Weight regression

Noah Siegel

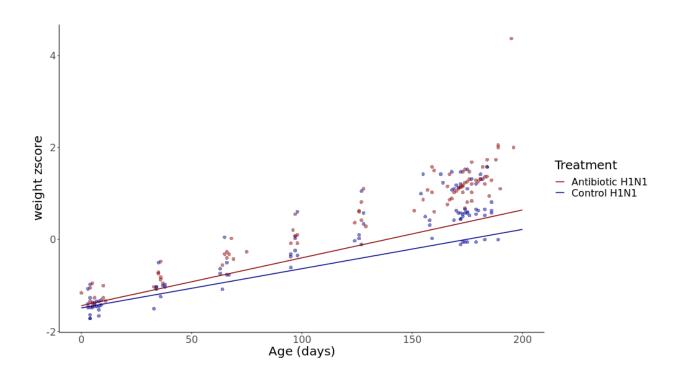
17 January, 2023, 22:11

```
suppressPackageStartupMessages({
   library(plyr)
   library(tidyverse)
   library(sjPlot)
   library(lmerTest)
   library(readxl)
   library(xlsx)
   library(kableExtra)
})
```

H1N1 Control vs. Antibiotic

Weight Z-scores

 ${\bf Residual\ plot}$



	Sum Sq	Mean Sq	NumDF	DenDF	F value	Pr(>F)
Sex	0.00562	0.00562	1	14.73324	0.08609	0.77330
Treatment	0.00447	0.00447	1	14.74726	0.06849	0.79717
age_days	46.60555	46.60555	1	172.92029	713.60926	0.00000
$Sex:age_days$	1.19665	1.19665	1	173.01347	18.32265	0.00003
Treatment:age_days	0.67218	0.67218	1	173.38219	10.29213	0.00159
Sex:Treatment	NA	NA	NA	NA	NA	NA
Sex:Treatment:age_days	NA	NA	NA	NA	NA	NA

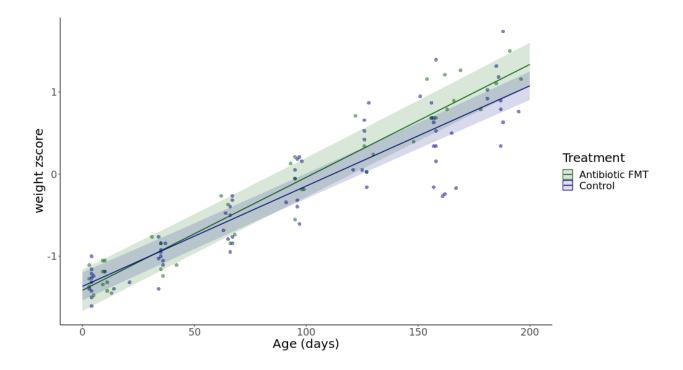
	Sum Sq	Mean Sq	NumDF	DenDF	F value	Pr(>F)
Treatment	0.00440	0.00440	1	15.58122	0.09585	0.76097
age_days	74.25687	74.25687	1	102.37236	1618.20654	0.00000
Treatment:age_days	0.26206	0.26206	1	102.37236	5.71082	0.01869

