



Área de
Investigación
en Vacunas



CENTRO DE INVESTIGACIÓN
BIOMÉDICA EN RED
Epidemiología y Salud Pública

Herpes zoster vaccine. Long term protection

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Área de Investigación en vacunas

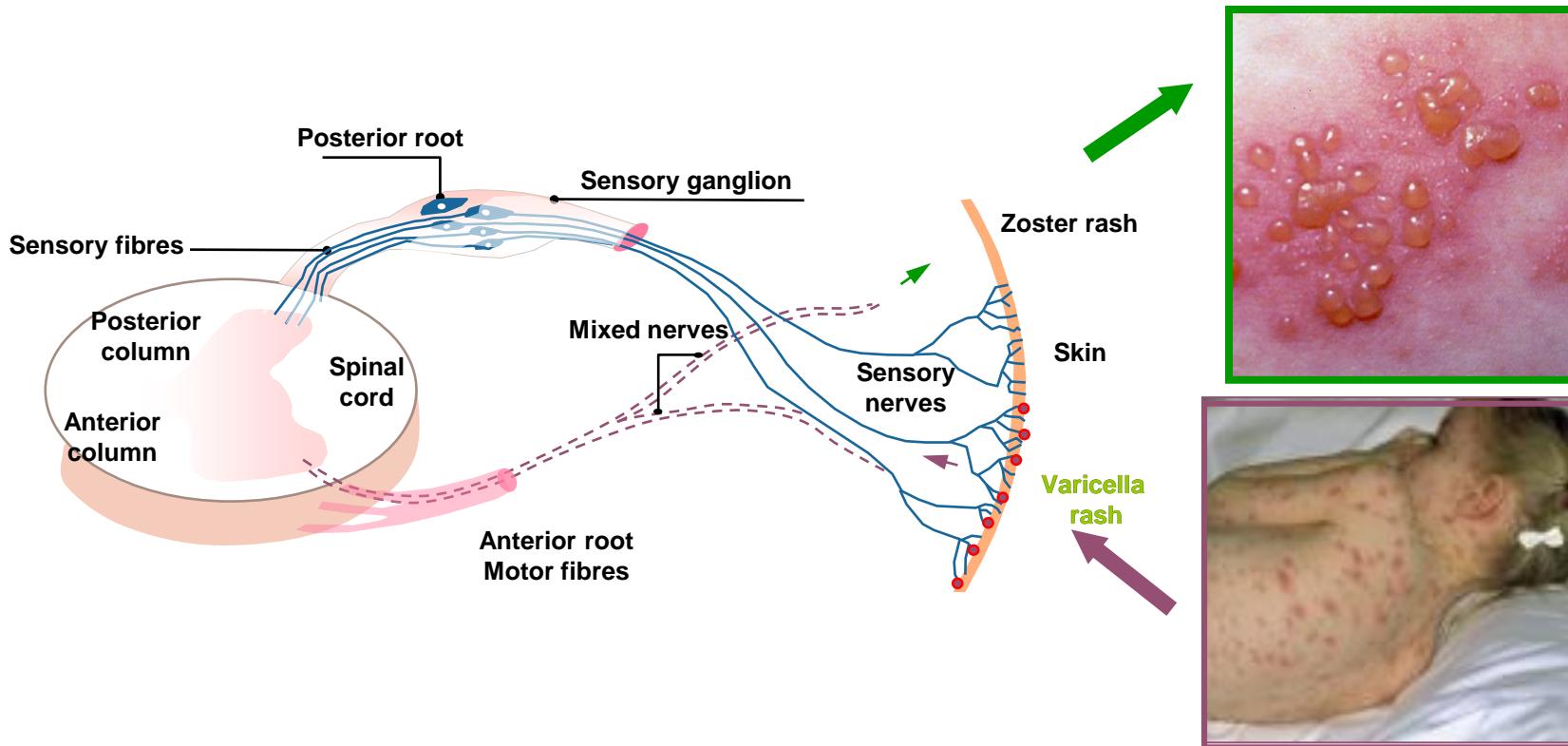
FISABIO, Valencia

Overview slide

Vaccine information	Information
Which vaccines on the market	Adjuvanted recombinant zoster vaccine. Shingrix
Vaccine immunogenicity in older adults	Humoral Immunogenicity at 11 years post vaccination 5+ higher than prevaccination
Vaccine efficacy / effectiveness in older adults	Overall efficacy 87.7%. Decreases slightly with age and time after vaccination
Vaccine safety in older adults	No safety issues
Long lasting protection in older adults	Protection in older adults >70 similar to younger older adults. 11 years after vaccination, efficacy over 70%
Vaccine co-administration in older adults	Flu, pneumo, dTaP, mRNA COVID
Other relevant information in context of older adults?	Importance of a two dose schedule

