 1, 1, 1, 1, 2, 1, 1, 2, 1, 1, 1, 1, 1, 1, 2,...
##    ..@ label       : chr "Religion du CM"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:5] 1 2 3 4 5
##    .. ..- attr(*, "names")= chr [1:5] "Musulman" "Chrétien" "Animiste" "Autre Réligion" ...
##  $ hnation             : dbl+lbl [1:8032]  1,  1,  1,  1,  1,  1,  1,  1,  1,  1,  1,  1,  1,  ...
##    ..@ label       : chr "Nationalite du CM"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:17] 1 2 3 4 5 6 7 8 9 10 ...
##    .. ..- attr(*, "names")= chr [1:17] "Bénin" "Burkina Faso" "Cape-vert" "Cote d'ivoire" ...
##  $ hethnie             : dbl+lbl [1:8032] 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 22, 1...
##    ..@ label       : chr "Ethnie du CM"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:55] 1 2 3 4 5 6 7 8 9 10 ...
##    .. ..- attr(*, "names")= chr [1:55] "Adja" "Ouatchi" "Mina" "Sahouè" ...
##  $ halfa               : num [1:8032] 1 1 0 0 0 0 1 1 0 0 ...
##   ..- attr(*, "label")= chr "Alpha. lire/ecr. CM"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ halfa2              : num [1:8032] 1 1 0 0 0 0 1 1 0 0 ...
##   ..- attr(*, "label")= chr "Alpha. lire/ecr./comp. CM"
##   ..- attr(*, "format.stata")= chr "%8.0g"
##  $ heduc               : dbl+lbl [1:8032] 7, 1, 1, 1, 1, 1, 9, 7, 1, 1, 1, 7, 1, 1, 1, 1, 1, 1,...
##    ..@ label       : chr "Education du CM"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:9] 1 2 3 4 5 6 7 8 9
```

```
##    .. ..- attr(*, "names")= chr [1:9] "Aucun" "Maternelle" "Primaire" "Second. gl 1" ...
##  $ hdiploma            : dbl+lbl [1:8032] 5, 0, 0, 0, 0, 0, 7, 2, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0,...
##    ..@ label       : chr "Diplome du CM"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:11] 0 1 2 3 4 5 6 7 8 9 ...
##    .. ..- attr(*, "names")= chr [1:11] "Aucun" "cepe" "bepc" "cap" ...
##  $ hhandig             : dbl+lbl [1:8032] 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
##    ..@ label       : chr "Handicap majeur CM"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:2] 0 1
##    .. ..- attr(*, "names")= chr [1:2] "Non" "Oui"
##  $ hactiv7j            : dbl+lbl [1:8032] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 5, 1, 1, 1, 1, 1, 1,...
##    ..@ label       : chr "Activite 7 jours du CM"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:6] 1 2 3 4 5 6
##    .. ..- attr(*, "names")= chr [1:6] "Occupé" "Travailleur familial cherchant emploi" "Travailleur
##  $ hactiv12m           : dbl+lbl [1:8032] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 3, 1, 1, 1, 1, 1, 1,...
##    ..@ label       : chr "Activite 12 mois du CM"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:4] 1 2 3 4
##    .. ..- attr(*, "names")= chr [1:4] "Occupé" "Travailleur familial" "Non occupe" "Moins de 5 ans"
##  $ hbranch             : dbl+lbl [1:8032]  1,  1,  1,  1,  1,  1, 11,  5,  1,  1,  1, NA, 10,  ...
##    ..@ label       : chr "Branche activite du CM"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:11] 1 2 3 4 5 6 7 8 9 10 ...
##    .. ..- attr(*, "names")= chr [1:11] "Agriculture" "Elevage/syviculture/pêche" "Industries extracti
##  $ hsectins            : dbl+lbl [1:8032]  3,  3,  3,  3,  3,  3,  2,  3,  3,  3,  3, NA,  3,  ...
##    ..@ label       : chr "Secteur instit. du CM"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:6] 1 2 3 4 5 6
##    .. ..- attr(*, "names")= chr [1:6] "Etat/Collectivités locales" "Entreprise publique/ parapublique
##  $ hcsp                : dbl+lbl [1:8032]  9,  9,  9,  9,  9,  9,  2,  4,  9,  9,  9, NA,  9,  ...
##    ..@ label       : chr "CSP du CM"
##    ..@ format.stata: chr "%8.0g"
##    ..@ labels      : Named num [1:10] 1 2 3 4 5 6 7 8 9 10
##    .. ..- attr(*, "names")= chr [1:10] "Cadre supérieur" "Cadre moyen/agent de maîtrise" "Ouvrier ou
##  $ dali                : num [1:8032] 915864 1296944 2727434 492346 787326 ...
##   ..- attr(*, "label")= chr "Conso annuelle alim. menage"
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ dnal                : num [1:8032] 333437 465475 1367143 266860 428964 ...
##   ..- attr(*, "label")= chr "Conso annuelle non alim. menage"
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ dtot                : num [1:8032] 1249300 1762419 4094577 759206 1216289 ...
##   ..- attr(*, "label")= chr "Conso annuelle totale menage"
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ dtet                : num [1:8032] 312325 352484 314967 379603 405430 ...
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ pcexp               : num [1:8032] 316980 357737 319661 385260 411472 ...
##   ..- attr(*, "label")= chr "Indicateur de bien-être"
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ zzae                : num [1:8032] 282970 282970 282970 282970 282970 ...
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ zref                : num [1:8032] 287187 287187 287187 287187 287187 ...
##   ..- attr(*, "label")= chr "Seuil pauvrete national"
```

