

HELSINKI HEALTH STUDY



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AGE-RELATED DIFFERENCES IN THE USE OF DIGITAL OCCUPATIONAL HEALTH SERVICES AMONG PUBLIC SECTOR EMPLOYEES

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21st conference of the European Society for Health and Medical Sociology

19 August 2026, Hamburg

BACKGROUND

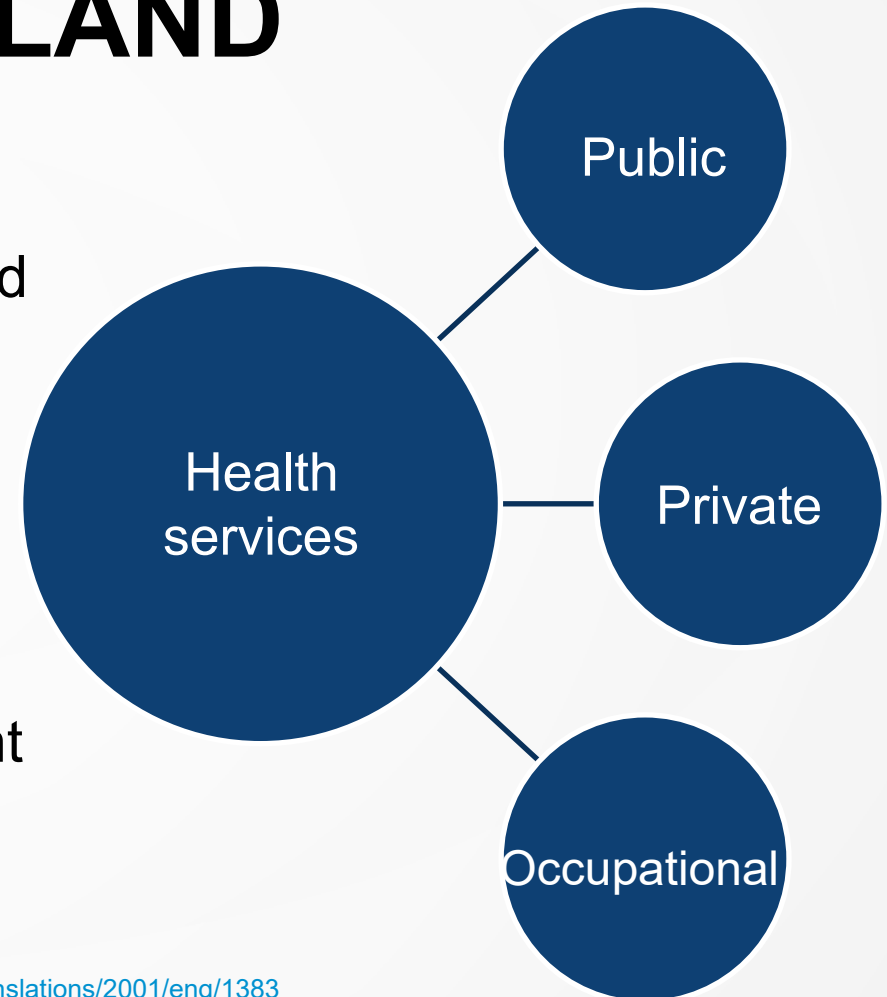
- The use of digital health services is rising [1], also in occupational health.
- At the same time, the European and Finnish workforce is aging [2].
- Younger people, women, and those in higher socioeconomic positions use digital health services more [3,4].
- Using digital health services requires access to internet and device, digital and language skills, positive attitude to digital technologies, and the understandability of the digital service and the health services system [5,6].
- This far, research on digital occupational health services has primarily been descriptive and had relatively small sample sizes [7,8].



