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DISTRIBUTION OF HEMATOLOGICAL MALIGNANCIES IN LUXEMBOURG AND IN CÔTE D'OR, FRANCE: FIRST INSIGHTS FROM THE RELIANCE PROJECT

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BACKGROUND & OBJECTIVE

Hematological malignancies (HM) are a diverse group of cancers characterized by complex clinical and genetic profiles. Luxembourg's National Cancer Registry (in French: *Registre National du Cancer*, RNC) has been recording HM since 2014. To support this effort, a collaborative comparison was conducted with the *Registre des Hémopathies Malignes de Côte d'Or (RHEMCO)* in France, which covers similar size – approximately 580,000 residents – compared to the Grand Duchy of Luxembourg 666,000. This collaboration enabled strengthen Luxembourg's expertise in HM coding, and has provided an opportunity to benchmark its initial findings.

OBJECTIVE

This pilot study aims at producing 2019 HM-specific incidence of indicators in Luxembourg and at comparing the results with RHEMCO results for the period of 2019.

MATERIALS AND METHODS

RNC and RHEMCO collect HM cases using WHO, IARC and ENCR guidelines.

- Inclusions: ICD-O-3.2; only malignant cases ("3" behavior).
- 11 morphological HM subtypes were grouped for analysis.
- European age-standardized incidence rates (ESR) calculated for:
- RNC (2019)
- RHEMCO (2019)
- Socio-demographic data analyzed across registries.

RESULTS

Figure 1: Specific incidence ratio for all malignant hematologic diseases, Luxembourg, 2019