Varicella zoster virus

- Primoinfection: Varicela → latent
- Reactivation → HZ



Incidence increases in 50+ years of age

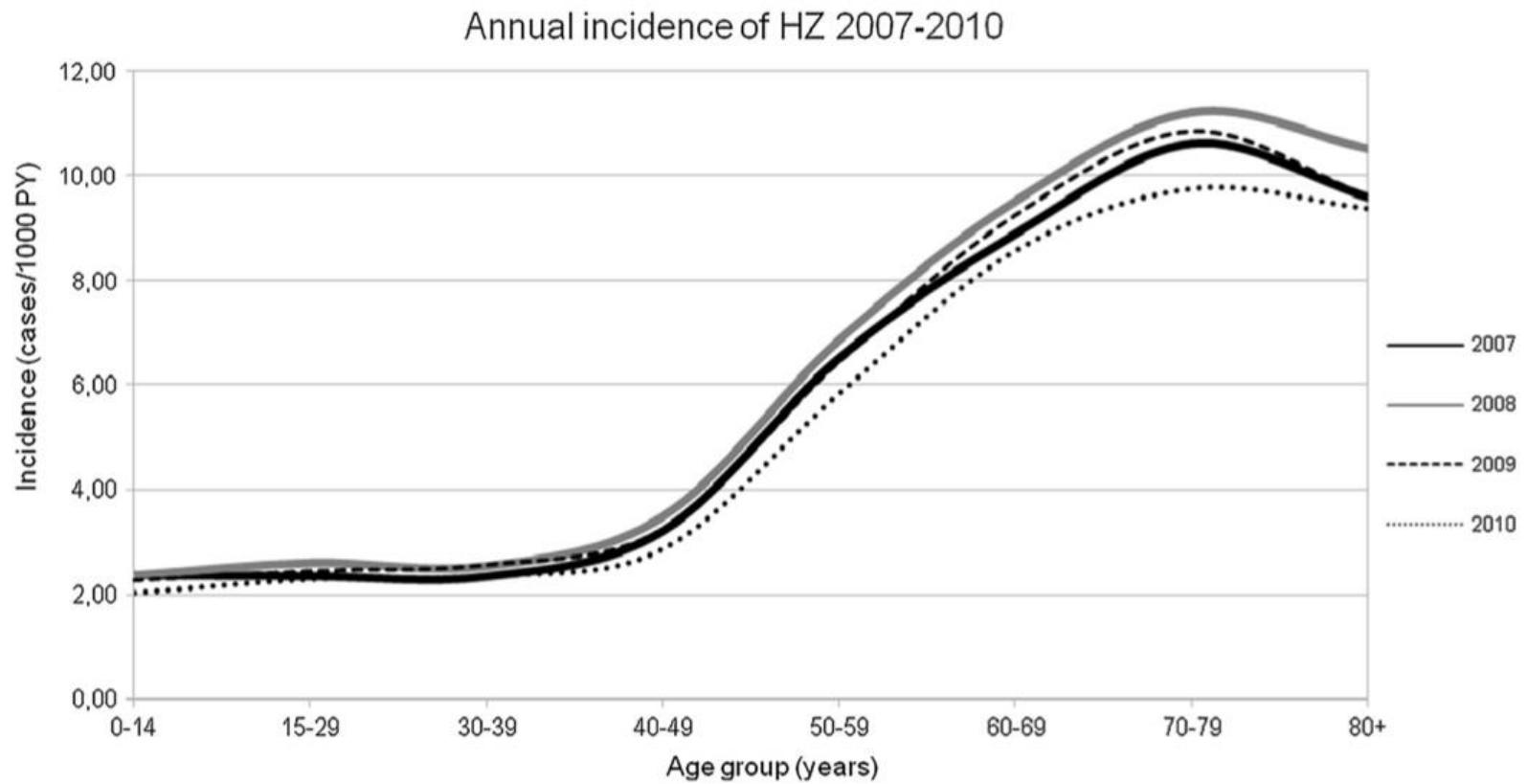
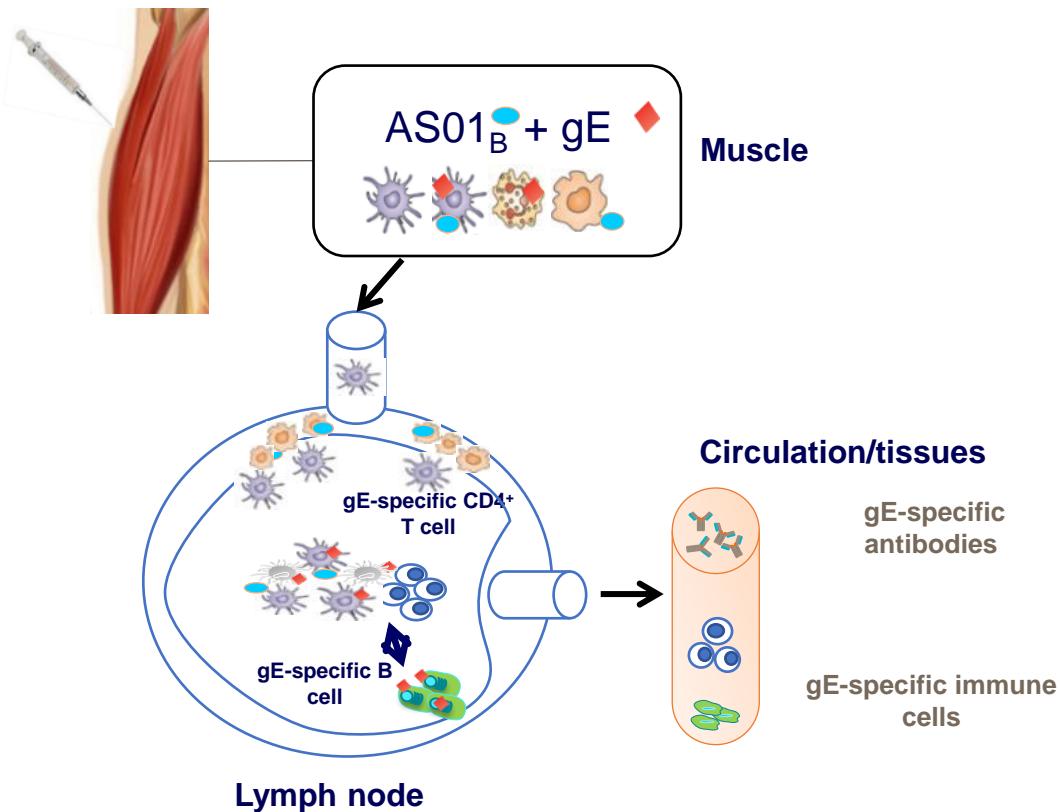


Figure 1 Incidence of HZ / 1000 person-years by age-groups, Valencian Community, Spain, years 2007-2010.

