

# CODECHECK certificate 2020-009

<http://doi.org/10.5281/zenodo.3767060>



Item	Value
Title	Model of isolation, contact tracing, and physical distancing
Authors	Adam Kucharski, COVID modelling group
Reference	Preprint <a href="https://cmmid.github.io/topics/covid19/reports/bbc_contact_tracing.pdf">https://cmmid.github.io/topics/covid19/reports/bbc_contact_tracing.pdf</a>
Codechecker	Stephen J. Eglen
Date of check	2020-04-26 20:00:00
Summary	R code and packages worked well; simple edits needed to working directory.
Repository	<a href="https://github.com/codecheckers/2020-cov-tracing">https://github.com/codecheckers/2020-cov-tracing</a>

**Table 1: CODECHECK summary**

output	comment	size
outputs/plot1.png	manuscript Figure 1 (panels A and B)	171350
outputs/plot2.png	manuscript Figure 2	122359
outputs/rr_supp_plot.png	manuscript Figure S1	64055
outputs/plot_symp.png	manuscript Figure S2	96205

**Table 2: Summary of output files generated**

## Summary

This code was straightforward to codecheck; no issues were found.

## CODECHECKER notes

The github repo <https://github.com/adamkucharski/2020-cov-tracing> was cloned. The code was written in R and contained everything. A new file `install.R` was created to install the necessary packages.

```
install.packages("dplyr")
install.packages("tibble")
install.packages("readr")
install.packages("magrittr")
install.packages("igraph")
install.packages("doMC")
```

The outputs were found in the `outputs` folder, so this was moved to `outputs-safe` and the R script edited to create a new `outputs` folder.

The startup folder was changed to comment out the line:

```
##setwd("~/Documents/GitHub/2020-cov-tracing/")
```

## Running the software to regenerate outputs.

The program was run from the root directory using:

```
R
R> source("scripts/contact_model.R")
```

This took almost 9 minutes to complete on a Thinkpad laptop.

I would have preferred to run the script using the following:

```
Rscript scripts/contact_model.R
```

but this didn't generate the output images as `dev.copy()` does not work in batch mode.

