

# INCIDENCE TRENDS OF HEMATOLOGICAL MALIGNANCIES IN BELGIUM 2004-2015: IMPACT OF THE RESIDENCE ON CHRONIC MYELOID DISORDERS



Hélène A. Poirel, Frédéric Calay, Tamara Vandendael, Jérôme Xicluna, Geert Silversmit, Gilles Macq, Kris Henau, Liesbet Van Eycken  
Belgian cancer Registry, Brussels, Belgium

## INTRODUCTION

The Belgian Cancer Registry collects information about all new cancer diagnoses in Belgium since 2004 to map out the nature and extent of cancers in Belgium. In 2015, hematological malignancies (HM) represent 10.7% of all cancers and are the 3<sup>rd</sup> cause of death by cancer in Belgium.

## AIM

To describe the impact of the residence of patients at time of diagnosis on the incidence trends (age-standardised incidence rate on the world standard population: WSR) and on the relative survival (exclusion of causes of death not cancer-related) of myeloid malignancies in Belgium over a 12 year-period.

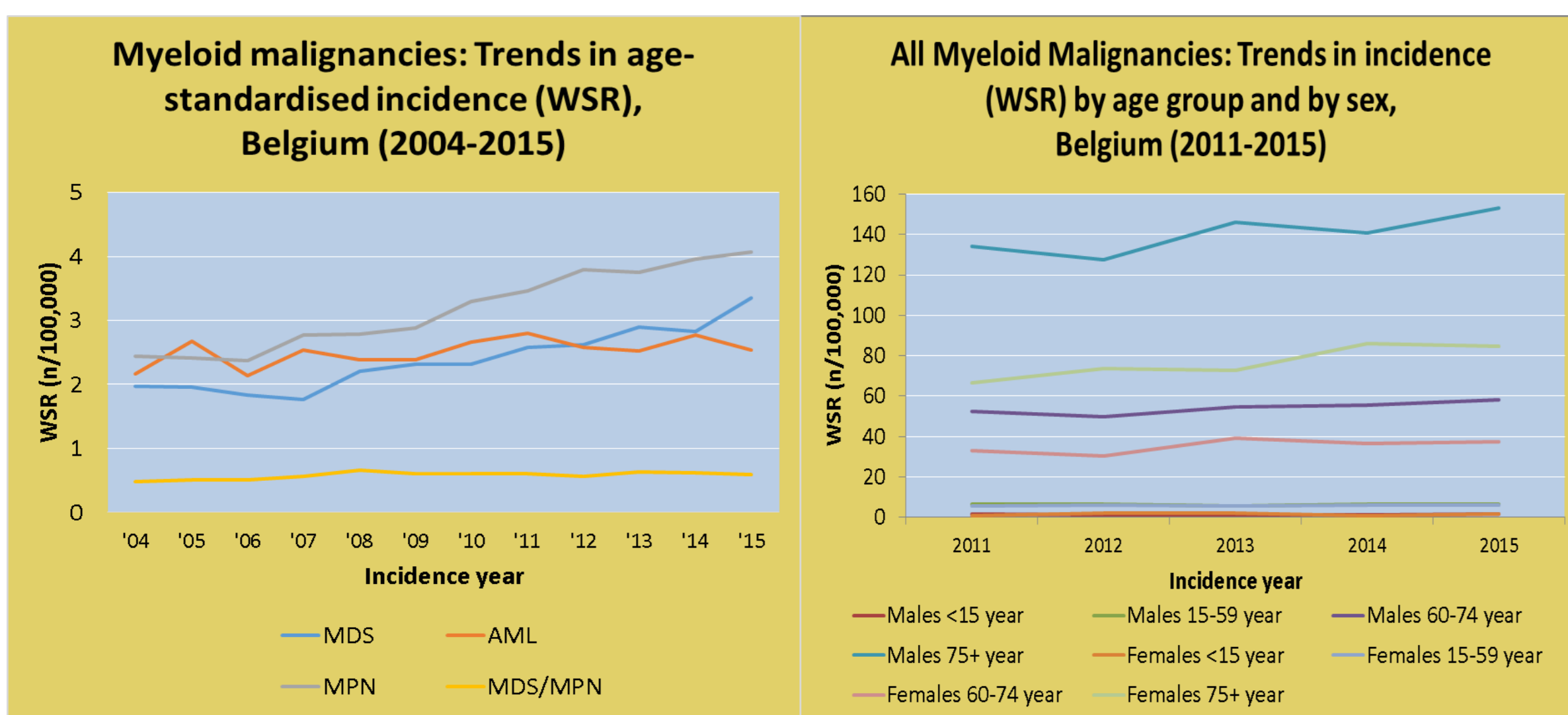
## INCIDENCE MAPS (2011-2015)

The increased age-standardised incidence rate (WSR) of MDS in the Walloon region compared to the Flemish Region seems to be reinforced in large Walloon cities.

