

# HEALTH AND ECONOMIC BURDEN OF HERPES ZOSTER IN OLDER ADULTS IN FINLAND: A RETROSPECTIVE DATABASE STUDY

Heinonen SE<sup>1</sup>, Kanerva M<sup>2</sup>, Hakkarainen T<sup>3</sup>, Isomeri O<sup>3</sup>, Nishimwe M<sup>4</sup>, Marijam A<sup>5</sup>, Bhavsar A<sup>5</sup>

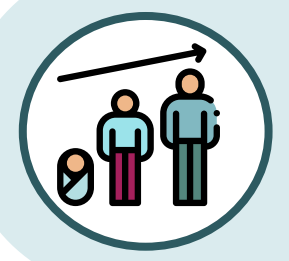
<sup>1</sup>GSK, Helsinki, Finland; <sup>2</sup>Turku University Hospital, Turku, Finland; <sup>3</sup>Nordic Healthcare Group, Helsinki, Finland  
<sup>4</sup>GSK, Rueil Malmaison, France; <sup>5</sup>GSK, Wavre, Belgium

# P-926

## BACKGROUND



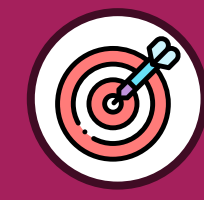
Herpes zoster (HZ) results from the reactivation of latent varicella-zoster virus and can lead to complications like postherpetic neuralgia (PHN).<sup>1</sup>



Risk of HZ and its complications increase with age and cause a burden to the healthcare system.<sup>2</sup>

## METHODS

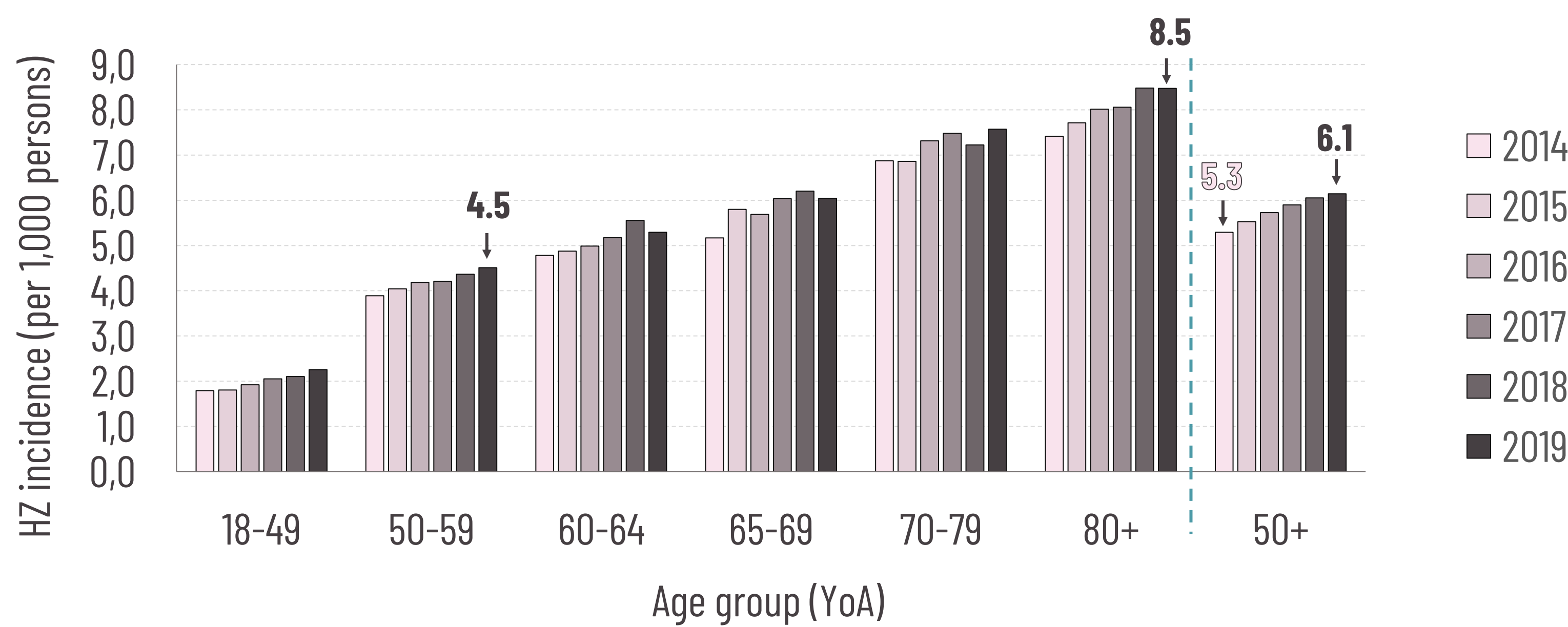
- Retrospective, non-interventional population-based registry study was conducted to collect data from 2014-2019.
- ICD-10/ICPC-2 codes were used to identify HZ and PHN cases.
- The incidence of HZ and PHN were estimated annually and per age-group (18-49, 50-59, 60-64, 65-69, 70-79, ≥80 years of age (YoA)).
- The associated healthcare resource use (HCRU), direct and indirect medical costs were estimated.



