

CANCER INCIDENCE IN ADOLESCENTS AND YOUNG ADULTS IN LUXEMBOURG FROM 2014 TO 2021 : A POPULATION BASED PILOT STUDY

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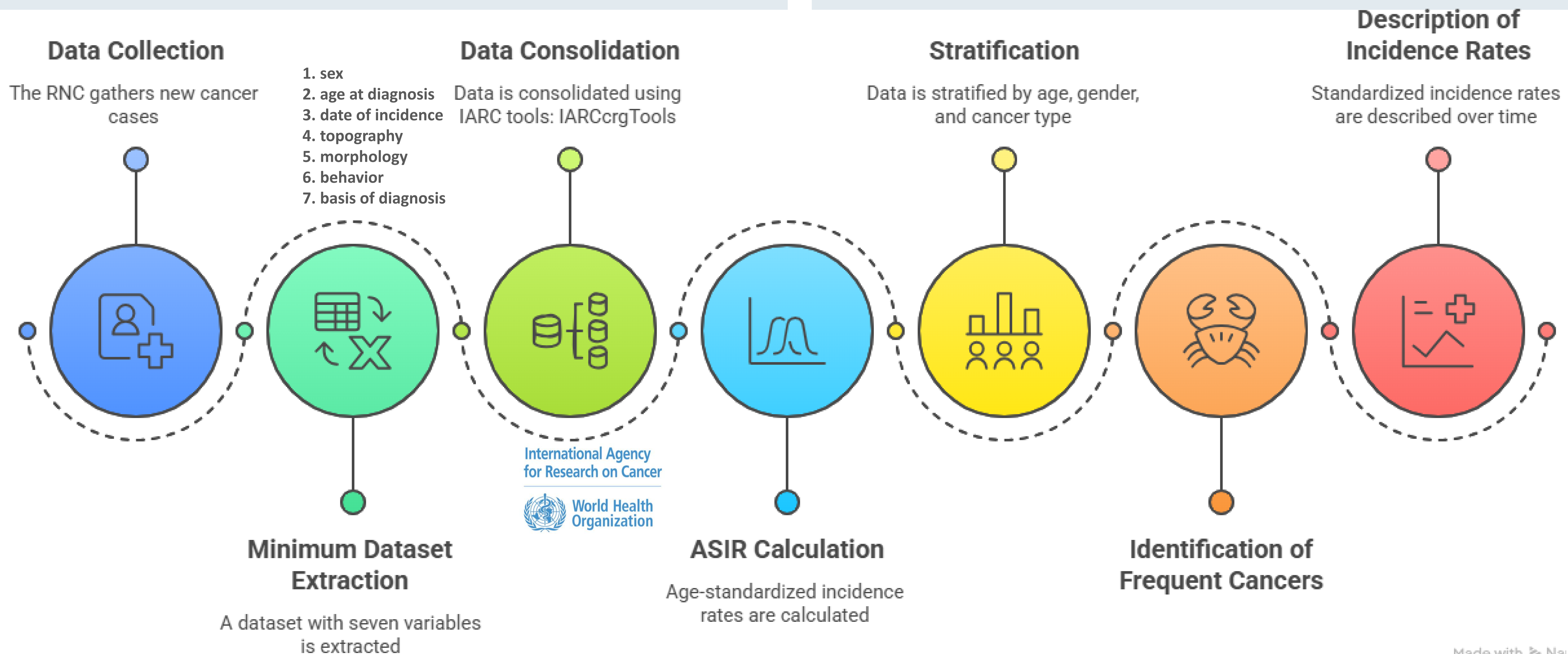
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BACKGROUND

Luxembourg has one of the youngest populations in the EU, driven by high migration and cross-border workers. Despite a global rise in cancer among young people, published results on adolescents and young adults (AYAs) aged between 15–39 years old in Luxembourg remain scarce. Given the potential long-term impacts of cancer diagnosed during this life stage, this study aims at testing the IARC tool (IARCcrgTools) to consolidate national data to describe cancer incidence in AYA between 2014 and 2021.

MATERIALS and METHODS

Luxembourg's National Cancer Registry (in French: Registre National du Cancer, RNC), collects all new cancer cases diagnosed or treated in Luxembourg. This pilot study explore to use the IARC tools (IARCcrgTools) to consolidate cancer cases collected in hospitals between 2014 to 2021. Additional data sources were added afterwards manually. A minimum dataset including sex, age at diagnosis, incidence date, topography, morphology, behavior and basis of diagnosis was defined. Age-standardized incidence rates (ASIR)/100,000 inhabitants were calculated by age, sex and cancer type.



