Final Project Presentation

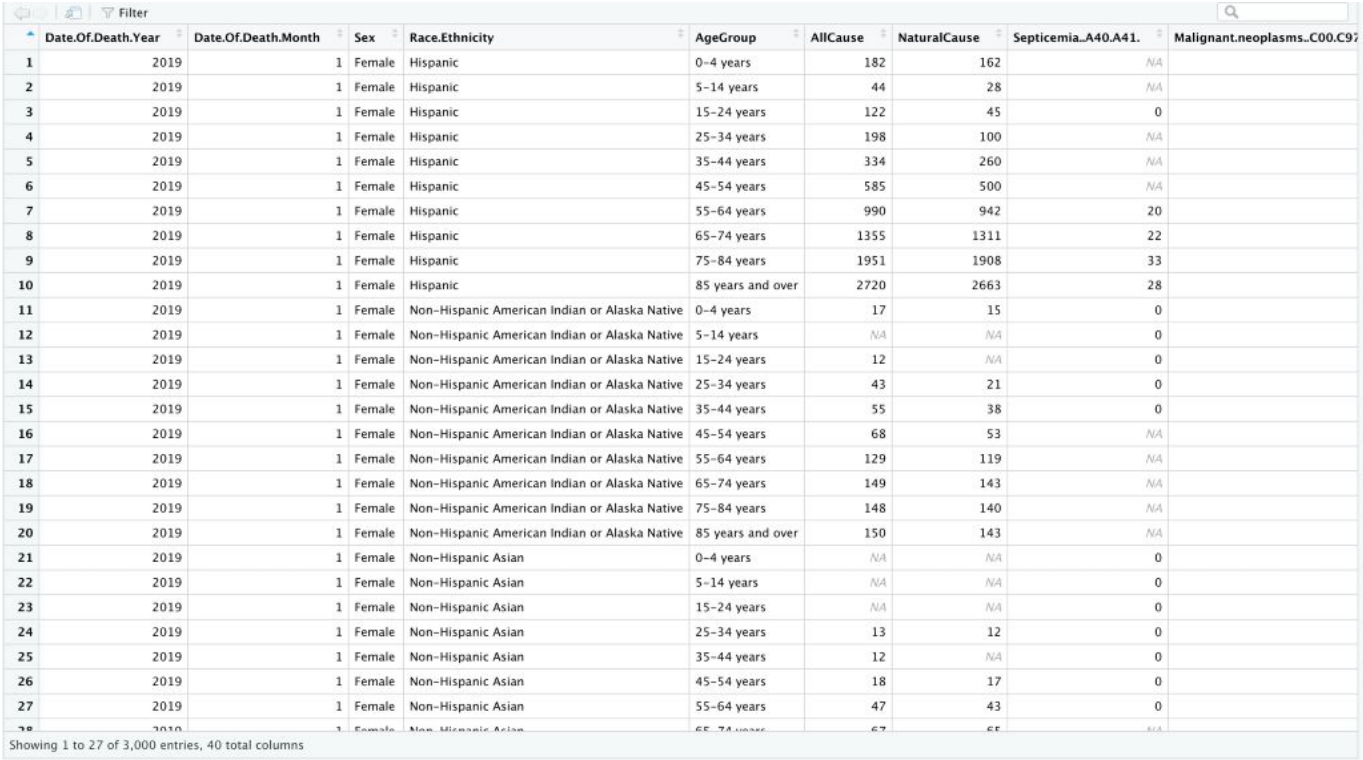
Hiba Talat

Challenges faced

- The right data
- Right questions
- Visualization every graph is not for all the data

Data Collected

Data is collected from healthdata.gov



Filter

	Date.Of.Death.Year	Date.Of.Death.Month	Sex	Race.Ethnicity	AgeGroup	AllCause	NaturalCause	Septicemia..A40.A41.	Malignant.neoplasms..C00.C97
1	2019	1	Female	Hispanic	0–4 years	182	162	NA	
2	2019	1	Female	Hispanic	5–14 years	44	28	NA	
3	2019	1	Female	Hispanic	15–24 years	122	45	0	
4	2019	1	Female	Hispanic	25–34 years	198	100	NA	
5	2019	1	Female	Hispanic	35–44 years	334	260	NA	
6	2019	1	Female	Hispanic	45–54 years	585	500	NA	
7	2019	1	Female	Hispanic	55–64 years	990	942	20	
8	2019	1	Female	Hispanic	65–74 years	1355	1311	22	
9	2019	1	Female	Hispanic	75–84 years	1951	1908	33	
10	2019	1	Female	Hispanic	85 years and over	2720	2663	28	
11	2019	1	Female	Non-Hispanic American Indian or Alaska Native	0–4 years	17	15	0	
12	2019	1	Female	Non-Hispanic American Indian or Alaska Native	5–14 years	NA	NA	0	
13	2019	1	Female	Non-Hispanic American Indian or Alaska Native	15–24 years	12	NA	0	
14	2019	1	Female	Non-Hispanic American Indian or Alaska Native	25–34 years	43	21	0	
15	2019	1	Female	Non-Hispanic American Indian or Alaska Native	35–44 years	55	38	0	
16	2019	1	Female	Non-Hispanic American Indian or Alaska Native	45–54 years	68	53	NA	
17	2019	1	Female	Non-Hispanic American Indian or Alaska Native	55–64 years	129	119	NA	
18	2019	1	Female	Non-Hispanic American Indian or Alaska Native	65–74 years	149	143	NA	
19	2019	1	Female	Non-Hispanic American Indian or Alaska Native	75–84 years	148	140	NA	
20	2019	1	Female	Non-Hispanic American Indian or Alaska Native	85 years and over	150	143	NA	
21	2019	1	Female	Non-Hispanic Asian	0–4 years	NA	NA	0	
22	2019	1	Female	Non-Hispanic Asian	5–14 years	NA	NA	0	
23	2019	1	Female	Non-Hispanic Asian	15–24 years	NA	NA	0	
24	2019	1	Female	Non-Hispanic Asian	25–34 years	13	12	0	
25	2019	1	Female	Non-Hispanic Asian	35–44 years	12	NA	0	
26	2019	1	Female	Non-Hispanic Asian	45–54 years	18	17	0	
27	2019	1	Female	Non-Hispanic Asian	55–64 years	47	43	0	
28	2019	1	Female	Non-Hispanic Asian	65–74 years	67	65	NA	

