

# Package ‘PSS.Health’

December 20, 2024

**Type** Package

**Title** Power and Sample Size for Health Researchers via Shiny

**Depends** R (>= 4.1.0)

**Version** 1.1.4

**Date** 2024-12-20

**Language** pt

## Description

Power and Sample Size for Health Researchers is a Shiny application that brings together a series of functions related to sample size and power calculations for common analysis in the healthcare field. There are functionalities to calculate the power, sample size to estimate or test hypotheses for means and proportions (including test for correlated groups, equivalence, non-inferiority and superiority), association, correlations coefficients, regression coefficients (linear, logistic, gamma, and Cox), linear mixed model, Cronbach's alpha, interobserver agreement, intraclass correlation coefficients, limit of agreement on Bland-Altman plots, area under the curve, sensitivity and specificity incorporating the prevalence of disease. You can also use the online version at <[https://hcpa-unidade-bioestatistica.shinyapps.io/PSS\\_Health/](https://hcpa-unidade-bioestatistica.shinyapps.io/PSS_Health/)>.

**URL** [https://hcpa-unidade-bioestatistica.shinyapps.io/PSS\\_Health/](https://hcpa-unidade-bioestatistica.shinyapps.io/PSS_Health/)

**Imports** dplyr, DT, easypower, EnvStats, epiR, ggplot2, ICC.Sample.Size, kappaSize, longpower, plotly, powerMediation, powerSurvEpi, presize, pROC, pwr, pwr2, shiny, shinycssloaders, shinyFeedback, shinyhelper, writexl

**License** GPL (>= 2)

**Encoding** UTF-8

**Contact** 'mailto:psshealth@hcpa.edu.br'

**Suggests** rmarkdown, knitr, MESS, WebPower

**RoxygenNote** 7.3.2

**VignetteBuilder** knitr

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PSS\_Health

*This function will start the Shiny application***Description**

Run locally an interactive Shiny application for Power and Sample Size determination.

**Usage**

PSS\_Health()

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**See Also**

Borges, R., Mancuso, A., Camey, S., Leotti, V., Hirakata, V., Azambuja, G., & Castro, S. (2021). Power and Sample Size for Health Researchers: uma ferramenta para cálculo de tamanho amostral e poder do teste voltado a pesquisadores da área da saúde. *Clinical & Biomedical Research*, 40(4). Retrieved from <https://seer.ufrgs.br/hcpa/article/view/109542>

Castro, S. M. de J., Branco, A. C., Camey, S. A., Leotti, V. B., Hirakata, V. N., & Borges, R. B. (2021). PSS Health: como calcular tamanho de amostra para estimar média, proporção e correlação. *Clinical and Biomedical Research*, 41(3). Retrieved from de <https://seer.ufrgs.br/index.php/hcpa/article/view/112466>

Hirakata, V. N., Mancuso, A. C. B., Castro, S. M. de J., Camey, S. A., Leotti, V. B., & Borges, R. B. (2022). PSS Health: como calcular tamanho de amostra para testes de comparação de médias de dois grupos. *Clinical and Biomedical Research*, 42(2). Retrieved from de <https://seer.ufrgs.br/index.php/hcpa/article/view/120997>

Leotti, V. B., Castro, S. M. de J., Mancuso, A. C. B., S. A. & Borges, Hirakata, V. N., Camey, R. B. (2023). PSS Health: como calcular tamanho de amostra para testar relações de variáveis com um desfecho binário. *Clinical and Biomedical Research*, 42(4). Retrieved from de <https://seer.ufrgs.br/index.php/hcpa/article/view/126843>

### Examples

```
if(interactive()){  
  PSS_Health()  
}
```

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