ENFORCE
Danish National Cohort Study of Effectiveness and Safety of SARS-CoV-2 vaccines

Region Syddanmark · REGION NORDJYLLAND – i gode hænder · REGION SJÆLLAND – vi er til for dig · midt regionmidtjylland · REGION Hovedstaden

Dear ENFORCE participant,

Thank you for participating in the ENFORCE project

In this letter we wish to share with you some of the knowledge that we have gained from the contribution of you and the other 6917 participants of the project. Below you can read about the results that have come out of ENFORCE so far, and what is yet to come.

REGARDS FROM PROF. LARS ØSTERGAARD & PROF. JENS LUNDGREN

We wish to thank all participants of the ENFORCE study. Without you, there would be no study.

ENFORCE is an important study, as it contributes greatly to our understanding of the vaccines and the antibody response related to them. The study is certainly not over, and we still depend on your participation. We are starting to see some results, and we would like to share some of them with you in this newsletter. You can also find them on **enforce.dk**.

Again, thank you for participating and for helping us all to get wiser.

Best regards

Jens Lundgren & Lars Østergaard

Remember to book a study visit every time you receive an invitation for vaccination in your e-Boks

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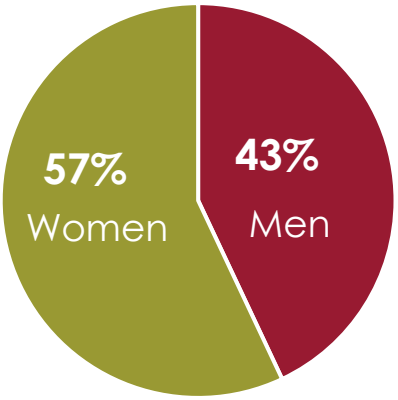
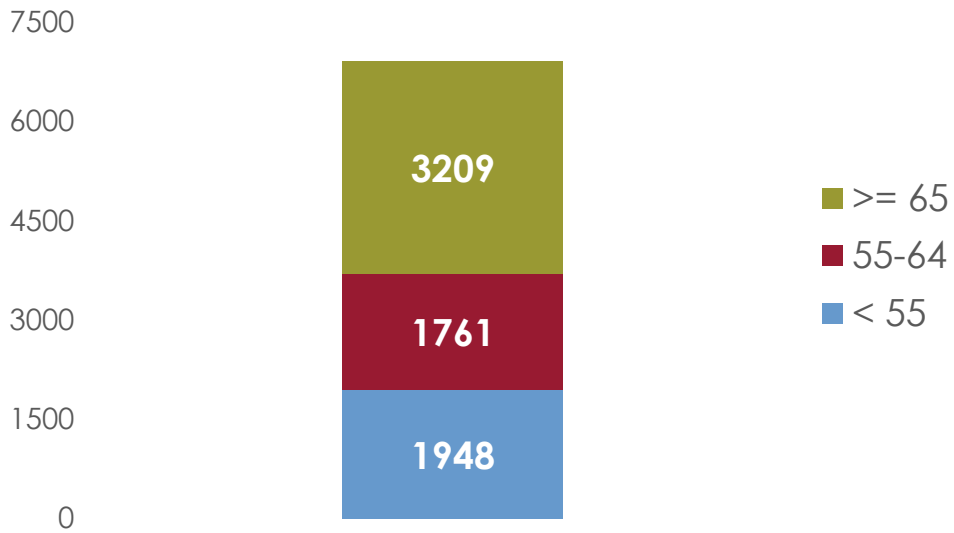
Who are the participants?

