# The Dutch Lifelines COVID-19 Cohort
# A study into risk factors and health- and societal impact

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At the very beginning of the COVID-19 pandemic in the Netherlands, a largescale study into the risk factors of the novel coronavirus started in the Northern Netherlands. Since then, 135,000 Lifelines participants receive (bi-) weekly, extensive questionnaires about their health, wellbeing and lifestyle (as of the 8th follow up questionnaire 110,000 participants). The collected COVID-19 questionnaire data is linked to the previously collected longitudinal data from the Lifelines biobank. Lifelines encourages researchers worldwide to use these data to gain insight into the risk factors, spreading and (long term) consequences of the coronavirus.

**Click here for the COVID-19 cohort paper [1]**
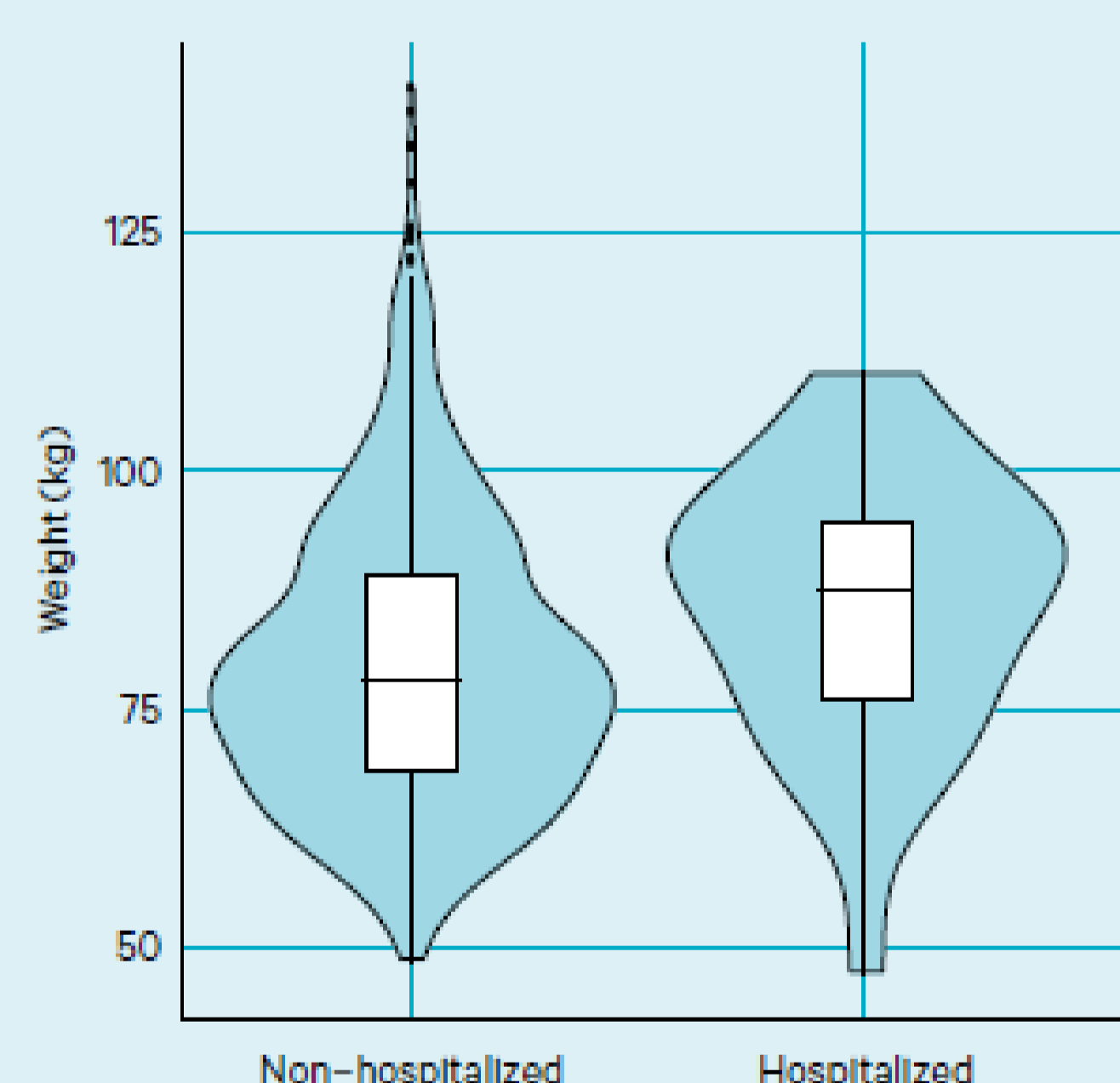
| 135,000 participants | 14 questionnaires between March and October 2020 | 34% average response rate | Over 38,500 completed 8 or more questionnaires | Over 13,000 completed all 14 questionnaires |
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## COVID-19 questionnaire content