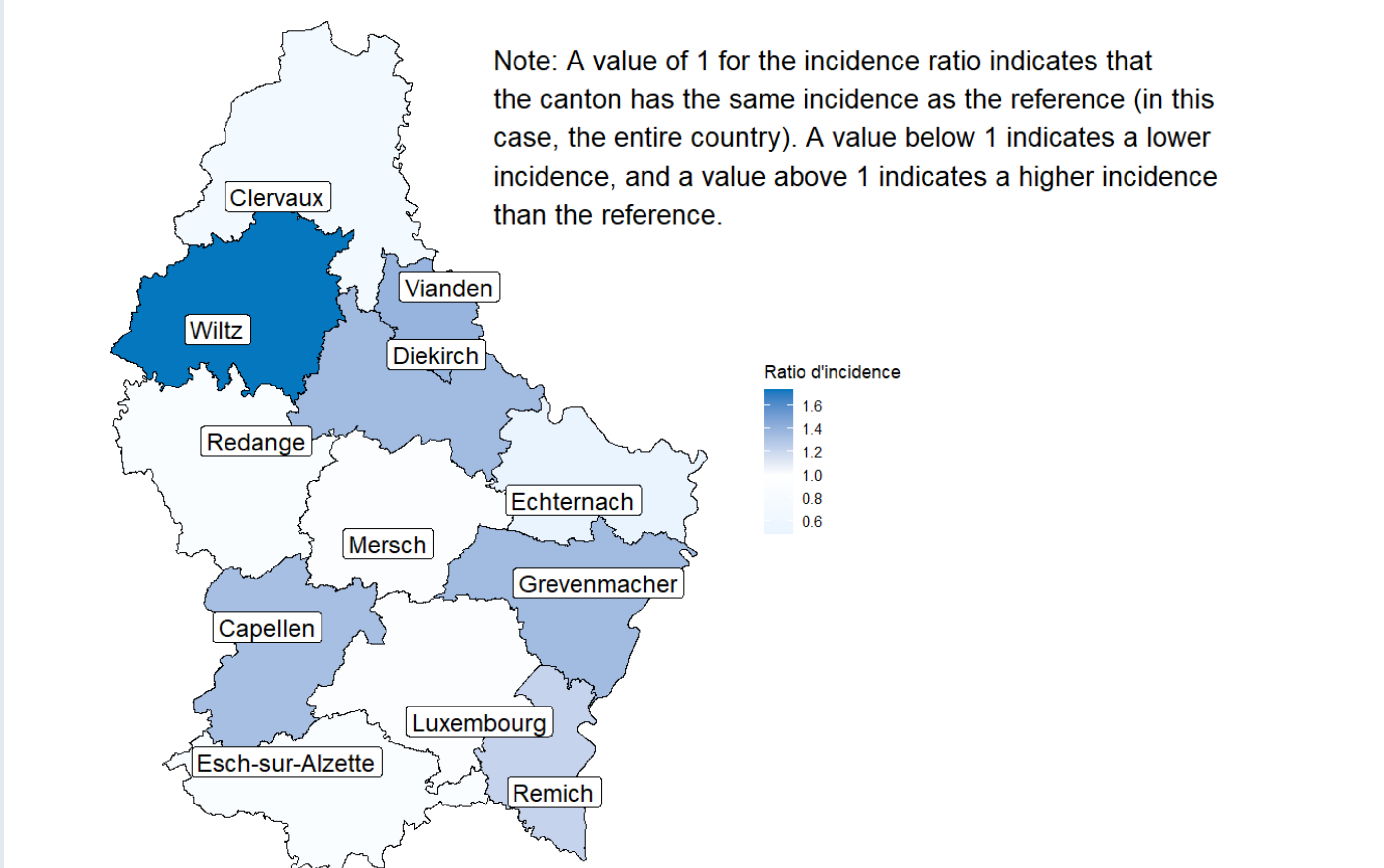


Figure 2: Distribution of malignant hematologic diseases by sexe, Luxembourg, 2019