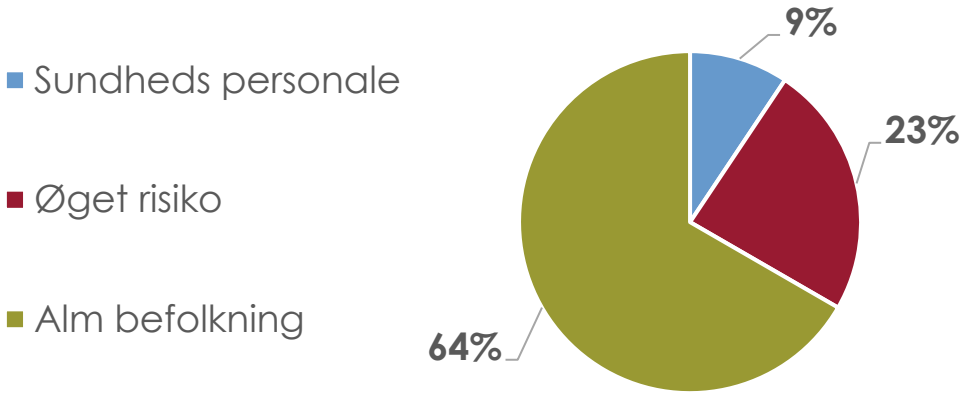
Of the **6918** participants in ENFORCE, over half are women.



The age distribution of the participants is as follows:
More than 70% are > 55 years

