

Non Hodgkin Lymphoma

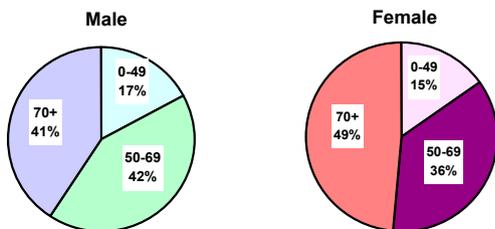
NICER and Swiss Cancer Registries

Raw data - Period 2003-2006

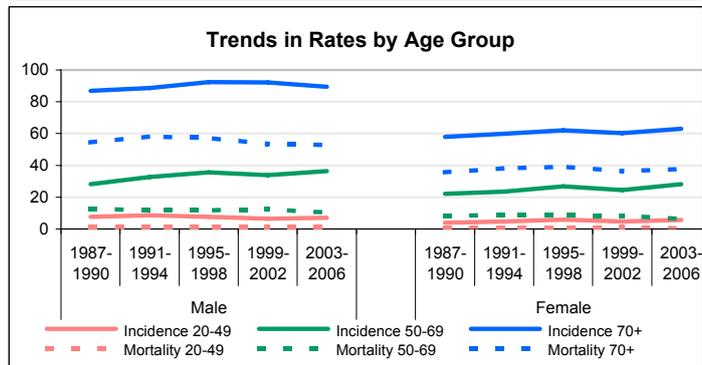
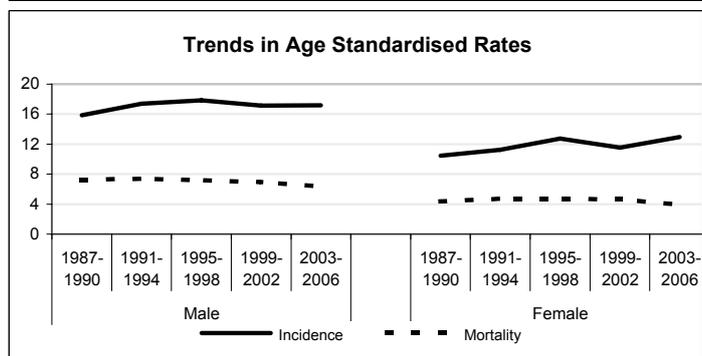
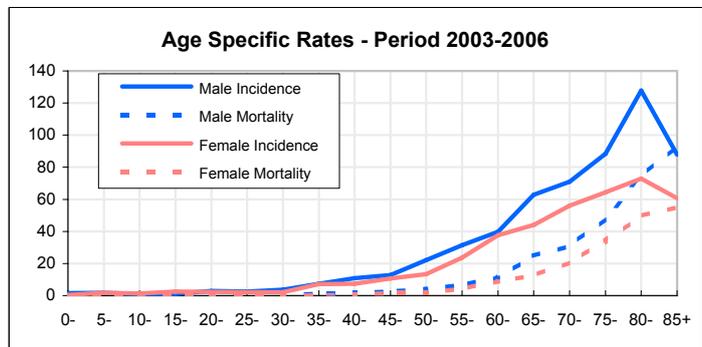
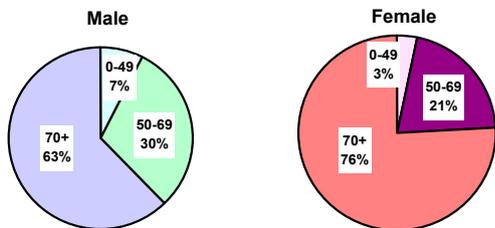
Gender	Yearly averages		5-year Prevalence (3)	Years of life lost (4)
	New cases (1)	Deaths (2)		
Male	729	283	2173	1923
Female	670	257	1752	1026
Total	1399	540	3925	2950

- (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



Many important changes have occurred in recent years in understanding, defining, coding and categorizing hematologic malignancies. (See *WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues, Fourth Edition, IARC WHO Classification of Tumours, No 2, 2008, Geneva*). Therefore, this short overview cannot describe long term registration for separate entities and merging all types of leukaemias or all types of Non Hodgkin Lymphomas is rather meaningless.