Showing 1 to 27 of 3,000 entries, 40 total columns

About Data

The data is collected from healthdata.gov that provides provisional counts of deaths by the month the deaths occurred, by age group, sex, and race/ethnicity, for select underlying causes of death for 2020-2021.

```
> str(healthdata)
'data.frame':   3000 obs. of  40 variables:
 $ Date.Of.Death.Year                                                                : int  2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 ...
 $ Date.Of.Death.Month                                                               : int  1 1 1 1 1 1 1 1 1 1 ...
 $ Sex                                                                               : chr  "Female" "Female" "Female" "Female" ...
 $ Race.Ethnicity                                                                    : chr  "Hispanic" "Hispanic" "Hispanic" "Hispanic" ...
 $ AgeGroup                                                                          : chr  "0-4 years" "5-14 years" "15-24 years" "25-34 years" ...
 $ AllCause                                                                          : int  182 44 122 198 334 585 990 1355 1951 2720 ...
 $ NaturalCause                                                                      : int  162 28 45 100 260 500 942 1311 1908 2663 ...
 $ Septicemia..A40.A41.                                                              : int  NA NA 0 NA NA NA 20 22 33 28 ...
 $ Malignant.neoplasms..C00.C97.                                                     : int  NA NA NA 29 96 209 368 382 363 275 ...
 $ Diabetes.mellitus..E10.E14.                                                       : int  0 NA NA NA NA 40 62 87 95 83 ...
 $ Alzheimer.disease..G30.                                                           : int  0 0 0 0 0 0 NA NA 32 126 374 ...
 $ Influenza.and.pneumonia..J09.J18.                                                 : int  NA NA 0 NA 11 15 32 40 55 93 ...
 $ Chronic.lower.respiratory.diseases..J40.J47.                                      : int  0 NA NA NA NA NA 24 43 77 114 ...
 $ Other.diseases.of.respiratory.system..J00.J06.J30.J39.J67.J70.J98.                : int  NA 0 NA NA NA NA 26 38 58 38 ...
 $ Nephritis..nephrotic.syndrome.and.nephrosis..N00.N07.N17.N19.N25.N27.             : int  0 0 NA 0 NA 10 21 54 53 44 ...
 $ Symptoms..signs.and.abnormal.clinical.and.laboratory.findings..not.elsewhere.classified..R00.R99.: int  22 0 NA NA NA NA NA NA NA 19 ...
 $ Diseases.of.heart..I00.I09.I11.I13.I20.I51.                                      : int  NA 0 NA NA 25 63 146 249 417 745 ...
 $ Cerebrovascular.diseases..I60.I69.                                                : int  0 0 NA NA 10 28 35 76 146 240 ...
 $ COVID.19..U071..Multiple.Cause.of.Death.                                          : int  0 0 0 0 0 0 0 0 0 0 ...
 $ COVID.19..U071..Underlying.Cause.of.Death.                                        : int  0 0 0 0 0 0 0 0 0 0 ...
 $ AnalysisDate                                                                      : chr  "2/9/2021" "2/9/2021" "2/9/2021" "2/9/2021" ...
 $ Note                                                                              : chr  "" "" "" "" ...
 $ flag_allcause                                                                     : chr  "" "" "" "" ...
 $ flag_natcause                                                                     : chr  "" "" "" "" ...
 $ flag_sept                                                                         : chr  "One or more data cells have counts between 1-9 and have been supp
ressed in accordance with NCHS confidentiality standards." "One or more data cells have counts between 1-9 and have been suppressed in accordance with NCHS confidentiality s
tandards." "" "One or more data cells have counts between 1-9 and have been suppressed in accordance with NCHS confidentiality standards." ...
 $ flag_neopl                                                                        : chr  "One or more data cells have counts between 1-9 and have been supp
ressed in accordance with NCHS confidentiality standards." "One or more data cells have counts between 1-9 and have been suppressed in accordance with NCHS confidentiality s
tandards." "One or more data cells have counts between 1-9 and have been suppressed in accordance with NCHS confidentiality standards." "" ...
 $ flag_diab                                                                         : chr  "" "One or more data cells have counts between 1-9 and have been s
uppressed in accordance with NCHS confidentiality standards." "One or more data cells have counts between 1-9 and have been suppressed in accordance with NCHS confidentialit
y standards." "One or more data cells have counts between 1-9 and have been suppressed in accordance with NCHS confidentiality standards." ...
 $ flag_alz                                                                          : chr  "" "" "" "" ...
 $ flag_inflpn                                                                       : chr  "One or more data cells have counts between 1-9 and have been supp
ressed in accordance with NCHS confidentiality standards." "One or more data cells have counts between 1-9 and have been suppressed in accordance with NCHS confidentiality s
```

Install Packages

- Dplyr: The package contains a set of functions that perform common data manipulation operations
- Ggplot2: ggplot2 is a data visualization package for the statistical programming language R.
- Naniar: It provides data structures and functions that facilitate the plotting of missing values and examination of imputations.

```
> install.packages(c("dplyr","ggplot2","naniar"))
trying URL 'https://cran.rstudio.com/bin/macosx/contrib/4.0/dplyr_1.0.5.tgz'
```