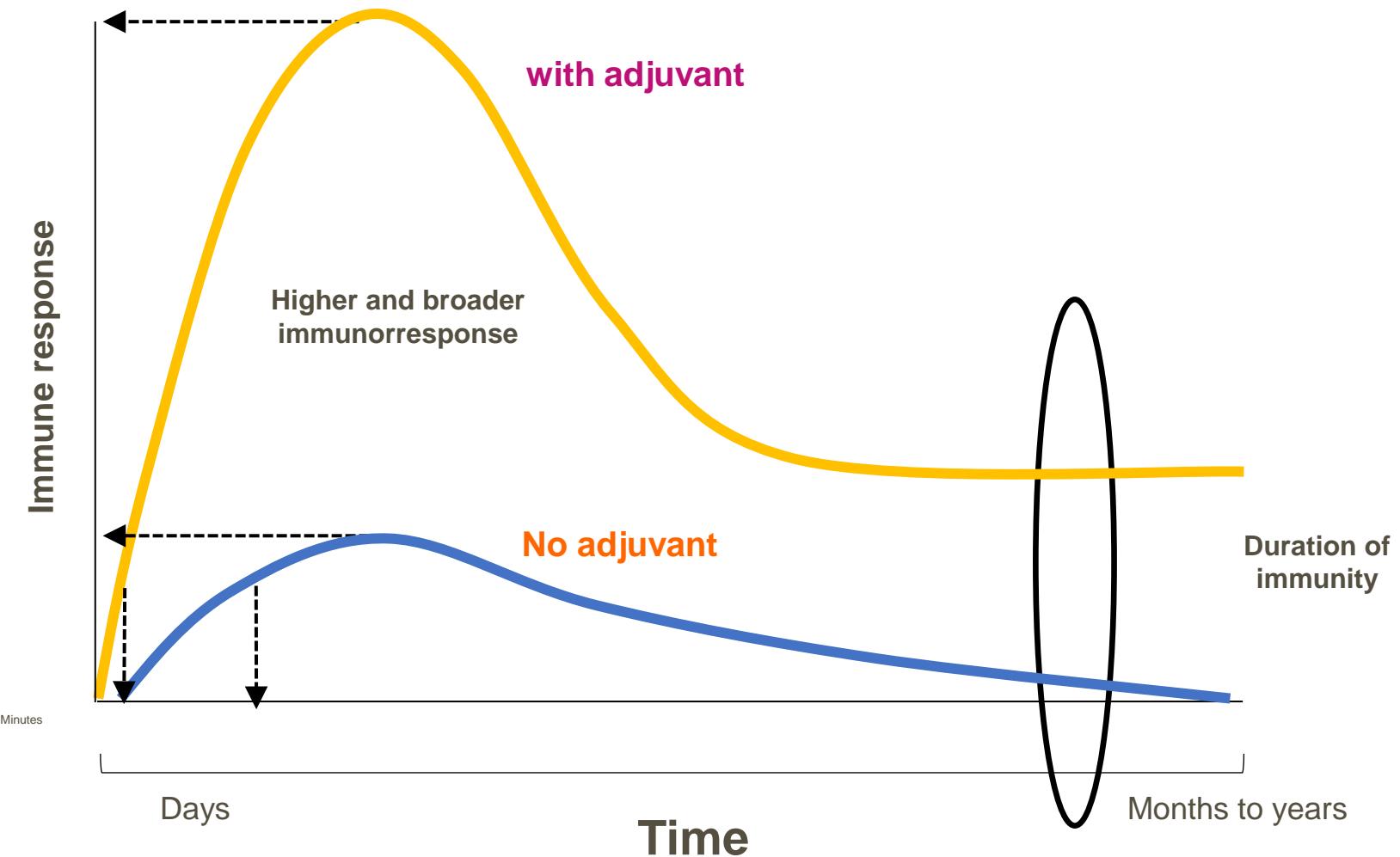
Adjuvants for high protection in the elderly

AS01 induces a rapid and transient activation of the innate immune response¹



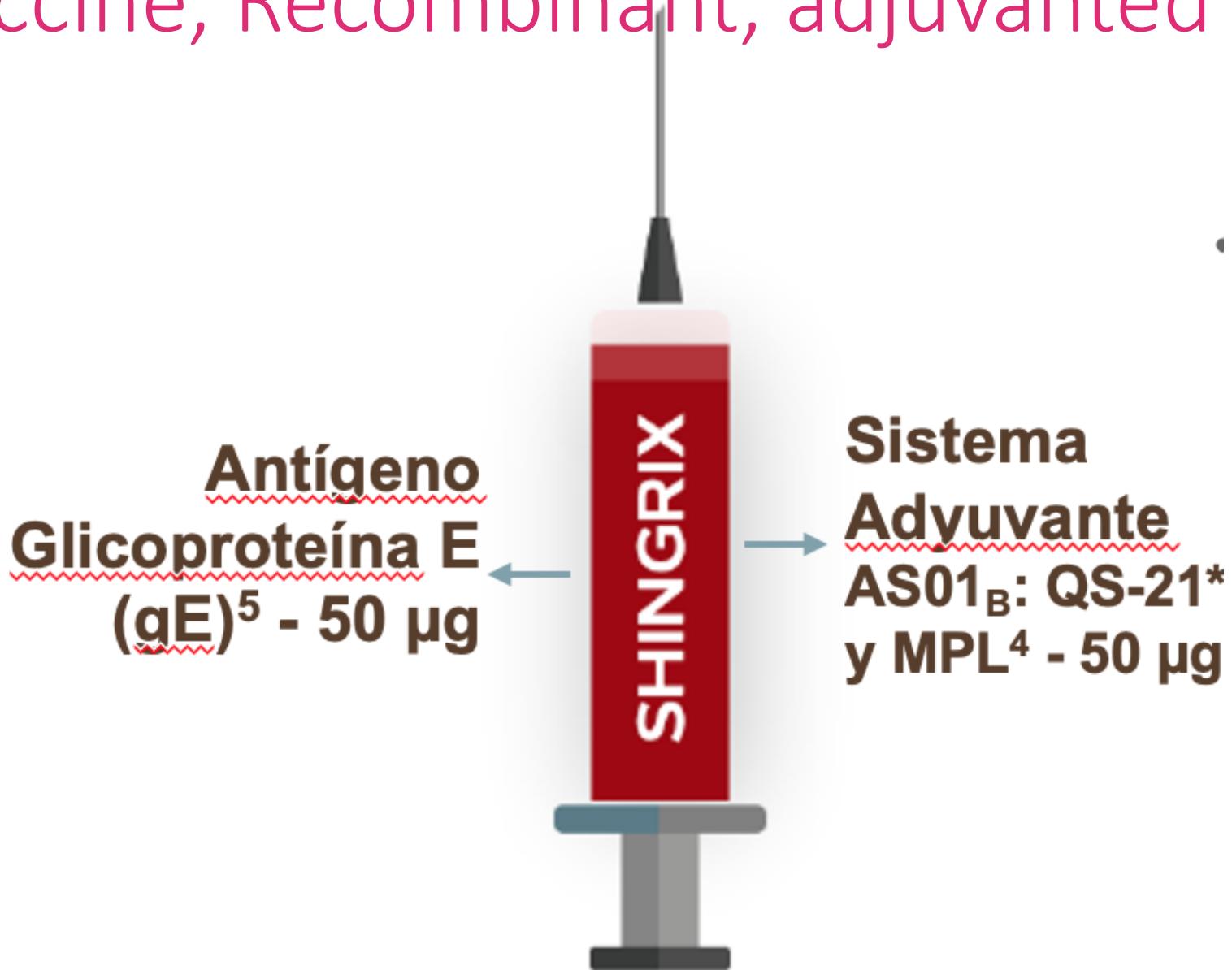
Illustrative figure independently created by GSK based on Didierlaurent AM, et al. Exp Rev Vac. 2017.¹

