reading\_COVID\_nursing\_home\_load\_from\_CMS\_files

Harold Pollack

Program that reads CMS nursing home data and performs weighted tables

#  
# Now downloads the data. You should supply your own directory names. Users/haroldpollack/Downloads is mine.  
#  
download.file(url = "https://data.cms.gov/api/views/s2uc-8wxp/rows.csv?accessType=DOWNLOAD", destfile = "/Users/haroldpollack/Downloads/COVID-19\_Nursing\_Home\_Dataset.csv")  
mydata <- read.csv("/Users/haroldpollack/Downloads/COVID-19\_Nursing\_Home\_Dataset.csv")  
#str(mydata)  
table(mydata$Week.Ending)

##   
## 05/24/2020 05/31/2020 06/07/2020 06/14/2020 06/21/2020 06/28/2020 07/05/2020   
## 15366 15366 15367 15369 15367 15366 15360   
## 07/12/2020 07/19/2020 07/26/2020 08/02/2020 08/09/2020 08/16/2020 08/23/2020   
## 15360 15360 15361 15359 15358 15358 15357   
## 08/30/2020 09/06/2020 09/13/2020 09/20/2020 09/27/2020 10/04/2020 10/11/2020   
## 15355 15354 15354 15354 15353 15351 15351   
## 10/18/2020 10/25/2020   
## 15350 15349

aggregate(mydata$Staff.Weekly.COVID.19.Deaths, by=list(Category=mydata$Week.Ending), na.rm=TRUE, FUN=sum)

## Category x  
## 1 05/24/2020 297  
## 2 05/31/2020 62  
## 3 06/07/2020 55  
## 4 06/14/2020 37  
## 5 06/21/2020 31  
## 6 06/28/2020 26  
## 7 07/05/2020 34  
## 8 07/12/2020 29  
## 9 07/19/2020 23  
## 10 07/26/2020 46  
## 11 08/02/2020 32  
## 12 08/09/2020 35  
## 13 08/16/2020 40  
## 14 08/23/2020 32  
## 15 08/30/2020 40  
## 16 09/06/2020 27  
## 17 09/13/2020 22  
## 18 09/20/2020 15  
## 19 09/27/2020 22  
## 20 10/04/2020 31  
## 21 10/11/2020 29  
## 22 10/18/2020 30  
## 23 10/25/2020 22

aggregate(mydata$Residents.Weekly.COVID.19.Deaths, by=list(Category=mydata$Week.Ending), na.rm=TRUE, FUN=sum)

## Category x  
## 1 05/24/2020 25158  
## 2 05/31/2020 3544  
## 3 06/07/2020 2773  
## 4 06/14/2020 2024  
## 5 06/21/2020 1716  
## 6 06/28/2020 1489  
## 7 07/05/2020 1488  
## 8 07/12/2020 1631  
## 9 07/19/2020 1786  
## 10 07/26/2020 2087  
## 11 08/02/2020 2016  
## 12 08/09/2020 2006  
## 13 08/16/2020 1810  
## 14 08/23/2020 1732  
## 15 08/30/2020 1526  
## 16 09/06/2020 1394  
## 17 09/13/2020 1240  
## 18 09/20/2020 1202  
## 19 09/27/2020 1153  
## 20 10/04/2020 1256  
## 21 10/11/2020 1335  
## 22 10/18/2020 1533  
## 23 10/25/2020 1718

agg\_staff<- aggregate(mydata$Staff.Weekly.COVID.19.Deaths, by=list(Category=mydata$Week.Ending), na.rm=TRUE, FUN=sum)  
agg\_residents <- aggregate(mydata$Residents.Weekly.COVID.19.Deaths, by=list(Category=mydata$Week.Ending), na.rm=TRUE, FUN=sum)  
write.csv(agg\_staff,file="/Users/haroldpollack/Documents/consulting/agg\_staff.csv")  
write.csv(agg\_residents,file="/Users/haroldpollack/Documents/consulting/agg\_residents.csv")  
  
  
#str(agg\_staff)  
#str(agg\_residents)  
#plot(agg\_staff$Category,agg\_staff$x, main="Monthly staff deaths")  
#  
# Indicate latest week  
#  
max(mydata$Week.Ending)

