

BACKGROUND

Today in France, 3 million people live with cancer. An estimated 382,000 new cases of cancer were diagnosed in 2018. 40% of newly diagnosed cases concern people in active employment. Cancer has a strong impact on social and working life but also inside the company. The estimated cost of cancer-related work stoppages is 500 million euros per year. These work stoppages modify the company's organization and can lead to a change in social relations within a team and a reduction in team cohesion.

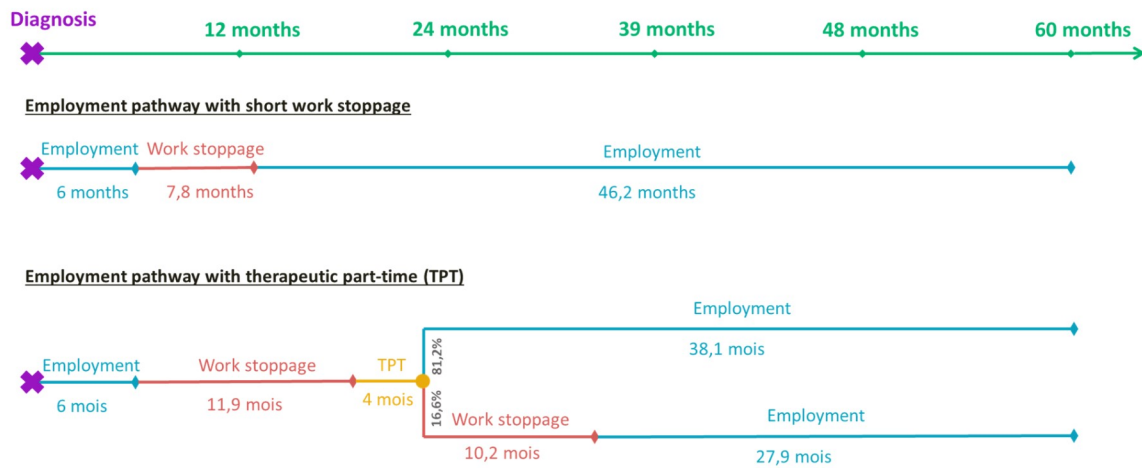
The objective of the study was to determine the risk of cancer for a company and to deduce the real cost to the company in order to set up a prevention policy.

CAREER PATHS

Different career paths within the company after the diagnosis of cancer have been implemented, including periods of sick leave, therapeutic time, unemployment, disability or return to work. Each period corresponds to presenteeism, or absenteeism and direct costs (during work stoppages).

The five career paths within the company were determined from the INCA's VICAN 5 (2018) study:

1. Return to work after a short-term work stoppage;
2. Return to work with therapeutic part-time work;
3. Long-term work stoppage without return to work;
4. Becoming unemployed after the work stoppage;
5. Becoming disabled after the work stoppage.



Career paths after a cancer diagnosis are broken down according to the location of cancer.

METHODS

The "**Cost-of-Illness**" method was used to estimate the health and economic impacts of cancer over 5-year.

A **multi-cohort incidence** approach was implemented to estimate the economic consequence of newly diagnosed cancer cases over a given period of time throughout the patient's life.

The **company's perspective** was used with the **friction costs method** to account for employee **absenteeism, presenteeism, or direct costs**. Direct costs represent the sick pay paid by the company to its employee during the first 2 months of the sick leave. All three of them have an impact on **productivity losses** but also on the **turnover decline**.

We included in the analysis: lung, colon-rectum, head and neck, breast, melanoma, and other cancer.

The 5-year cancer incidence and survival data are from the 2019 InCA reports. In the multi-cohort model, the survival rate for each cancer site and the year is taken into account.

The most common cancer in women is breast cancer with 33% of all cancers. The most common cancer in men is lung cancer with 15% of all cancers.

