

# Patient-Provider Herpes Zoster Vaccination Discussion: Insights from Observed Primary Care Visits in the United States

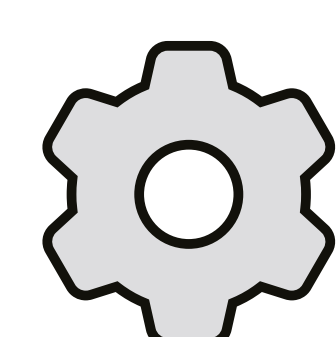
Nikita Stempniewicz<sup>1</sup>, Zachary N. Hebert<sup>2</sup>, Rita Campos<sup>1</sup>, Daniel Verdi<sup>1\*</sup>, Justin Gatwood<sup>1</sup>

<sup>1</sup>GSK, Philadelphia, PA, US; <sup>2</sup>Verilogue, Philadelphia, PA, US; \*Affiliation during study

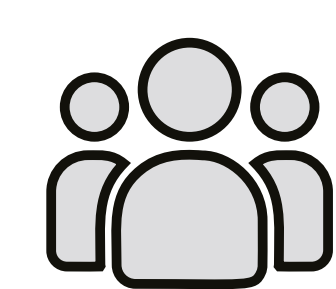
## Background

- HZ, commonly known as shingles, results from reactivation of latent varicella zoster virus and occurs most frequently in older adults.<sup>1</sup> In the US, 1 in 3 people will have HZ in their lifetime<sup>2</sup>
- In the US, ACIP recommends HZ vaccination for all adults aged ≥50 years and immunocompromised or immunosuppressed adults aged ≥19 years<sup>3,4</sup>
- However, HZ vaccine uptake is low compared to other adult vaccines for adults aged ≥50 years. PCP recommendations have been recognized as an important factor in vaccine decision-making<sup>5,6</sup>
- The objective of this study was to summarize observations from discussions of HZ vaccination between adults aged ≥50 years and PCPs in the US

## Study design



**Design:** Retrospective, cross-sectional analysis of data from de-identified audio recordings of medical visits between patients and PCPs (01/01/2022–07/31/2024)



**Population:** Adults aged ≥50 years and PCPs in a community setting from a sample of 100 audio recordings (involving 19 unique PCPs and 100 unique patients) where HZ vaccination was verbally considered



By design, the distribution of visits was balanced<sup>a</sup> across influenza vaccination season and patient gender, age (50–60; ≥65 years), and race (White; non-White)



**Analysis:** Qualitative and quantitative analyses to describe the behavior of participants and discussion dynamics

**Outcomes:** Topics discussed, observed vaccination recommendation, and patient acceptance of vaccination

<sup>a</sup>Defined as the inclusion of at least 40 recordings (unique patients) for each of the 8 groups.