Leukaemia, the most common blood cancer, includes several diseases.. The most common type of leukaemia in adults is Acute Myelocytic (AML), followed by Chronic Lymphocytic (CLL), Chronic Myelocytic (CML), and Acute Lymphocytic (ALL) leukaemias.

In Switzerland, about 850 cases are diagnosed and about 500 persons die from leukaemia each year.

The incidence and mortality rates for leukaemia have decreased very slightly over the last 20 years. Overall, men are more susceptible than women to leukaemia. However, compared with most of solid tumours, it can be assessed that risk of leukaemia has been almost constant over time. However, impressive improvement in prognosis has been observed (EUROCARE studies).

For instance, in Switzerland, 5-year relative survival for AML shifted from 7% to 19%, and for all leukaemia's combined in adults, it increased from 42% to 50%.

Advances in the treatment of AML (also called acute myelogenous leukemia, acute nonlymphocytic leukemia, or ANLL) have resulted in substantially improved complete remission rates. Approximately 60% to 70% of adults with AML can be expected to attain complete remission status following appropriate induction therapy. More than 25% of adults with AML (about 45% of those who attain complete remission) can be expected to survive 3 or more years and may be cured. Remission rates in adult AML are inversely related to age, with an expected remission rate of more than 65% for those younger than 60 years.

Sixty percent to 80% of adults with ALL can be expected to attain complete remission status following appropriate induction therapy.

Although affecting approximately 10 times more adults than children, leukaemia is the most common cancer among children and represents 23% of cancer diagnoses among children younger than 15 years and approximately 72 percent of all childhood leukaemias. The incidence of ALL among children aged 2 to 3 years is approximately fourfold greater than that for infants and is nearly tenfold greater than that for adolescents who are 19 years old.

Leukaemia

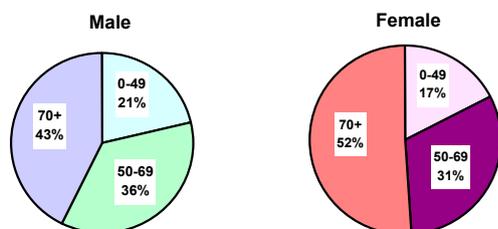
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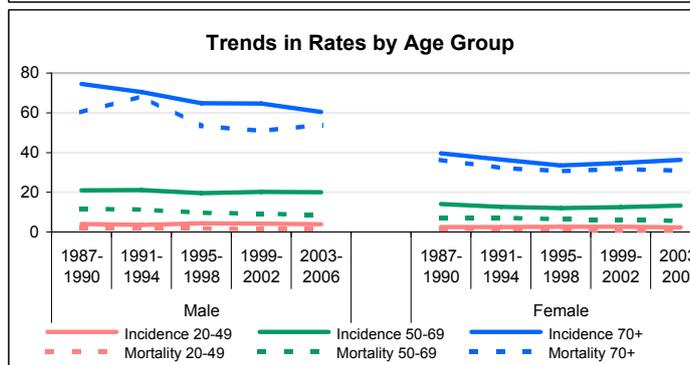
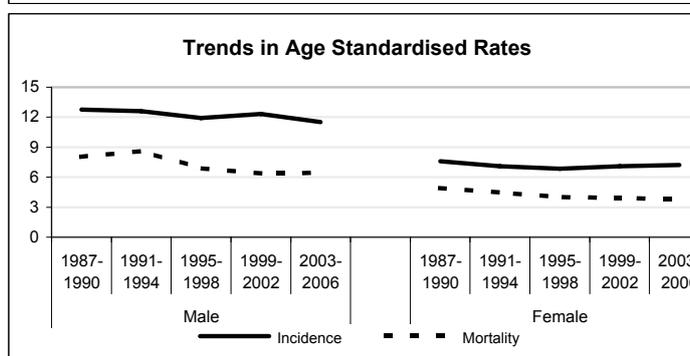
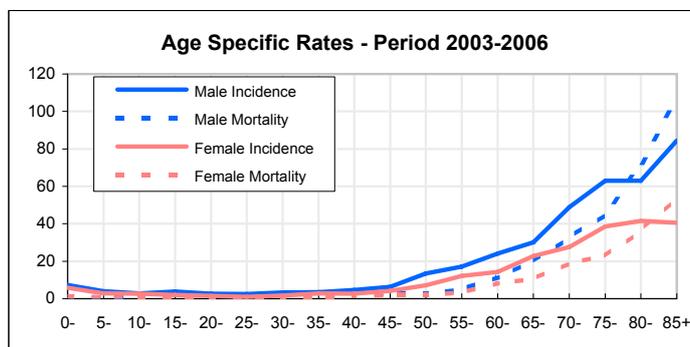
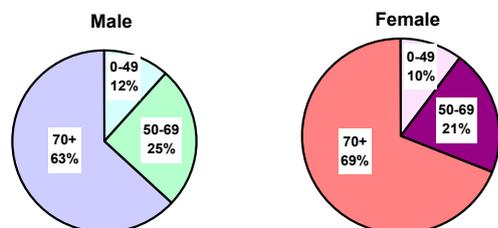
Gender	Yearly averages		5-year	Years of
	New cases (1)	Deaths (2)	Prevalence (3)	life lost (4)
Male	470	285	1494	2421
Female	366	232	1033	1720
Total	836	516	2527	4141