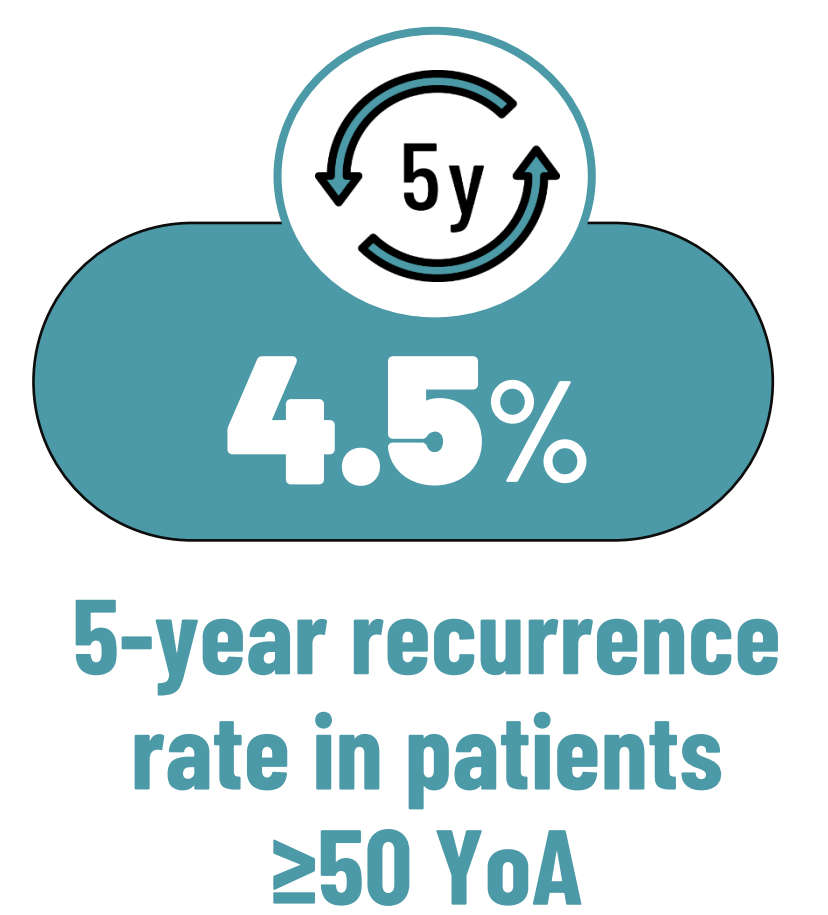
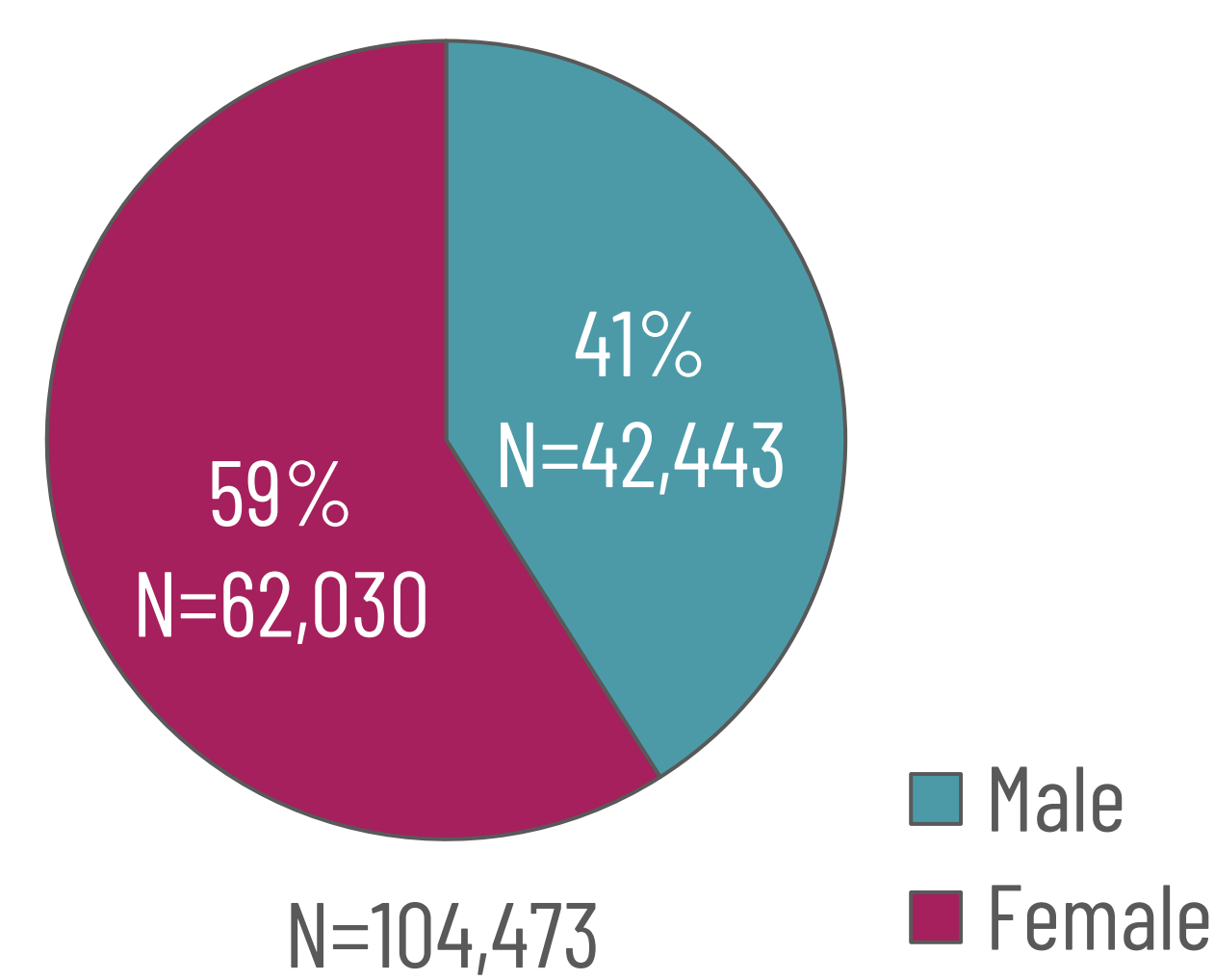
This study aims to describe the incidence, HCRU and costs due to HZ and PHN in Finland among adults in 2014-2019, with a special focus on adults ≥50 YoA.