Adjuvants improve immune response to vaccines

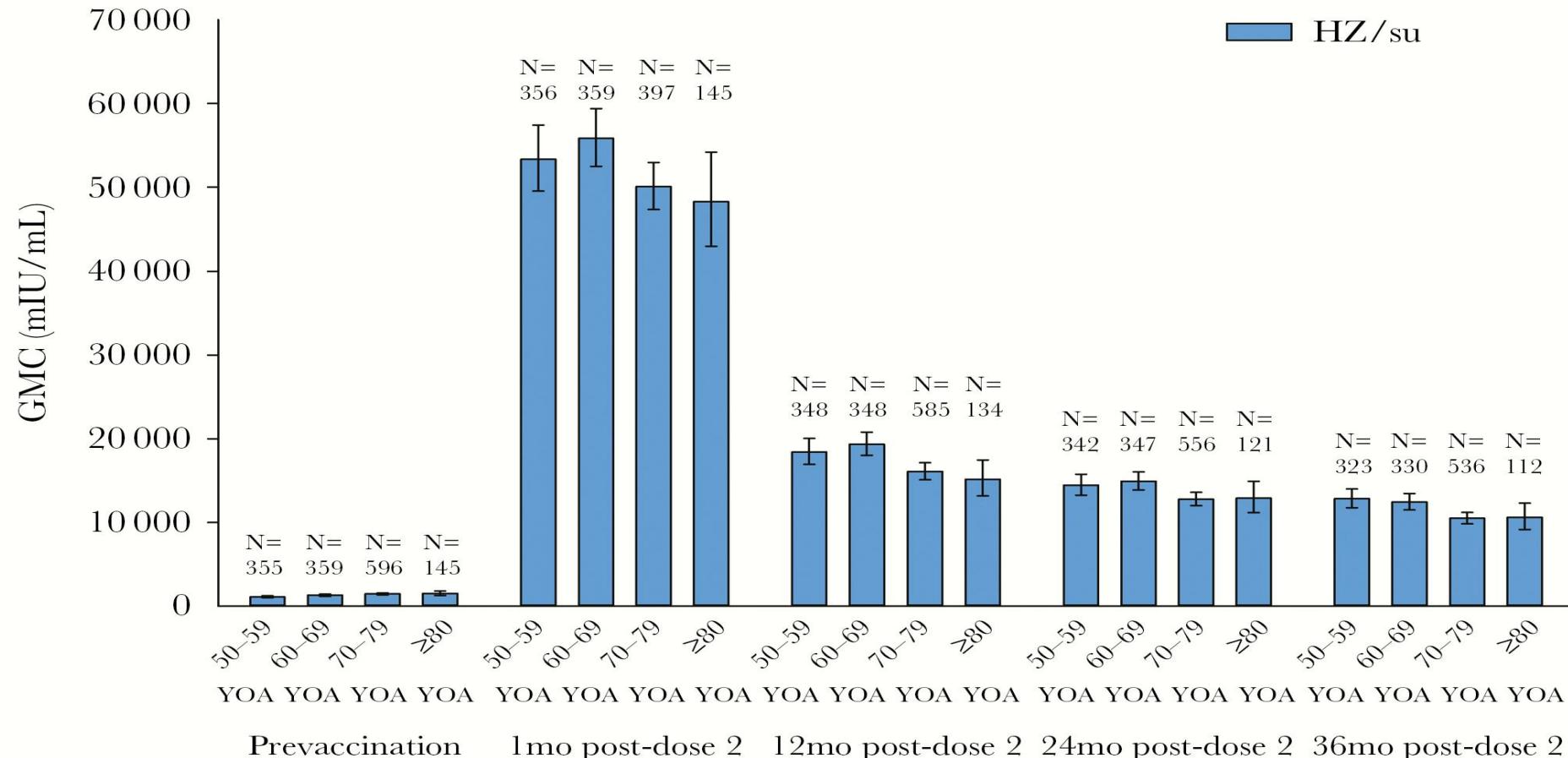


1. Didierlaurent AM, et al. Expert Rev Vaccines. 2017;15:55–63; 2. Didierlaurent J Immunol. 2014 Aug 15;193(4):1920-30; 3. Burny W et al. Vaccine. 2019 Mar 28;37(14):2004-2015; 4. Zubeldia JM, et al. J Investig Allergol Clin Immunol. 2019; 29:103-111.