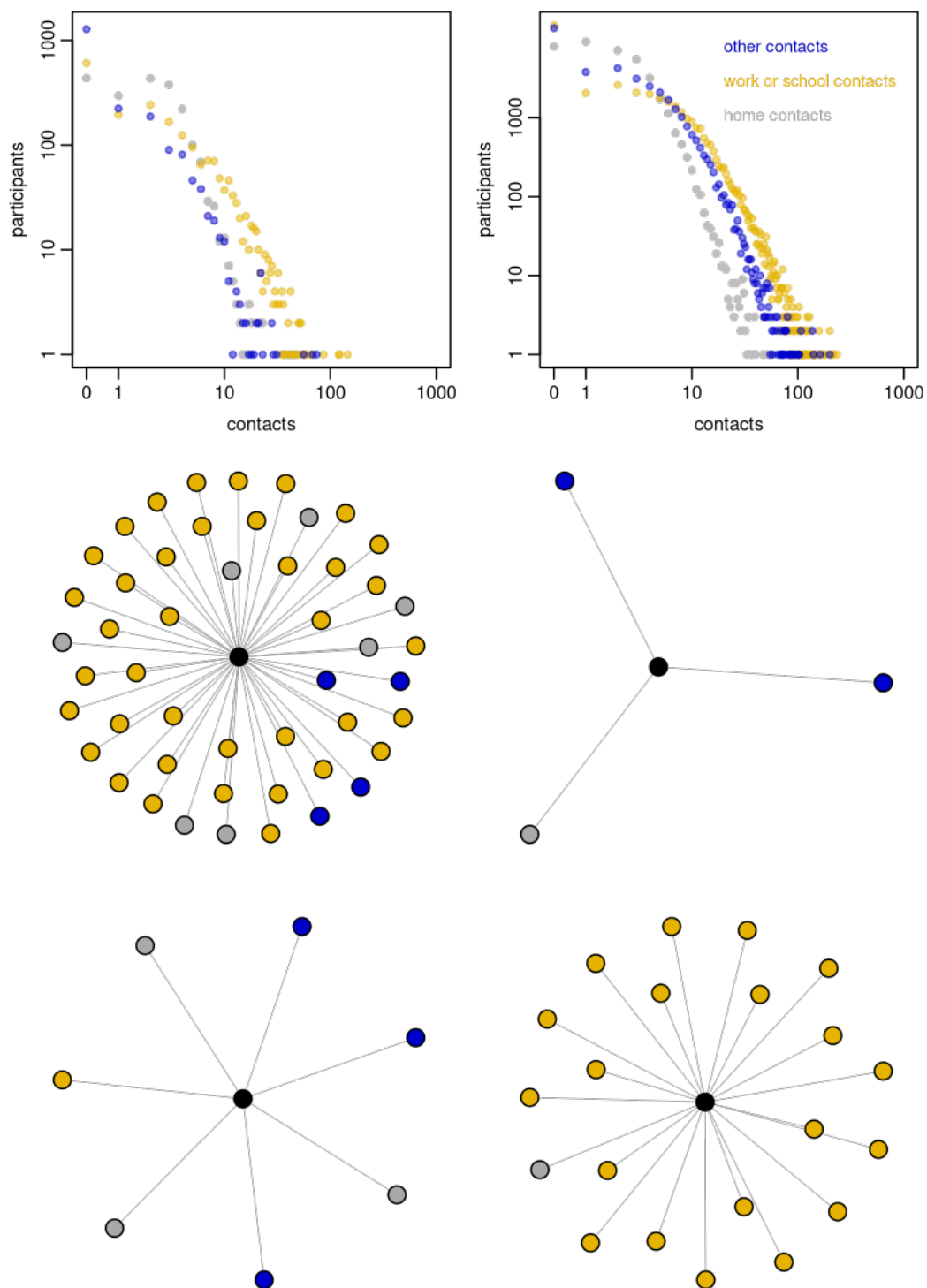


Figure C1: manuscript Figure 1 (panels A and B)