## RESULTS

HZ incidence increased in all age groups ≥18 YoA, with 75% of cases in patients ≥50 YoA



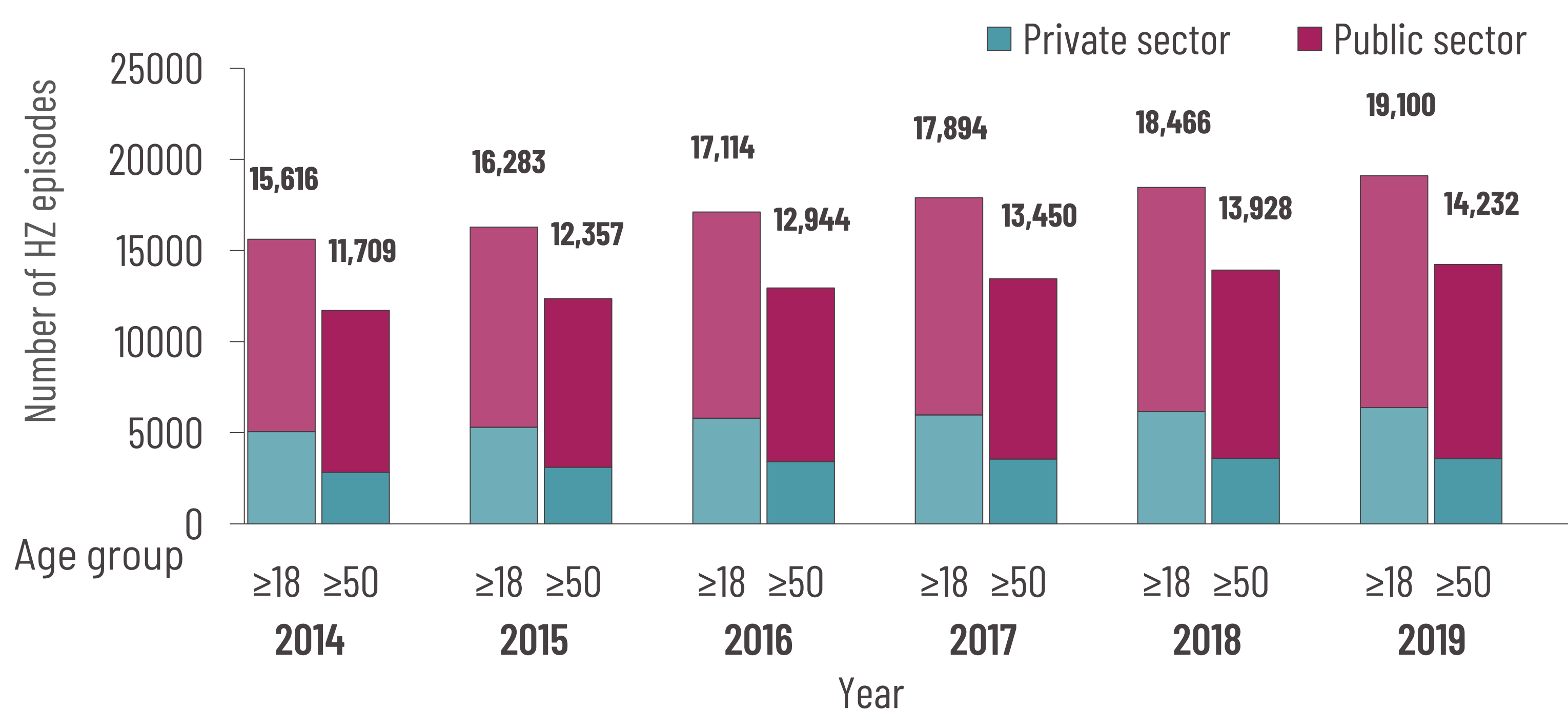
Of all HZ episodes, 59% were diagnosed in women



### PHN incidence

PHN incidence increased with age and was highest in the ≥80 YoA (due to probable underreporting, the exact figures are not shown).

On average 17,412 HZ episodes per year were identified, three quarters of which were identified in the public sector for patients ≥50 YoA



### Healthcare resource use



HZ caused annually on average around **35,000 HZ related health care contacts** (outpatient visits or inpatient days), 81% of which in patients ≥50 YoA.

