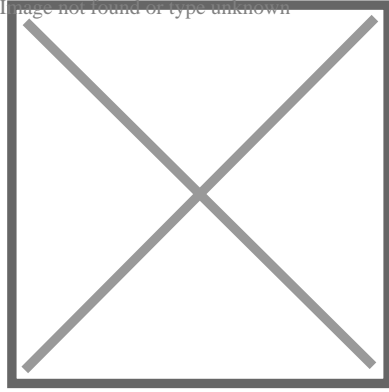


"Disobedience is the true foundation of liberty. The obedient must be slaves." ~Henry David Thoreau

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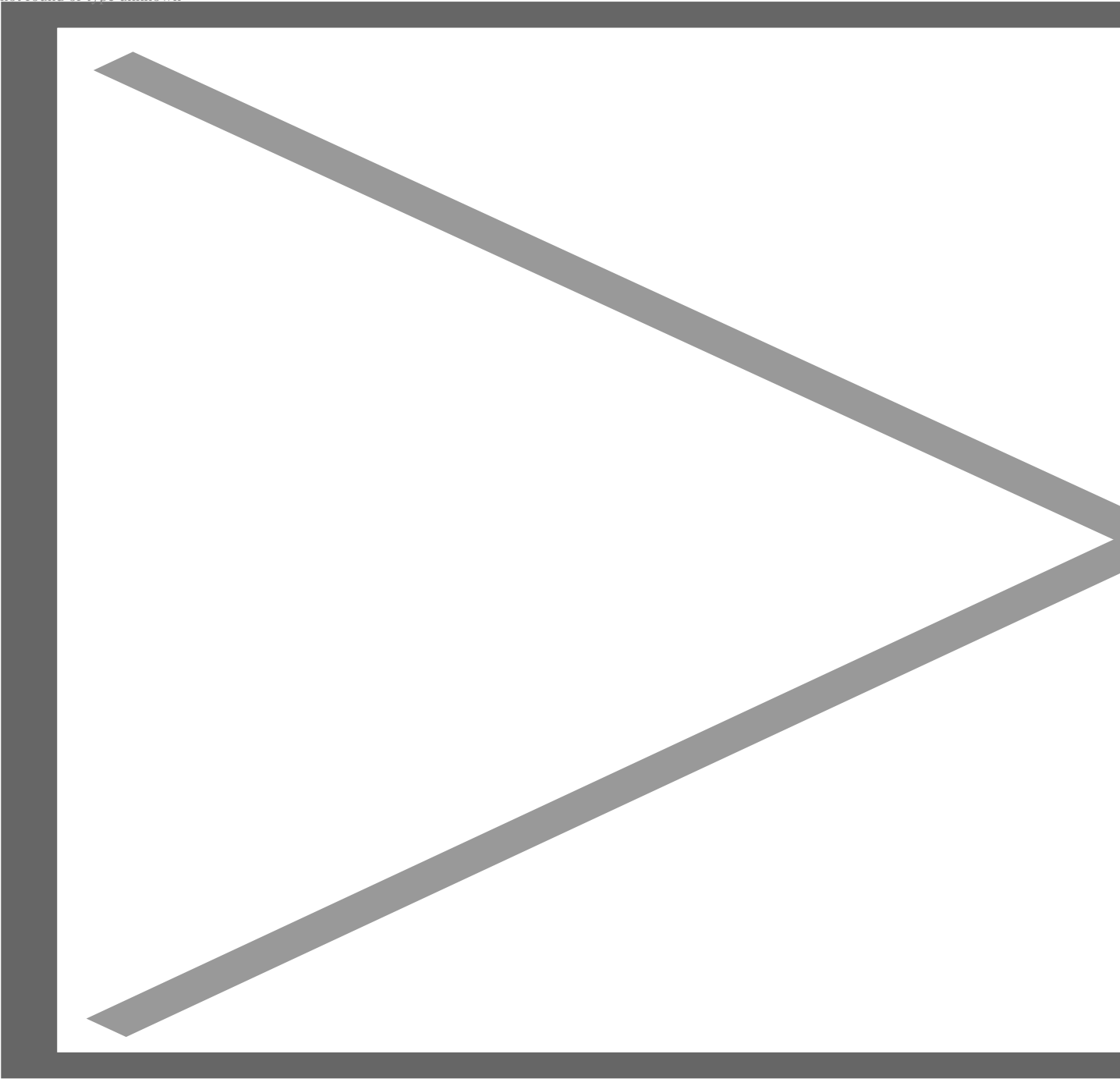
## Effectiveness of masks to prevent SARS-CoV-2: A Randomized Controlled Trial

