

CANCER BURDEN IN LUXEMBOURG

Allini Mafra^{1,2}, Julien Jacobs^{1,2}, Michaël Schnell^{1,2}, Ibrahima Niang^{1,2}, Thérèse Baurith^{1,2}, Sophie Couffignal², Claudine Backes^{1,2}

¹ Cancer Epidemiology and Prevention Group, Public Health Expertise, Department of Precision Health, Luxembourg Institute of Health, Strassen, Luxembourg;

² National Cancer Registry (Registre National du Cancer (RNC)), Luxembourg Institute of Health (LIH), Strassen, Luxembourg

BACKGROUND

Luxembourg is one of Europe's smallest countries with one of the fastest growing population. In 2021, Luxembourg has a population of 643 941, where 49,3% of the residents are born outside the country. In addition, 228,000 cross-border workers commute every day from neighboring countries like France, Belgium, and Germany accounting for 47% of the total labor force. This significant influx of cross-border workers, who are also a part of the country's health insurance system, impacts public health strategies and needs. This study aims to examine Luxembourg's burden of cancer in 2019 and to analyse the effects of the important demographic changes.

METHODS

Data from the National Cancer Registry of Luxembourg (*Registre National du Cancer*, RNC), which recorded all new cancer cases diagnosed or treated in Luxembourg, was extracted for the incidence year of 2019. To examine the variable "country at the time of diagnosis," patients were categorized into two groups: residents (those living in Luxembourg at the time of diagnosis) and non-residents (cross-border workers or patients seeking cancer treatment in Luxembourg). Cancer cases were described by sex, age, and cancer type.

RESULTS

In 2019, the RNC recorded 3,452 new cancer cases including 8,5% non-residents. The most common cancers are breast, prostate, lung and colon cancers, comprising approximately 50% of all cases. The age group 60-79 showed the highest frequency among residents (52%), while 40-59 showed the highest frequency among non-residents (46%).

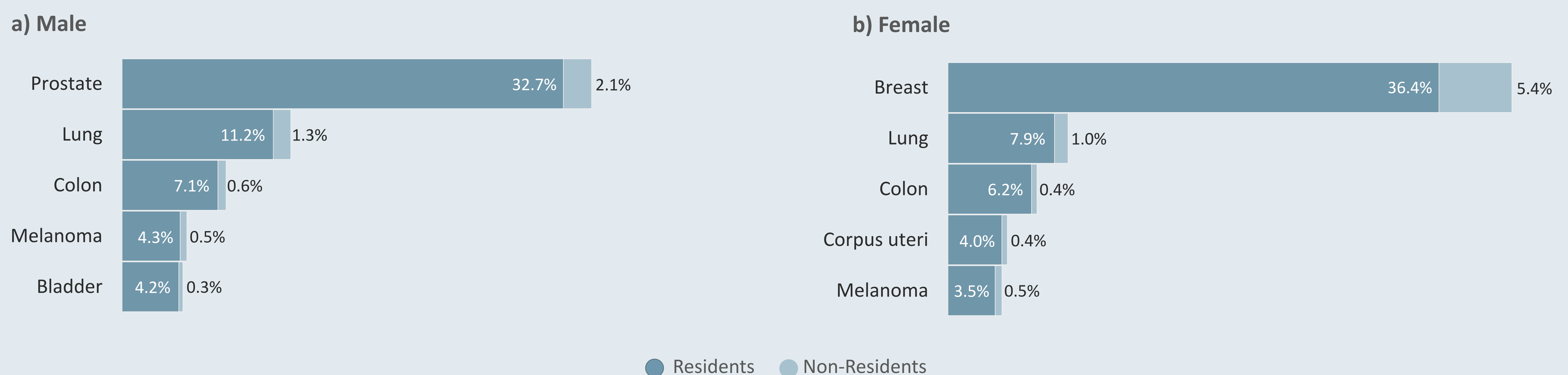


Figure 1. The most frequent types of cancer by sex and residence status, 2019.

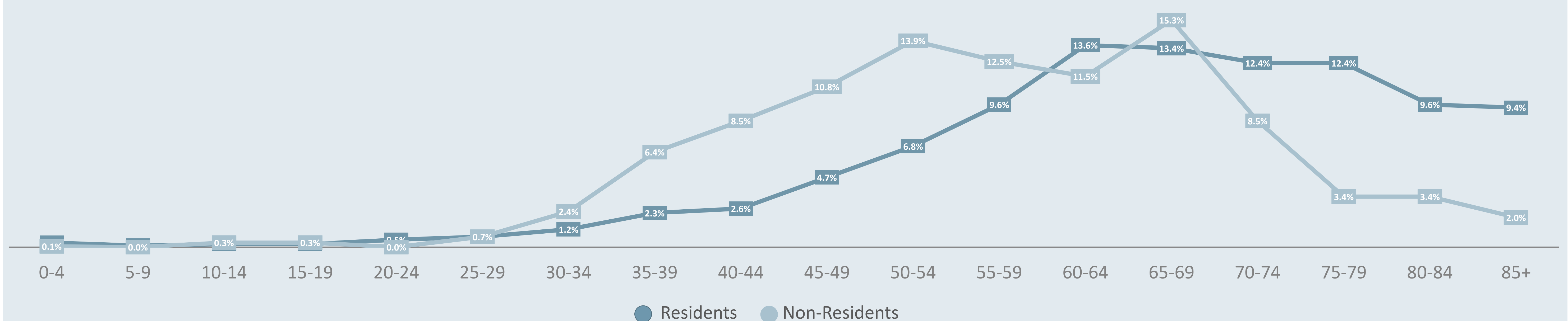
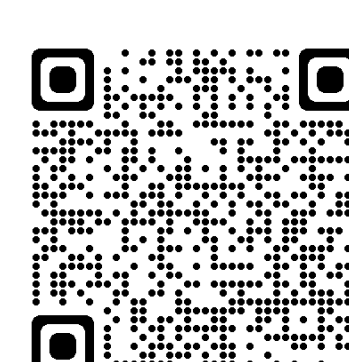


Figure 2. Percentage distribution of cancer incidence by age and residence status, 2019

DISCUSSION and CONCLUSION

This study provides a detailed view of cancer burden in Luxembourg, highlighting the impact of unique demographic characteristics, including a significant non-resident population. These findings underscore the need for healthcare strategies tailored for this diverse population. Ongoing research and continuous monitoring are crucial for effectively adapting public health policies and addressing the changing patterns of cancer.

Contact:

 Allini Mafra
Allini.MafraDaCosta@lih.lu