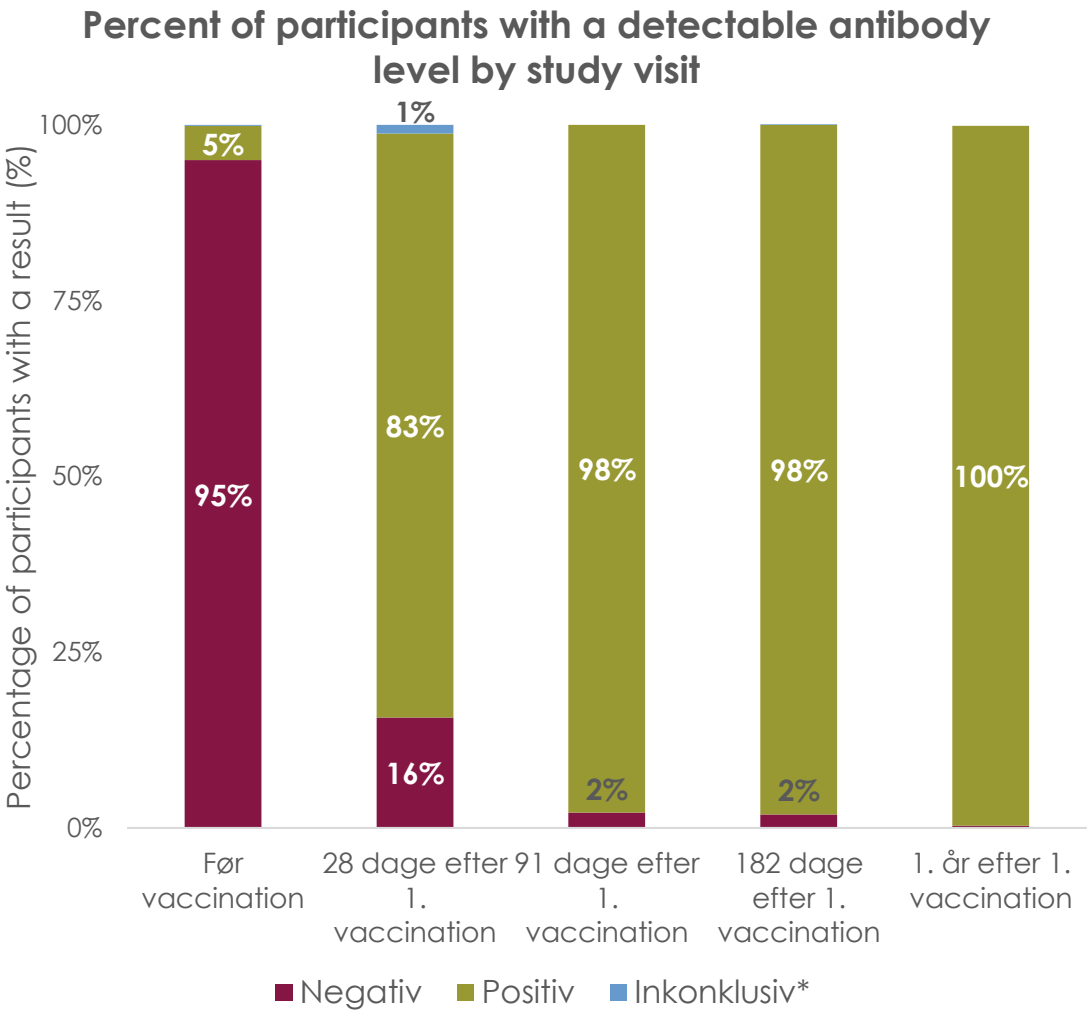


The distribution of groups at risk participating in the study is as follows:



Mean antibody levels for participants in ENFORCE up to one-year after first vaccine.

The figure below illustrates the percentage of participants in ENFORCE with proven antibodies one-year after the first vaccine. The green bars represent the participants with detected antibodies against COVID-19.



**Inconclusive* means that a valid result was unobtainable.*

Here is some more information on what our talented researchers have found out

Antibody development after 1st, 2nd & booster vaccines

'The ENFORCE study contributes significantly to supporting the Danish Health Authorities in taking decisions regarding the vaccination strategy in Denmark.

ENFORCE has assisted in identifying which groups are at risk of not developing a significant amount of antibodies after vaccination. Lacking effect of vaccination is most prominent in patients who are either organ transplant recipients or receiving cancer treatment. These particular patients were therefore specifically chosen for a fourth vaccine shot last winter.

Moreover, ENFORCE is also investigating the quality of the antibodies, meaning how well the antibodies protect against COVID. We have found that the vaccines that Denmark has been using so far (Pfizer, Moderna and AstraZeneca*) are all able to produce antibodies of high quality. A particular increase in quality is seen after the booster vaccine (3rd shot), which also means a significantly better effect against the Omicron variants. '

Asso. Prof. Martin Tolstrup, cand scient., AUH

Breakthrough infections

'One of the most unique features of the ENFORCE study is its ability to continuously track the participants' immune reaction to COVID-19 vaccines, while simultaneously tracking if any participants test positive for coronavirus and get a so-called *breakthrough* infection.

We have used this information to investigate what levels of antibodies were found in participants with a breakthrough infection of the Delta- or Omicron variant. Furthermore, we looked at how many participants with a breakthrough infection were admitted to the hospital.

When looking at breakthrough infections with the Delta variant, we saw that participants with a higher antibody level were at a lower risk of being infected. The same protective effect of the high levels of antibodies was not seen with the Omicron variant. For both variants, only a select few severe infections led to hospital admission.

The results suggest that the Omicron variant can avoid the antibodies developed due to vaccination, to some extent. However, they also suggest that vaccination against COVID-19 protects against severe COVID-19 disease, both from infection with the Delta- and Omicrons variant.'

Nina Breinholt Stærke, MD, AUH

ENFORCE SYMPOSIUM - SAVE THE DATE

ENFORCE Symposium August 24 2022, Rigshospitalet, Copenhagen

ENFORCE invites you to an open symposium, where there will be presentations of the results from the ENFORCE study, as well as other presentations on the Danish vaccination programme from the Danish authorities. Keep an eye out on the ENFORCE website, where a programme and a link to live streaming of the symposium will be available closer to time of the symposium.

Physical attendance is limited and registration is required.

Where:

Auditorium 1 ent. 2

Rigshospitalet, Blegdamsvej 9,

2100 København

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WANT TO KNOW MORE?

The latest report with results from the study is always available on the following link:
https://enforce.dk/Resultater.

We will also be sending out more news letters like this one, when we have progressed further with the project.

You are always welcome to write or call us, if you have any questions regarding the project!

Best regards

ENFORCE