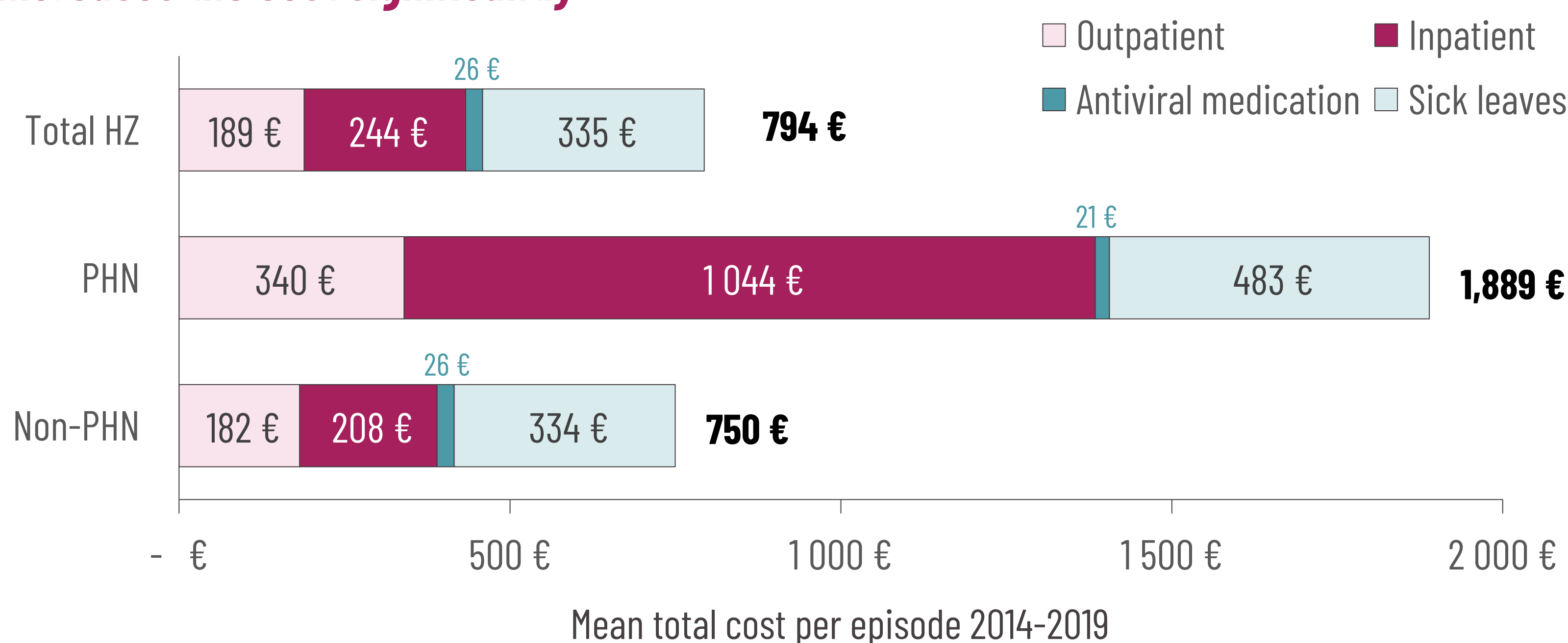


Annually, there were on average around **19,000 HZ related doctor visits** and 6,700 other than doctor (nurse) visits due to HZ. Of these, around 74% of the doctor visits and 79% of the other visits were in adults ≥50 YoA.



There were annually around **9,000 inpatient days due to HZ** on average: 5,693 in primary care and 3,365 in specialized care. The majority of these were in patients ≥50 YoA (99.5% of the inpatient days in primary care and 92% of inpatient days in specialized care).

One HZ episode in adults ≥50 YoA costs on average 750 € to the society — PHN increases the cost significantly



### Societal costs of HZ



The **annual total cost** of HZ to the Finnish society was on average **12.9 M€** (in 2019 the cost was 14.9 million €). 81% (10.4 M€) of the costs were caused by HZ in the patients ≥50 YoA.



On average **6.6M€ were spent on HZ related healthcare services every year** (outpatient and inpatient). **86%** (5.7 M€) of these costs came from **patients ≥50 YoA** (76% of the outpatient care costs and 95% of the inpatient care costs).



The **annual sick leave costs** due to HZ were on average **5.8M€**, of which **76% (4.4M€) were in patients ≥50 YoA**.

Scan QR code for additional info on incidence and societal costs

## CONCLUSIONS

- In Finland, HZ and PHN cause a substantial health and economic burden among the population of ≥50 YoA, showing an increase over time as the population ages.
- This study provides supportive evidence on the need to consider prevention of HZ and PHN, which is achievable through HZ vaccination.

Abbreviations: HZ Herpes zoster, HCRU healthcare resource use, ICD-10 International Classification of Diseases 10th Revision, ICPC-2 International Classification of Primary Care 2nd edition, N number, PHN postherpetic neuralgia, YoA years of age

References: 1. Johnson et al. BMC Med. 2010; 8: 37. doi: 10.1186/1741-7015-8-37. 2. Curran et al. Infect Dis Ther. 2022;11(1):389-403. doi: 10.1007/s40121-021-00567-8

Funding: GlaxoSmithKline Biologicals SA (GSK study identifier: VEO-000210); Acknowledgments: Business & Decision Life Sciences c/o GSK (writer: Amandine Radziejewski)

