

## **Influenza vaccination in Norway 2014/15-2022/23 – coverage by age and educational attainment in risk groups and health care workers**

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**Aims:** To study patterns in influenza vaccination coverage among risk groups (RGs) and health care workers (HCWs) in Norway before and during the COVID-19 pandemic, in relation to measures implemented to increase coverage (informational campaigns towards HCWs from 2017 onwards and temporary funding for RGs in 2020/21-2021/22).

**Methods:** Coverage was measured by self-report in a nationally representative survey by Statistics Norway among 18 824 individuals aged 18-79 years from 2014/15-2022/23. Associations between age, sex, belonging to a RG, being a HCW, educational attainment, urbanity at place of residence and vaccination coverage were explored using logistic regression.

**Results:** Coverage gradually increased from 2014/15 until 2021/22. While coverage increased further from 2021/22 to 2022/23 among those aged 65-79 years and among individuals with higher educational attainment, coverage fell in all other groups. Older age, belonging to a RG, being a HCW, being a woman and living in a city were all significantly associated with influenza vaccination in a logistic regression model of all study seasons combined. Season-by-season analyses indicated educational differences initially widened as coverage increased after informational campaigns in 2017/18 and a severe season in 2018/19, diminished when vaccination was funded in 2020/21, and widened again when funding was retracted in 2022/23.

**Conclusions:** Economic barriers affect vaccination decisions, especially among those with compulsory education - a group where risk factors for severe influenza is also more prevalent in all age groups. While several factors affect coverage, vaccination funding for RGs is easy to implement and increase equality of vaccination opportunity.