Simulation data

The structure of a typical company in France was constructed from INSEE data (an intermediate-type company with 493 employees on average composed of 20.3% executives with a net annual salary of €48,690, 21.4% intermediate professions with a salary of €26,250, 23.2% employees with a salary of €18,180, 35% blue-collar workers with a salary of €19,670). A male-female and age distribution has been established within each employee class.

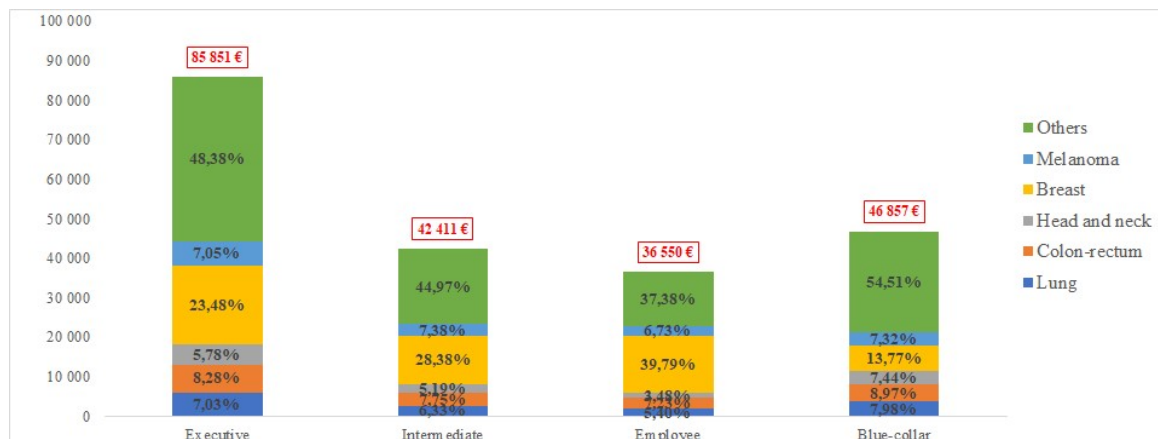
This tool can be customized to each company according to its specificities: composition (number of employees, categories of employees, age distribution, male/female ratio), salaries, turnover.

ECONOMIC IMPACT

Productivity losses

In total, employee productivity losses amounted to €211,669 for the company over 5 years, 69% of which was due to absenteeism, 23% to presenteeism, and 7% to direct costs. This distribution is identical regardless of the professional class.

The amount of these productivity losses is distributed as follows: 41% by executives, 20% by intermediaries, 17% by employees, and 22% by blue-collar workers. This can be explained by the annual salary of the executives and by the number of blue-collar workers in the company. The employee category is 76% female, which explains that in this class 40% of productivity losses are due to breast cancer.

