

## **Burden of asbestos-related cancers in Switzerland (BARCS)**

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NB: This MD-PhD Research project is particularly attractive for those with a Master in Med / Vet who want to specialize in PUBLIC HEALTH—because as of 2020, the PhD (or MD-PhD) qualifies as «MPH-equivalent» (with a few extra conditions) – thus, the expensive MPH investment is not a requirement anymore in those career plans

Asbestos is a major occupational and environmental risk factor for workers and civilians, as it causes asbestos-related diseases such as lung fibrosis (asbestosis) and pleural fibrosis (plaque and thickening), as well as asbestos-related cancers (ARC) including lung cancer, peritoneal and pleural malignant mesothelioma, laryngeal cancer, and ovarian cancer.

Carcinogenicity of asbestos has been well established for decades and it has similar approval standards in most advanced countries. However, Switzerland has been lagging behind such international standards and the recognition of ARC as occupational diseases is still mostly limited to pleural malignant mesothelioma.

Although the use of asbestos and asbestos-containing products has been banned in Switzerland since 1990, with a 5-year transitional period for certain uses, the exposure to asbestos has not disappeared. In contrast, nowadays asbestos is considered an emerging risk for public health, due to the weathering and the necessary renovation or recycling of the buildings and products containing asbestos. Consequently, the estimation of the ARC burden including all related cancers is warranted to fulfill the international standards in recognition and prevention of occupational ARC.

This project aims at estimating the burden of asbestos-related cancers in Switzerland considering each type of cancer specifically.

For this, the data from the Swiss Federal Statistics Office (Swiss Labour Force Survey from 1991 through 2021) will be used along with the data from the Swiss cancer registries. Moreover the international Job exposure matrix “SynJEM” will be used as source of asbestos occupational exposure data and additional data on occupational carriers in Swiss population will be collected for validation purpose.

As burden estimates, we will calculate population-attributable fraction (PAF), potential years of life lost (PYLL), Years Lived with Disability (YLD), and the Disability-adjusted Live Years (DALY), which are the most important indicators for decision making in public health.

This work will be conducted in collaboration with experts from the European COST Action CA18218 “European Burden of Disease Network” (<https://www.burden-eu.net/>).