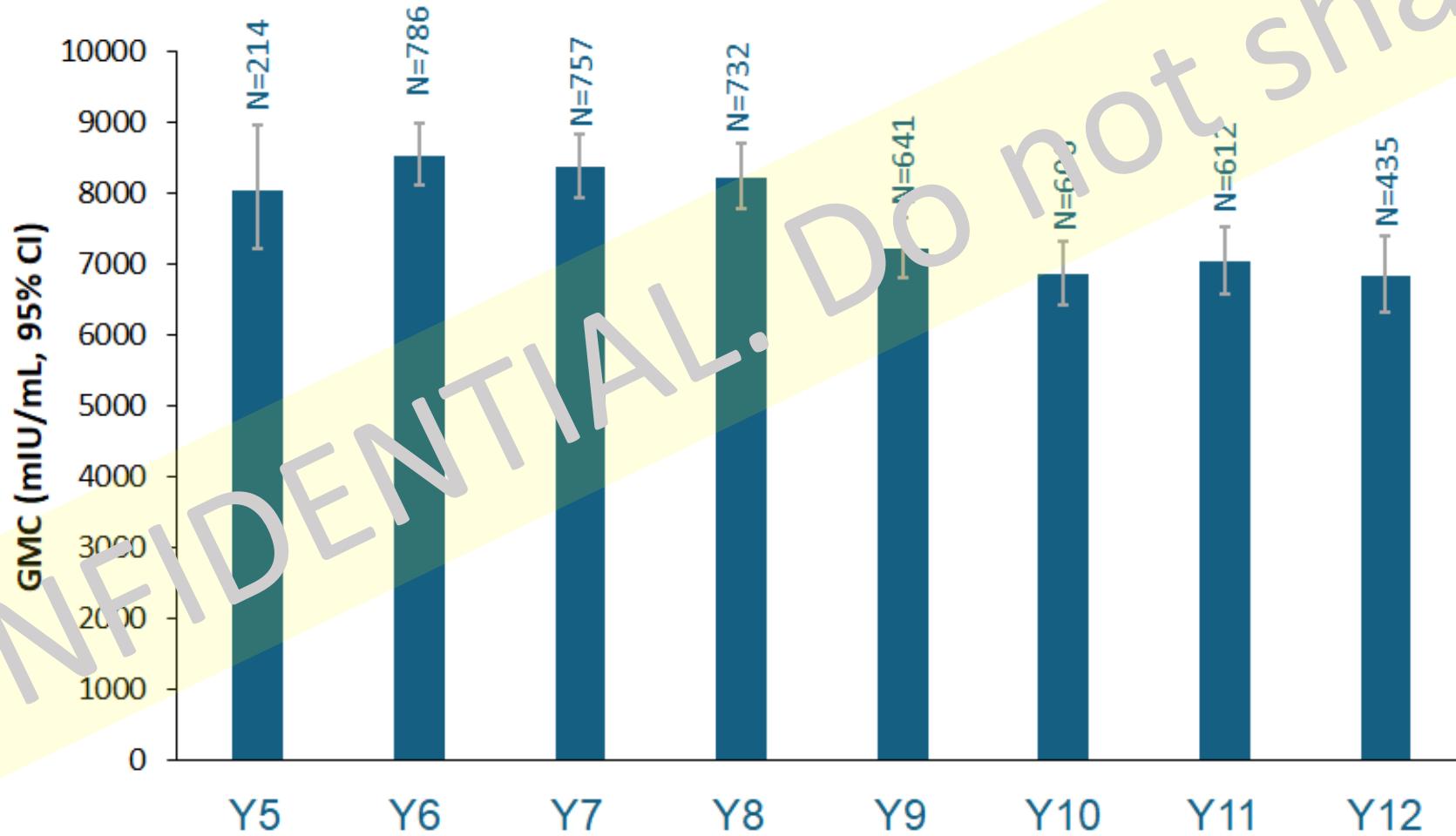
Zoster vaccine, Recombinant, adjuvanted



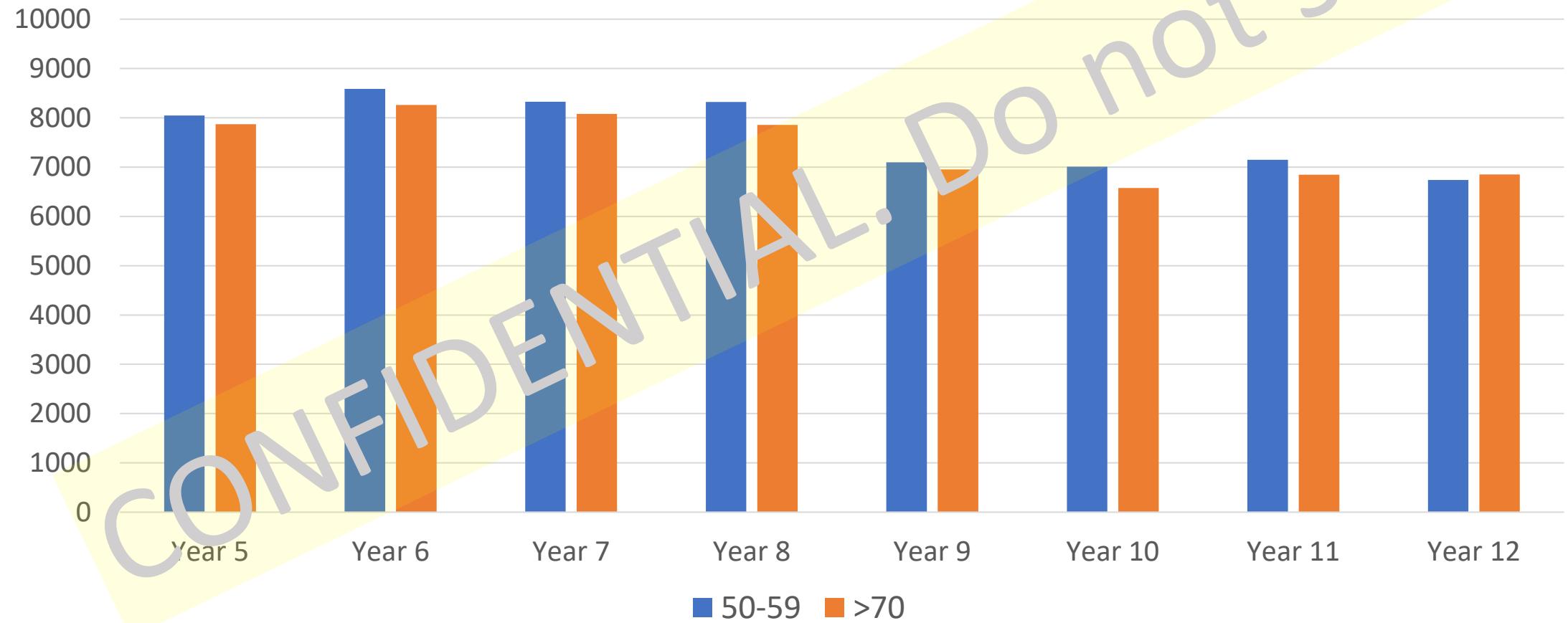
Herpes zoster subunit vaccine (HZ/su)-induced antiglycoprotein E antibody responses