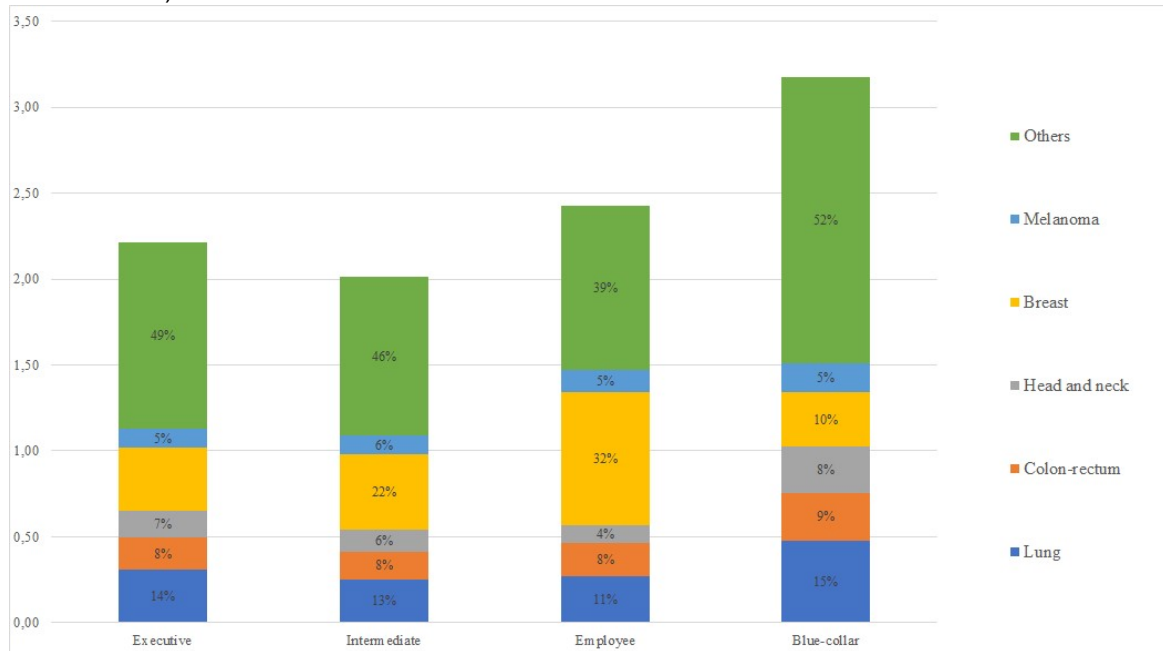


Turnover decline

The loss of turnover was calculated on the basis of an average annual added value of €34,000 per employee. Thus, in terms of lost turnover, cancer has an impact of €175,735 over 5 years for the typical company. The loss of turnover is based on the same breakdown according to the professional category but also according to the location of cancer.

HEALTH IMPACT

Over 5 years, 10 employees of the company will have reported, including 5 men and 5 women (1 lung cancer, 2 breast cancer, 1 head, and neck cancer, 1 colon-rectum cancer, 1 melanoma cancer, and 5 other cancers).



CONCLUSION

The loss of productivity and turnover due to cancer is of concern to the company. 93% of cancer costs to the company are hidden costs (absenteeism and presenteeism) that may not be considered and known by the company, unlike direct costs. It is important to note that 41% of new cancer cases could be prevented if exposure to modifiable risk factors (alcohol, tobacco etc.) was optimal. Awareness policies within companies prevent risks due to lifestyle and modifiable risk factors. This is part of all public policies with companies on cancer. Cancer awareness policies within companies are therefore a major issue for managers.

ABSTRACT

Background: Today in France, 3 million people live with cancer. An estimated 382,000 new cases of cancer will be diagnosed in 2018. 40% of newly diagnosed cases concern people in active employment. Cancer has a strong impact on social and working life. The objective of the study was to determine the risk of cancer for a company and to deduce the real cost to the company in order to set up a prevention policy.

Methods: The "Cost-of-Illness" method was used with the multi-cohort incidence approach to estimate the health and economic impacts of new cases of cancer diagnosed over 5-year. The company's perspective was used with the friction costs method to account employee absenteeism, presenteeism or direct costs, which have an impact on productivity losses but also on turnover decline. Different employee's career paths within the company with work stoppage, therapeutic time, unemployment, disability or return to work were implemented. The 5-year cancer incidence, survival data and information on employees' career paths within the company were extracted from different InCA reports.

Results: A typical company in France was constructed from INSEE data (an intermediate company with 493 employees : 20% managers, 21% intermediate professions, 23% employees, 35% blue-collar workers). A male-female and age distribution has been established within each employee class.

Over 5 years, 5 men and 4 women declare cancer. Productivity losses amount to €194,112 : 66% was due to absenteeism, 25% to presenteeism and 8% to direct costs. In terms of loss of turnover, cancer has an impact of €161,673, with managers accounting for 45% of this loss, intermediate professions 23%, employees 9% and blue-collar workers 23%.

Discussion: Loss of productivity and loss of turnover due to cancer is a concern for the company. Awareness policies within companies prevent risks due to lifestyle and modifiable risk factors.

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