

Erika Harju^{1,2}, Patricia Chocano-Bedoya^{3,4}, on behalf of the Corona Immunitas Research Group

¹ Faculty of Health Sciences and Medicine, University of Lucerne, Lucerne, Switzerland
² School of Health Sciences, ZHAW, Zurich University of Applied Sciences, Winterthur, Switzerland

³ Institute of Primary Health Care (BIHAM), University of Bern, Bern, Switzerland
⁴ Population Health Laboratory (#PopHealthLab), Department of Community Health, Faculty of Science and Medicine, University of Fribourg, Fribourg, Switzerland

Background

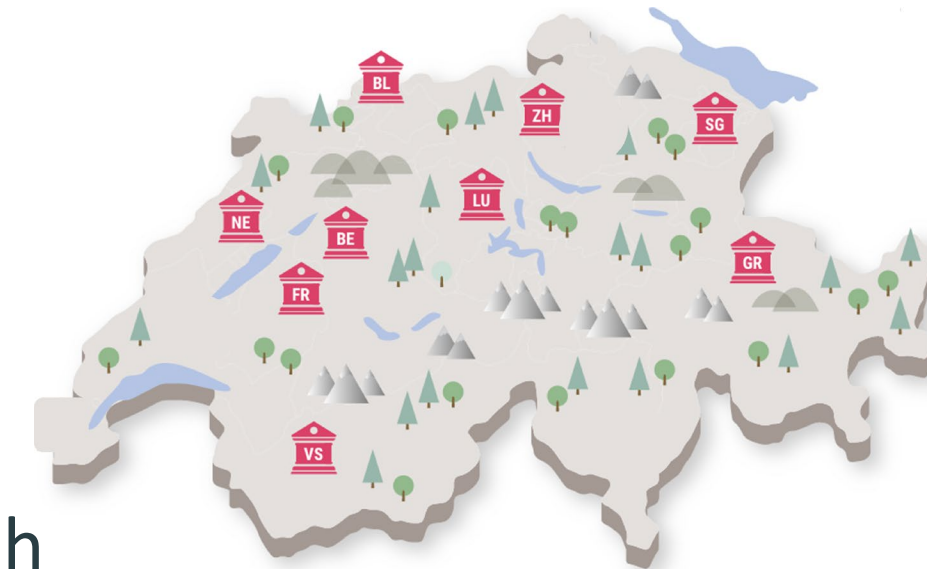
- Overall decline in healthcare utilization at the beginning of the COVID-19 pandemic^{1,2}
- Studies focused on specific types of care or at-risk populations – not general population^{2,3,4}
- Perspectives on forgoing care are scarce: reduction in provision, fear of infection OR cross-contamination, worries of burdening healthcare staff^{1,3,5}
- Increase in telemedicine during the pandemic^{6,7}

Aims

- To describe healthcare utilization in the general population, specifically, the frequency of and reasons for changes in healthcare utilization in those requiring ongoing treatment
- To assess characteristics associated with change in healthcare utilization

Methods

Swiss National Research Project:
Corona Immunitas



<https://www.corona-immunitas.ch>

Population: Randomly selected individuals of the Swiss General Population by the Swiss Federal Office of Statistics from nine study centers in nine cantons