Creating a new data frame

```
> df <- healthdata[,c(1:15,17,18,19,20,38,39)]
```

```
> str(df)
'data.frame':   3000 obs. of  21 variables:
 $ Date.Of.Death.Year                                        : int  2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 ...
 $ Date.Of.Death.Month                                       : int  1 1 1 1 1 1 1 1 1 1 ...
 $ Sex                                                       : chr  "Female" "Female" "Female" "Female" ...
 $ Race.Ethnicity                                            : chr  "Hispanic" "Hispanic" "Hispanic" "Hispanic" ...
 $ AgeGroup                                                  : chr  "0-4 years" "5-14 years" "15-24 years" "25-34 years" ...
 $ AllCause                                                  : int  182 44 122 198 334 585 990 1355 1951 2720 ...
 $ NaturalCause                                              : int  162 28 45 100 260 500 942 1311 1908 2663 ...
 $ Septicemia..A40.A41.                                      : int  NA NA 0 NA NA NA 20 22 33 28 ...
 $ Malignant.neoplasms..C00.C97.                             : int  NA NA NA 29 96 209 368 382 363 275 ...
 $ Diabetes.mellitus..E10.E14.                               : int  0 NA NA NA NA 40 62 87 95 83 ...
 $ Alzheimer.disease..G30.                                   : int  0 0 0 0 0 NA NA 32 126 374 ...
 $ Influenza.and.pneumonia..J09.J18.                         : int  NA NA 0 NA 11 15 32 40 55 93 ...
 $ Chronic.lower.respiratory.diseases..J40.J47.              : int  0 NA NA NA NA NA 24 43 77 114 ...
 $ Other.diseases.of.respiratory.system..J00.J06.J30.J39.J67.J70.J98.   : int  NA 0 NA NA NA NA 26 38 58 38 ...
 $ Nephritis..nephrotic.syndrome.and.nephrosis..N00.N07.N17.N19.N25.N27.: int  0 0 NA 0 NA 10 21 54 53 44 ...
 $ Diseases.of.heart..I00.I09.I11.I13.I20.I51.               : int  NA 0 NA NA 25 63 146 249 417 745 ...
 $ Cerebrovascular.diseases..I60.I69.                        : int  0 0 NA NA 10 28 35 76 146 240 ...
 $ COVID.19..U071..Multiple.Cause.of.Death.                  : int  0 0 0 0 0 0 0 0 0 0 ...
 $ COVID.19..U071..Underlying.Cause.of.Death.                : int  0 0 0 0 0 0 0 0 0 0 ...
 $ Start.Date                                                : chr  "01/01/2019" "01/01/2019" "01/01/2019" "01/01/2019" ...
 $ End.Date                                                  : chr  "01/31/2019" "01/31/2019" "01/31/2019" "01/31/2019" ...
```

Head () & Tail()

```
> head(df)
  Date.Of.Death.Year Date.Of.Death.Month    Sex Race.Ethnicity    AgeGroup AllCause NaturalCause Septicemia..A40.A41. Malignant.neoplasms..C00.C97.
1               2019                   1 Female       Hispanic   0-4 years      182          162                   NA                          NA
2               2019                   1 Female       Hispanic   5-14 years      44           28                   NA                          NA
3               2019                   1 Female       Hispanic 15-24 years      122           45                    0                          NA
4               2019                   1 Female       Hispanic 25-34 years      198          100                   NA                          29
5               2019                   1 Female       Hispanic 35-44 years      334          260                   NA                          96
6               2019                   1 Female       Hispanic 45-54 years      585          500                   NA                         209
  Diabetes.mellitus..E10.E14. Alzheimer.disease..G30. Influenza.and.pneumonia..J09.J18. Chronic.lower.respiratory.diseases..J40.J47.
1                           0                       0                              NA                                        0
2                          NA                       0                              NA                                       NA
3                          NA                       0                               0                                       NA
4                          NA                       0                              NA                                       NA
5                          NA                       0                              11                                       NA
6                          40                      NA                              15                                       NA
  Other.diseases.of.respiratory.system..J00.J06.J30.J39.J67.J70.J98. Nephritis..nephrotic.syndrome.and.nephrosis..N00.N07.N17.N19.N25.N27.
1                                                                 NA                                                                   0
2                                                                  0                                                                   0
3                                                                 NA                                                                  NA
4                                                                 NA                                                                   0
5                                                                 NA                                                                  NA
6                                                                 NA                                                                  10
  Diseases.of.heart..I00.I09.I11.I13.I20.I51. Cerebrovascular.diseases..I60.I69. COVID.19..U071..Multiple.Cause.of.Death.
1                                          NA                                  0                                       0
2                                           0                                  0                                       0
3                                          NA                                 NA                                       0
4                                          NA                                 NA                                       0
5                                          25                                 10                                       0
6                                          63                                 28                                       0
  COVID.19..U071..Underlying.Cause.of.Death. Start.Date   End.Date
1                                          0 01/01/2019 01/31/2019
2                                          0 01/01/2019 01/31/2019
```

```
> tail(df)
     Date.Of.Death.Year Date.Of.Death.Month  Sex Race.Ethnicity          AgeGroup AllCause NaturalCause Septicemia..A40.A41. Malignant.neoplasms..C00.C97.
2995               2021                   1 Male          Other       35-44 years       70           57                    0                          NA
2996               2021                   1 Male          Other       45-54 years      112          107                    0                          NA
2997               2021                   1 Male          Other       55-64 years      238          235                   NA                          43
2998               2021                   1 Male          Other       65-74 years      271          262                   NA                          44
2999               2021                   1 Male          Other       75-84 years      221          220                   NA                          31
3000               2021                   1 Male          Other 85 years and over      120          120                   NA                          NA
     Diabetes.mellitus..E10.E14. Alzheimer.disease..G30. Influenza.and.pneumonia..J09.J18. Chronic.lower.respiratory.diseases..J40.J47.
2995                          NA                       0                              NA                                       NA
2996                          NA                       0                              NA                                       NA
2997                          10                       0                              NA                                       NA
2998                          NA                      NA                              NA                                       NA
2999                          NA                      NA                              NA                                       NA
3000                          NA                      NA                              NA                                       NA
     Other.diseases.of.respiratory.system..J00.J06.J30.J39.J67.J70.J98. Nephritis..nephrotic.syndrome.and.nephrosis..N00.N07.N17.N19.N25.N27.
2995                                                                  0                                                                   0
2996                                                                 NA                                                                  NA
2997                                                                 NA                                                                   0
2998                                                                  0                                                                  NA
2999                                                                 NA                                                                  13
3000                                                                 NA                                                                  NA
     Diseases.of.heart..I00.I09.I11.I13.I20.I51. Cerebrovascular.diseases..I60.I69. COVID.19..U071..Multiple.Cause.of.Death.
2995                                          NA                                 NA                                      12
2996                                          15                                  0                                      20
2997                                          40                                 NA                                      54
2998                                          48                                 NA                                      85
2999                                          39                                 NA                                      70
3000                                          28                                  0                                      47
     COVID.19..U071..Underlying.Cause.of.Death. Start.Date   End.Date
2995                                         11 01/01/2021 01/31/2021
2996                                         19 01/01/2021 01/31/2021
2997                                         51 01/01/2021 01/31/2021
2998                                         83 01/01/2021 01/31/2021
2999                                         66 01/01/2021 01/31/2021
3000                                         45 01/01/2021 01/31/2021
```

