

Monitoring the role of modifiable factors in cancer burden with population-based surveys



**TYPE
STATUS**

Program for monitoring determinants of cancer burden, utilizing large-scale national health studies and national registries in Finland
Fully implemented and ongoing

**LAST
UPDATE**

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FINLAND • NATIONAL REGISTRY INFRASTRUCTURE
Primary cancer prevention

PROBLEM & OBJECTIVE

- The age-adjusted cancer incidence is increasing annually by 1% in women, been stable in men Finland. Modifiable lifestyle factors are known contributors influencing cancer incidence.
- Longitudinal evaluation of the role of past and current modifiable factors because of the changing lifestyle habits (especially obesity and smoking).
- Focusing the targets of primary cancer prevention to modifiable risk factors that are currently important or emerging. This includes obesity/overweight, use of alcohol, tobacco smoking remaining important.
- Total of seven cohorts, 247 351 individuals, 3.2 million person-years of follow-up, 31 4778 new cancers and 64 084 deaths.

CONTACT

Finnish Cancer Registry
Janne Pitkaniemi
Director for Statistics
janne.pitkaniemi@cancer.fi
+358 50 372 3335

KEY COMPONENTS / STEPS

- The key component of setting up the monitoring system is the ability to utilize health registry infrastructure in Finland: cancer registry for obtaining incident cancers, repeated national large-scale health surveys for background characteristics and lifestyle factors, and population demographic registration for the construction of follow-up cohort for the cancer risk assessment.
- Utilizing several national registry data infrastructure requires knowledge of laws on data security etc.
- The implementation of the results will take place as part of primary prevention activities of the Cancer Society Finland.

KEY CONTEXTUAL FACTORS

- Utilizes health registry infrastructure (cancer registry) for obtaining incident cancers, repeated national large-scale health surveys (background characteristics, lifestyle factors) and population demographic registration for the construction of follow-up cohort for cancer risk assessment.
- Implemented as part of infrastructure of the National Institute of Health and Welfare with close collaboration of Cancer Society Finland and Finnish Cancer Registry.
- Challenges include difficulties in reaching lower socioeconomic groups for the surveys and communicating recommendations related to reduction of the cancer risk factors in a positive manner.

MAIN IMPACTS / ADDED VALUE

- Benefits for the individuals: Up-to-date information on joint and interactive effects of lifestyle habits on cancer-specific risk.
- Benefits for the society: Information on the current and future role of risk factors in cancer burden. The project will provide up-to-date information on the attributable fractions of modifiable lifestyle factors in cancer risk and mortality.
- We have assessed contribution of major lifestyle factors in cancer risk and will proceed with the evaluation of major lifestyle factor effects on preventable fractions of cancers in the Finnish population.

LESSONS LEARNED

- Pooling health surveys from several decades is essential for reliable estimation of the role of modifiable factors in cancers due to their long incubation period.
- Long and comprehensive follow-up is vital, because many cancers are rare.
- The project has demonstrated not only the importance, but also the incompleteness of national data infrastructure. More comprehensive information is needed on the prevalence of lifestyle factors, even them being difficultly measured.

REFERENCES & DOCUMENTATION

- <https://cancerregistry.fi/research/research-themes/the-causes-of-cancer-and-cancer-burden/>

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