## Results

### Visit characteristics and topics discussed

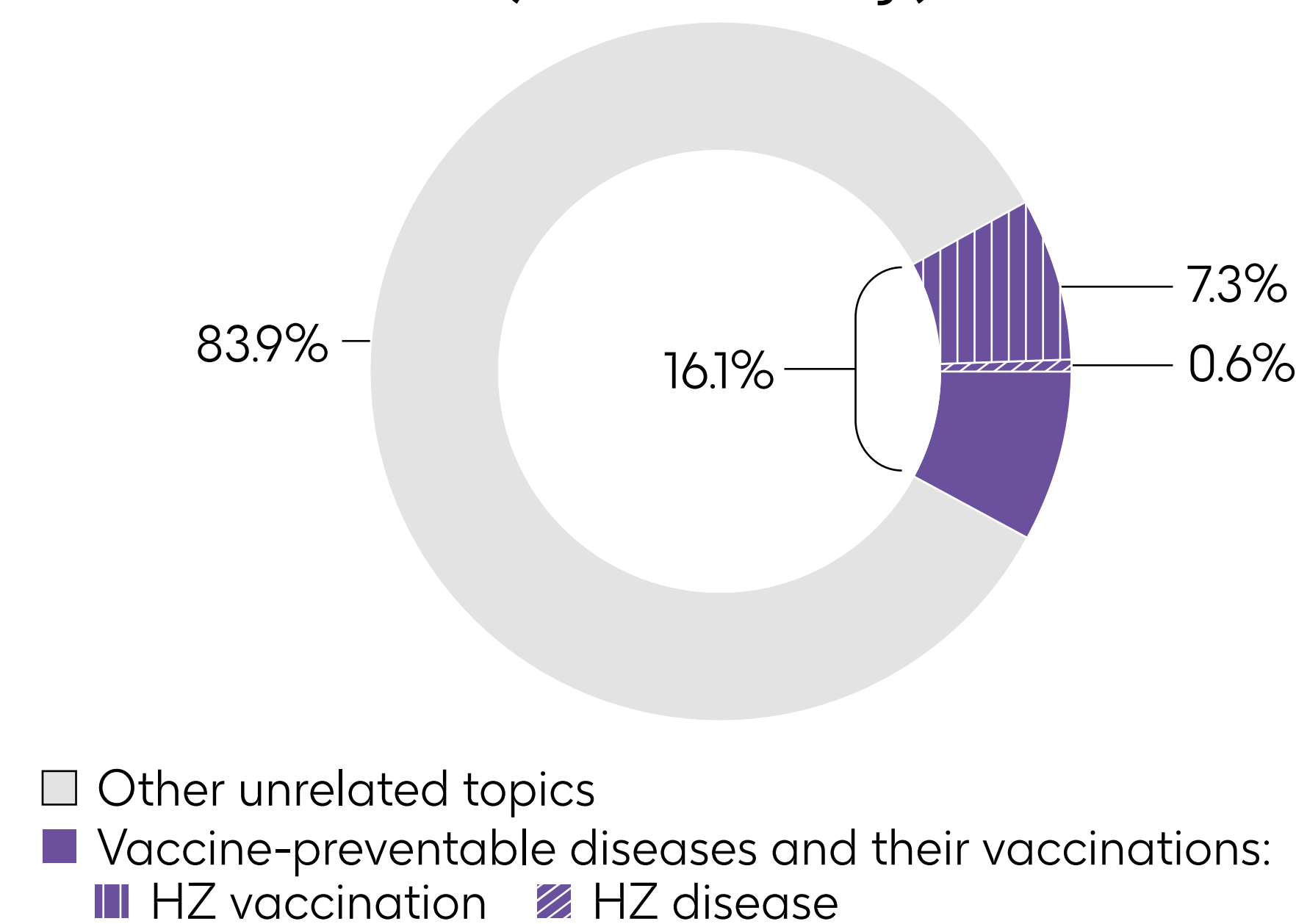


Mean (standard deviation) visit length was 14.3 (7.8) minutes

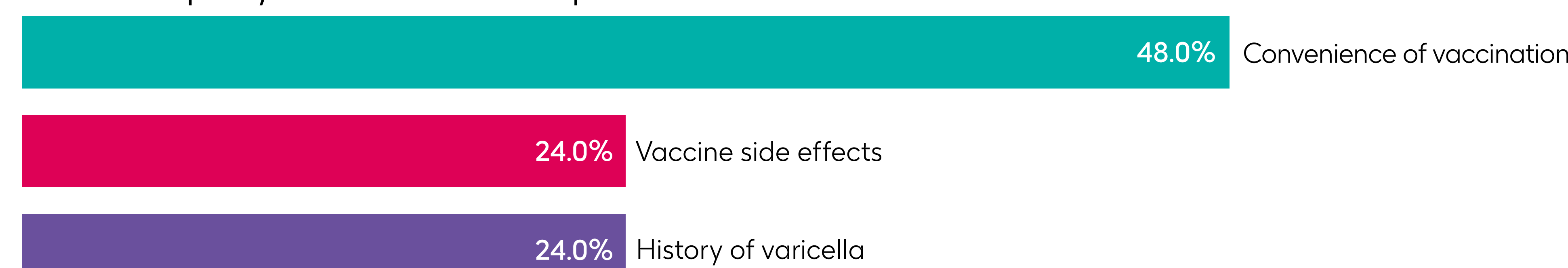
Further patient and PCP demographics and observations are included in the Supplemental Data (scan QR code)

On average, 79% (55.3 seconds) of the recorded visit was spent discussing HZ disease or HZ vaccination

Average proportion of recorded visit spent discussing topics (N=100 recordings)