Clean column names

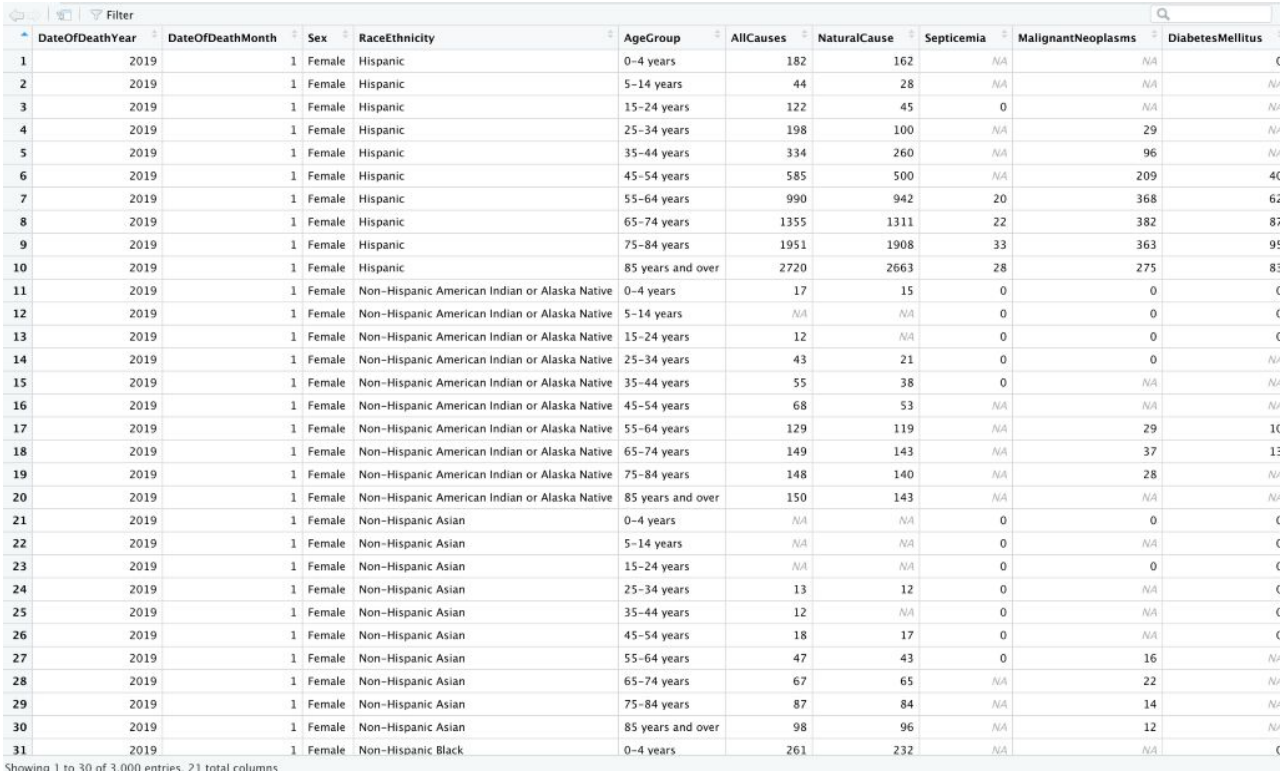
From

```
> colnames(df)
 [1] "DateOfDeathYear"                                  "DateOfDeathMonth"
 [3] "Sex"                                              "RaceEthnicity"
 [5] "AgeGroup"                                         "AllCause"
 [7] "NaturalCause"                                     "SepticemiaA40A41"
 [9] "MalignantneoplasmsC00C97"                         "DiabetesmellitusE10E14"
[11] "AlzheimerdiseaseG30"                              "InfluenzaandpneumoniaJ09J18"
[13] "ChroniclowerrespiratorydiseasesJ40J47"            "OtherdiseasesofrespiratorysystemJ00J06J30J39J67J70J98"
[15] "NephritisnephroticsyndromeandnephrosisN00N07N17N19N25N27" "DiseasesofheartI00I09I11I13I20I51"
[17] "CerebrovasculardiseasesI60I69"                    "COVID19U071MultipleCauseofDeath"
[19] "COVID19U071UnderlyingCauseofDeath"                "StartDate"
[21] "EndDate"
```