# HEALTH AND ECONOMIC BURDEN OF HERPES ZOSTER IN OLDER ADULTS IN FINLAND: A RETROSPECTIVE DATABASE STUDY

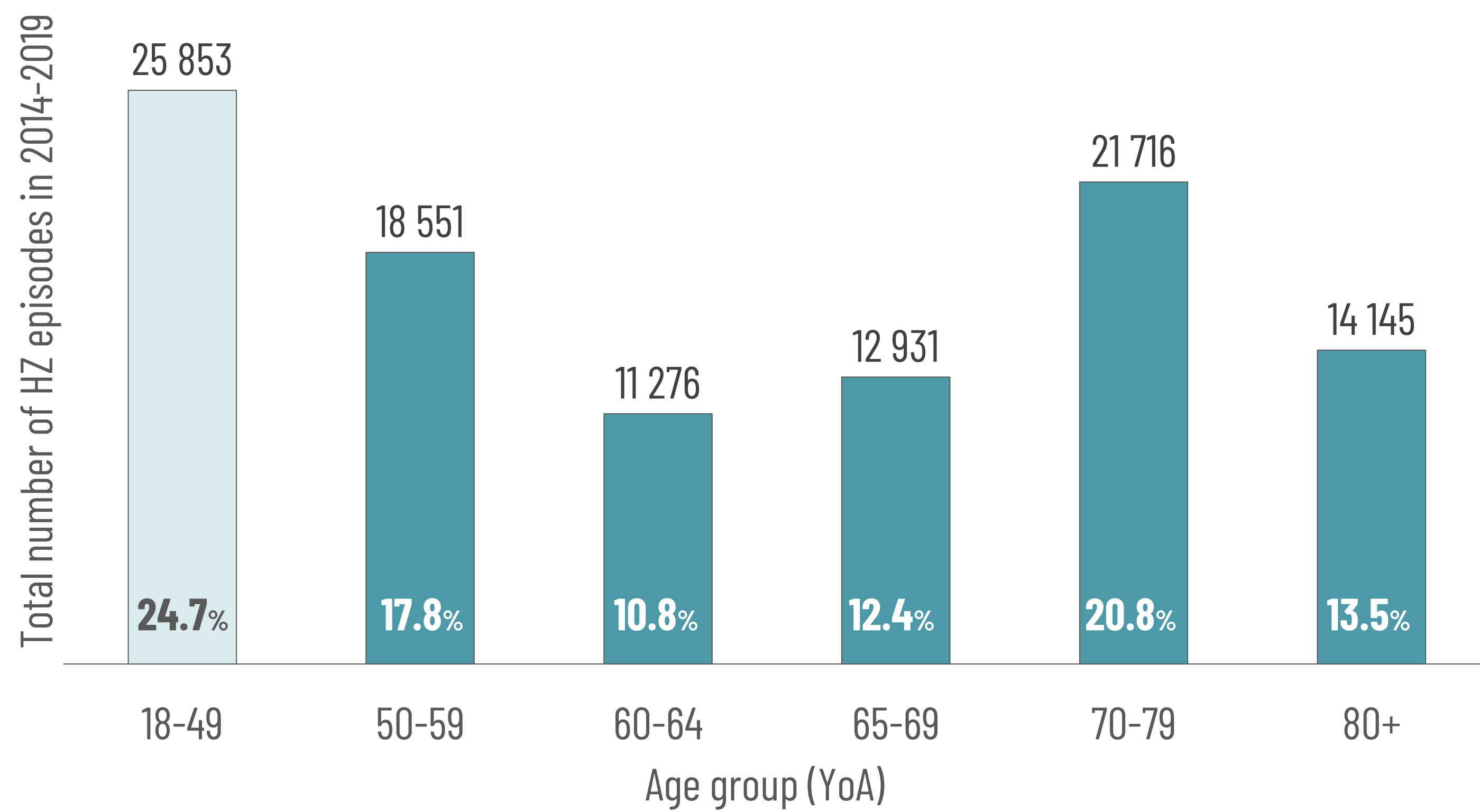
Heinonen SE<sup>1</sup>, Kanerva M<sup>2</sup>, Hakkarainen T<sup>3</sup>, Isomeri O<sup>3</sup>, Nishimwe M<sup>4</sup>, Marijam A<sup>5</sup>, Bhavsar A<sup>5</sup>

<sup>1</sup>GSK, Helsinki, Finland; <sup>2</sup>Turku University Hospital, Turku, Finland; <sup>3</sup>Nordic Healthcare Group, Helsinki, Finland