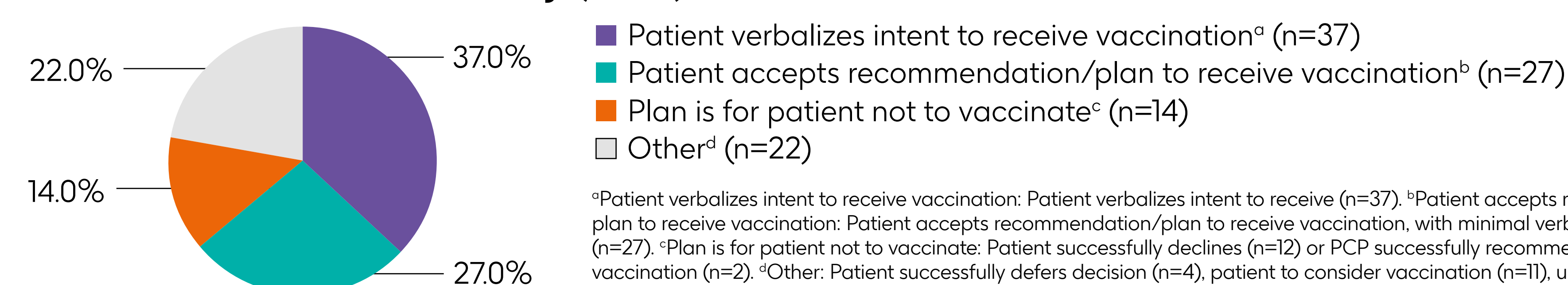


### The most frequently discussed HZ-related topics



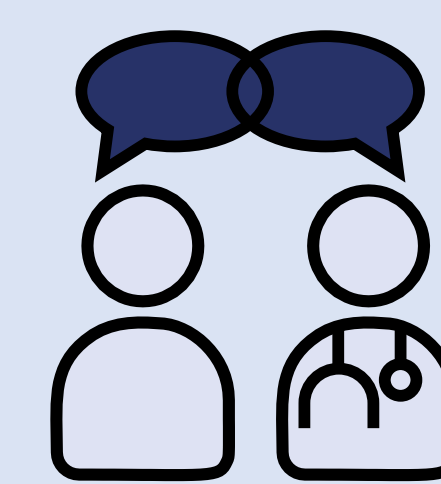
### Apparent decision outcome of HZ vaccination

Outcomes observed across all recordings (N=100)



<sup>a</sup>Patient verbalizes intent to receive vaccination: Patient verbalizes intent to receive (n=37). <sup>b</sup>Patient accepts recommendation/plan to receive vaccination: Patient accepts recommendation/plan to receive vaccination, with minimal verbal response(s) (n=27). <sup>c</sup>Plan is for patient not to vaccinate: Patient successfully declines (n=12) or PCP successfully recommends against vaccination (n=2). <sup>d</sup>Other: Patient successfully defers decision (n=4), patient to consider vaccination (n=11), unable to establish an outcome/decision (n=3), cost/coverage issue (n=3), or patient directed to consult with pharmacist (n=1).

## Conclusions



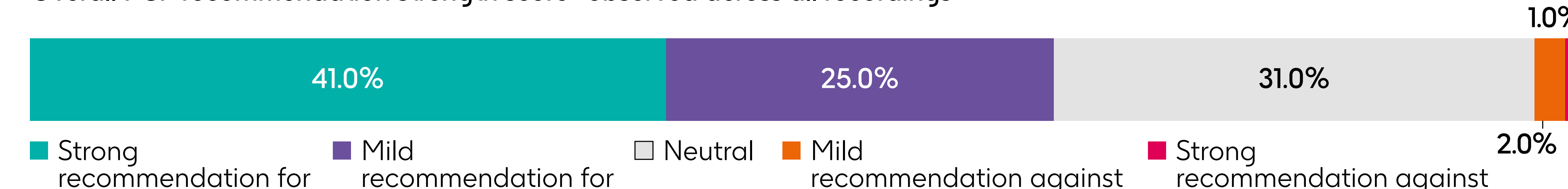
While most patients accepted HZ vaccination, related discussions were typically brief and initiated by PCPs