To

```
> colnames(df) <- gsub("\\.","",colnames(df))
> #Changing the names of the cloumns
> names(df)[names(df) == "AllCause"] <- "AllCauses"
> names(df)[names(df) == "SepticemiaA40A41"] <- "Septicemia"
> names(df)[names(df) == "MalignantneoplasmsC00C97"] <- "MalignantNeoplasms"
> names(df)[names(df) == "DiabetesmellitusE10E14"] <- "DiabetesMellitus"
> names(df)[names(df) == "AlzheimerdiseaseG30"   ] <- "AlzheimerDisease"
> names(df)[names(df) == "InfluenzaandpneumoniaJ09J18"] <- "Influenza&Pneumonia"
> names(df)[names(df) == "ChroniclowerrespiratorydiseasesJ40J47" ] <- "ChronicLowerRespiratoryDiseases"
> names(df)[names(df) == "OtherdiseasesofrespiratorysystemJ00J06J30J39J67J70J98" ] <- "OtherDiseasesofRespiratorySystem"
> names(df)[names(df) =="NephritisnephroticsyndromeandnephrosisN00N07N17N19N25N27"] <- "NephritisNephroticSyndromeAndNephrosis"
> names(df)[names(df) =="DiseasesofheartI00I09I11I13I20I51"] <- "HeartDiseases"
> names(df)[names(df) =="CerebrovasculardiseasesI60I69" ] <- "CerebrovascularDiseases"
> names(df)[names(df) =="COVID19U071UnderlyingCauseofDeath"] <- "COVID19UnderlyingCauseofDeath"
> names(df)[names(df) =="COVID19U071MultipleCauseofDeath"] <- "COVID19MultipleCausesofDeath"
> colnames(df)
 [1] "DateOfDeathYear"                  "DateOfDeathMonth"                 "Sex"
 [4] "RaceEthnicity"                    "AgeGroup"                         "AllCauses"
 [7] "NaturalCause"                     "Septicemia"                       "MalignantNeoplasms"
[10] "DiabetesMellitus"                 "AlzheimerDisease"                 "Influenza&Pneumonia"
[13] "ChronicLowerRespiratoryDiseases"  "OtherDiseasesofRespiratorySystem" "NephritisNephroticSyndromeAndNephrosis"
[16] "HeartDiseases"                    "CerebrovascularDiseases"          "COVID19MultipleCausesofDeath"
[19] "COVID19UnderlyingCauseofDeath"    "StartDate"                        "EndDate"
```