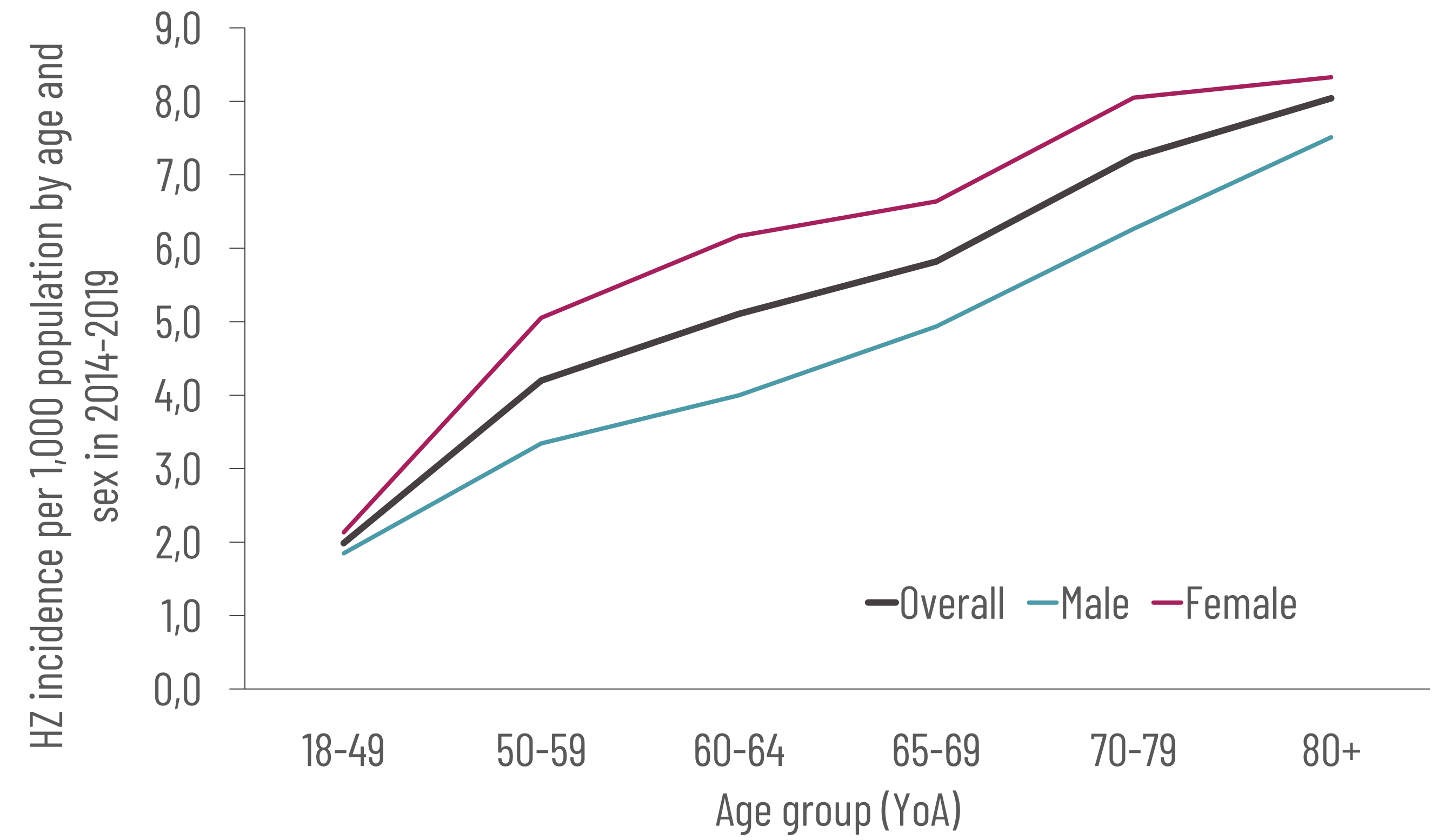
<sup>4</sup>GSK, Rueil Malmaison, France; <sup>5</sup>GSK, Wavre, Belgium