Variability in how PCPs introduced the topic and the strength of vaccination recommendation highlights opportunities to enhance patient-PCP communication to improve HZ prevention

### PCP recommendation regarding HZ vaccination

Overall PCP recommendation strength score<sup>a</sup> observed across all recordings

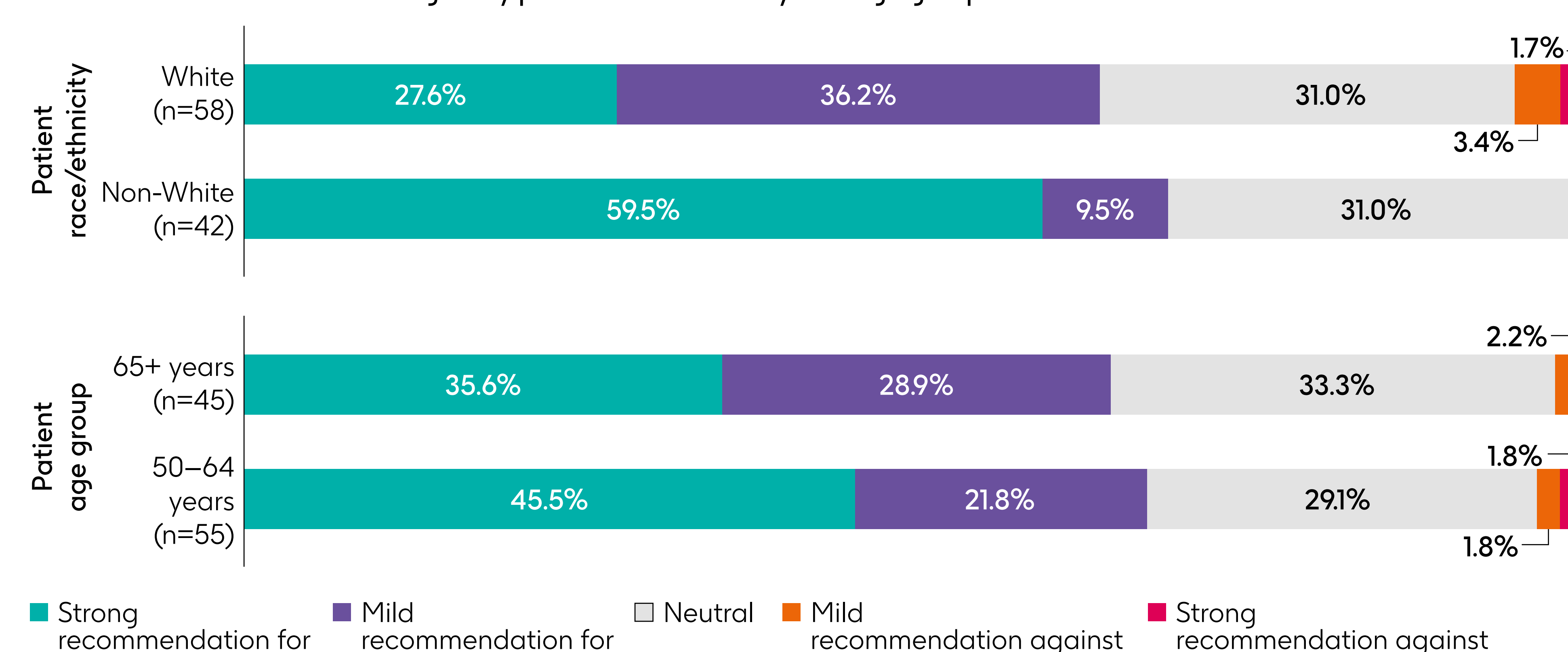


<sup>a</sup>Adapted PhyReCS<sup>3</sup> recommendation strength scores.