1. Gullslett et al. Int J Med Inform. 2024;191:105558
2. Population by labour force status by Age group, Information and Year
https://pxdata.stat.fi/PxWeb/pxweb/en/StatFin/StatFin_tyti/statfin_tyti_pxt_13aj.px/table/tableViewLayout1/
3. Grimm et al. J Med Internet Res. 2023;25
4. Flitcroft et al. J Med Internet Res. 2020;22(6)
5. Heponiemi et al. New Media Soc. 2023;25(9)
6. Buchert U et al. Inf Commun Soc. 2024;27(5):935-950
7. Nissinen et al. Digit Health. 2024;10
8. Koivisto et al. Finnish Journal of eHealth and eWelfare. 2019;11(3):183-197

OCCUPATIONAL HEALTH SERVICES IN FINLAND

- In Finland, health services are provided by public, private, and occupational health services.
- Every employer is obliged to provide its employees with occupational health services, including at least preventive services [9].
- In this study, medical treatment services were also included.



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9. Occupational Health Care Act 1383/2001. <https://finlex.fi/en/legislation/translations/2001/eng/1383>

STUDY OBJECTIVES

- How was age related to the use of digital occupational health services among the employees of the City of Helsinki in 2020–2022?
- Did the service use decrease with older age? At which age did the possible decrease start?
- Health services need, socioeconomic position, first language and employment type were accounted for.



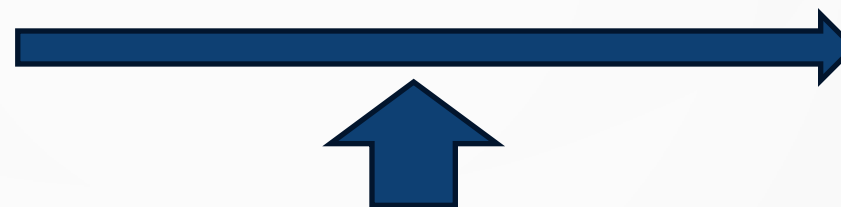
MATERIALS AND METHODS

- The City of Helsinki personnel register, the Statistics Finland education register, and the occupational health service provider's register
- Digital service use was rare before 2020 → we chose the years 2020–2022
- N = 43,479 (approx. 38,000 employees annually)
- Negative binomial regression

Women (76%) and
men (24%)
analysed separately

Age (years)

- 20–29
- 30–39
- 40–49
- 50–59
- 60–64



Number of remote
visits* / person-year

- First language
- Socioeconomic position (education+occupation+income)
- Employment type
- Health services need (number of sickness absence spells / person-year)

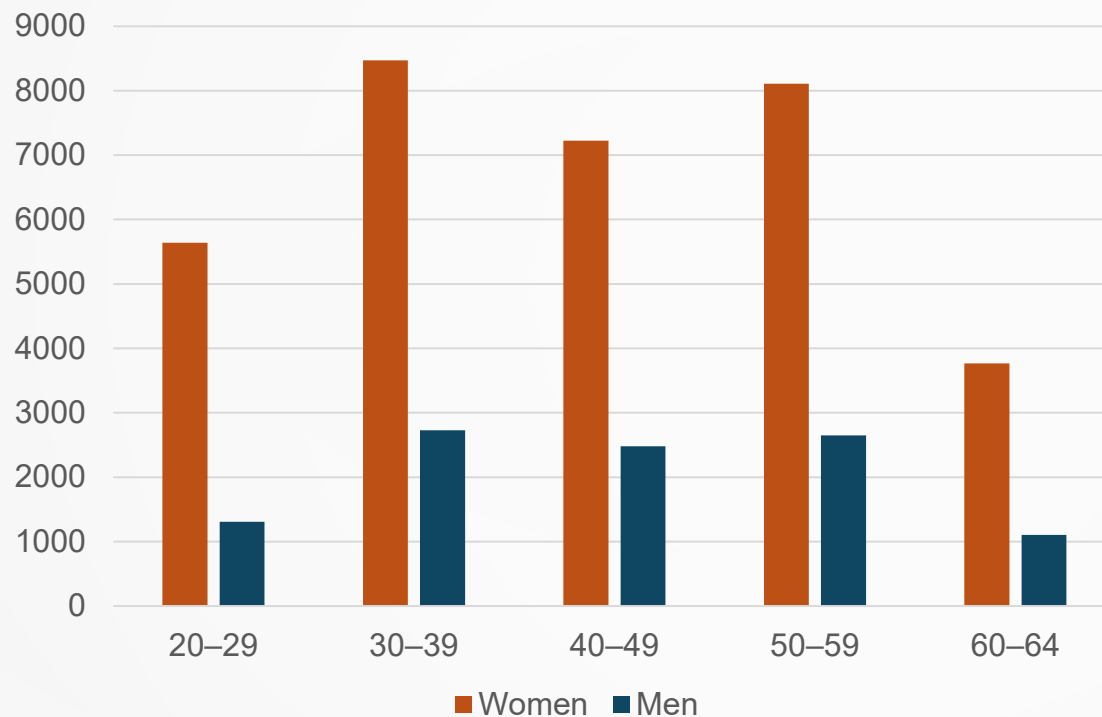
*eg. Video calls, chat
(phone calls excluded)