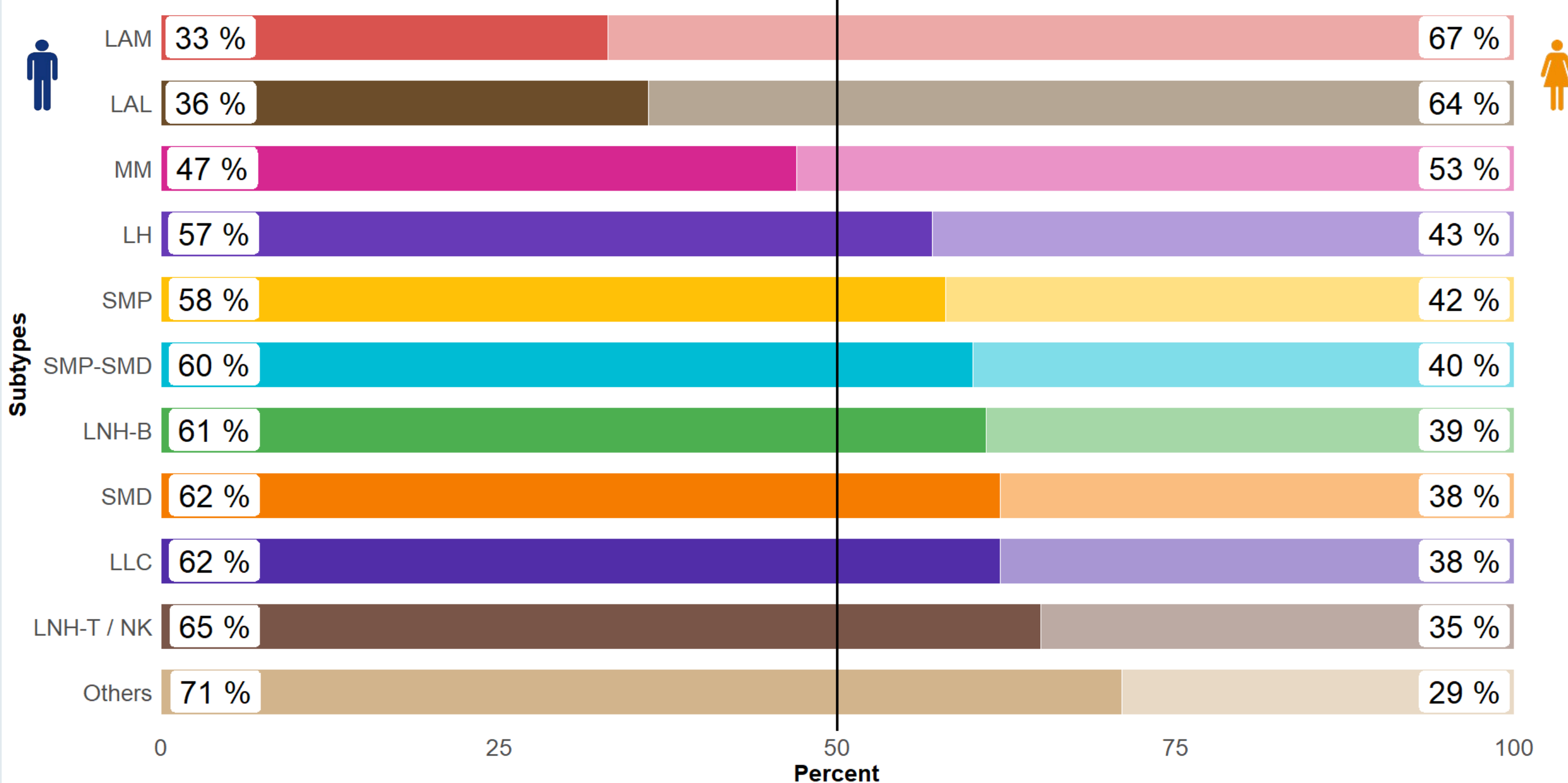
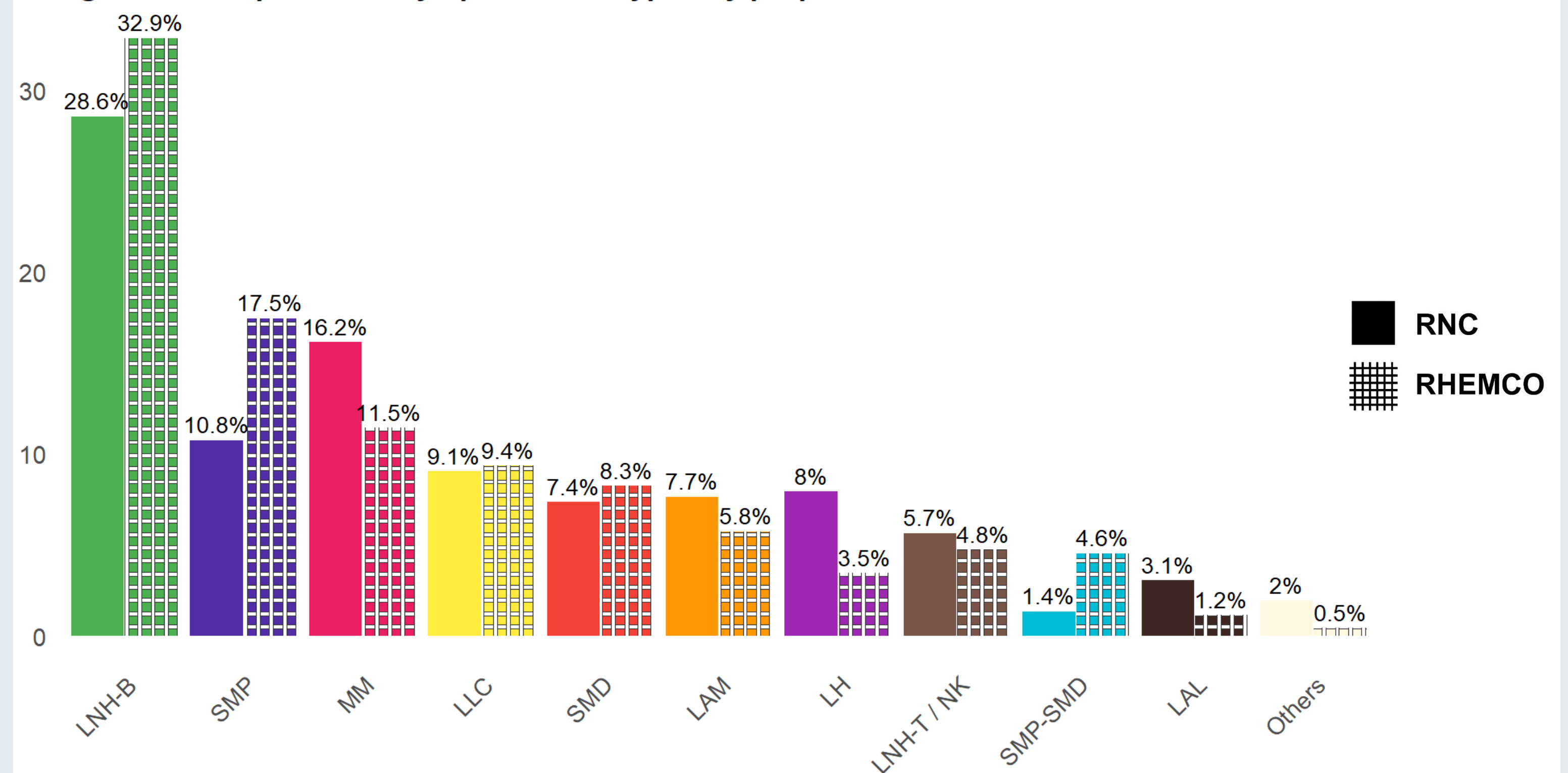