Geometric mean concentration of anti-gE antibody

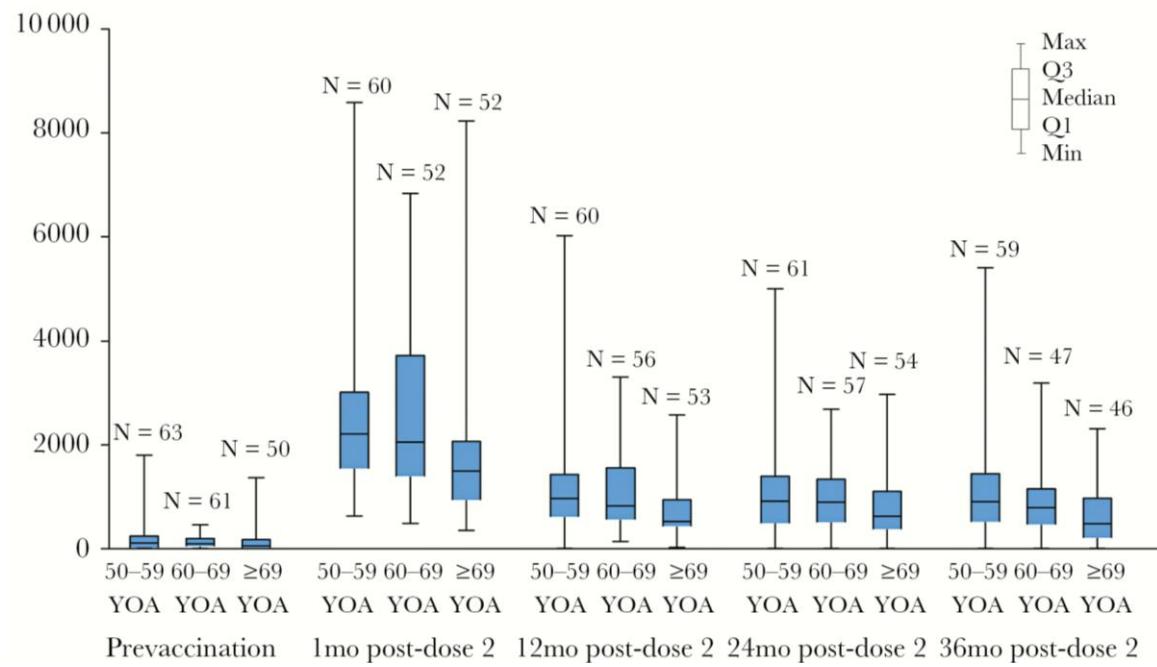
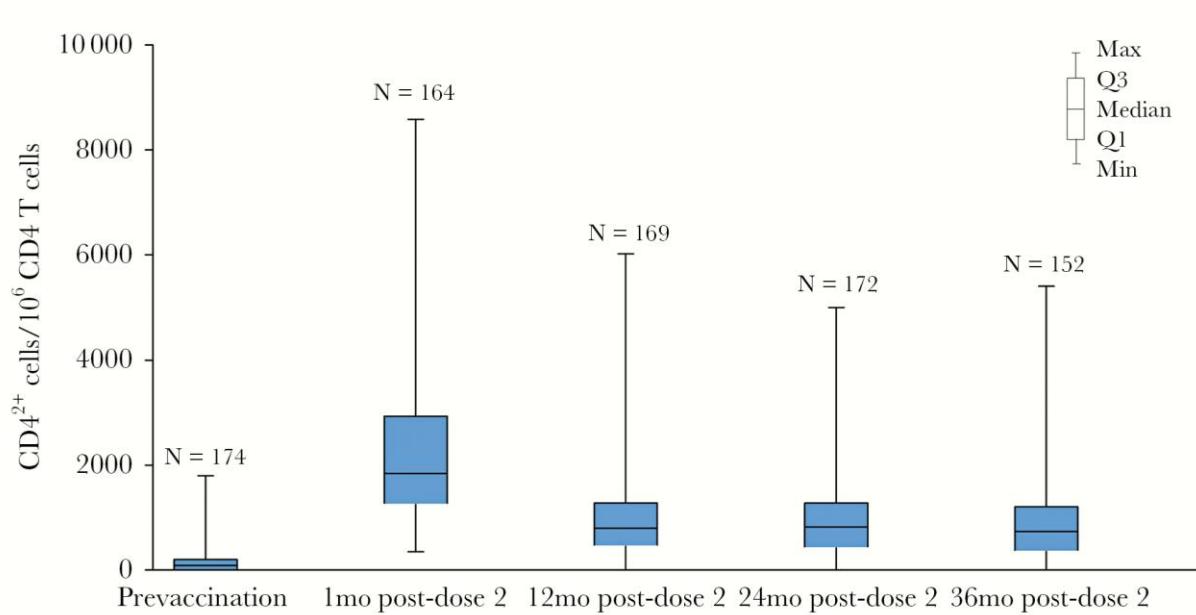


Geometric mean concentration of anti-gE antibody by age group

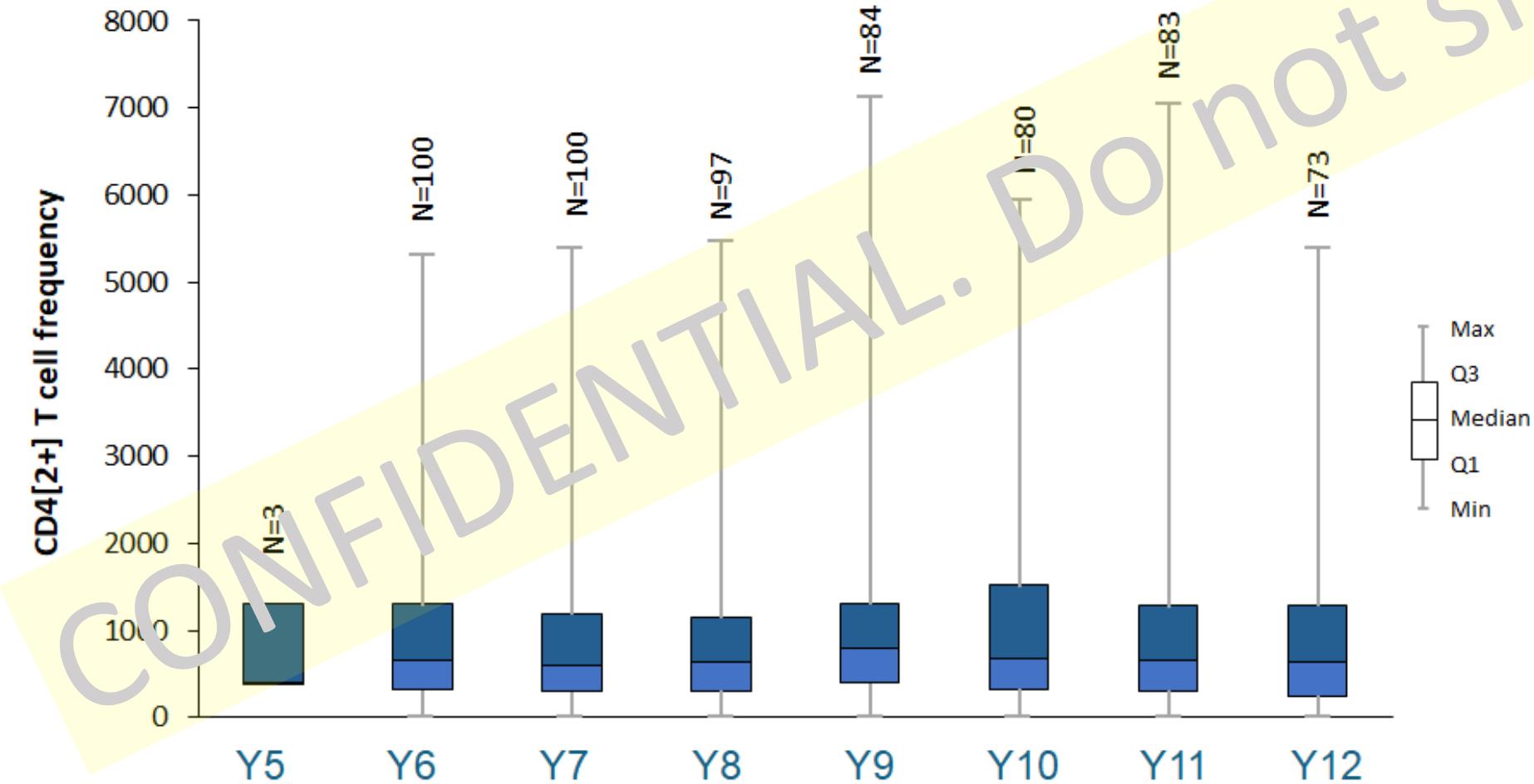


Herpes zoster subunit vaccine (HZ/su)-induced glycoprotein E-specific cell-mediated immunity ...