### Outcomes by patient demographic

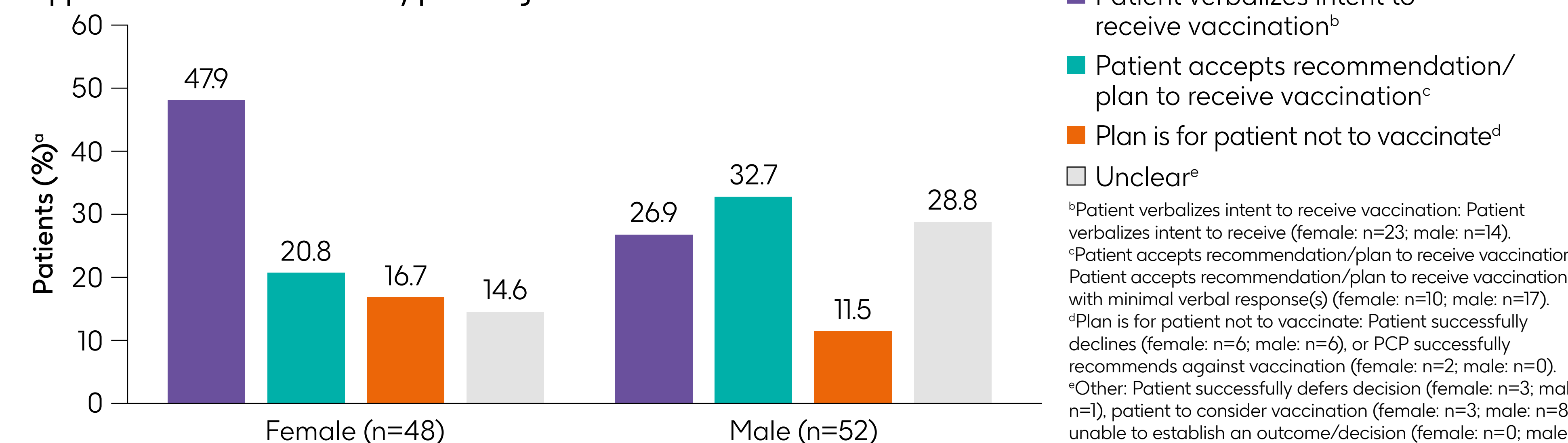
Vaccination against HZ was most commonly introduced by PCPs. However, instances of patients introducing the vaccine occurred more frequently among female patients than male patients (27.1% vs 13.5%)

Provider recommendation strength<sup>a</sup> by patient race/ethnicity and age group



<sup>a</sup>Adapted PhyReCS<sup>3</sup> recommendation strength scores. Percentages may not sum to 100% due to rounding.

### Apparent decision outcome by patient gender



<sup>a</sup>Percentages may not sum to 100% due to rounding.

Additional outcomes by patient demographic are included in the Supplementary Data (scan QR code)

## Abbreviations

ACIP, Advisory Committee on Immunization Practices; HZ, herpes zoster; PCP, primary care provider; PhyReCS, Physician Recommendation Coding System; US, United States.

## References

- (1) John AR, et al. Infect Dis Clin North Am. 2017;31(4):811–826.
- (2) CDC. Shingles Vaccination. 2024.
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- (5) CDC AdultVaxView. Vaccination Coverage among Adults in the United States, National Health Survey, 2022. 2022.
- (6) Eilers R, et al. Prev Med. 2014;69:224–234.
- (7) Opel DJ, et al. Pediatrics. 2013;132(6):1037–1046.
- (8) Scherr KA, et al. Med Decis Making. 2017;37(1):46–55.

## Acknowledgments

The authors thank Elena Rodgers, Samantha Creel, and Shaun Stuart, Verilogue, for study support, and Seongbin Shin, GSK, US, for publication management. The authors also thank Costello Medical for editorial assistance and publication coordination, on behalf of GSK, and acknowledge Clare Wiberg, Costello Medical, US for medical writing and editorial assistance based on authors' input and direction.

## Disclosures

Funding: This study was funded by GSK (GSK study identifier: VEO-000985).

Conflicts of interest: NS is employed by GSK and holds financial equities in GSK. ZNH is employed by Verilogue, which was paid by GSK to conduct this study. RC is employed by GSK, reported payments and support for attending meetings and/or travel from Neurelis Inc., and holds financial equities in GSK and UCB Inc. DV is employed by Shionogi Inc. and was formerly employed by GSK. JG is employed by GSK and holds financial equities in GSK and reported grants from Merck & Co. and AstraZeneca, consulting fees from Merck & Co. and Janssen, and support for attending meetings and/or travel from Genentech.