- Age: ≥20 years old
- Two strata: 20–64 years old and 65+ years old

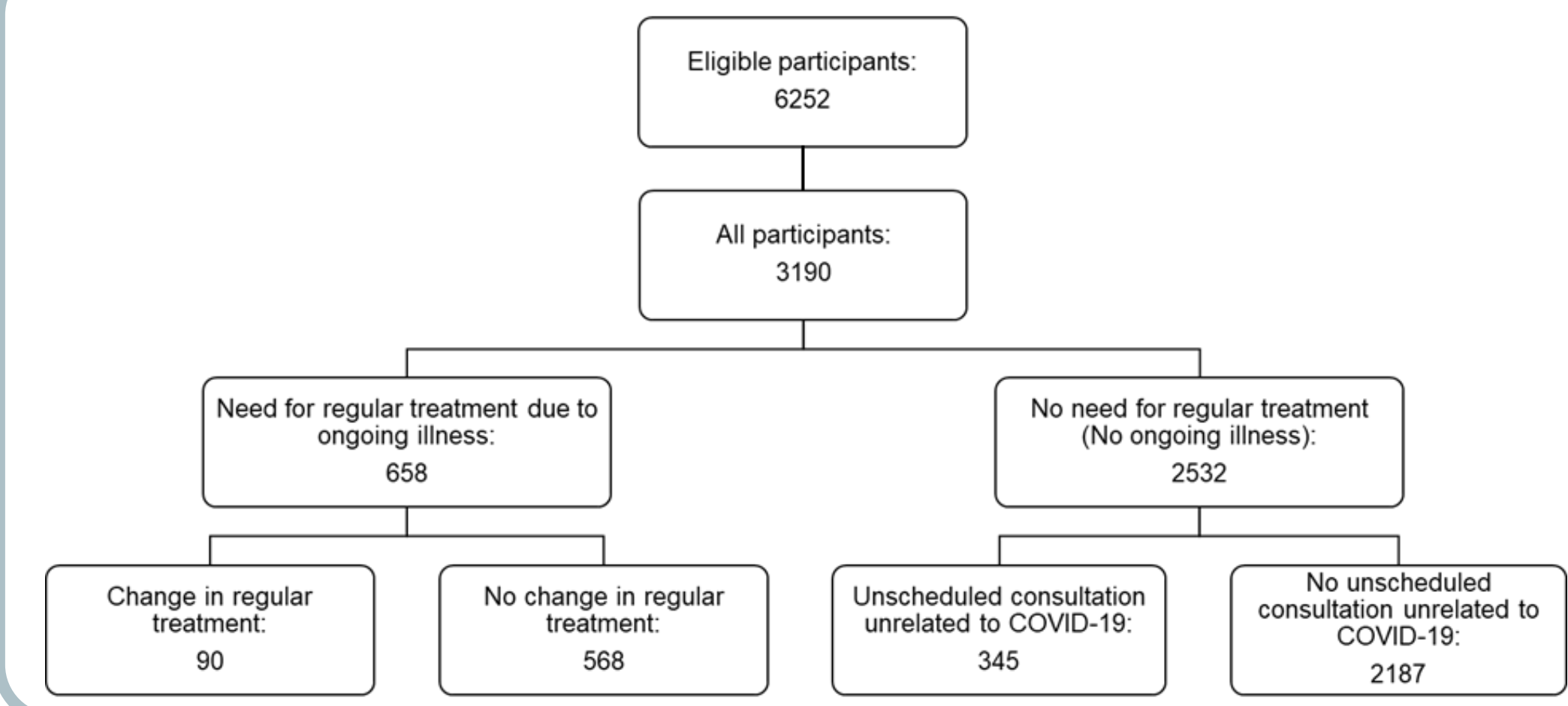
Procedure: Online surveys via REDCap

- Baseline questionnaire (sociodemographic and health-related information)
- Follow-up questionnaires (monthly: healthcare utilization)

Analysis:

- t-tests, χ^2 tests, and Fisher's exact tests
- Multivariable zero-inflated negative binomial regression