View df



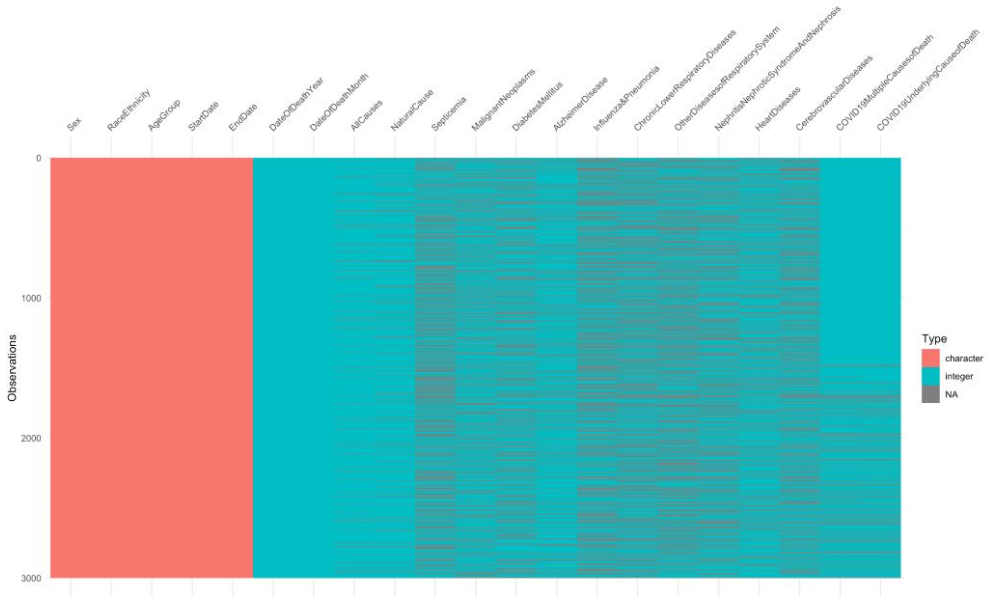
Filter

	DateOfDeathYear	DateOfDeathMonth	Sex	RaceEthnicity	AgeGroup	AllCauses	NaturalCause	Septicemia	MalignantNeoplasms	DiabetesMellitus
1	2019	1	Female	Hispanic	0–4 years	182	162	NA	NA	0
2	2019	1	Female	Hispanic	5–14 years	44	28	NA	NA	NA
3	2019	1	Female	Hispanic	15–24 years	122	45	0	NA	NA
4	2019	1	Female	Hispanic	25–34 years	198	100	NA	29	NA
5	2019	1	Female	Hispanic	35–44 years	334	260	NA	96	NA
6	2019	1	Female	Hispanic	45–54 years	585	500	NA	209	40
7	2019	1	Female	Hispanic	55–64 years	990	942	20	368	62
8	2019	1	Female	Hispanic	65–74 years	1355	1311	22	382	87
9	2019	1	Female	Hispanic	75–84 years	1951	1908	33	363	95
10	2019	1	Female	Hispanic	85 years and over	2720	2663	28	275	83
11	2019	1	Female	Non-Hispanic American Indian or Alaska Native	0–4 years	17	15	0	0	0
12	2019	1	Female	Non-Hispanic American Indian or Alaska Native	5–14 years	NA	NA	0	0	0
13	2019	1	Female	Non-Hispanic American Indian or Alaska Native	15–24 years	12	NA	0	0	0
14	2019	1	Female	Non-Hispanic American Indian or Alaska Native	25–34 years	43	21	0	0	NA
15	2019	1	Female	Non-Hispanic American Indian or Alaska Native	35–44 years	55	38	0	NA	NA
16	2019	1	Female	Non-Hispanic American Indian or Alaska Native	45–54 years	68	53	NA	NA	NA
17	2019	1	Female	Non-Hispanic American Indian or Alaska Native	55–64 years	129	119	NA	29	10
18	2019	1	Female	Non-Hispanic American Indian or Alaska Native	65–74 years	149	143	NA	37	13
19	2019	1	Female	Non-Hispanic American Indian or Alaska Native	75–84 years	148	140	NA	28	NA
20	2019	1	Female	Non-Hispanic American Indian or Alaska Native	85 years and over	150	143	NA	NA	NA
21	2019	1	Female	Non-Hispanic Asian	0–4 years	NA	NA	0	0	0
22	2019	1	Female	Non-Hispanic Asian	5–14 years	NA	NA	0	NA	0
23	2019	1	Female	Non-Hispanic Asian	15–24 years	NA	NA	0	0	0
24	2019	1	Female	Non-Hispanic Asian	25–34 years	13	12	0	NA	0
25	2019	1	Female	Non-Hispanic Asian	35–44 years	12	NA	0	NA	0
26	2019	1	Female	Non-Hispanic Asian	45–54 years	18	17	0	NA	0
27	2019	1	Female	Non-Hispanic Asian	55–64 years	47	43	0	16	NA
28	2019	1	Female	Non-Hispanic Asian	65–74 years	67	65	NA	22	NA
29	2019	1	Female	Non-Hispanic Asian	75–84 years	87	84	NA	14	NA
30	2019	1	Female	Non-Hispanic Asian	85 years and over	98	96	NA	12	NA
31	2019	1	Female	Non-Hispanic Black	0–4 years	261	232	NA	NA	0

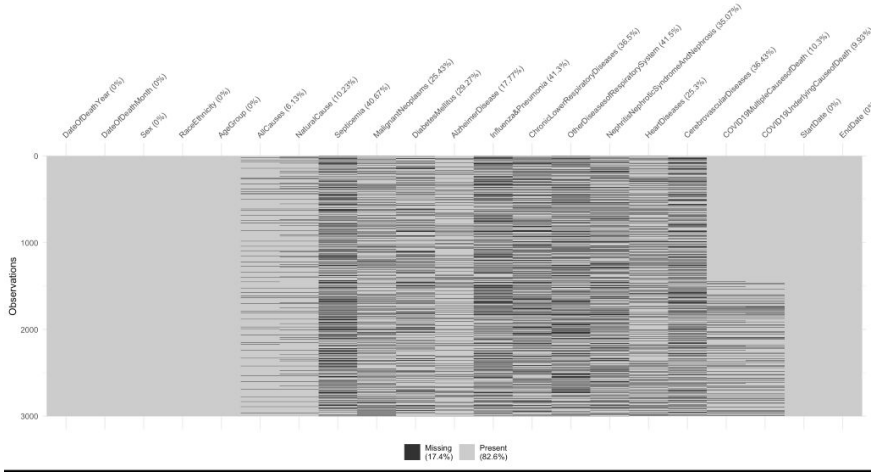
Showing 1 to 30 of 3,000 entries, 21 total columns

Handle NA values

> vis_dat(df)