## SUPPLEMENTAL INFORMATION

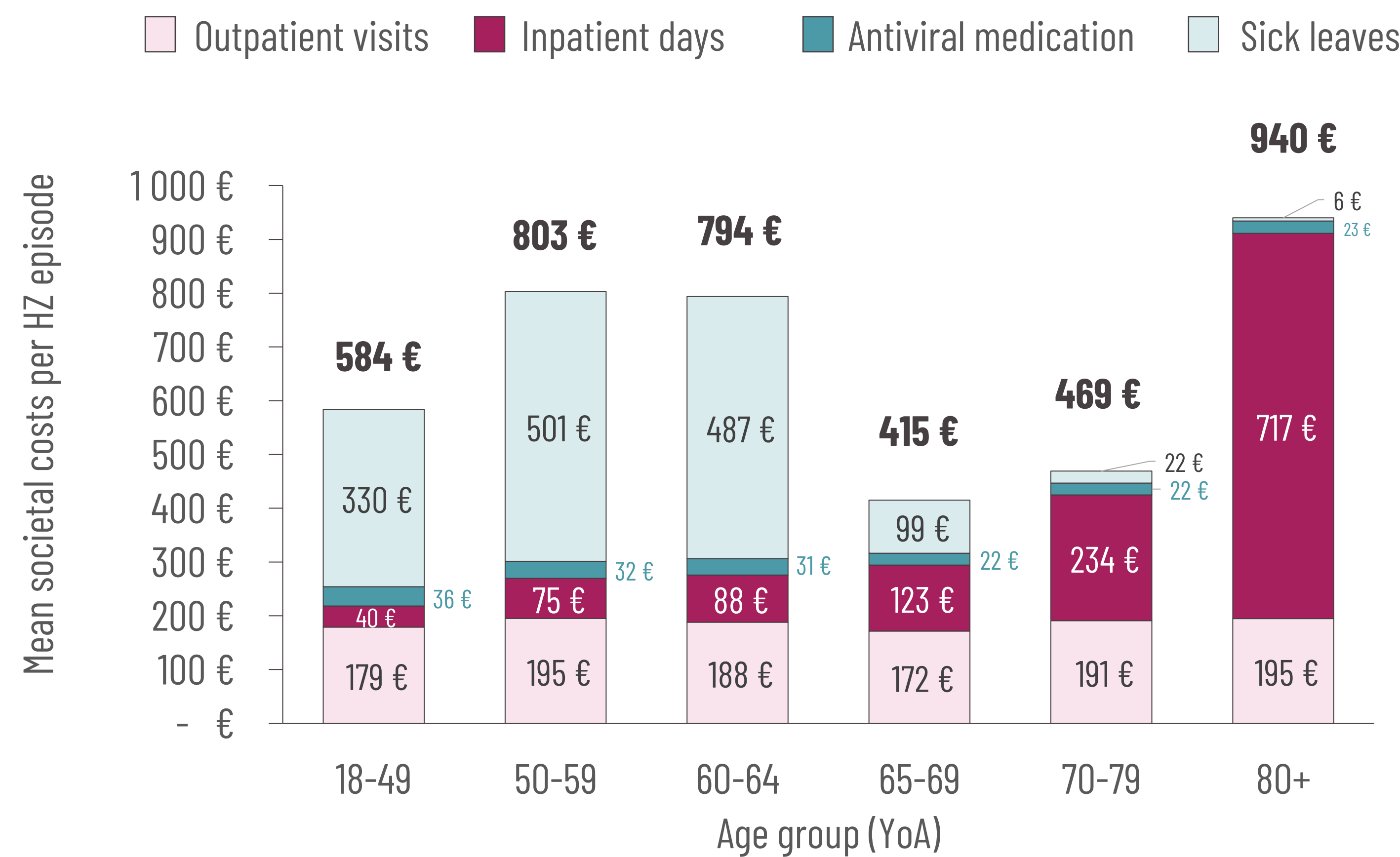
### The majority of HZ episodes were diagnosed in patients over 50 YoA



### HZ incidence per 1000 population by age and sex in 2014-2019



### Mean societal costs per HZ episode in different age groups in 2014-2019



	18-49	50-59	60-64	65-69	70-79	80+
Mean annual number of episodes	4,309	3,092	1,879	2,155	3,619	2,358
Mean annual total cost (€)	2,515,904	2,482,069	1,491,556	894,377	1,698,161	2,216,396

**Abbreviations** HZ Herpes zoster, YoA years of age

**Author's potential conflicts of interest:** SEH and MN are employed by GSK. AM and AB are employed by and hold shares in GSK. TH and OI are employed by Nordic Healthcare Group. Nordic Healthcare Group received consulting fees from GSK to complete the work disclosed in this poster. MN previously received consulting fees as an Aixial SPRL consultant on behalf of GSK. All authors declare no other financial and non-financial relationships and activities and no conflicts of interest.