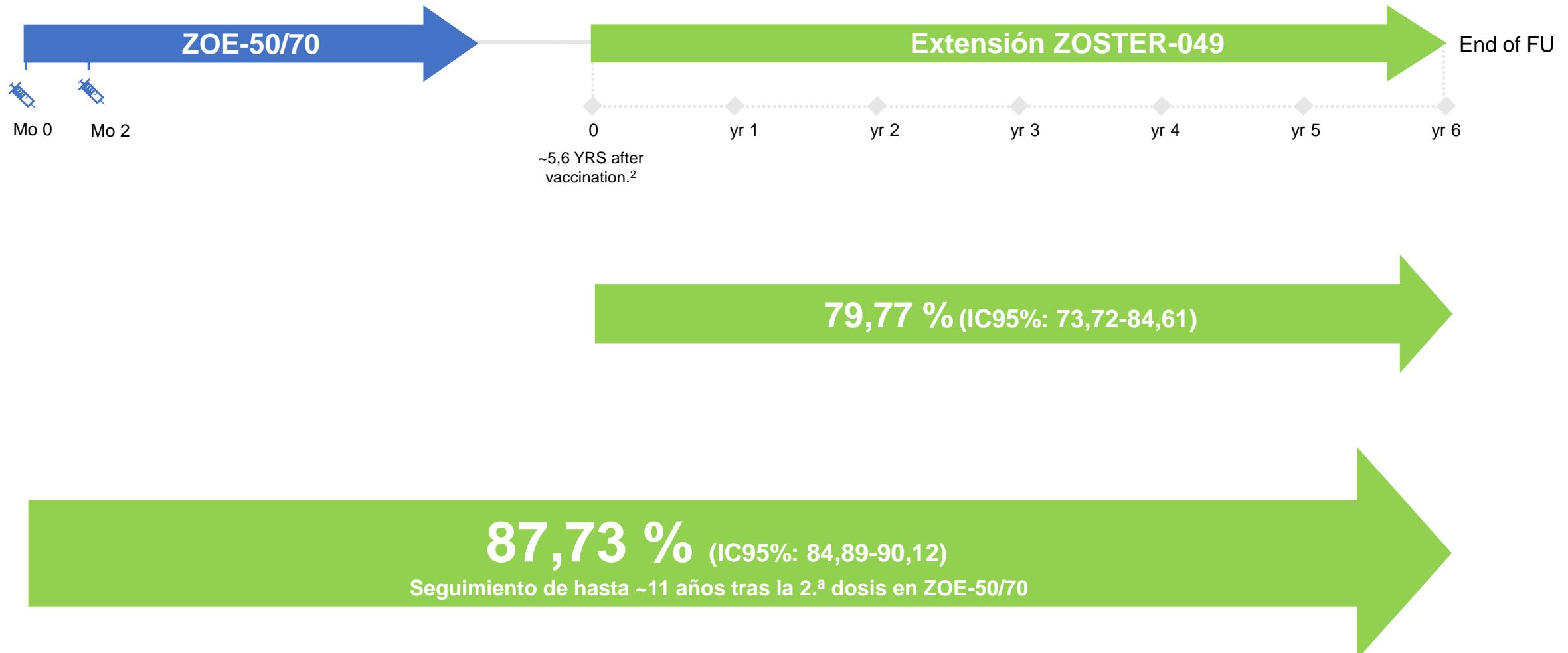
C



Frequency of gE-specific CD4[2+] T cells



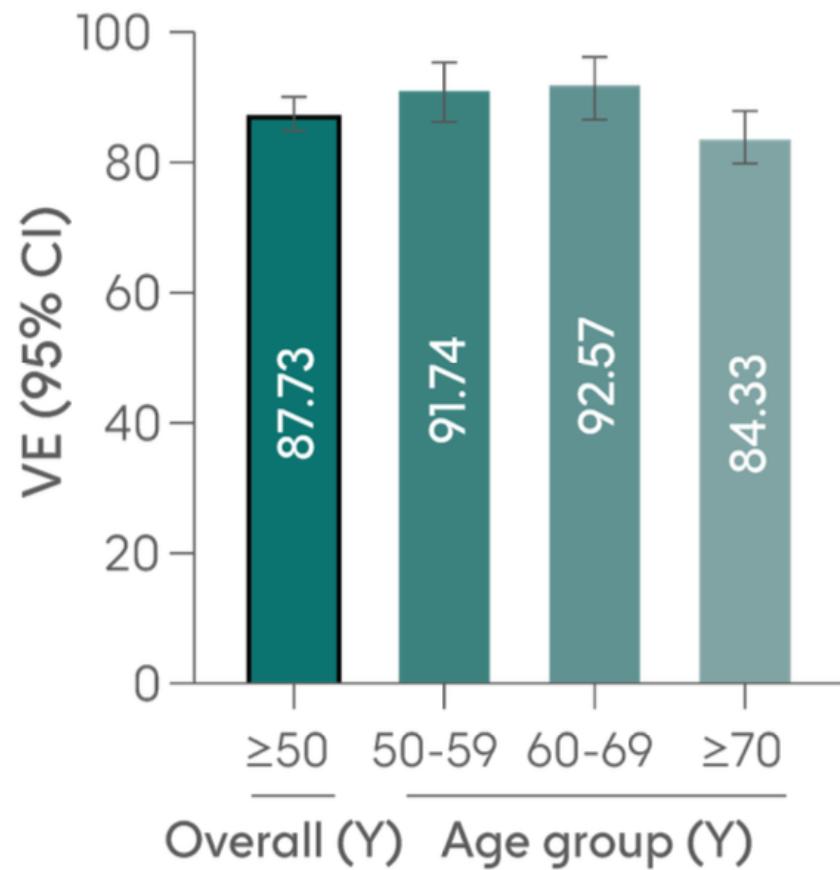
Efficacy. Long term follow up (11 yrs)