## [1] "10/25/2020"

#  
# from https://data.cms.gov/api/views/s2uc-8wxp/rows.csv?accessType=DOWNLOAD, https://data.cms.gov/Special-Programs-Initiatives-COVID-19-Nursing-Home/COVID-19-Nursing-Home-Dataset/s2uc-8wxp/data  
#  
#summary(mydata)  
#head(mydata)  
myvars <- c("Residents.Weekly.COVID.19.Deaths","Federal.Provider.Number","Staff.Weekly.COVID.19.Deaths")  
newdata <- mydata[myvars]  
newdata<-arrange(newdata,Federal.Provider.Number)  
v\_sums <-newdata %>%  
 summarize\_if(is.numeric, sum, na.rm=TRUE)  
#summary(v\_sums)  
resident\_deaths<- v\_sums$Residents.Weekly.COVID.19.Deaths  
staff\_deaths<-v\_sums$Staff.Weekly.COVID.19.Deaths  
resident\_deaths

## [1] 63617

staff\_deaths

## [1] 1017

wtd.table(mydata$Provider.State, mydata$One.Week.Supply.of.N95.Masks, weights=mydata$Total.Number.of.Occupied.Beds)

## N Y  
## AK 37 1752 13561  
## AL 4545 112655 340062  
## AR 2593 36137 314123  
## AZ 934 39816 193557  
## CA 912 174185 1819996  
## CO 1971 74989 260591  
## CT 846 84558 326280  
## DC 382 576 43439  
## DE 407 18197 60649  
## FL 9184 190946 1240122  
## GA 5136 81408 562736  
## GU 0 0 212  
## HI 238 13770 63782  
## IA 2931 131990 346139  
## ID 749 12608 73323  
## IL 10222 138728 1177934  
## IN 2594 97433 681914  
## KS 2977 63552 297636  
## KY 2121 66614 409036  
## LA 2254 58885 445395  
## MA 2206 96823 598541  
## MD 2167 72664 382524  
## ME 855 43901 80792  
## MI 1709 133694 594402  
## MN 5770 85412 396290  
## MO 8617 79770 714825  
## MS 2734 46166 268605  
## MT 1131 12293 68458  
## NC 3411 193983 557802  
## ND 211 8359 102847  
## NE 1149 39597 192203  
## NH 55 52651 79705  
## NJ 3523 109377 662669  
## NM 401 46633 62222  
## NV 1317 16313 91238  
## NY 15156 126697 1874984  
## OH 8522 303857 1165527  
## OK 3139 56624 315639  
## OR 2432 7938 142469  
## PA 7120 203101 1293194  
## PR 22 253 1396  
## RI 903 20352 120737  
## SC 1116 71513 281541  
## SD 323 13672 108476  
## TN 939 127396 432233  
## TX 12095 128080 1660957  
## UT 676 4814 109838  
## VA 1601 87841 468590  
## VT 0 12323 38293  
## WA 1595 56141 249043  
## WI 1672 87991 363935  
## WV 120 65358 136426  
## WY 910 12809 36456

#ct<- crosstab(mydata$Provider.State, mydata$One.Week.Supply.of.N95.Masks, weight=mydata$Total.Number.of.Occupied.Beds, xlab = "state", ylab = "Mask supply")  
#ct  
maxweek<-max(mydata$Week.Ending)  
mydata\_last<- mydata %>% filter(Week.Ending == maxweek)  
#mydata\_last<-mydata[,mydata$Week.Ending<-maxweek]  
wtd.table(mydata\_last$Provider.State, mydata\_last$One.Week.Supply.of.N95.Masks, weights=mydata\_last$Total.Number.of.Occupied.Beds)

## N Y  
## AK 0 101 565  
## AL 770 2606 16104  
## AR 555 493 13559  
## AZ 419 1565 8227  
## CA 151 3564 82966  
## CO 479 2099 12081  
## CT 329 3190 14576  
## DC 0 0 1948  
## DE 125 639 2717  
## FL 1363 5320 55819  
## GA 947 2794 23789  
## GU 0 0 9  
## HI 238 366 2644  
## IA 1024 4552 14684  
## ID 270 179 3229  
## IL 2354 4735 50275  
## IN 372 4255 28940  
## KS 806 1183 13374  
## KY 726 3758 15995  
## LA 577 2441 18662  
## MA 1145 2856 26755  
## MD 0 3928 16484  
## ME 35 1764 3600  
## MI 0 3237 28316  
## MN 885 3667 16481  
## MO 2268 2034 29575  
## MS 491 1419 11630  
## MT 374 439 2521  
## NC 1118 6350 24719  
## ND 211 173 4297  
## NE 433 1682 7738  
## NH 26 2274 3489  
## NJ 1095 3752 29506  
## NM 133 2113 2479  
## NV 349 520 3874  
## NY 4352 1954 83107  
## OH 3643 12241 48067  
## OK 632 1861 13543  
## OR 660 169 5734  
## PA 2120 9391 53597  
## PR 22 0 49  
## RI 390 1026 4808  
## SC 393 2118 12574  
## SD 176 445 4548  
## TN 350 4411 18957  
## TX 3337 201 72712  
## UT 256 164 4501  
## VA 340 2590 21198  
## VT 0 664 1534  
## WA 442 1530 11388  
## WI 1012 4723 13541  
## WV 120 2918 5686  
## WY 307 397 1392

