NICER

Thyroid

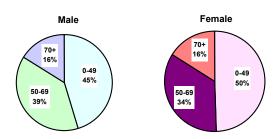
NICER and Swiss Cancer Registries

Raw Data - Period 2003-2006

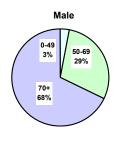
| | Yearly averages | | 5-year | Years of |
|--------|-----------------|--------|------------|-----------|
| Gender | New cases | Deaths | Prevalence | life lost |
| | (1) | (2) | (3) | (4) |
| Male | 131 | 24 | 379 | 126 |
| Female | 351 | 43 | 931 | 108 |
| Total | 482 | 67 | 1310 | 234 |

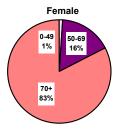
- (1) Swiss estimates on basis of nine registries
- (2) Computed from data of Statistical Federal Office
- (3) Estimated from Globocan 2002, IARC Lyon
- (4) Years lost each year before age 75

New Cases by Age Group

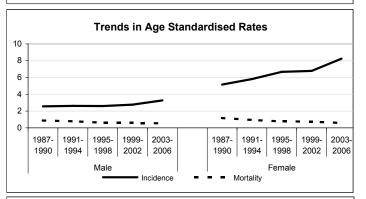


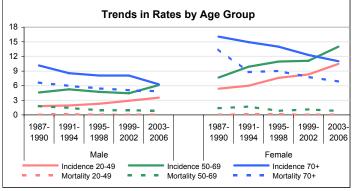
Deaths by Age Group





Age Specific Rates - Period 2003-2006 Male Incidence Male Mortality Female Incidence Female Mortality 0- 5- 10- 15- 20- 25- 30- 35- 40- 45- 50- 55- 60- 65- 70- 75- 80- 85+





Thyroid Cancer

Thyroid carcinoma accounts for approximately 1% of total cancer cases, representing about 350 women and 130 men as new cases per year in Switzerland. Over the last period 2003-2006, the annual age standardized incidence (European population) was estimated to be 8.2 per 100,000 women and 3.3 per 100,000 men. The incidence of this malignancy has been increasing over the last decade in Switzerland as in many other countries: referring to the period 1987-1990, the European standardized incidence rate shifted from 2.6 to 3.3 (+30%) for males and from 5.2 to 8.2 (+60%) among females.

The thyroid gland is highly sensitive to radiation-induced oncogenesis. Other than ionizing radiation, the aetiology of thyroid neoplasms remains relatively obscure but epidemiological studies have implicated benign thyroid nodules and goitre, hormonal and reproductive variables, lifestyle, dietary intakes and genetic factors.

Differences in iodine intake may be one factor explaining the geographic variation, high intake being associated with a slightly increased risk of developing papillary thyroid cancer although low intake leads to increased risk of follicular carcinoma. Over the past decades, upward incidences of the trend of papillary thyroid cancer have been reported in several countries. In addition to the known aetiological factors, increased diagnostic activity has been proposed for explaining the observed increase.

Differentiated tumours (papillary or follicular) are highly treatable and usually curable: 5-year relative survival is usually higher than 95%. Poorly differentiated tumors (medullary or anaplastic) are much less common, are aggressive, metastasize early, and have a much poorer prognosis.

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