**Risk factors**
- General health
- Chronic disease status
- Medication use
- Medical history
- Lifestyle

**BMI**
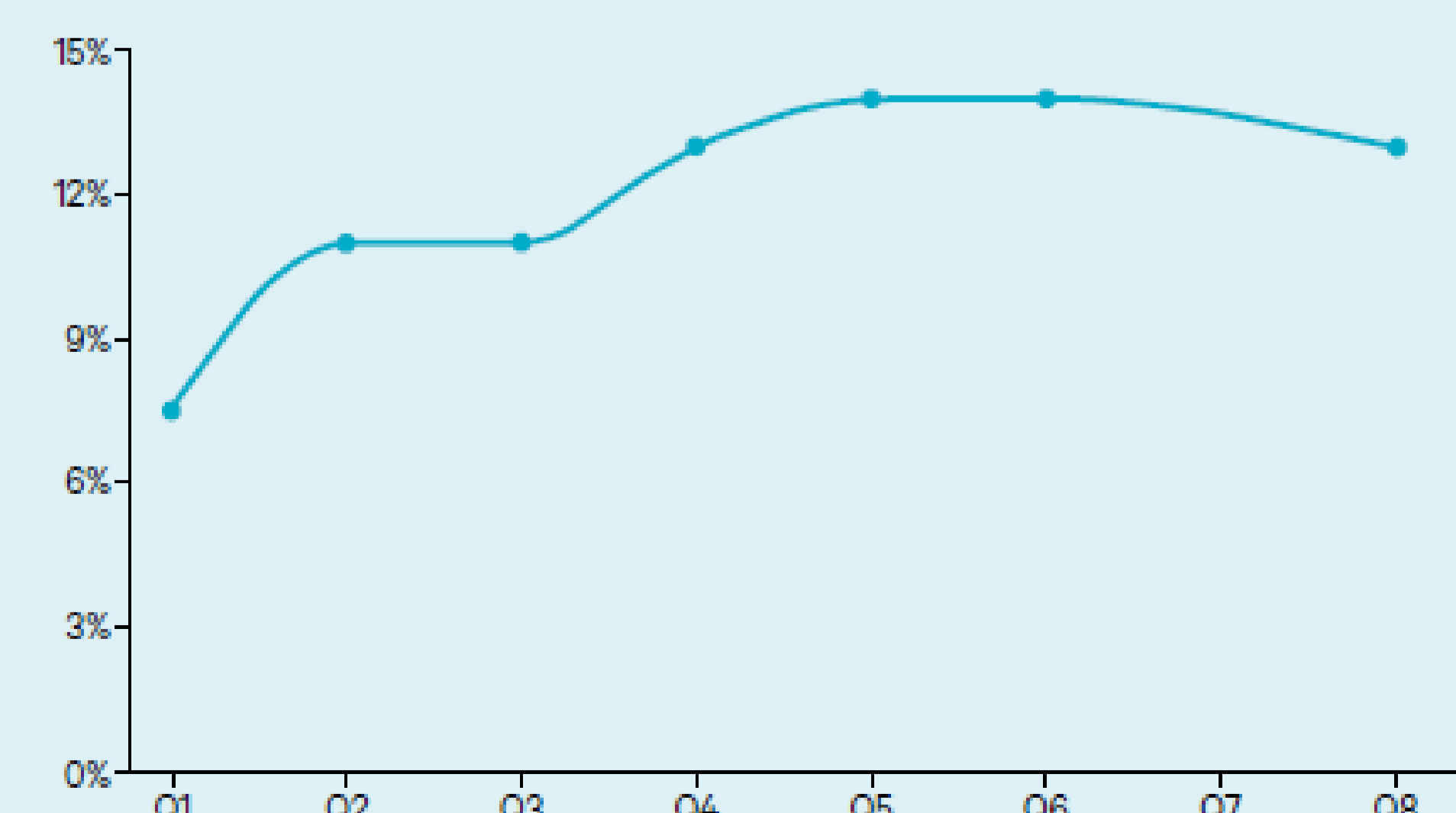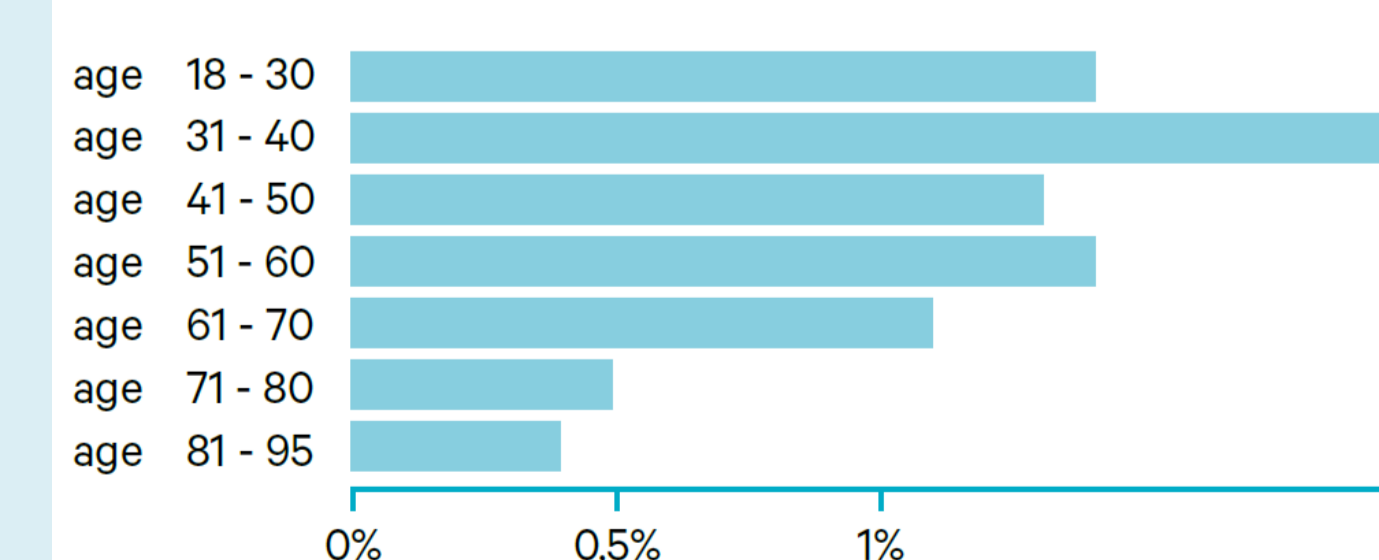Weight of participants with postive test or diagnosed by physician