RESULTS

Figure 1: Incidence of 10 most frequent cancer types (ICD-10) by sex in AYAs, Luxembourg, 2014–2021

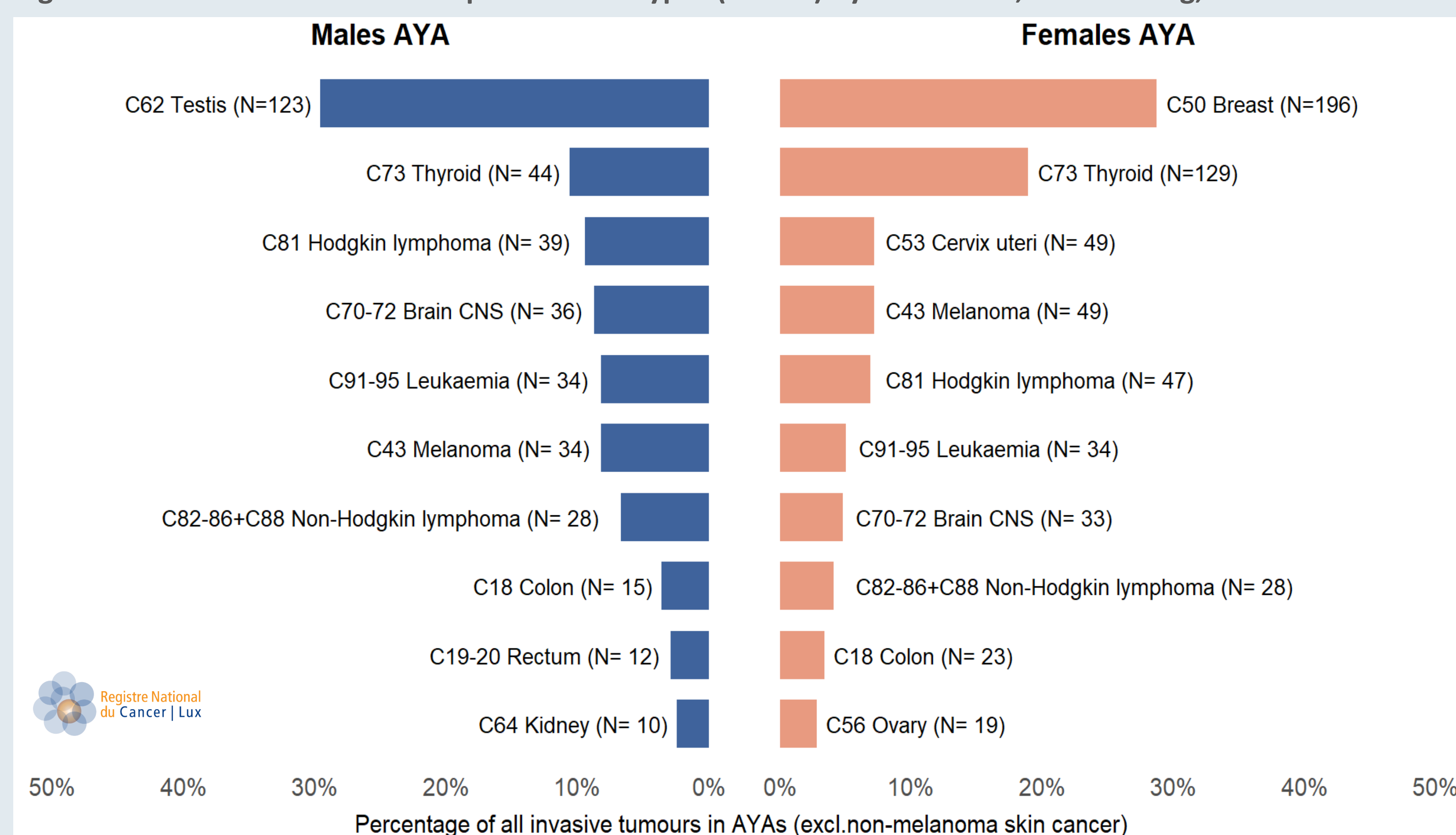


Figure 2: Age-specific incidence by age groups in AYAs, Luxembourg, 2014-2021

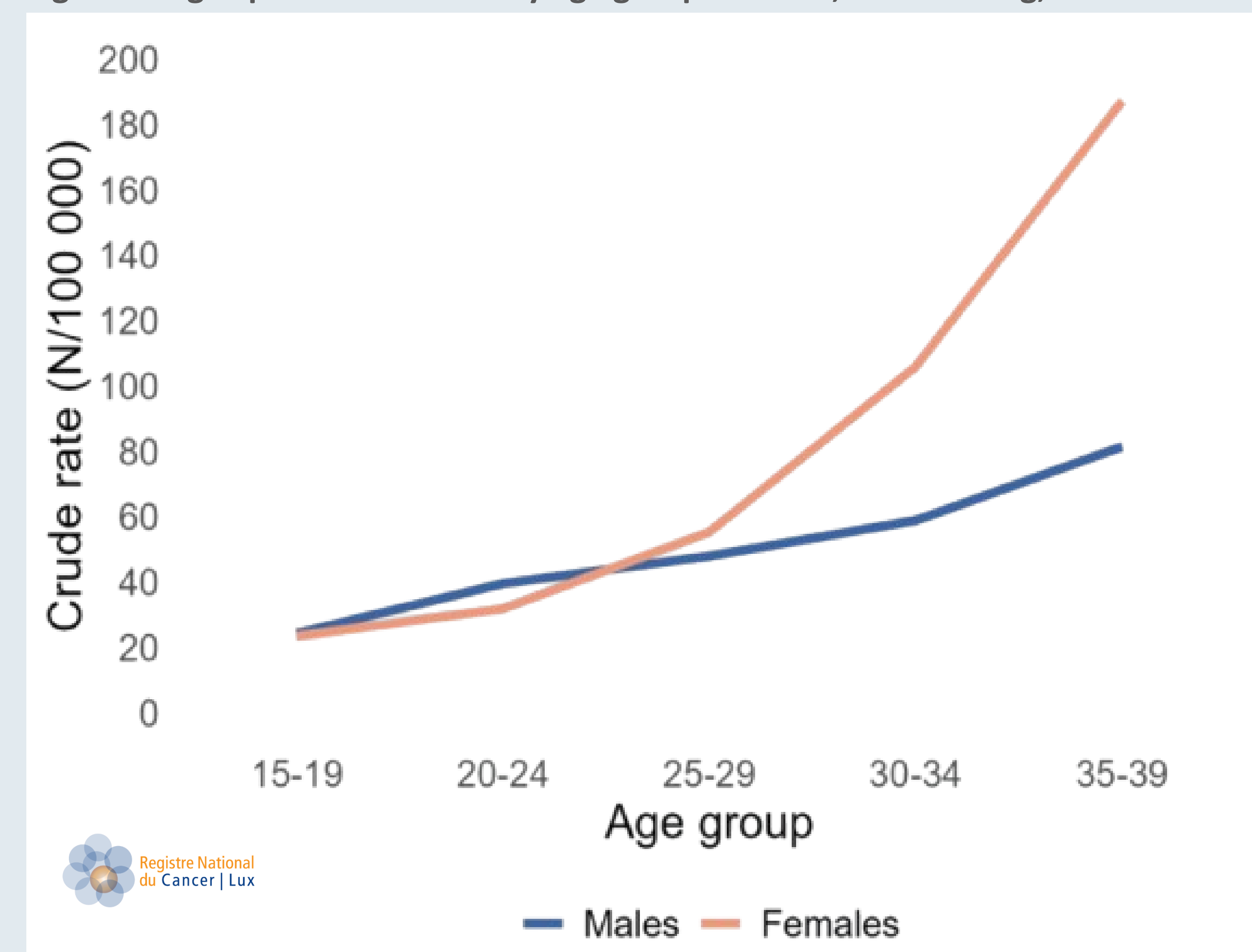


Tableau 1 : Cancer incidence in AYAs (15-39 years), Luxembourg, 2014 – 2021

	N	N/year	%	Incidence Rate		
				Crude	Standardized (EU 2013)	CI 95%
All cancers	1161	145	100	69,7	68,6	[67,4 -69,8]
Sex						
females	717	90	61,8	87,6	85,5	[83,5 -87,5]
males	444	56	38,2	52,4	51,9	[50,4 -53,4]
Periods						
2014 - 2017	560	70	48,2	70,2	69,4	[67,6 -71,2]
2018 - 2021	601	75	51,8	69,3	69,3	[66,3 -69,5]

N : Number of new malignant tumors, N/year : Number of new malignant tumors per year, %: Proportion, 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
Source: RNC

CONCLUSION

This pilot study successfully explored the IARCcrgTools to consolidate partially national AYA cancer cases supporting timeliness of RNC data publications. Thanks to this method, AYA cancer incidence rates were described for the first time in Luxembourg, being lower compared to Belgium, Germany, Netherlands, and France.