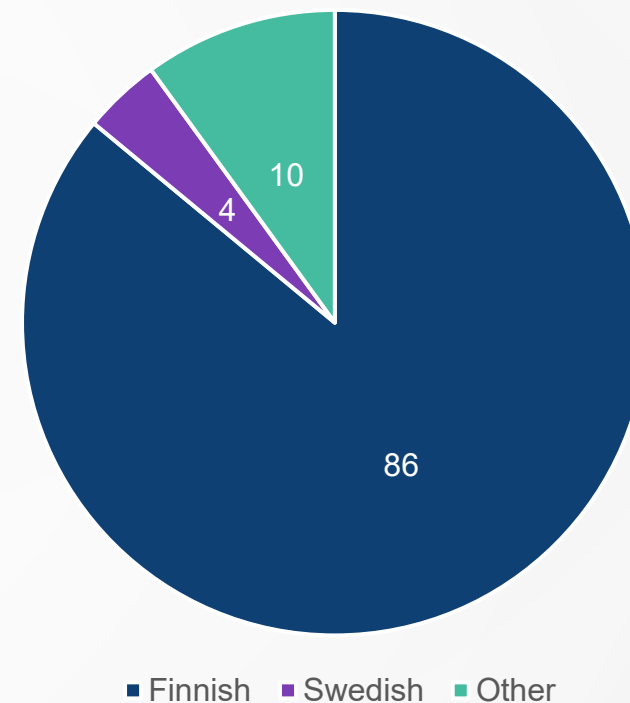
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CHARACTERISTICS OF THE STUDY POPULATION

Age (n)