Model table

FMT vs. Antibiotic

Weight Z-scores

Residual plot



Model table

Session Information

```
## R version 3.6.3 (2020-02-29)
## Platform: x86 64-conda-linux-gnu (64-bit)
## Running under: Ubuntu 18.04.6 LTS
## Matrix products: default
## BLAS/LAPACK: /srv/conda/envs/notebook/lib/libopenblasp-r0.3.21.so
##
## locale:
##
  [1] LC CTYPE=en US.UTF-8
                                      LC NUMERIC=C
   [3] LC_TIME=en_US.UTF-8
                                      LC_COLLATE=en_US.UTF-8
   [5] LC_MONETARY=en_US.UTF-8
                                      LC_MESSAGES=en_US.UTF-8
##
   [7] LC_PAPER=en_US.UTF-8
                                      LC_NAME=en_US.UTF-8
  [9] LC ADDRESS=en US.UTF-8
                                      LC_TELEPHONE=en_US.UTF-8
## [11] LC_MEASUREMENT=en_US.UTF-8
                                      LC_IDENTIFICATION=en_US.UTF-8
## attached base packages:
## [1] stats
                 graphics grDevices utils
                                                datasets methods
                                                                    base
##
## other attached packages:
## [1] kableExtra 1.3.4 xlsx 0.6.5
                                           readxl_1.3.1
                                                            lmerTest_3.1-3
## [5] lme4 1.1-27
                         Matrix 1.3-3
                                           siPlot 2.8.8
                                                            forcats 0.5.1
## [9] stringr_1.4.0
                         dplyr_1.0.6
                                           purrr_0.3.4
                                                            readr_1.4.0
## [13] tidyr_1.1.3
                         tibble_3.1.2
                                           ggplot2_3.3.3
                                                            tidyverse_1.3.1
## [17] plyr_1.8.6
## loaded via a namespace (and not attached):
## [1] nlme_3.1-152
                            fs_1.5.0
                                                 lubridate_1.7.10
## [4] webshot_0.5.2
                            insight_0.14.0
                                                 httr_1.4.2
## [7] numDeriv_2016.8-1.1 tools_3.6.3
                                                 backports_1.2.1
## [10] utf8_1.2.1
                            R6_2.5.0
                                                 sjlabelled_1.1.8
## [13] DBI_1.1.1
                            colorspace_2.0-1
                                                 withr_2.5.0
## [16] tidyselect_1.1.1
                            emmeans_1.6.0
                                                 compiler_3.6.3
## [19] performance_0.7.2
                            cli_3.6.0
                                                 rvest_1.0.0
## [22] xml2_1.3.2
                            labeling_0.4.2
                                                 bayestestR_0.9.0
                            mvtnorm_1.1-1
## [25] scales_1.1.1
                                                 systemfonts_1.0.2
## [28] digest 0.6.27
                            minga 1.2.4
                                                 rmarkdown 2.19
                                                 htmltools_0.5.4
## [31] svglite_2.0.0
                            pkgconfig_2.0.3
## [34] dbplyr 2.1.1
                            fastmap 1.1.0
                                                 rlang 1.0.6
## [37] rstudioapi_0.13
                                                 generics_0.1.0
                            farver_2.1.0
                            magrittr_2.0.1
## [40] jsonlite_1.7.2
                                                 parameters_0.13.0
## [43] Rcpp_1.0.9
                            munsell_0.5.0
                                                 fansi_0.4.2
## [46] lifecycle 1.0.0
                            stringi_1.6.2
                                                 yaml 2.2.1
                                                 grid_3.6.3
## [49] snakecase 0.11.0
                            MASS_7.3-54
## [52] sjmisc_2.8.7
                            crayon_1.4.1
                                                 lattice_0.20-44
## [55] ggeffects_1.1.0
                            haven_2.4.1
                                                 splines_3.6.3
## [58] xlsxjars_0.6.1
                            sjstats_0.18.1
                                                 hms_1.1.0
## [61] knitr_1.33
                            pillar_1.6.1
                                                 boot_1.3-28
## [64] estimability_1.3
                            effectsize_0.4.4-1
                                                 reprex_2.0.0
## [67] glue_1.4.2
                            evaluate_0.14
                                                 modelr_0.1.8
## [70] vctrs_0.3.8
                            nloptr_1.2.2.2
                                                 cellranger_1.1.0
```

[73] gtable_0.3.0 assertthat_0.2.1 xfun_0.36
[76] xtable_1.8-4 broom_0.7.6 viridisLite_0.4.0
[79] rJava_1.0-4 tinytex_0.31 ellipsis_0.3.2