```
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ def_spa             : num [1:8032] 0.985 0.985 0.985 0.985 0.985 ...
##   ..- attr(*, "label")= chr "Deflateur spatial"
##   ..- attr(*, "format.stata")= chr "%9.0g"
##  $ def_temp            : num [1:8032] 0.972 0.972 0.972 0.972 0.972 ...
##   ..- attr(*, "label")= chr "Deflateur temporel"
##   ..- attr(*, "format.stata")= chr "%9.0g"
##  $ def_temp_prix2021m11: num [1:8032] 0.998 0.998 0.998 0.998 0.998 ...
##   ..- attr(*, "label")= chr "temporal deflator for international poverty, 1 = 2021m11 prices"
##   ..- attr(*, "format.stata")= chr "%9.0g"
##  $ def_temp_cpi        : num [1:8032] 0.999 0.999 0.999 0.999 0.999 ...
##   ..- attr(*, "label")= chr "alternative temporal deflator based on official CPI, 2018/19 style"
##   ..- attr(*, "format.stata")= chr "%9.0g"
##  $ def_temp_adj        : num [1:8032] 0.963 0.963 0.963 0.963 0.963 ...
##   ..- attr(*, "label")= chr "temporal deflator adjusted for difference between hh and market survey p
##   ..- attr(*, "format.stata")= chr "%9.0g"
##  $ monthly_cpi         : num [1:8032] 117 117 117 117 117 ...
##   ..- attr(*, "label")= chr "Monthly CPI value"
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ cpi2017             : num [1:8032] 1.06 1.06 1.06 1.06 1.06 ...
##   ..- attr(*, "format.stata")= chr "%9.0g"
##  $ icp2017             : num [1:8032] 219 219 219 219 219 ...
##   ..- attr(*, "format.stata")= chr "%12.0g"
##  $ dollars             : num [1:8032] 3.59 4.05 3.62 4.36 4.66 ...
##   ..- attr(*, "label")= chr "welfare in 2017 PPP USD per capita per day (not spatially deflated)"
##   ..- attr(*, "format.stata")= chr "%9.0g"
```

Liste des variables

```
colnames(data)
```

```
##  [1] "grappe"               "menage"               "country"
##  [4] "year"                 "hhid"                 "vague"
##  [7] "month"                "zae"                  "departement"
## [10] "milieu"               "hhweight"             "hhsize"
## [13] "eqadu1"               "eqadu2"               "hgender"
## [16] "hage"                 "hmstat"               "hreligion"
## [19] "hnation"              "hethnie"              "halfa"
## [22] "halfa2"               "heduc"                "hdiploma"
## [25] "hhandig"              "hactiv7j"             "hactiv12m"
## [28] "hbranch"              "hsectins"             "hcsp"
## [31] "dali"                 "dnal"                 "dtot"
## [34] "dtet"                 "pcexp"                "zzae"
## [37] "zref"                 "def_spa"              "def_temp"
## [40] "def_temp_prix2021m11" "def_temp_cpi"         "def_temp_adj"
## [43] "monthly_cpi"          "cpi2017"              "icp2017"
## [46] "dollars"
```

Proposition de tableau

```
data %>%
  select(hage,hgender,hmstat,heduc,hdiploma) %>%
  labelled::to_factor() %>%
```

```r
tbl_summary(
  label = list(hgender~ "Sexe du chef de ménage",
               hmstat ~"Situation matrimonial du chef de ménage",
               heduc ~ "Niveau d'éducation du chef de ménage",
               hdiploma ~ "Diplome du chef de ménage",
               hage ~ "Age du chef de ménage"),
  statistic = list(hage~"{mean}({sd})"
                   ),
  digits = everything()~c(2,1,0,0,2),
  missing = "always",
  missing_text = "Valeurs manquantes",
  )%>% modify_header(label="Caractéristiques du chef de ménage")
```

Caractéristiques du chef de ménage	**N = 8,032**[1]
Age du chef de ménage	46.11(13.9)
Valeurs manquantes	0
Sexe du chef de ménage	
Masculin	6,231.00 (77.6%)
Féminin	1,801.00 (22.4%)
Valeurs manquantes	0
Situation matrimonial du chef de ménage	
Célibataire	452.00 (5.6%)
Marié(e) monogame	4,750.00 (59.1%)
Marié(e) polygame	1,167.00 (14.5%)
Union libre	84.00 (1.0%)
Veuf(ve)	1,088.00 (13.5%)
Divorcé(e)	247.00 (3.1%)
Séparé(e)	244.00 (3.0%)
Valeurs manquantes	0
Niveau d'éducation du chef de ménage	
Aucun	4,499.00 (56.0%)
Maternelle	5.00 (0.1%)
Primaire	1,527.00 (19.0%)
Second. gl 1	975.00 (12.1%)
Second. tech. 1	18.00 (0.2%)
Second. gl 2	493.00 (6.1%)
Second. tech. 2	38.00 (0.5%)
Postsecondaire	40.00 (0.5%)
Superieur	437.00 (5.4%)
Valeurs manquantes	0
Diplome du chef de ménage	
Aucun	5,934.00 (73.9%)
cepe	955.00 (11.9%)
bepc	550.00 (6.8%)
cap	31.00 (0.4%)
bt	3.00 (0.0%)
bac	168.00 (2.1%)
DEUG, DUT, BTS	33.00 (0.4%)
Licence	209.00 (2.6%)
Maitrise	78.00 (1.0%)
Master/DEA/DESS	58.00 (0.7%)
Doctorat/Phd	13.00 (0.2%)
Valeurs manquantes	0

[1] Mean(SD); n (%)