# Medical Screening Tests App: Documentation

# About This Document

- This document accompanies the Medical Screening Tests App.

- This document is hosted at GutHub.

- This document must be saved as a .PDF file to be readable at Github.

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# ScreeningTest

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# Course: CCSU Stat 476. Spring 2021.

# Author: Tim Brockway. Student ID: 30259316 Email: BrockwayTim@My.CCSU.edu

# Professor: Roger L. Bilisoly

# bilisolyr@ccsu.edu https://www2.ccsu.edu/faculty/bilisolyr

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# ScreeningTest: PROGRAM PURPOSE.

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# Medical screening tests vaunting very high "general accuracy" can give

# staggering levels of false results when the prevalence of a disease is low.

# This program explores the effect the prevalence of an infection in a

# population on the usefulness of screening tests. The goal is to

# demonstrate that screening tests are complex and less reliable

# than commonly supposed.

#

# Inputs:

# A GUI invites the user to enter the following medical test statistics.

# Population:

# Test Sensitivity:

# Test Specificity:

# Start of Prevalence Range.

# End of Prevalence Range:

# Prevalence of Interest:

# CheckBoxes allowing the plotting of different statistics.

#

# Outputs:

# (1) A plot with:

# x axis. A range of disease prevalences.

# y axis:

# Positive Predictive Value.

# Negative Predictive Value.

# False Positives (NPV)

# False Negatives (NPV)

# General Accuracy (A somewhat misleading item !)

# Prevalence of Interest (Vertical line).

# (2) A Matplotlib menu permitting saving the plot, zooming etc.

# (3) A CSV file with the plot data.(Optional)

# (4) A print of the plot data. (Optional)

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