wtd.table(mydata\_last$Provider.State, mydata\_last$One.Week.Supply.of.Gowns, weights=mydata\_last$Total.Number.of.Occupied.Beds)

## N Y  
## AK 0 126 540  
## AL 770 1240 17470  
## AR 555 292 13760  
## AZ 419 930 8862  
## CA 151 2676 83854  
## CO 479 724 13456  
## CT 329 0 17766  
## DC 0 0 1948  
## DE 125 0 3356  
## FL 1363 2644 58495  
## GA 947 1021 25562  
## GU 0 0 9  
## HI 238 33 2977  
## IA 1024 3409 15827  
## ID 270 62 3346  
## IL 2354 2950 52060  
## IN 372 2545 30650  
## KS 806 927 13630  
## KY 726 1485 18268  
## LA 577 550 20553  
## MA 1145 305 29306  
## MD 0 2216 18196  
## ME 35 322 5042  
## MI 0 2300 29253  
## MN 885 3503 16645  
## MO 2268 964 30645  
## MS 491 1092 11957  
## MT 374 164 2796  
## NC 1118 1985 29084  
## ND 211 317 4153  
## NE 433 269 9151  
## NH 26 345 5418  
## NJ 1095 626 32632  
## NM 133 66 4526  
## NV 349 299 4095  
## NY 4352 969 84092  
## OH 3643 6230 54078  
## OK 632 782 14622  
## OR 660 156 5747  
## PA 2120 5603 57385  
## PR 22 0 49  
## RI 390 67 5767  
## SC 393 894 13798  
## SD 176 189 4804  
## TN 350 2783 20585  
## TX 3337 445 72468  
## UT 256 105 4560  
## VA 340 1609 22179  
## VT 0 37 2161  
## WA 442 1114 11804  
## WI 1012 3099 15165  
## WV 120 151 8453  
## WY 307 0 1789

wtd.table(mydata\_last$Provider.State, mydata\_last$Shortage.of.Nursing.Staff, weights=mydata\_last$Total.Number.of.Occupied.Beds)

## N Y  
## AK 0 509 157  
## AL 770 13835 4875  
## AR 555 12167 1885  
## AZ 419 8236 1556  
## CA 151 85600 930  
## CO 479 11956 2224  
## CT 329 16709 1057  
## DC 0 1552 396  
## DE 125 2937 419  
## FL 1363 54279 6860  
## GA 947 18034 8549  
## GU 0 9 0  
## HI 238 2408 602  
## IA 1024 13100 6136  
## ID 270 2502 906  
## IL 2228 45191 9945  
## IN 372 26837 6358  
## KS 806 10815 3742  
## KY 726 16722 3031  
## LA 577 15728 5375  
## MA 1145 28621 990  
## MD 0 17905 2507  
## ME 35 4415 949  
## MI 0 23377 8176  
## MN 758 13907 6368  
## MO 2268 23427 8182  
## MS 491 10363 2686  
## MT 374 1992 968  
## NC 1118 24080 6989  
## ND 211 3190 1280  
## NE 433 6506 2914  
## NH 26 4223 1540  
## NJ 1095 32100 1158  
## NM 133 3757 835  
## NV 349 3666 728  
## NY 4534 78289 6590  
## OH 3643 46473 13835  
## OK 632 11047 4357  
## OR 660 5595 308  
## PA 2120 53048 9940  
## PR 22 49 0  
## RI 390 4410 1424  
## SC 393 11597 3095  
## SD 176 3734 1259  
## TN 350 18468 4900  
## TX 3337 68785 4128  
## UT 256 4483 182  
## VA 340 21344 2444  
## VT 0 1988 210  
## WA 442 9022 3896  
## WI 1012 12999 5265  
## WV 120 8091 513  
## WY 173 1227 696

wtd.table(mydata\_last$Provider.State, mydata\_last$Shortage.of.Clinical.Staff, weights=mydata\_last$Total.Number.of.Occupied.Beds)