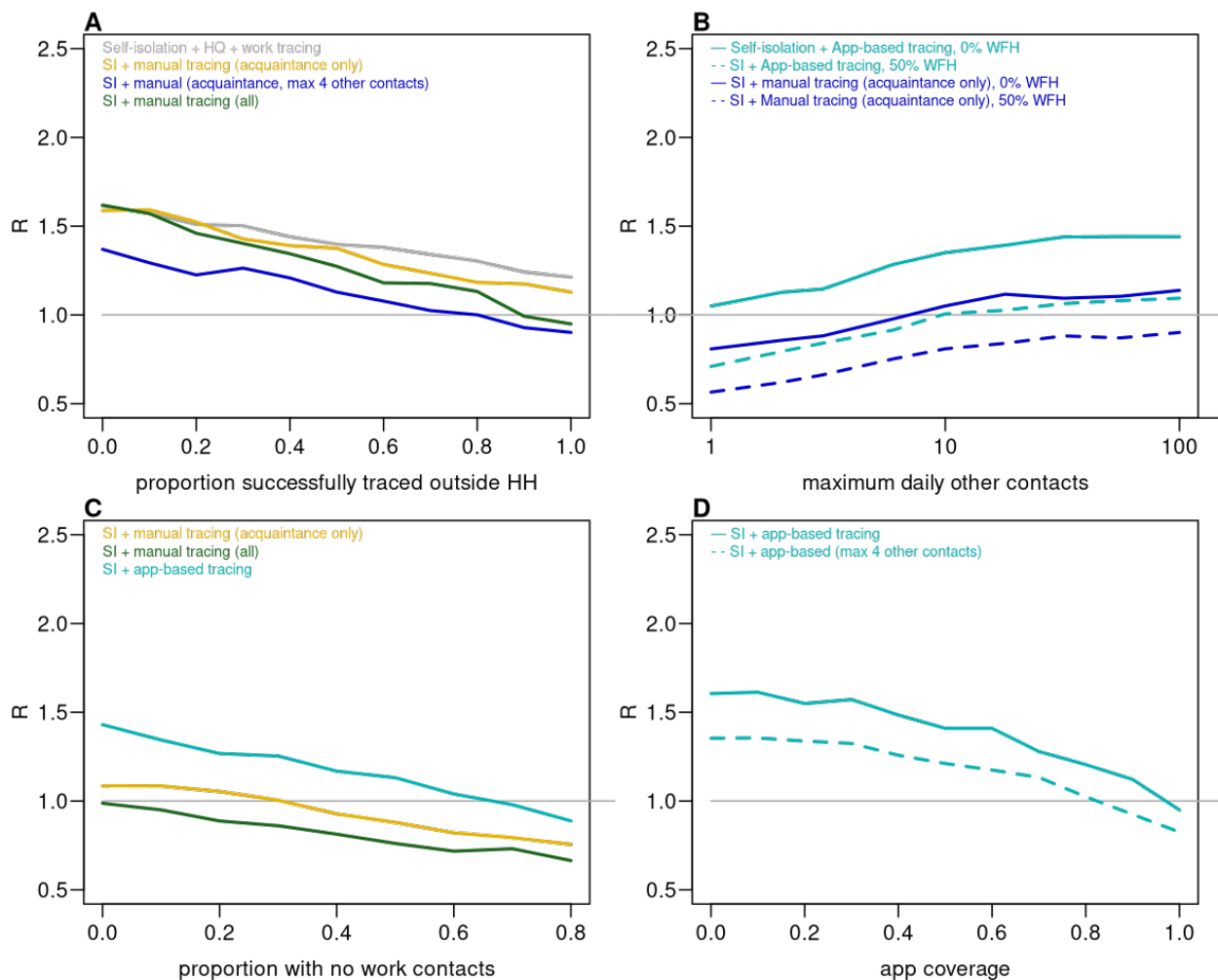


Figure C2: manuscript Figure 2

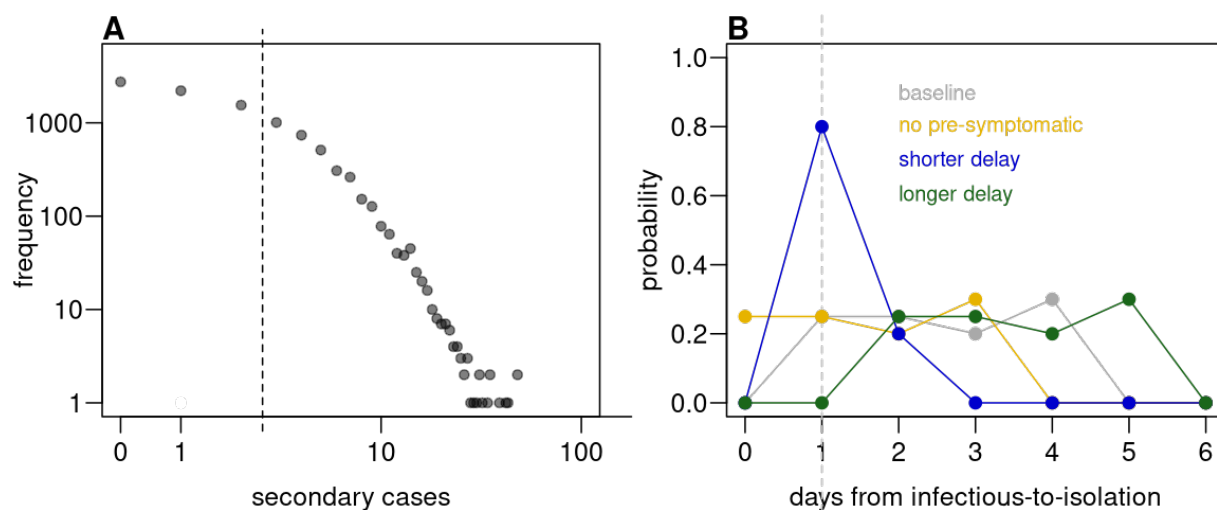
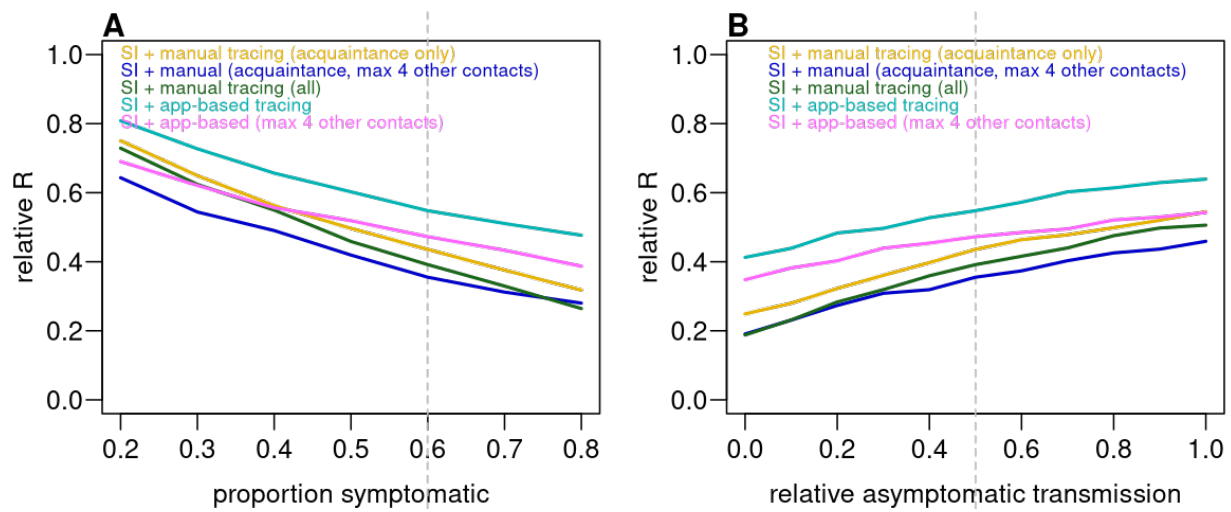


