EpiCovDA - Red/Green Table Simplified

Updated 04/02/21 , HRB

Updated 04/11/21 , Scores include Puerto Rico, make table per 100,000, and include US scores

```
attachPop <- function(forecast_df){
  forecast_df$population <- NA

  for (loc in unique(forecast_df$location)){
    if (loc == "US"){
      temp_pop <- as.numeric(read.csv("../state_hosp_data_2020-11-16/state_popUS.csv"))
      forecast_df[which(forecast_df$location=="US"),"population"] <- temp_pop
    } else {

          temp_pop <- as.numeric(read.csv(sprintf("../state_hosp_data_2020-11-16/state_pop%s.csv",
                                                  loc)))
      forecast_df[which(forecast_df$location==loc),"population"] <- temp_pop
    }


  }
  return(forecast_df)
}
```

```
JHU_EpiCovDA = attachPop(JHU_EpiCovDA)
COVIDtracker_COVIDhub_ensemble = attachPop(COVIDtracker_COVIDhub_ensemble)
JHU_COVIDhub_ensemble = attachPop(JHU_COVIDhub_ensemble)
COVIDtracker_EpiCovDA = attachPop(COVIDtracker_EpiCovDA )
JHU_alignonly = attachPop(JHU_alignonly)
```

```
median_abs_pop_temp <- function(df,val,tar = c("1 wk ahead cum death", "2 wk ahead cum death",
                                        "3 wk ahead cum death","4 wk ahead cum death")){

  print(droplevels(subset(df,target %in% tar,select=val)))

  return(median(abs(df[df$target %in% tar,val])/df[df$target %in% tar,"population"]*10^5))

}
```

```
kable(point_scores_comparison[c(1:2,5:12),], booktabs=TRUE,longtable=FALSE, row.names = FALSE,
      caption = "Comparison of point forecasts generated with different data sources.",
      digits = c(0,2,2,2,2,2),
      align = "lccccc") %>%
  kable_styling(full_width = TRUE,latex_options = "repeat_header") %>%
  add_header_above(c(" " = 1, "Model with Data Source" = 5))
```

Table 1: Comparison of point forecasts generated with different data sources.

Statistic	Model with Data Source				
	EpiCovDA - CTP	EpiCovDA - JHU	EpiCovDA - JHU for alignment only	COVIDhub Ensemble - as published	COVIDhub Ensemble - CTP for alignment
MAE, overall	1.38	1.58	1.46	1.07	1.12
MedAE, overall	0.62	0.67	0.64	0.52	0.51
MAE, 1 wk	0.42	0.50	0.45	0.46	0.59
MedAE, 1 wk	0.23	0.24	0.24	0.24	0.25
MAE, 2 wk	0.86	1.02	0.92	0.82	0.90
MedAE, 2 wk	0.52	0.52	0.52	0.46	0.45
MAE, 3 wk	1.54	1.78	1.65	1.25	1.28
MedAE, 3 wk	0.90	0.96	0.94	0.69	0.68
MAE, 4 wk	2.70	3.01	2.82	1.74	1.73
MedAE, 4 wk	1.55	1.63	1.62	0.92	0.91