**Impact**
- Social demographics
- Mental health and well-being
- Quality of life
- Employment situation
- Income

**Job loss**
Percentage of unemployed participants that indicate to have lost their job as a result of the COVID-19.
*Average unemployment rate of 4.8%*



Results are based on data from the first 9 questionnaires

## COVID-19 cohort continuous...
More follow up questionnaires.
Blood collection of participants positive tested for COVID-19. To measure COVID-19 specific antibodies, cross-reactivity of coronavirus specific antibodies in retrospective samples and T- and B-cells. The first results of this study, about the interrelationship between an individuals' immune response, genetics and environmental exposures and the severity of Covid-19, will be expected in December.

**Positive test or diagnosed by physician: 1.4% (n=1,036)**



**More results can be found at coronabarometer.nl [2]**

## Lifelines
Lifelines is a large population-based cohort and biobank which started in 2006 with 167,000 inhabitants of the northern part of the Netherlands. Our aim is to enable research to better prevent, predict, diagnose and treat diseases. For this purpose participants are being followed for 30 years and surveyed every 5 years. We collect data through questionnaires and measurements on a wide range of topics such as lifestyle, environment, multi-omics, and medical history.

Our data and samples are available for researchers worldwide.

**Check out our Wiki [3] for detailed information**

**Contact us**
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**This study is a joint initiative**

umcg   rijksuniversiteit groningen   Aletta Jacobs SCHOOL OF PUBLIC HEALTH   lifelines

References: [1] https://doi.org/10.1101/2020.06.19.20135426; [2] www.coronabarometer.nl; [3] www.lifelines.nl/wiki