

# Lung Cancer Risk, Smoking and Use of Swedish Snus

*Author:* Brian Wicklin, Et al, Senior Statistician, Statistical Bureau VECA HB

*Postal address:* Vällingbyplan 26/3, Se-16265 Vällingby, Sweden

*Email:* [brian@statveca.com](mailto:brian@statveca.com); [wicklin7@hotmail.com](mailto:wicklin7@hotmail.com)

*Telephone* 0046 8 57 97 20 48 *Mobile* 0046 70 607 38 96

## 1. Introduction

The statistics that describe the changes in composition of tobacco use and age standardised lung cancer incidence in Sweden during 1960-1997 (1998) are studied in this report. The statistics have been compiled from official sources.

The consumption figures are expressed in terms of tobacco intake per person 15 + in accordance with the standards established by the World health Organisation (WHO).

The lung cancer incidence per 100000 persons refer to the number of cases divided by the mean population. The incidence rates are age adjusted to a standard population (latest available census). The aim of the age adjustments is to reduce the risk of age specific structural changes from influencing the incidence rates over time. In other words the age distribution of the standard population is assumed to remain un-changed over a specified time period. Although a time period of 30-40 years could be considered to be relatively long in general terms it is probably too short a time for structural changes in the age composition to have a significant impact on incidence rates. Nevertheless, the age standardisation eliminates the risk of a changing age structure influencing the incidence rate during the time period 1960-1997.

In analysing the data three time intervals are specified; 1960-1962, 1980-1982 and 1995-1997. The referral is to a three year moving average for each of the time periods.

## 2. Description of the trends in development

### 2.1 Smoking prevalence

The smoking prevalence rate is declining more rapidly in Sweden than in most other European countries. In 1997, Sweden was the first country in the World to reach the WHO target goal of reducing adult smoking prevalence below the 20 % level. Sweden has lowered this rate to a record low level of 19.3 % in 1999.

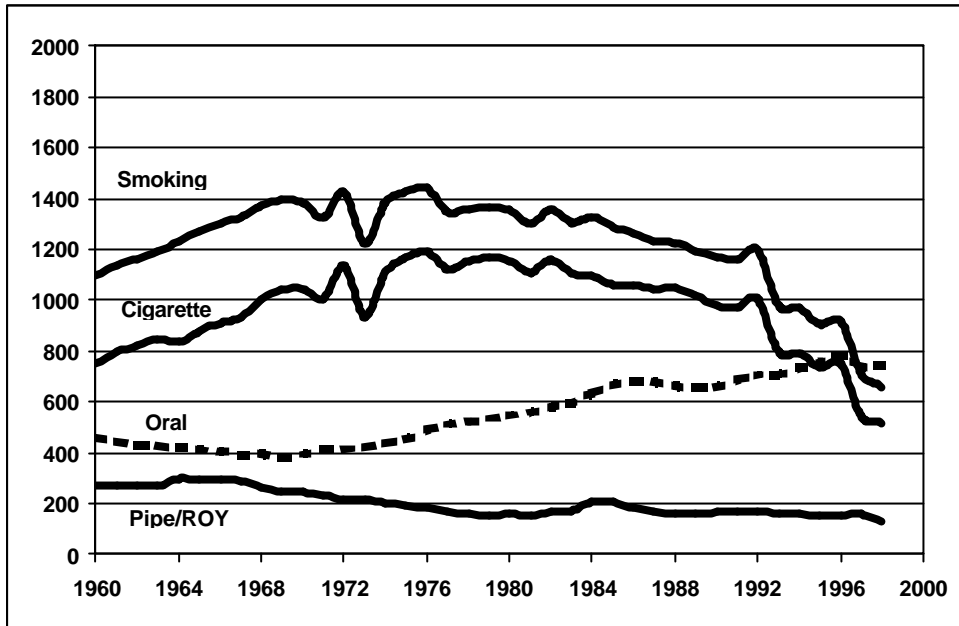
Adult males (aged 16-84) have succeeded in reducing smoking prevalence more rapidly (35 to less than 20 %) compared to adult females (28 to 23 %). This rapid decline in smoking prevalence rates for males is closely associated with the increased usage of Swedish snus (moist snuff). According to the latest survey on smoking prevalence (Swedish Office of National Statistics) men who have given up smoking and started using Swedish snus as an alternative to smoking had increased from 200000 in 1980 to about 340000 in 1997 (latest available figures).

### 2.2 Lung cancer incidence

The lung cancer incidence in Sweden for men increased from 26 to 46 between the early 1960s and 1980s, and decreased to 38 in the late 1990s. Lung cancer incidence for women had increased continuously from 6 to 21 over the years from early 1960s to late 1990s.

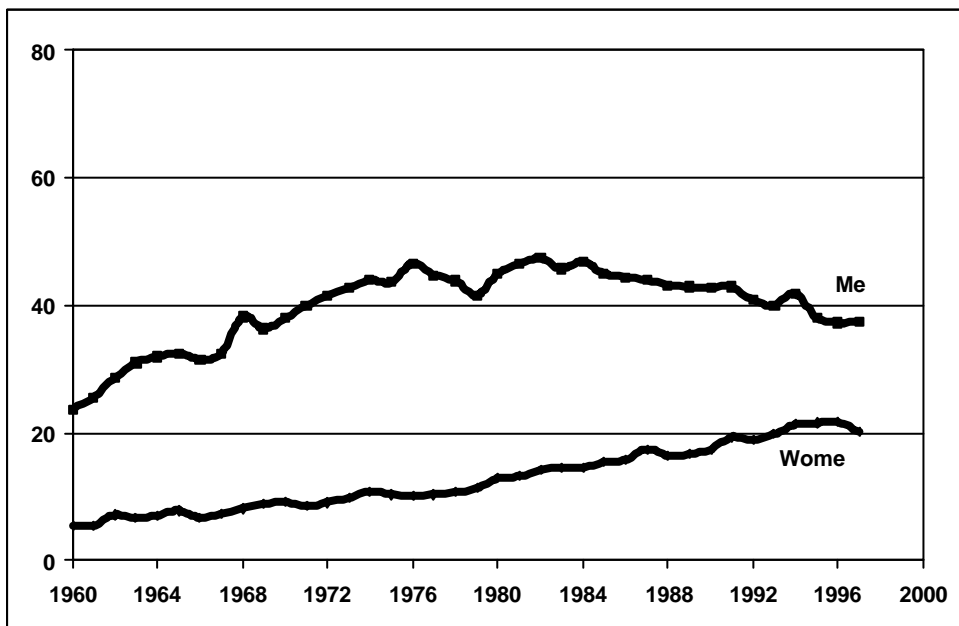
**Figure 1 Changing pattern of tobacco intake in Sweden 1960-1997**

*Tobacco intake grams per person 15+*



**Figure 2 Age standardized lung cancer incidence in Sweden 1960-1997**

*Per 100000 persons*



## REFERENCE

Statistical Bureau VECA HB. Statistical Report 2000-08-01: Tobacco use and lung cancer incidence in Sweden and Norway.

## RESUME

Cet article décrit les changements induits dans les cancers du poumon et l'usage du SNUS (moist snuff) Suédois comme alternative à la cigarette.