No major regional variation is observed for MPN and AML.

## INCIDENCE TRENDS (2004-2015)

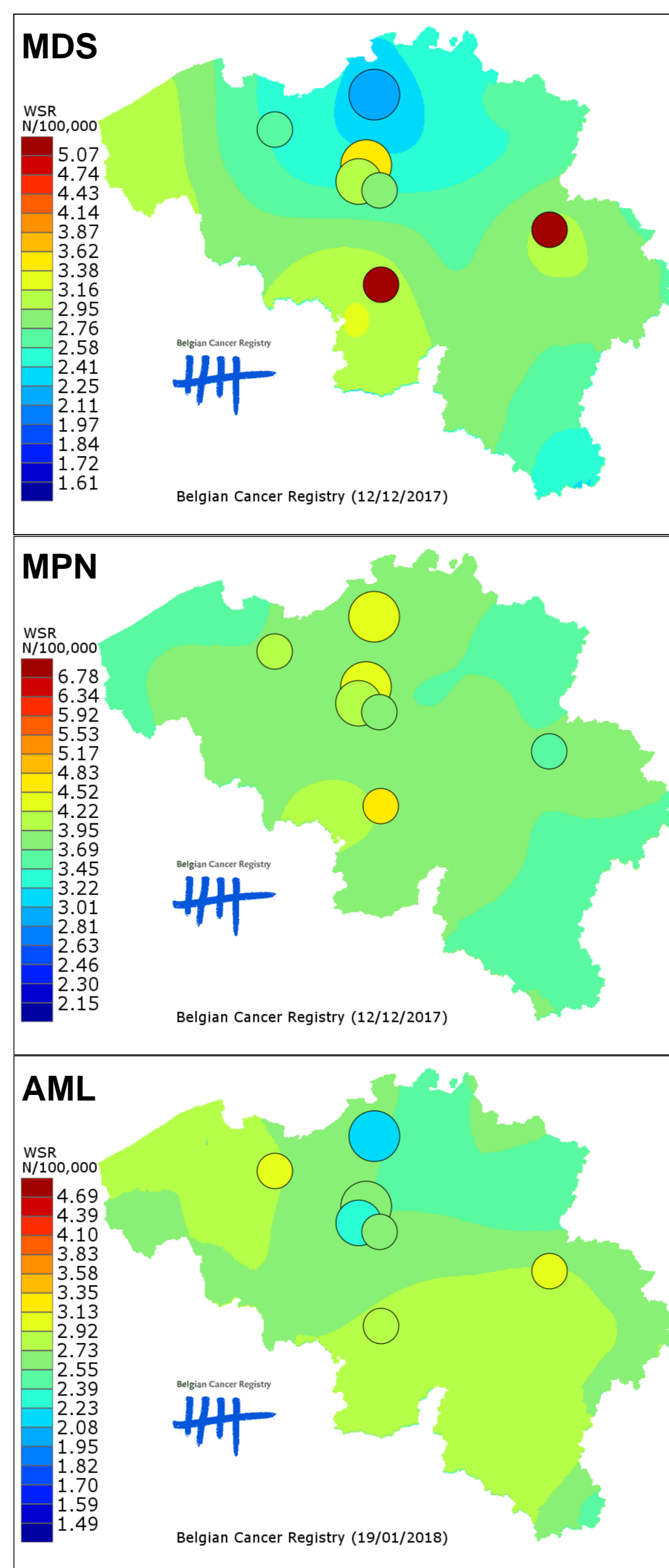
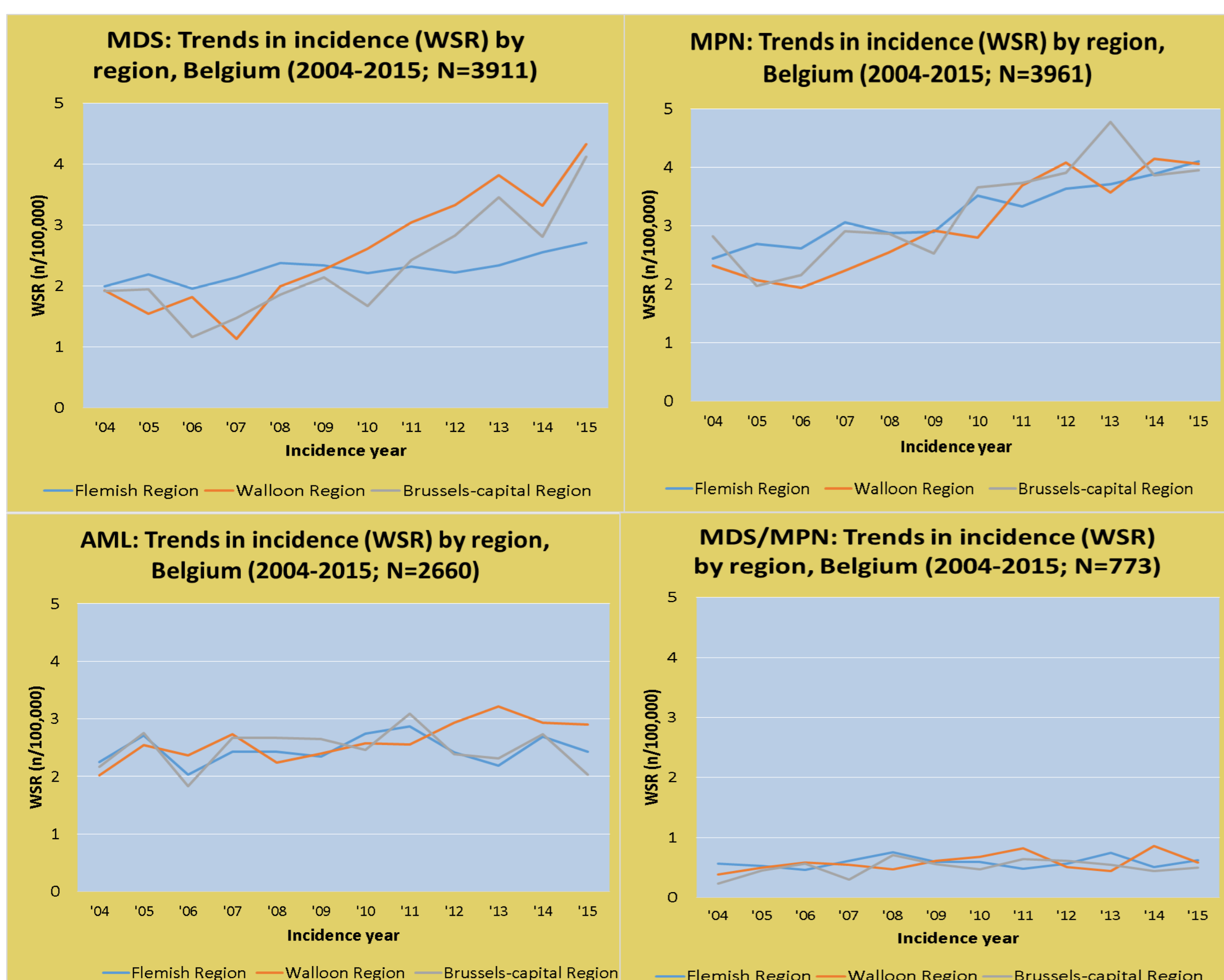
The increased crude incidence rate of HM over the past 4 years is mainly explained by an aging and growing Belgian population and by an increased incidence rate of chronic disorders: myelodysplastic syndromes (MDS), myeloproliferative neoplasms (MPN) and to a lesser extend MDS/MPN, while no significant increase observed for acute myeloid leukemia (AML).