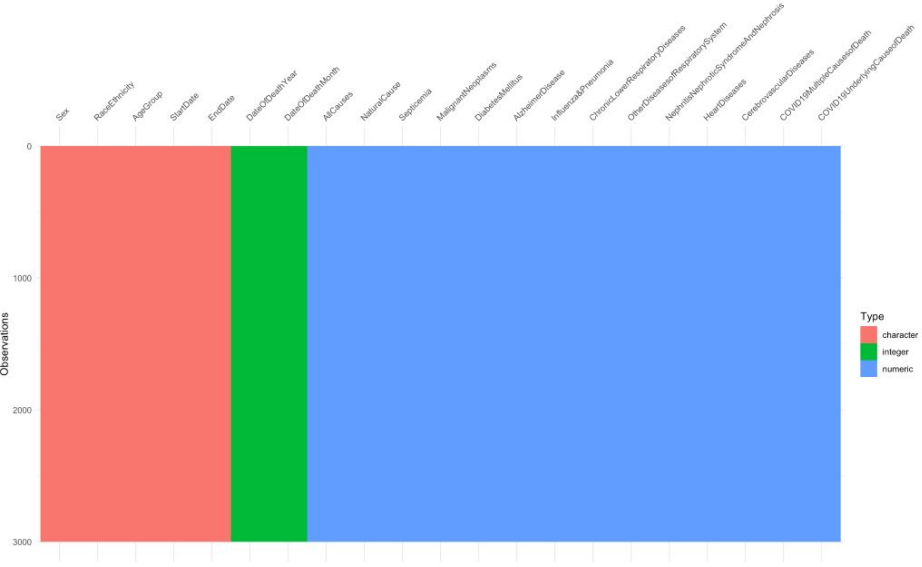


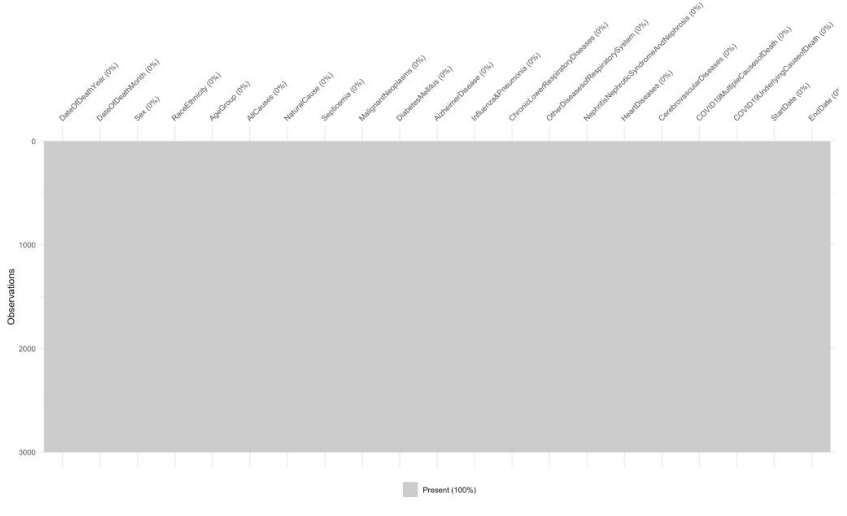
>vis_miss(df)



Replace the NA with 0

```
> sum(is.na(df))
10975
> df[is.na(df)] = 0
> sum(is.na(df))
0
```