### Description

Conclusion: The recommendation to wear surgical masks to supplement other public health measures did not reduce the SARS-CoV-2 infection rate [*i.e.*, *no statistically significant difference between groups was found at the conventional ?-level*;  $p = 0.38$ ; (*odds ratio [OR], 0.82 [CI, 0.54 to 1.23]*;  $p = 0.33$ )]. (Content in brackets added)

### Visual summary

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Johan Skov Bundgaard, Daniel Emil Tadeusz Raaschou-Pedersen, Christian von Buchwald, et al. [Effectiveness of Adding a Mask Recommendation to Other Public Health Measures to Prevent SARS-CoV-2 Infection in Danish Mask Wearers: A Randomized Controlled Trial.](#) **Annals of Internal Medicine** 0;0 [Epub ahead of print 18 November 2020].

doi:[doi.org/10.7326/M20-6817](https://doi.org/10.7326/M20-6817)

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@article{doi:10.7326/M20-6817,

title = {Effectiveness of Adding a Mask Recommendation to Other Public Health Measures to Prevent SARS-CoV-2 Infection in Danish Mask Wearers},

journal = {Annals of Internal Medicine},

volume = {0},

number = {0},

pages = {null},

year = {0},

doi = {10.7326/M20-6817},

note = {PMID: 33205991},

URL = {

[doi.org/10.7326/M20-6817](https://doi.org/10.7326/M20-6817)

},

eprint = {

[doi.org/10.7326/M20-6817](https://doi.org/10.7326/M20-6817)

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## Abstract

### Background:

Observational evidence suggests that mask wearing mitigates transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It is uncertain if this observed association arises through protection of uninfected wearers (protective effect), via reduced transmission from infected mask wearers (source control), or both.

### Objective:

To assess whether recommending surgical mask use outside the home reduces wearers' risk for SARS-CoV-2 infection in a setting where masks were uncommon and not among recommended public health measures.

### Design:

Randomized controlled trial (DANMASK-19 [Danish Study to Assess Face Masks for the Protection Against COVID-19 Infection]). ([ClinicalTrials.gov](https://clinicaltrials.gov/ct2/show/study/NCT04337541): NCT04337541)

## Setting:

Denmark, April and May 2020.

## Participants:

Adults spending more than 3 hours per day outside the home without occupational mask use.

## Intervention:

Encouragement to follow social distancing measures for coronavirus disease 2019, plus either no mask recommendation or a recommendation to wear a mask when outside the home among other persons together with a supply of 50 surgical masks and instructions for proper use.

## Measurements:

The primary outcome was SARS-CoV-2 infection in the mask wearer at 1 month by antibody testing, polymerase chain reaction (PCR), or hospital diagnosis. The secondary outcome was PCR positivity for other respiratory viruses.

## Results:

A total of 3030 participants were randomly assigned to the recommendation to wear masks, and 2994 were assigned to control; 4862 completed the study. Infection with SARS-CoV-2 occurred in 42 participants recommended masks (1.8%) and 53 control participants (2.1%). The between-group difference was 0.3 percentage point (95% CI, -1.2 to 0.4 percentage point;  $P = 0.38$ ) (odds ratio, 0.82 [CI, 0.54 to 1.23];  $P = 0.33$ ). Multiple imputation accounting for loss to follow-up yielded similar results. Although the difference observed was not statistically significant, the 95% CIs are compatible with a 46% reduction to a 23% increase in infection.

## Limitation:

Inconclusive results, missing data, variable adherence, patient-reported findings on home tests, no blinding, and no assessment of whether masks could decrease disease transmission from mask wearers to others.

## Conclusion:

The recommendation to wear surgical masks to supplement other public health measures did not reduce the SARS-CoV-2 infection rate among wearers by more than 50% in a community with modest infection rates, some degree of social distancing, and uncommon general mask use. The data were compatible with lesser degrees of self-protection.

## Primary Funding Source:

The Salling Foundations.

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Fulltext: [www.acpjournals.org/doi/full/10.7326/M20-6817](http://www.acpjournals.org/doi/full/10.7326/M20-6817)

### Category

1. General

### Tags

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8. SARS coronavirus
9. Upper respiratory tract infections

### Date Created

29. November 2020

### Author

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