## N Y  
## AK 0 648 18  
## AL 770 18086 624  
## AR 555 13803 249  
## AZ 419 9659 133  
## CA 151 86155 375  
## CO 479 14007 173  
## CT 329 17191 575  
## DC 0 1948 0  
## DE 125 3356 0  
## FL 1363 59045 2094  
## GA 947 25475 1108  
## GU 0 9 0  
## HI 238 2991 19  
## IA 1024 18758 478  
## ID 270 3134 274  
## IL 2228 53032 2104  
## IN 372 32557 638  
## KS 806 13892 665  
## KY 726 19456 297  
## LA 577 20354 749  
## MA 1145 29231 380  
## MD 0 19945 467  
## ME 35 5282 82  
## MI 0 30816 737  
## MN 758 19813 462  
## MO 2268 30193 1416  
## MS 491 12501 548  
## MT 374 2905 55  
## NC 1118 30307 762  
## ND 211 4309 161  
## NE 433 9268 152  
## NH 26 5657 106  
## NJ 1095 32290 968  
## NM 133 4572 20  
## NV 349 4302 92  
## NY 4534 83468 1411  
## OH 3643 57500 2808  
## OK 632 15035 369  
## OR 660 5875 28  
## PA 2120 61373 1615  
## PR 22 49 0  
## RI 390 5622 212  
## SC 393 14258 434  
## SD 176 4797 196  
## TN 350 22691 677  
## TX 3337 71899 1014  
## UT 256 4627 38  
## VA 340 23075 713  
## VT 0 2166 32  
## WA 442 12279 639  
## WI 1012 17437 827  
## WV 120 8433 171  
## WY 173 1804 119

wtd.table(mydata\_last$Provider.State, mydata\_last$Shortage.of.Aides, weights=mydata\_last$Total.Number.of.Occupied.Beds)

## N Y  
## AK 0 476 190  
## AL 770 13775 4935  
## AR 555 11821 2231  
## AZ 419 7992 1800  
## CA 151 85098 1432  
## CO 479 11322 2858  
## CT 329 16591 1175  
## DC 0 1256 692  
## DE 125 2950 406  
## FL 1363 54067 7072  
## GA 947 17219 9364  
## GU 0 9 0  
## HI 238 2294 716  
## IA 1024 12226 7010  
## ID 270 2520 888  
## IL 2228 43368 11768  
## IN 372 26294 6901  
## KS 806 9941 4616  
## KY 726 16473 3280  
## LA 577 15278 5825  
## MA 1145 27709 1902  
## MD 0 17835 2577  
## ME 35 4133 1231  
## MI 0 20983 10570  
## MN 758 12099 8176  
## MO 2268 23323 8286  
## MS 491 9994 3055  
## MT 374 1957 1003  
## NC 1118 21936 9133  
## ND 211 3114 1356  
## NE 433 6639 2781  
## NH 26 4053 1710  
## NJ 1095 31906 1352  
## NM 133 3691 901  
## NV 349 3497 897  
## NY 4534 78271 6608  
## OH 3643 44025 16283  
## OK 632 10790 4614  
## OR 660 5391 512  
## PA 2120 52373 10615  
## PR 22 49 0  
## RI 390 4219 1615  
## SC 393 11246 3446  
## SD 176 2924 2069  
## TN 350 17576 5792  
## TX 3337 67425 5488  
## UT 256 4369 296  
## VA 340 20544 3244  
## VT 0 1991 207  
## WA 442 8198 4720  
## WI 1012 12130 6134  
## WV 120 7909 695  
## WY 173 1228 695

custom\_glimpse <- function(df) {  
 data.frame(  
 col\_name = colnames(df),  
 col\_index = 1:ncol(df),  
 col\_class = sapply(df, class),  
 row.names = NULL  
 )  
}  
custom\_glimpse(mydata)

