

# Socio occupational inequalities in breast and lung cancer net survival among Swiss working women

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**Breast (BC) and lung (LC) cancer** are respectively the cancer with the **highest incidence** and that with the **highest mortality in women**. Occupation and socio professional variables can contribute to differences in risk and stage at diagnosis of cancer.

## AIM:

- describe **socio occupational characteristics**
- assess the **relationship** with breast and lung cancer **net survival**

## POPULATION:

- **Women aged 18-65 y**
- **Western Switzerland** (six French-speaking cantons) in the 1990 or 2000 census

**8'678 breast** and **1'413 lung cancers** identified via probabilistic linkage with records from cancer registries (diagnosed **between 1990 and 2014**).

Tumor stage	BREAST	LUNG
I	3269 (37.7%)	184 (13%)
II	2655 (30.6%)	79 (5.6%)
III	662 (7.6%)	191 (13.5%)
IV	291 (3.4%)	546 (38.6%)
Missing information	1801 (20.8%)	413 (29.2%)

## RESULTS:

**BC patients:** more frequently employed in **manual occupations** (13.4% versus 15.6% p 0.02) and with a **higher skill level** required for the occupation (p<0.001).

**LC patients :** more frequently **Swiss** (87% vs 81%, p<0.001) and **divorced or widowed** (32% vs 20%, p<0.001).

## LC WOMEN 5-YEAR NET SURVIVAL PROSPECT

**Intermediate high skill level** (HR 0.77, 95%-CI: 0.60-0.99)

Occupation and socio professional category had a **less marked impact** on net survival.

## BC WOMEN 5-YEAR NET SURVIVAL PROSPECT

**Professionals** (HR 0.73, 95%-CI: 0.56-0.96)

**Top manager** or **independent** (HR 0.49, 95%-CI: 0.26-0.90)

**Highest skill level** (HR 0.76, 95%-CI: 0.59-0.97).

Survival (Log-rank test )	BREAST	LUNG
Occupation	p 0.001	p 0.083
Skill level required for Occupation	p 0.002	p 0.016
Socio professional category	p 0.015	p 0.477

	BREAST (%)	LUNG (%)
<b>TOTAL</b>	8678 (100%)	1413 (100%)
<b>Nationality</b>		
Swiss	7012 (80.8%)	1226 (86.8%)
Non-Swiss	1664 (19.2%)	187 (13.2%)
<b>Civil status</b>		
Single	1649 (19%)	219 (15.5%)
Married	5297 (61%)	735 (52%)
Widowed	381 (4.4%)	108 (7.6%)
Divorced	1351 (15.6%)	351 (24.8%)
<b>Occupation</b>		
Legislators, senior officials, and managers	516 (5.9%)	101 (7.1%)
Professionals	1160 (13.4%)	112 (7.9%)
Technicians and associate professionals	2077 (23.9%)	287 (20.3%)
Clerks	2256 (26%)	374 (26.5%)
Service workers and shop and market sales workers	1509 (17.4%)	318 (22.5%)
Skilled agriculture and fishery workers	98 (1.1%)	15 (1.1%)
Craft and related trades workers	269 (3.1%)	59 (4.2%)
Plant and machine operators and assemblers	92 (1.1%)	13 (0.9%)
Elementary occupations	701 (8.1%)	134 (9.5%)
<b>Manual occupation</b>		
Non	7518 (86.6%)	1192 (84.4%)
Oui	1160 (13.4%)	221 (15.6%)
<b>Skill level required for the occupation</b>		
Low	701 (8.1%)	134 (9.5%)
Intermediate low	4224 (48.7%)	779 (55.1%)
Intermediate high	2077 (23.9%)	287 (20.3%)
High	1676 (19.3%)	213 (15.1%)
<b>Socio-professional category</b>		
Top management and independent professions	224 (2.6%)	23 (1.6%)
Other self-employed	812 (9.4%)	174 (12.3%)
Professionals and senior management	904 (10.4%)	91 (6.4%)
Supervisors/low level management and skilled labour	4926 (56.8%)	744 (52.7%)
Unskilled employees and workers	1689 (19.5%)	345 (24.4%)
In paid employment, not classified elsewhere	123 (1.4%)	36 (2.5%)