Flow chart of study population

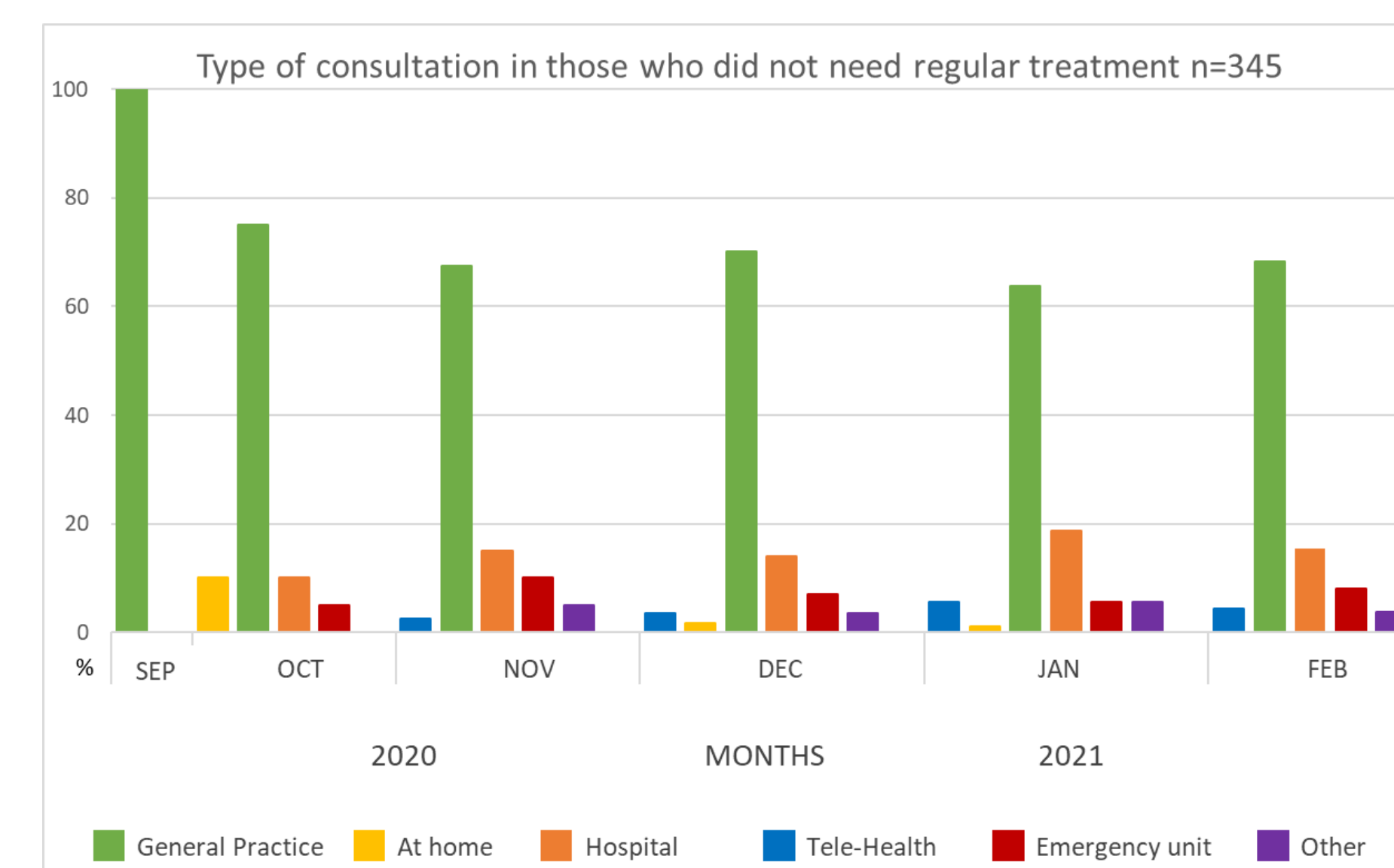


Results

- Response rate (RR): 51% (3190 / 6252)
- Characteristics of study population

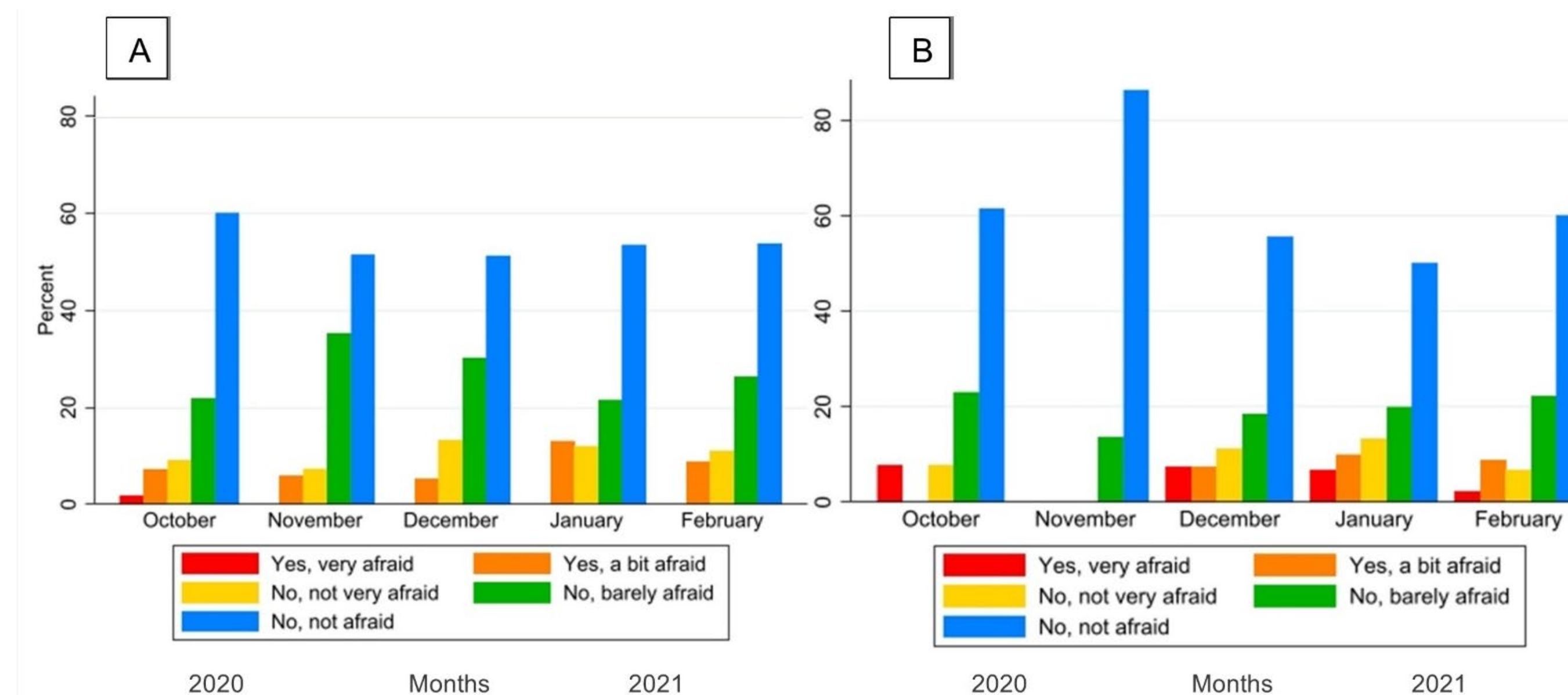
Age; mean (SD)	54.22 (16.09)
Age 20–64	66%
Age 65+	34%
Female	51%
German-speaking	81%
Swiss nationality	80%
Tertiary education	50%
No chronic health condition	70%
Need for regular treatment	21%