Average Annual Percent Change (AAPC) [95%CI]:

- MDS : 5,3 % [3,9; 6,7]
- AML : 1,4 % [-0,0; 2,8]
- MPN : 5,6 % [4,8; 6,5]
- MDS/MPN : 2,3 % [1,5; 3,2]

The increased incidence rate observed for MDS is more important in the Walloon and Brussels-Capital Regions than in the Flemish Region (similar for MPN, MDS/MPN and AML).



The geographic representations use municipality specific age-standardised rates (WSR).

Cities with at least 100,000 inhabitants are represented as circles with a diameter relative to the population size and a colour shading indicating the calculated WSR in that city.

The Brussels Capital Region is divided in 3 circles based on socio-economic parameters (left: lowest; right: highest; top: intermediate).

Rates (WSR) from the remaining municipalities are smoothed. For each grid (0,25 km<sup>2</sup>) on the map, a rate was calculated as a weighted average of the WSR in all neighbouring municipalities within 150 km from the centre of the grid.

[Cancer Burden in Belgium, 2004-2013: Belgian Cancer Registry, 2016]

## RELATIVE SURVIVAL

No differences between the 3 regions for each myeloid malignancy

## CONCLUSION

The increased WSR incidence over 2004-2015 of chronic myeloid malignancies (MDS, MPN, MDS/MPN) may be at least partly explained by an earlier detection at an asymptomatic stage and/or a better registry of the hospitals.

However, the disparity of the WSR incidence trend between the 3 Belgian regions for MDS raises the question of a participation of environmental and/or socio-economic factors on the onset of this myeloid malignancy in Belgium.

## Financial support