Figure C3: manuscript Figure S1



**Figure C4: manuscript Figure S2**

## About this document

This document was created using Rmarkdown. make `codecheck.pdf` will regenerate the file.

```
sessionInfo()
```

```
## R version 4.0.0 (2020-04-24)
## Platform: x86_64-pc-linux-gnu (64-bit)
## Running under: Manjaro Linux
##
## Matrix products: default
## BLAS: /usr/lib/libopenblas-r0.3.9.so
## LAPACK: /usr/lib/liblapack.so.3.9.0
##
## locale:
##  [1] LC_CTYPE=en_GB.UTF-8      LC_NUMERIC=C
##  [3] LC_TIME=en_GB.UTF-8      LC_COLLATE=en_GB.UTF-8
##  [5] LC_MONETARY=en_GB.UTF-8  LC_MESSAGES=en_GB.UTF-8
##  [7] LC_PAPER=en_GB.UTF-8     LC_NAME=C
##  [9] LC_ADDRESS=C             LC_TELEPHONE=C
## [11] LC_MEASUREMENT=en_GB.UTF-8 LC_IDENTIFICATION=C
##
## attached base packages:
## [1] stats      graphics  grDevices  utils      datasets
## [6] methods    base
##
## other attached packages:
## [1] readr_1.3.1      tibble_3.0.1
## [3] rprojroot_1.3-2  knitr_1.28
## [5] codecheck_0.0.0.9000 stringr_1.4.0
## [7] yaml_2.2.1       xtable_1.8-4
## [9] zen4R_0.3-1
##
## loaded via a namespace (and not attached):
##  [1] Rcpp_1.0.4.6      xml2_1.3.2        magrittr_1.5
##  [4] hms_0.5.3         rvest_0.3.5       R6_2.4.1
##  [7] rlang_0.4.5       highr_0.8         httr_1.4.1
## [10] tools_4.0.0       xfun_0.13         htmltools_0.4.0
## [13] ellipsis_0.3.0    digest_0.6.25     lifecycle_0.2.0
## [16] crayon_1.3.4      vctrs_0.2.4       evaluate_0.14
## [19] rmarkdown_2.1     stringi_1.4.6     compiler_4.0.0
## [22] pillar_1.4.3      backports_1.1.6   jsonlite_1.6.1
## [25] pkgconfig_2.0.3
```