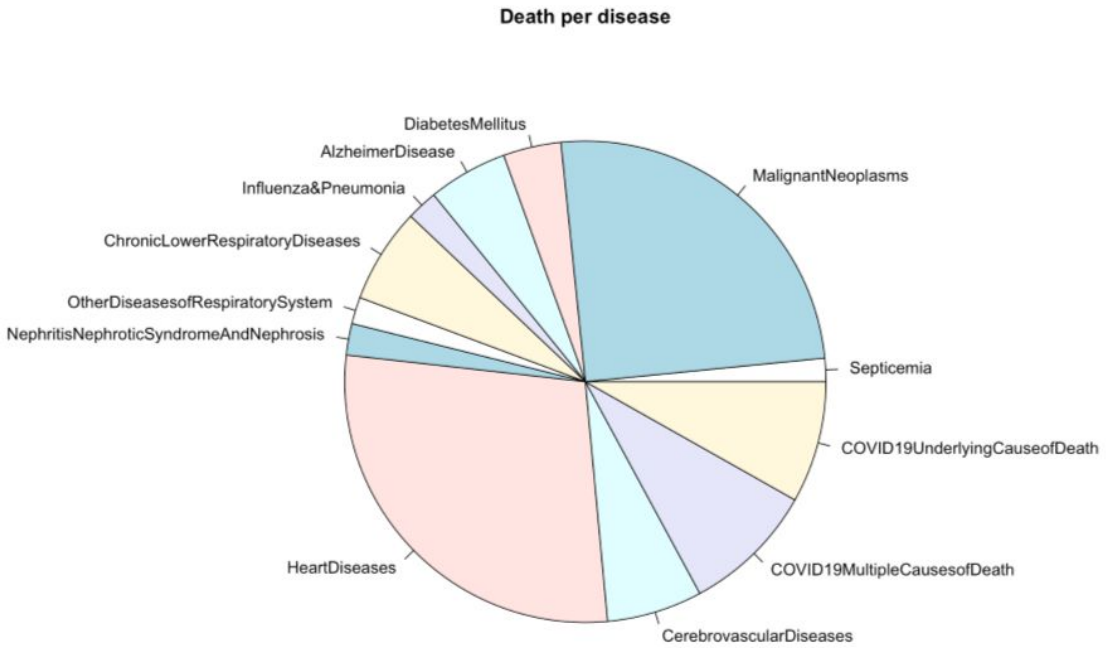




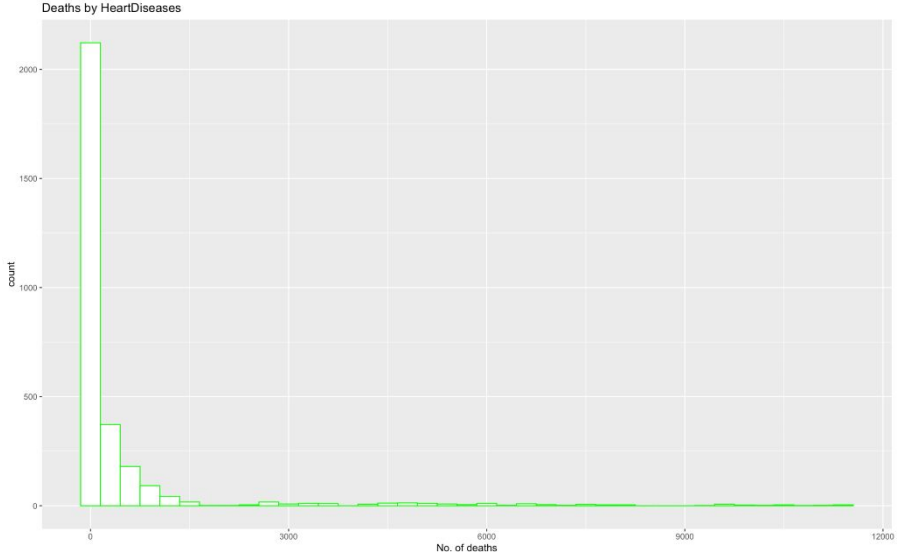
Equally distributed values

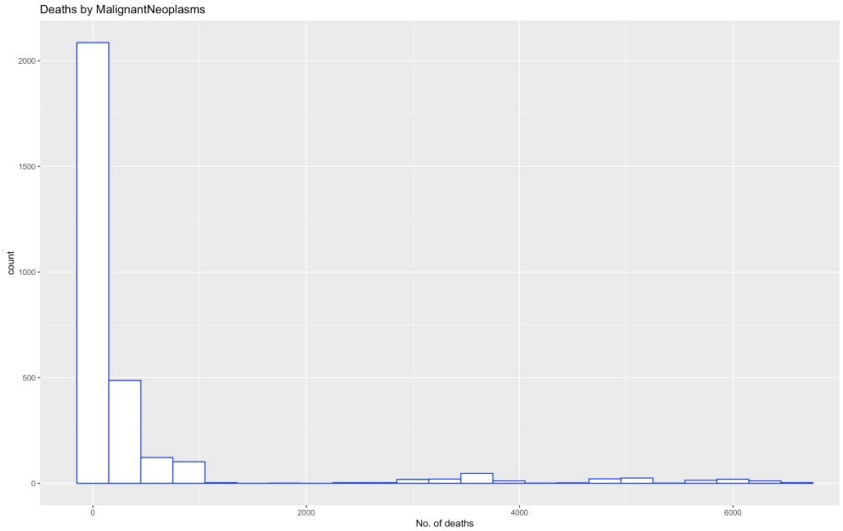
```
> count(df, df$Sex)
  df$Sex    n
1 Female 1500
2   Male 1500
> count(df,df$AgeGroup)
         df$AgeGroup   n
1          0-4 years 300
2        15-24 years 300
3        25-34 years 300
4        35-44 years 300
5        45-54 years 300
6         5-14 years 300
7        55-64 years 300
8        65-74 years 300
9        75-84 years 300
10 85 years and over 300
> count(df,df$RaceEthnicity)
                               df$RaceEthnicity   n
1                                      Hispanic 500
2 Non-Hispanic American Indian or Alaska Native 500
3                           Non-Hispanic Asian 500
4                           Non-Hispanic Black 500
5                           Non-Hispanic White 500
6                                         Other 500
>
```

Pie Chart to see which disease caused more deaths



Heart Diseases and Malignant Neoplasms caused more deaths





Heart diseases > 11000

Malignant Neoplasms > 6500

Finding highest deaths in Sex,Race and Age group Due to Heart Disease

```
> #Finding Sex,Age group and Ethnicity at highest HeartDisease
> hd_sex<-tapply(df$HeartDiseases,df$Sex, max)
> hd_race<-tapply(df$HeartDiseases, df$RaceEthnicity, max)
> hd_age<-tapply(df$HeartDiseases,df$AgeGroup, max)
> View(sort(hd_sex,decreasing = TRUE))
> View(sort(hd_race,decreasing = TRUE))
> View(sort(hd_age, decreasing = TRUE))
```

.. cont

sort(hd_sex, decreasin…	double [2]	11502 8236
Female	double [1]	11502
Male	double [1]	8236

Name	Type	Value
sort(hd_race, decreasi…	double [6]	11502 1477 978 462 407 52
Non-Hispanic White	double [1]	11502
Non-Hispanic Black	double [1]	1477
Hispanic	double [1]	978
Non-Hispanic Asian	double [1]	462
Other	double [1]	407
Non-Hispanic Ameri…	double [1]	52

Name	Type	Value
sort(hd_age, decreasin…	double [10]	11502 6703 5538 3640 1277 420 …
85 years and over	double [1]	11502
75-84 years	double [1]	6703
65-74 years	double [1]	5538
55-64 years	double [1]	3640
45-54 years	double [1]	1277
35-44 years	double [1]	420
25-34 years	double [1]	128
15-24 years	double [1]	34
0-4 years	double [1]	14
5-14 years	double [1]	0

Finding highest deaths in Sex,Race and Age group Due to Malignant Neoplasms

```
> ##Finding Sex,Age group and Ethnicity at highest MalignantNeoplasms
> mn_sex<-tapply(df$MalignantNeoplasms,df$Sex, max)
> mn_race<-tapply(df$MalignantNeoplasms, df$RaceEthnicity, max)
> mn_age<-tapply(df$MalignantNeoplasms,df$AgeGroup, max)
> View(sort(mn_sex,decreasing = TRUE))
> View(sort(mn_race,decreasing = TRUE))
> View(sort(mn_age, decreasing = TRUE))
```

.. cont

Name	Type	Value
sort(mn_sex, decreasi...	double [2]	6498 5217
Male	double [1]	6498
Female	double [1]	5217

Name	Type	Value
sort(mn_race, decreasi...	double [6]	6498 1074 593 252 232 56
Non-Hispanic White	double [1]	6498
Non-Hispanic Black	double [1]	1074
Hispanic	double [1]	593
Other	double [1]	252
Non-Hispanic Asian	double [1]	232
Non-Hispanic Ameri...	double [1]	56

Name	Type	Value
sort(mn_age, decreasi...	double [10]	6498 6208 3896 3873 1057 320 ...
65-74 years	double [1]	6498
75-84 years	double [1]	6208
85 years and over	double [1]	3896
55-64 years	double [1]	3873
45-54 years	double [1]	1057
35-44 years	double [1]	320
25-34 years	double [1]	104
15-24 years	double [1]	45
5-14 years	double [1]	25
0-4 years	double [1]	16


ANY
QUESTIONS?