We prevent and fight infectious and congenital diseases through research, monitoring, diagnostics, and guidance.
PARADIGM SHIFT IN REAL-TIME DATA

Opgørelser over andele af befolkningen - fra d. 17. december 2021

Smittede 3. stik
42% 62%

Smittede og 3. stik
23%

Smittede og/eller 3. stik
86%

Sidst opdateret: 25. april 2022

Andel smittede pr. aldersgruppe i alle kommuner

Andel smittede pr. uge i alle kommuner for alle aldersgrupper
Many NPI’s were used in Denmark

COVID-19

Non-pharmaceutical interventions (NPI) are actions that people and communities can take to help slowing down the spread of viruses such as SARS-CoV-2. Such community mitigation strategies, ranging from individual actions such as regularly practising good hand hygiene to more restrictive measures like limiting size of gatherings, should ideally be implemented in combination and applied at the same time.

The mix of chosen NPI should differ based on the local transmission situation.

It can take several weeks before any implemented NPI might show an effect.

More on NPI and how to apply them: http://bit.ly/COVID19_NPIs
DANMASK: Does mask wearing protect against COVID-19?

Spring 2020:
• Expected continuous wave of SARS-CoV-2
• Need for rational NPI´s

Masks
• No tradition or recommendations to wear masks in public spaces in Denmark
• Expected large Danish COVID-19 wave
• Need for more evidence

People wear masks on a street in Hong Kong, Friday, Jan. 24, 2020 to celebrate the Lunar New Year which marks the Year of the Rat in the Chinese zodiac. | Source: AP Photo / Kin Cheung(KALB)
Challenges Randomised Controlled Trial (RCT)

Design
• Funding: need for quick decision
• Staff: great support
• Equipment: lack of masks (delay) and sampling- + testing equipment
• Study size versus power
• Study endpoints: serology
• Not studied: Source control
• Authority approvals: Ethics - Data Protection

Execution
• Participant recruitment/information
• Good Danish control with the epidemic
Study design

DANMASK-19 Trial Overview

Start Randomization

Group A (mask)
- Antibody test
- Face masks must be carried outside the home. Authority guidance must be followed at all times.
- Oropharyngeal/nasal swab
- Antibody test

Both groups: If a participant have symptoms of COVID-19 before end of trial they shall perform oropharyngeal/nasal swab and send to laboratory for analysis.

Group B (control)
- Antibody test
- Face masks are not to be used. Authority guidance must be followed at all times.
- Oropharyngeal/nasal swab
- Antibody test

Randomization

One month later

End of trial
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

Henning Bundgaard, DMSc; Johan Skov Bundgaard, BSc; Daniel Emil Tadeusz Raaschou-Pedersen, BSc; Christian von Buchwald, DMSc; Tobias Todsen, MD; Jakob Boesgaard Norsk, MD; Mia M. Pries-Heje, MD; Christoffer Rasmus Vissing, MD; Pernille B. Nielsen, MD; Ulrik C. Winsløw, MD; Kamille Fogh, MD; Rasmus Hasselbalch, MD; Jonas H. Kristensen, MD; Anna Ringgaard, PhD; Mikkel Porsborg Andersen, PhD; Nicole Bakkegård Goecke, PhD; Ramona Trebbien, PhD; Kerstin Skovgaard, PhD; Thomas Benfield, DMSc; Henrik Ullum, PhD; Christian Torp-Pedersen, DMSc; and Kasper Iversen, DMSc

Primary Funding Source: The Salling Foundations.
Results

Does a recommendation to wear a surgical mask when outside the home reduce the wearer’s risk for SARS-CoV-2 infection in a setting where masks were uncommon and not among recommended public health measures?

Denmark
3 April–2 June 2020

6024 adults randomly assigned

Follow social distancing measures and wear a mask when outside the home
1.8% infected

Followed for 1 month with antibody tests and polymerase chain reaction

Follow social distancing measures when outside the home
2.1% infected

percentage point difference
-0.3 (95% CI -1.2 to 0.4)

odds ratio
0.82 (95% CI 0.54 to 1.23)
SoMe and public media storm

• Submitted to high impact medical journals = usual delay
• Question: When will the DANMASK study be published
• Problematic answer: The study will be published when there is a journal that is brave enough...”
• Bad timing...
• Strong pressure to release to preprint server – (risk of more controversy)
Masker virker – dansk studie er noget sjusk


COVID-19

Poor trials of health steps are worse than none, scientists say

Others say small COVID-19 studies accumulate into a clear picture over time
One single study rarely answers all questions

Lead Researcher Behind Controversial Danish Study Says You Should Still Wear A Mask

Leah Rosenbaum  Forbes Staff
Innovation
I write about the business of healthcare.

Updated Nov 18, 2020, 06:25pm EST

TOPLINE A Covid-19 study conducted in Denmark and published in *Annals of Internal Medicine* created a heated discourse on social media as some claimed that the study showed masks were ineffective at preventing Covid-19 transmission, while health experts—including the lead researcher behind the study—disagreed.
Compared with usual care, influenza vaccination rates were higher in the group receiving an electronic letter highlighting potential cardiovascular benefits of vaccination (81·00% vs 80·12%; difference 0·89 percentage points [99·55% CI 0·29–1·48]; p<0·0001) and the group receiving repeated letters at randomisation and at day 14 (80·85% vs 80·12%; difference 0·73 percentage points [0·13–1·34]; p=0·0006).
Conclusions

• Medical history is rich in unjustified interventions
• We need to perform research with clinical relevant endpoints
• Observational data are often biased
• Alternative designs to classical RCT’s may be needed i.e. ventilation & air cleaning
• Medical decisions must be based on the combined evidence and not single studies
• Lack of perfect evidence should not prevent action in acute crisis, but if action is needed - initiatives should be launched to verify the efficacy of the intervention
• Acuteness should not change general scientific or clinical methods
Thanks for listening