



ISPRO

Istituto per lo studio, la prevenzione
e la rete oncologica



UNIVERSITÀ
DEGLI STUDI
FIRENZE

DISIA
DIPARTIMENTO DI
STATISTICA, INFORMATICA,
APPLICAZIONI "G. PARENTI"



ITALIAN GBD INITIATIVE

The ACAB study

Attributable Cancer Burden in Tuscany: smoking, environmental and occupational risk factors and evaluation of prevention strategies

21 October 2021



The ACAB project

- Funded by the Tuscany Region (Call for Health Reserach 2018): 03/08/2020-02/08/2023.
- Partner:
 - Oncologic network, prevention and research institute (ISPRO) (Giulia Carreras)
 - Azienda USL Toscana Centro (Daniela Balzi, Miriam Levi)
 - Dipartimento di Statistica, Informatica, Applicazioni, Unifi (Michela Baccini).
- External partners:
 - Burlo Garofolo (Lorenzo Monasta)
 - Agenzia Regionale di Sanità Toscana (Fabio Voller).

Objectives

The main goals of ACAB are to produce (for **Tuscany** as a whole and by administrative homogeneous **sub-areas**, *zone socio-sanitarie*):

- an updated health profile of the population
- an updated estimate of the cancer burden from smoking, environmental and occupational risk factors.

Local data will be used when available.

The project will include three stages.



Stage 1 - health profile of the Tuscany population

- For the leading diseases, the health state of the Tuscany population as a whole and by sub-areas will be quantified in term of years of life lost (YLL) due to premature death and in terms of years lived with disability (YLD).
- Estimates for 2019 will be produced.
- *Questions on this part later.*

Stage 2 - cancer burden from smoking, environmental and occupational risk factors

For cancers, deaths and DALYs attributable to smoking, environmental and occupational risk factors will be estimated for 2019.

- Methods for PAF estimation in line with GBD

Smoking:

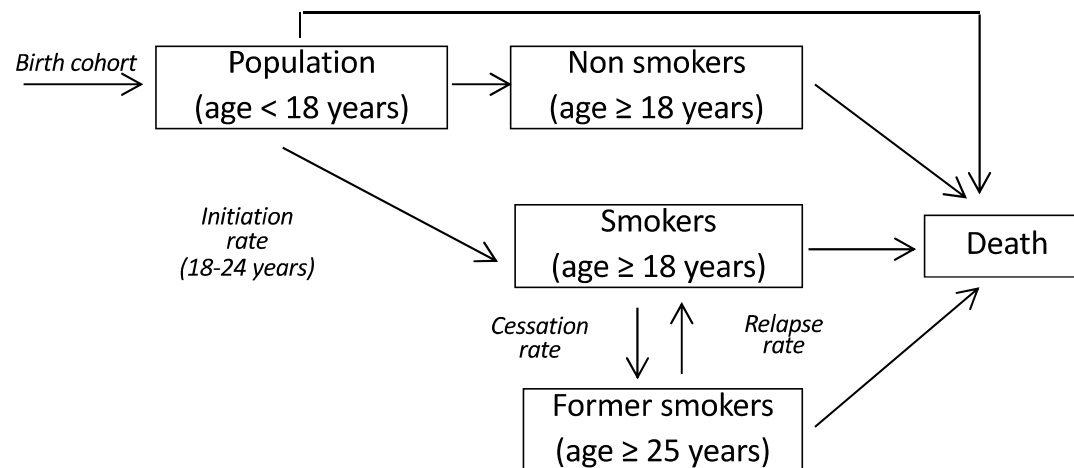
- prevalence data from PASSI/PASSI Argento surveillance system, and from ISTAT and DOXA surveys
- RR from most-recent meta-analyses (cervix cancer in course)
- distribution of pack-years and years since quitting estimated using a simulation model based on local ISTAT survey data.

Fine particulate pollution:

- exposure data from the combination of deterministic dispersion models developed by the LaMMA consortium and from air quality monitoring stations (Bayesian kriging models)
- RR from most-recent meta-analyses of European or local studies.

Stage 3 – lung cancer simulation model

- Focusing on lung cancer, a mathematical model for the dynamic of risk factor exposure and its association with lung cancer will be developed.
- The model will allow to simulate and compare effectiveness of different hypothetical prevention scenarios.



ACAB website

- The project description, the work in progress and results will be published on the ACAB website (work in progress): www.acab-toscana.it



PROGETTO

TEAM

TIMELINE

RISULTATI

GLOSSARIO

**Impatto dei tumori attribuibili al fumo di tabacco
e a fattori di rischio ambientali o occupazionali
e valutazione di strategie preventive**