Figure 3: Comparison of lymphoma subtypes by proportion: RNC 2019 vs RHEMCO 2019



Similarities to RNC – RHEMCO:

- Incidence rates of almost all HM are similar between RNC and RHEMCO, indicating exhaustive data collection in Luxembourg for 2019. However this needs to be confirmed with 2–3 more years of data collection.

Differences RNC - RHEMCO:

- Age at diagnosis for certain HM are lower at the RNC, possibly due to missing sources from retirement homes and a younger population.
- Hodgkin lymphomas (LH) incidence is slightly higher in Luxembourg, possibly due to random fluctuations or differences in exposure to risk factors between the two regions.
- SMP and LLC incidences appear slightly lower in Luxembourg, possibly due to missing data from private labs or delays between diagnosis and case reporting.

CONCLUSION

- HM are a **significant public health burden** in Luxembourg, especially among older adults.
- Data **comparability** with RHEMCO confirms RNC's **quality and coverage**.
- These findings provide a **reliable baseline** for future HM surveillance.
- Improved **case reporting** and **international collaboration** are critical, particularly for rare HMs.

Table 1: Annual incidence of hematologic malignancies, Luxembourg, 2019 – All genders

HM subtypes	N	%	Median age	Crude	Standardised (EU 2013)	CI95%
Hodgkin Lymphomas (LH)	25	7.6%	39 ans	4.0	4.1	[2.4-5.7]
T-cell / Natural Killer (NK) Non-Hodgkin Lymphomas (LNH-T / NK)	20	6.1%	60 ans	3.2	3.7	[2-5.3]
B-cell Non-Hodgkin Lymphomas (LNH-B)	94	28.5%	67 ans	15.2	18.2	[14.4-21.9]
Multiple Myelomas (MM including MGUS)	54	16.4%	72 ans	8.7	10.8	[7.9-13.7]
Chronic Lymphocytic Leukemias (LLC including MBL)	31	9.4%	74 ans	5.0	6.2	[4-8.4]
Acute Myeloid Leukemias (LAM including biphenotypic)	24	7.3%	70 ans	3.9	4.6	[2.8-6.5]
Acute Lymphoblastic Leukemias (LAL)	10	3%	8 ans	1.6	1.5	[0.6-2.4]
Myelodysplastic Syndromes (SMD)	25	7.6%	77 ans	4.0	5.1	[3.1-7.2]
Myeloproliferative Syndromes (SMP including Mastocytosis)	35	10.6%	67 ans	5.6	6.6	[4.4-8.9]
Myeloproliferative/Myelodysplastic Syndromes (SMP-SMD)	5	1.5%	79 ans	0.8	1.1	[0.2-2]
Others (e.g., Histiocytoses, ...)	7	2.1%	58 ans	1.1	1.2	[0.4-2.1]
Total	330	100%	67 ans	53.2	63.1	[56.2-70]

N: Number of new HM cases; %: Proportion; Median age at diagnosis; Crude incidence rate per 100 000 person-years; Standardised (European standard population - 2013) incidence rate, per 100 000 person-years; CI95%: 95% confidence interval for standardised incidence rate.

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More information:



Registre des
Hémopathies
Malignes de
Côte d'Or



Registre
National
du Cancer