## col\_name  
## 1 Week.Ending  
## 2 Federal.Provider.Number  
## 3 Provider.Name  
## 4 Provider.Address  
## 5 Provider.City  
## 6 Provider.State  
## 7 Provider.Zip.Code  
## 8 Submitted.Data  
## 9 Passed.Quality.Assurance.Check  
## 10 Residents.Weekly.Admissions.COVID.19  
## 11 Residents.Total.Admissions.COVID.19  
## 12 Residents.Weekly.Confirmed.COVID.19  
## 13 Residents.Total.Confirmed.COVID.19  
## 14 Residents.Weekly.Suspected.COVID.19  
## 15 Residents.Total.Suspected.COVID.19  
## 16 Residents.Weekly.All.Deaths  
## 17 Residents.Total.All.Deaths  
## 18 Residents.Weekly.COVID.19.Deaths  
## 19 Residents.Total.COVID.19.Deaths  
## 20 Number.of.All.Beds  
## 21 Total.Number.of.Occupied.Beds  
## 22 Resident.Access.to.Testing.in.Facility  
## 23 Laboratory.Type.Is.State.Health.Dept  
## 24 Laboratory.Type.Is.Private.Lab  
## 25 Laboratory.Type.Is.Other  
## 26 Able.to.Test.or.Obtain.Resources.to.Test.All.Current.Residents.Within.Next.7.Days  
## 27 Reason.for.Not.Testing.Residents...Lack.of.PPE.for.Personnel  
## 28 Reason.for.Not.Testing.Residents...Lack.of.Supplies  
## 29 Reason.for.Not.Testing.Residents....Lack.of.Access.to.Laboratory  
## 30 Reason.for.Not.Testing.Residents...Lack.of.Access.to.Trained.Personnel  
## 31 Reason.for.Not.Testing.Residents....Uncertainty.About.Reimbursement  
## 32 Reason.for.Not.Testing.Residents....Other  
## 33 During.Past.Two.Weeks.Average.Time.to.Receive.Resident.Test.Results  
## 34 Has.Facility.Performed.Resident.Tests.Since.Last.Report  
## 35 Tested.Residents.with.New.Signs.or.Symptoms  
## 36 Tested.Asymptomatic.Residents.in.a.Unit.or.Section.After.a.New.Case  
## 37 Tested.Asymptomatic.Residents.Facility.Wide.After.a.New.Case  
## 38 Tested.Asymptomatic.Residents.Without.Known.Exposure.as.Surveillance  
## 39 Tested.Another.Subgroup.of.Residents  
## 40 Able.to.Test.or.Obtain.Resources.to.Test.All.Staff.and.or.Personnel.Within.Next.7.Days  
## 41 Reason.for.Not.Testing.Staff.and.or.Personnel...Lack.of.PPE.for.Personnel  
## 42 Reason.for.Not.Testing.Staff.and.or.Personnel...Lack.of.Supplies  
## 43 Reason.for.Not.Testing.Staff.and.or.Personnel...Lack.of.Access.to.Laboratory  
## 44 Reason.for.Not.Testing.Staff.and.or.Personnel....Lack.of.Access.to.Trained.Personnel  
## 45 Reason.for.Not.Testing.Staff.and.or.Personnel...Uncertainty.About.Reimbursement  
## 46 Reason.for.Not.Testing.Staff.and.or.Personnel...Other  
## 47 During.Past.Two.Weeks.Average.Time.to.Receive.Staff.and.or.Personnel.Test.Results  
## 48 Has.Facility.Performed.Staff.and.or.Personnel.Tests.Since.Last.Report  
## 49 Tested.Staff.and.or.Personnel.with.New.Signs.or.Symptoms  
## 50 Tested.Asymptomatic.Staff.and.or.Personnel.in.a.Unit.or.Section.After.a.New.Case  
## 51 Tested.Asymptomatic.Staff.and.or.Personnel.Facility.Wide.After.a.New.Case  
## 52 Tested.Asymptomatic.Staff.and.or.Personnel.Without.Known.Exposure.as.Surveillance  
## 53 Tested.Another.Subgroup.of.Staff.and.or.Personnel  
## 54 In.House.Point.of.Care.Test.Machine  
## 55 COVID.19.Point.of.Care.Tests.Performed.on.Residents.Since.Last.Report  
## 56 COVID.19.Point.of.Care.Tests.Performed.on.Staff.and.or.Personnel.Since.Last.Report  
## 57 Enough.Supplies.to.Test.All.Staff.and.or.Personnel.Using.Point.of.Care.Test.Machine  
## 58 Staff.Weekly.Confirmed.COVID.19  
## 59 Staff.Total.Confirmed.COVID.19  
## 60 Staff.Weekly.Suspected.COVID.19  
## 61 Staff.Total.Suspected.COVID.19  
## 62 Staff.Weekly.COVID.19.Deaths  