- Type of consultation in those not needing regular treatment



Results

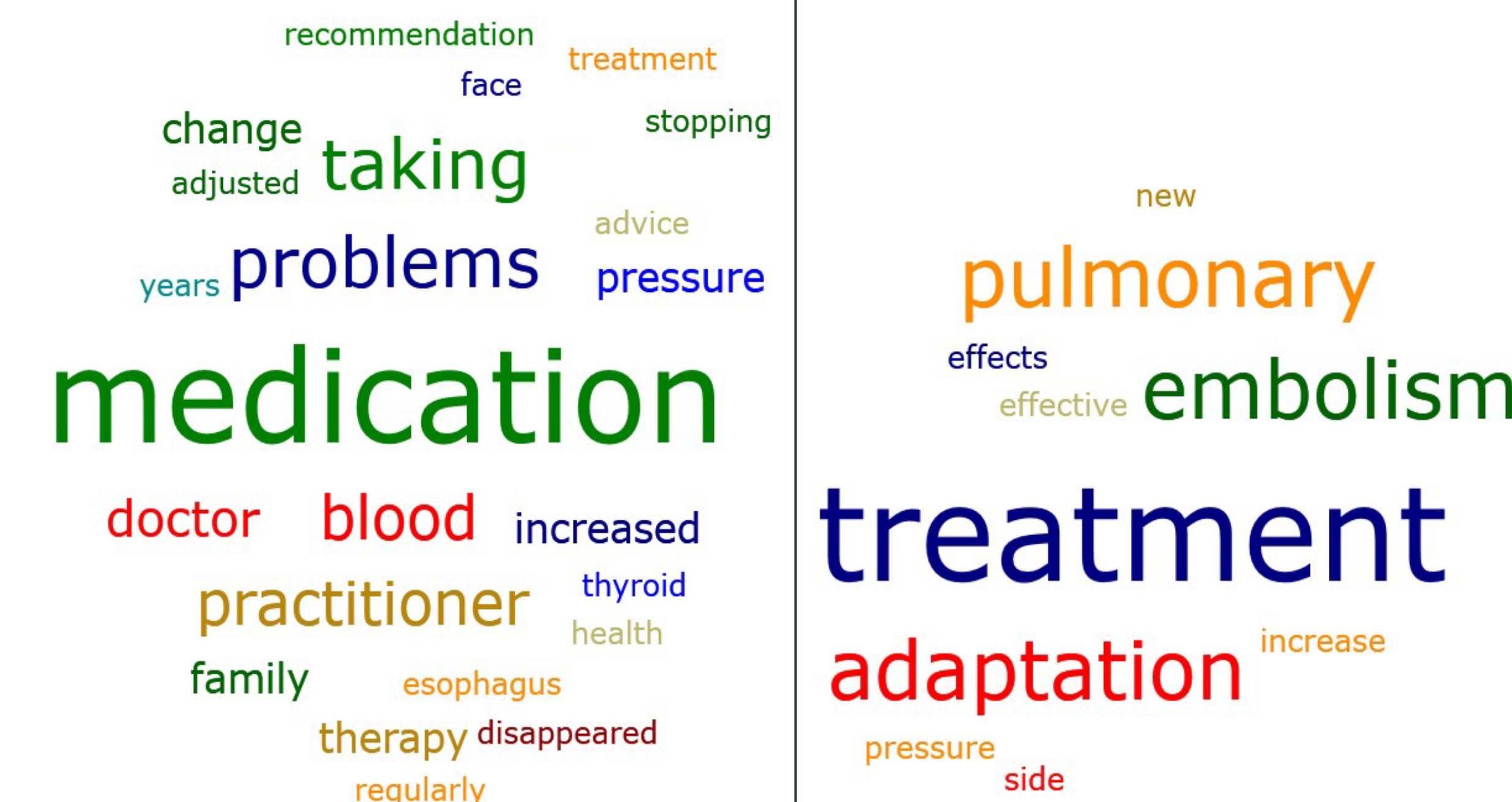
- The change in the incidence of healthcare utilization was one in 1,000 person-days
- Fear of infection with COVID-19 during regular treatment (A) or during consultation (B)



- Reasons for changes in healthcare utilization

German-speaking area: n=67

French-speaking area: n=24



The data has been visualized using the word cloud feature in ATLAS.ti, where words used in a text are separated and the most frequently used words appear larger or bolder

Results

- Females were significantly more likely to report changes in healthcare utilization (IRR = 1.69, 95% CI: 1.05–2.70, $p = 0.030$) and those with hypertension were least likely to report a change (IRR = 0.45, 95% CI: 0.18–1.14, $p = 0.092$) as compared to those with other chronic conditions (cancer, diabetes, immunocompromised, cardiovascular disease, chronic respiratory disease)

Conclusions

- Few persons needing regular treatment reported changes in healthcare utilization
- Continuity of care for chronic diseases other than hypertension must be emphasized
- Changes in healthcare utilization were more pronounced in women than in men

Strengths & Limitations

- Random sample of the Swiss general population
- Longitudinal data collected monthly over six months
- Online surveys, accessible anywhere, anytime
- Successful participation of individuals aged 65+
- Relatively low response rate (RR: 51%)
- Possible selection bias: most participants had no chronic condition and were highly educated

Citation

Harju E, Speierer A, Jungo KT, Levati S, Baggio S, ... and Chocano-Bedoya P (2023) Changes in Healthcare Utilization During the COVID-19 Pandemic and Potential Causes –A Cohort Study From Switzerland. Int J Public Health 68:1606010. doi: 10.3389/ijph.2023.1606010



 erika.harju@zhaw.ch