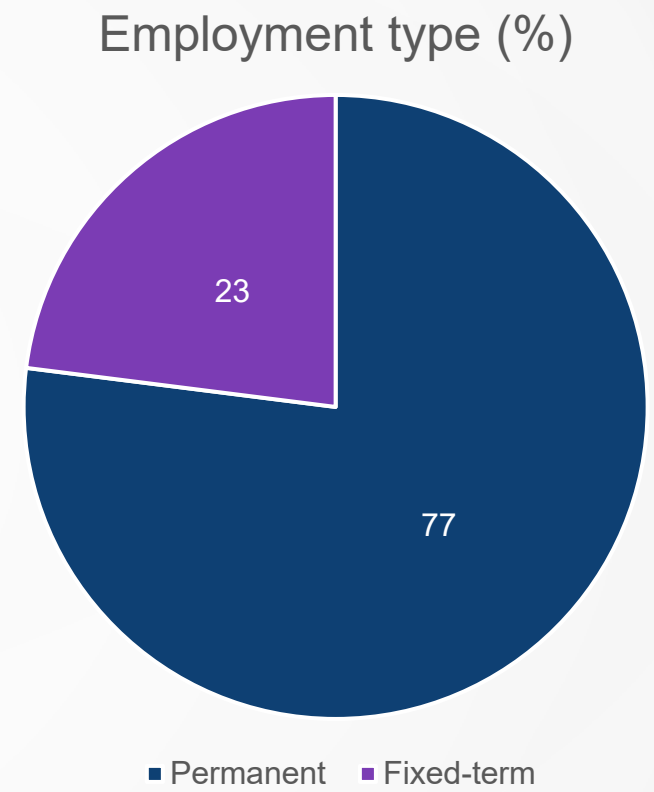
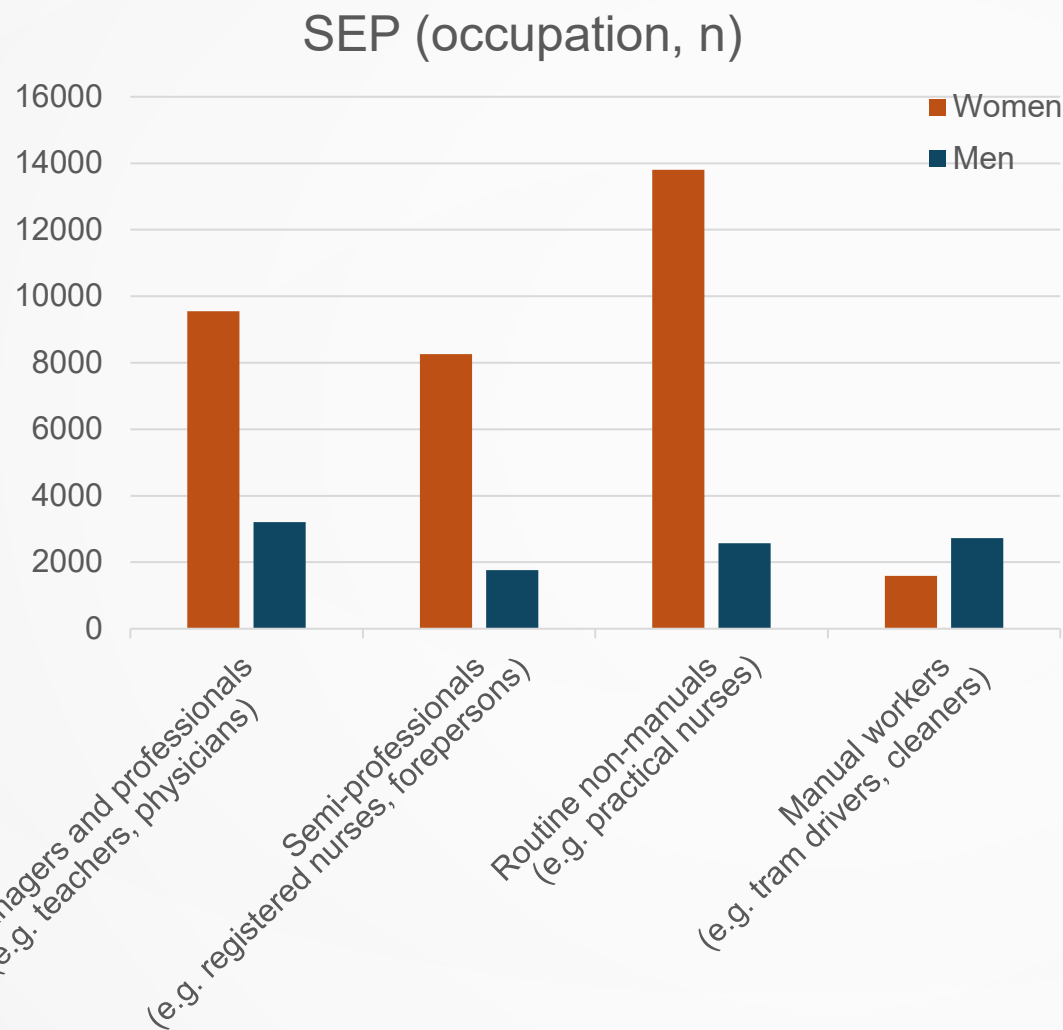
First language (%)