## 63 Staff.Total.COVID.19.Deaths  
## 64 Shortage.of.Nursing.Staff  
## 65 Shortage.of.Clinical.Staff  
## 66 Shortage.of.Aides  
## 67 Shortage.of.Other.Staff  
## 68 Any.Current.Supply.of.N95.Masks  
## 69 One.Week.Supply.of.N95.Masks  
## 70 Any.Current.Supply.of.Surgical.Masks  
## 71 One.Week.Supply.of.Surgical.Masks  
## 72 Any.Current.Supply.of.Eye.Protection  
## 73 One.Week.Supply.of.Eye.Protection  
## 74 Any.Current.Supply.of.Gowns  
## 75 One.Week.Supply.of.Gowns  
## 76 Any.Current.Supply.of.Gloves  
## 77 One.Week.Supply.of.Gloves  
## 78 Any.Current.Supply.of.Hand.Sanitizer  
## 79 One.Week.Supply.of.Hand.Sanitizer  
## 80 Ventilator.Dependent.Unit  
## 81 Number.of.Ventilators.in.Facility  
## 82 Number.of.Ventilators.in.Use.for.COVID.19  
## 83 Any.Current.Supply.of.Ventilator.Supplies  
## 84 One.Week.Supply.of.Ventilator.Supplies  
## 85 Total.Resident.Confirmed.COVID.19.Cases.Per.1.000.Residents  
## 86 Total.Resident.COVID.19.Deaths.Per.1.000.Residents  
## 87 Total.Residents.COVID.19.Deaths.as.a.Percentage.of.Confirmed.COVID.19.Cases  
## 88 County  
## 89 Three.or.More.Confirmed.COVID.19.Cases.This.Week  
## 90 Initial.Confirmed.COVID.19.Case.This.Week  
## 91 Geolocation  
## col\_index col\_class  
## 1 1 character  
## 2 2 character  
## 3 3 character  
## 4 4 character  
## 5 5 character  
## 6 6 character  
## 7 7 integer  
## 8 8 character  
## 9 9 character  
## 10 10 integer  
## 11 11 integer  
## 12 12 integer  
## 13 13 integer  
## 14 14 integer  
## 15 15 integer  
## 16 16 integer  
## 17 17 integer  
## 18 18 integer  
## 19 19 integer  
## 20 20 integer  
## 21 21 integer  
## 22 22 character  
## 23 23 character  
## 24 24 character  
## 25 25 character  
## 26 26 character  
## 27 27 character  
## 28 28 character  
## 29 29 character  
## 30 30 character  
## 31 31 character  
## 32 32 character  
## 33 33 character  
## 34 34 character  
## 35 35 character  
## 36 36 character  
## 37 37 character  
## 38 38 character  
## 39 39 character  
## 40 40 character  
## 41 41 character  
## 42 42 character  
## 43 43 character  
## 44 44 character  
## 45 45 character  
## 46 46 character  
## 47 47 character  
## 48 48 character  
## 49 49 character  
## 50 50 character  
## 51 51 character  
## 52 52 character  
## 53 53 character  
## 54 54 character  
## 55 55 integer  
## 56 56 integer  
## 57 57 character  
## 58 58 integer  
## 59 59 integer  
## 60 60 integer  
## 61 61 integer  
## 62 62 integer  
## 63 63 integer  
## 64 64 character  
## 65 65 character  
## 66 66 character  
## 67 67 character  
## 68 68 character  
## 69 69 character  
## 70 70 character  
## 71 71 character  
## 72 72 character  
## 73 73 character  
## 74 74 character  
## 75 75 character  
## 76 76 character  
## 77 77 character  
## 78 78 character  
## 79 79 character  
## 80 80 character  
## 81 81 integer  
## 82 82 integer  
## 83 83 character  
## 84 84 character  
## 85 85 numeric  
## 86 86 numeric  
## 87 87 numeric  
## 88 88 character  
## 89 89 character  
## 90 90 character  
## 91 91 character

quick glimse at the downloaded variables.

#  
# function from https://stackoverflow.com/questions/56466715/explore-data-frame-and-provide-numbered-list-of-variables-in-r  
#  
  
custom\_glimpse <- function(df) {  
 data.frame(  
 col\_name = colnames(df),  
 col\_index = 1:ncol(df),  
 col\_class = sapply(df, class),  
 row.names = NULL  
 )  
}  
#custom\_glimpse(mydata)