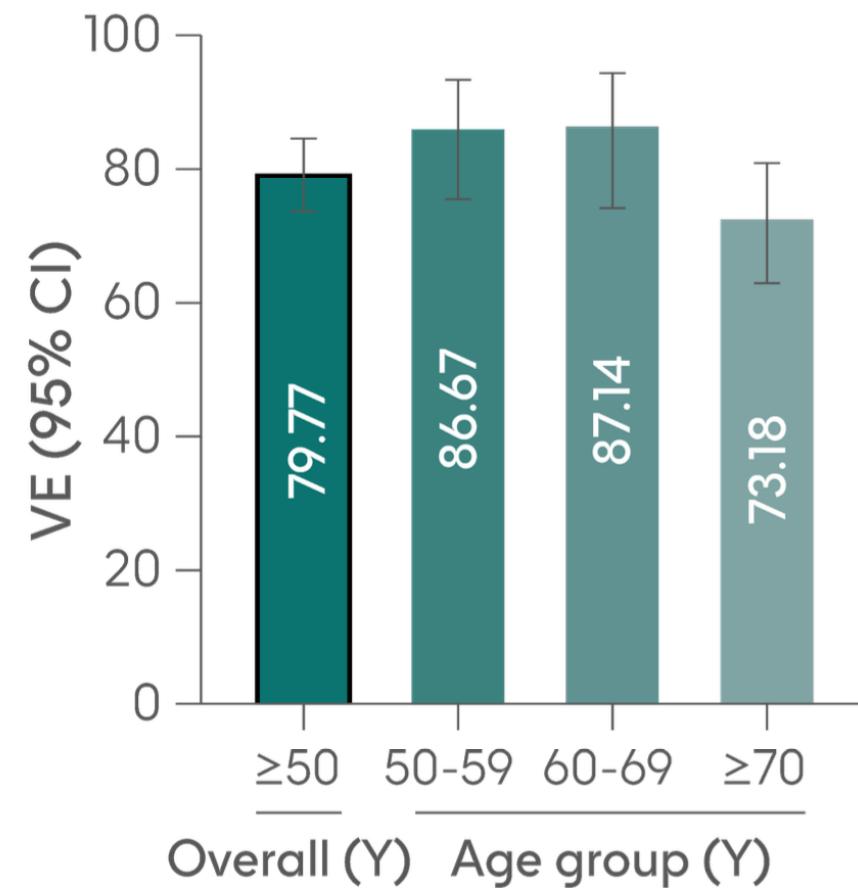
IC: intervalo de confianza; CH: control histórico; HZ: herpes zóster; N: número de sujetos con resultados disponibles; RZV: vacuna recombinante frente al herpes zóster.

1. Strezova A. et al. ECCMID 2024; Barcelona, Spain; 2. Strezova A. et al. Open Forum Infect Dis. 2022;9(10):ofac485.

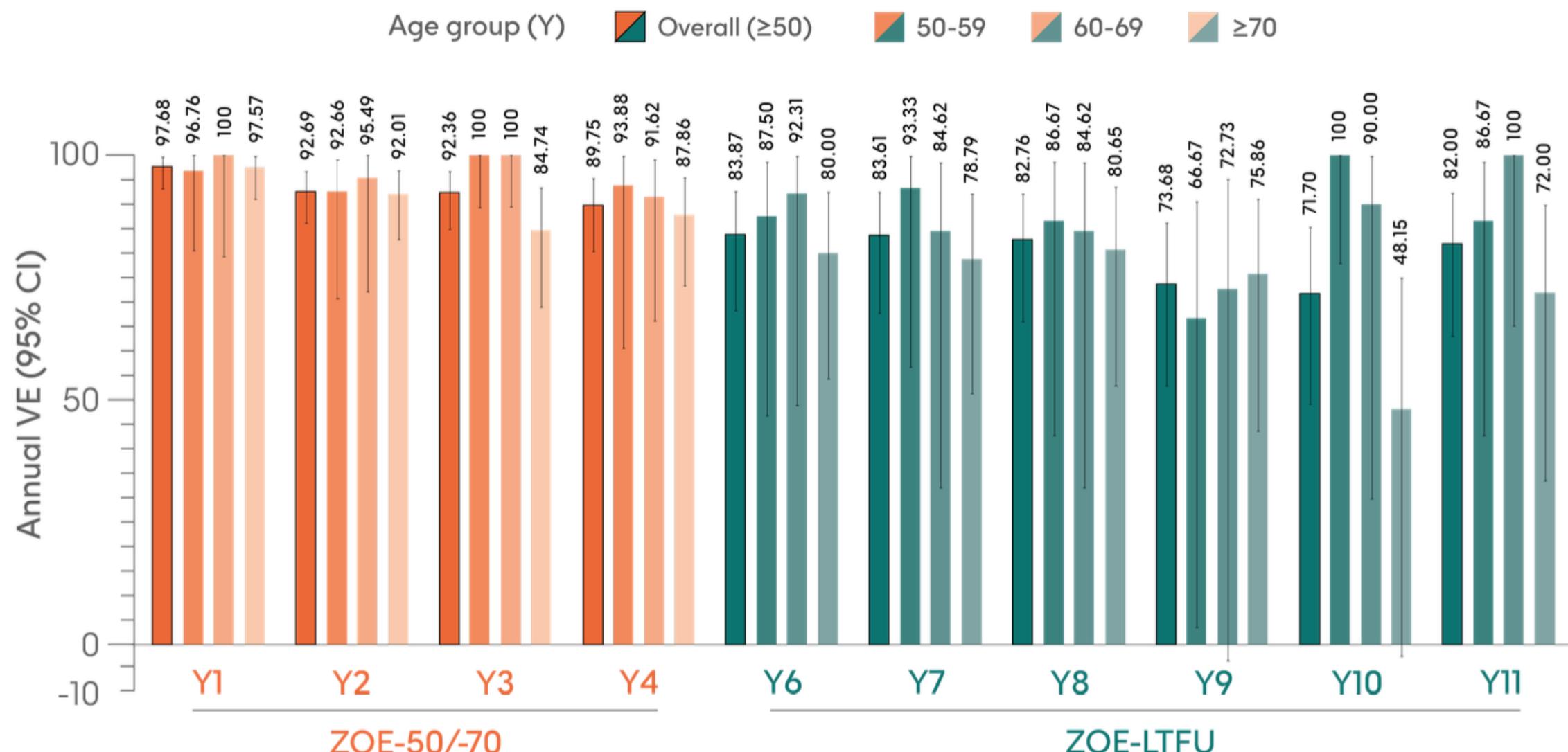
VE against first or only episode of HZ
from 1-month post-dose 2 in ZOE-50/70 studies



VE against first or only episode of HZ
during ZOE-LTFU study



VE against first or only episode of HZ over each year of follow-up from 1 month post-dose 2 in ZOE-50/70 studies



Conclusion

Adjuvanted HZ vaccine is highly immunogenic and efficacious

Protection of adults over 70 years is of long duration

Protection of adults over 70 years is slightly lower than in younger adults.