- (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



There are few identified factors associated with an increased risk of ALL. The primary accepted nongenetic risk factors for ALL are prenatal exposure to x-rays and postnatal exposure to high doses of radiation (e.g., therapeutic radiation as previously used for conditions such as tinea capitis and thymus enlargement). Children with Down syndrome have an increased risk of developing both ALL and acute myeloid leukaemia (AML), with a cumulative risk of developing leukaemia of approximately 2.1% by age 5 years and 2.7% by age 30 years. Approximately one-half to two-thirds of the cases of acute leukaemia in children with Down syndrome are ALL.

Among children with ALL, more than 95% attain remission and 75% to 85% survive free of leukaemia recurrence at least 5 years from diagnosis with current treatments. It was less than 50% during the early 80's.

Chronic lymphocytic leukaemia (CLL) has for long time been a single entity but it is now mixed with small lymphocytic non-Hodgkin lymphoma. This evolution in definition is one example of difficulties when looking at trends and survival. Same difficulties arise when dealing with other myeloproliferative disorders, such as CML.

The **Non Hodgkin Lymphomas (NHL)** are an heterogeneous group of lymphoproliferative malignancies with differing patterns of behaviour and responses to treatment, representing about 1400 new cases and 550 death per year in Switzerland, with a relative steady incidence rate over time.

NHL can be divided into two prognostic groups: the indolent and the aggressive lymphomas. Indolent NHL types have a relatively good prognosis with a median survival as long as 10 years, but they usually are not curable in advanced clinical stages. Early stage indolent NHL can be effectively treated with radiation therapy alone. Most of the indolent types are nodular (or follicular) in morphology. The aggressive type of NHL has a shorter natural history, but a significant number of these patients can be cured with intensive combination chemotherapy regimens. With up to date treatments, overall survival at 5 years is approximately 50% to 60%. Of patients with aggressive NHL, 30% to 60% can be cured. The vast majority of relapses occur in the first 2 years after therapy. The risk of late relapse is higher in patients with a divergent histology of both indolent and aggressive disease. Aggressive lymphomas are increasingly seen in HIV-positive patients, requiring special consideration.

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