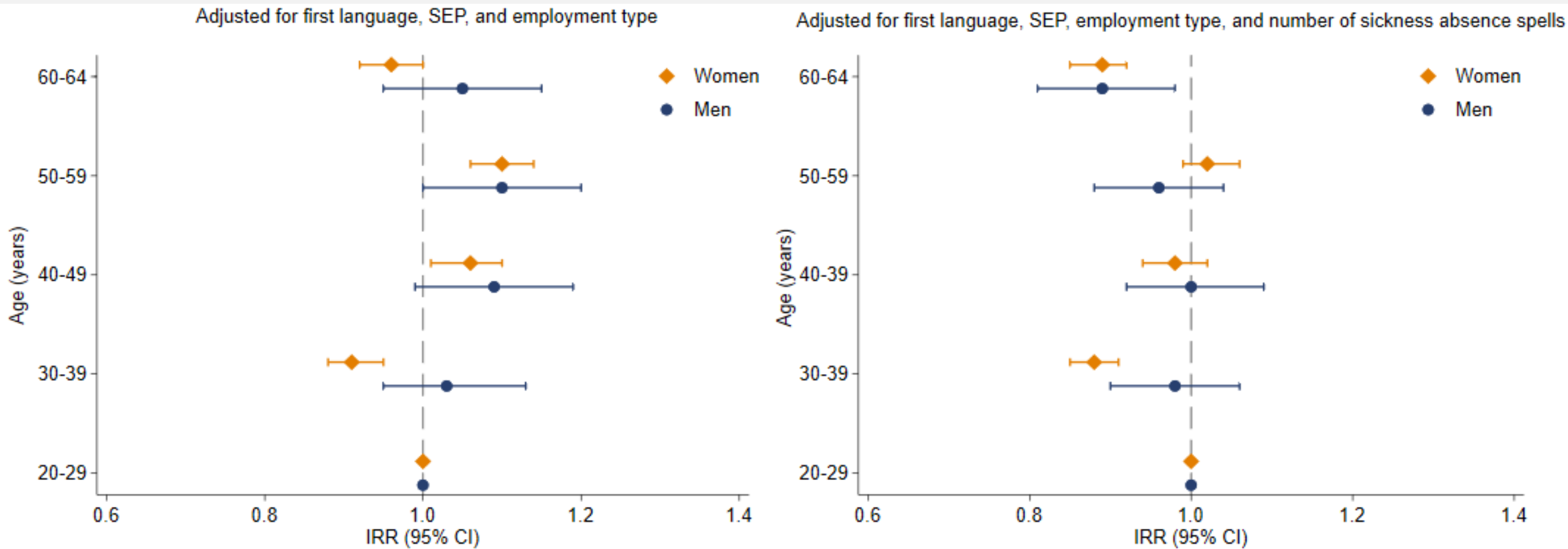
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CHARACTERISTICS OF THE STUDY POPULATION



DIGITAL OCCUPATIONAL HEALTH SERVICES USE AMONG THE CITY OF HELSINKI EMPLOYEES 2020–2022 (N = 43,479)



SEP = socioeconomic position
IRR = incidence rate ratio

DISCUSSION

- The oldest employees use less digital health services, when health services need is considered – in line with earlier digital health services studies [4].
- Most Finnish people are digitally competent [10] → the role of more complex accessibility issues, services design & attitudes
- 30–39-year-old women may use maternity clinics instead of occupational health services



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4. Flitcroft et al. J Med Internet Res. 2020;22(6)

10. Finland in the Digital Economy and Society Index | Shaping Europe's digital future. Accessed April 13, 2026. <https://digital-strategy.ec.europa.eu/en/policies/desi-finland>

IMPLICATIONS

- The importance of digital occupational health services
 - Promoting work ability [11]
 - Occupational health services continuity management
- Accessible digital services
 - specific attention to 60–64-year-old employees
 - maintaining the option of face-to-face services





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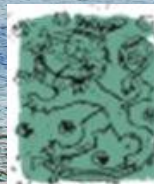
Työsuojelurahasto
Arbetarskyddsfonden
The Finnish Work Environment Fund



Svenska
kulturfonden



JUHO VAINION SÄÄTIÖ



Opetus- ja
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