Audio File



SCAN ME

GSK



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## Supplement

Table S1: Patient demographics by year

	n	2022	2023	2024
Overall sample	100	9	57	34
Patient age				
50–64	55	3	36	16
65+	45	6	21	18
Patient gender				
Female	48	5	30	13
Male	52	4	27	21
Patient race/ethnicity				
Non-White	42	2	26	14
White	58	7	31	20
Time of year				
During US flu vaccination season	53	9	38	6
Outside of US flu vaccination season	47	0	19	28

Table S2: US Census region of practice

	n	Midwest	Northeast	South	West
Overall sample	100	1	36	43	20

Table S3: USDA RUCC associated with location of practice

	n	1: Metro - Counties in metro areas of 1 million population or more	2: Metro - Counties in metro areas of 250,000 to 1 million population	3: Metro - Counties in metro areas of fewer than 250,000 population	6: Nonmetro - Urban population of 5,000 to 20,000, adjacent to a metro area
Overall sample	100	82	15	2	1

Table S4: PCP years of practice

	n	11–20 years	21–30 years	31+ years
Overall sample	100	42	30	28

Table S5: PCP gender

	n	Female	Male
Overall sample	100	26	74

Table S6: Mean percent of overall recording time spent discussing these topics

	VPD <sup>a</sup>	HZ vaccine	HZ disease
Patient age			
50–64	15.1%	7.8%	0.5%
65+	17.3%	6.6%	0.6%
Patient gender			
Female	16.5%	8.4%	0.4%
Male	15.7%	6.2%	0.7%
Patient race/ethnicity			
Non-White	17.5%	8.4%	0.6%
White	15.1%	6.4%	0.5%
Time of year			
During US flu vaccination season	16.7%	7.3%	0.4%
Outside of US flu vaccination season	15.4%	7.3%	0.7%

<sup>a</sup>VPDs and their vaccinations.

Table S7: Who first introduces the topic of vaccination against HZ (stratified)

Speaker	By patient age	
	50–64 years	65+ years
	n (%)	n (%)
Total	55 (100.0%)	45 (100.0%)
Patient	10 (18.2%)	10 (22.2%)
Physician	44 (80.0%)	35 (77.8%)
Patient's care partner	0 (0.0%)	0 (0.0%)
Other office staff	1 (1.8%)	0 (0.0%)
Speaker	By patient gender	
	Female	Male
	n (%)	n (%)
Total	48 (100.0%)	52 (100.0%)
Patient	13 (27.1%)	7 (13.5%)
Physician	34 (70.8%)	45 (86.5%)
Patient's care partner	0 (0.0%)	0 (0.0%)
Other office staff	1 (2.1%)	0 (0.0%)
Speaker	By patient race/ethnicity	
	Non-White	White
	n (%)	n (%)
Total	42 (100.0%)	58 (100.0%)
Patient	7 (16.7%)	13 (22.4%)
Physician	34 (81.0%)	45 (77.6%)
Patient's care partner	0 (0.0%)	0 (0.0%)
Other office staff	1 (2.4%)	0 (0.0%)
Speaker	By time of year	
	In season	Out of season
	n (%)	n (%)
Total	53 (100.0%)	47 (100.0%)
Patient	11 (20.8%)	9 (19.1%)
Physician	41 (77.4%)	38 (80.9%)
Patient's care partner	0 (0.0%)	0 (0.0%)
Other office staff	1 (1.9%)	0 (0.0%)

### Abbreviations

HZ, herpes zoster; PCP, primary care provider; US, United States;  
USDA RUCC, United States Department of Agriculture Rural-Urban Continuum  
Codes; VPD, vaccine-preventable diseases.



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Table S8: Adapted Opel (2013) initiation format (stratified)<sup>1</sup>

Initiation format	By observed outcome			
	Patient accepts rec/plan	Patient verbalizes intent to receive	Plan is not for patient to vaccinate	Other
	n (%)	n (%)	n (%)	n (%)
Total	25 (100.0%)	23 (100.0%)	11 (100.0%)	20 (100.0%)
Participatory	18 (72.0%)	18 (78.3%)	11 (100.0%)	19 (95.0%)
Presumptive	7 (28.0%)	5 (21.7%)	0 (0.0%)	1 (5.0%)

Table S9: Adapted Opel (2013) initiation format (stratified)

Initiation format	By patient age	
	50–64 years	65+ years
	n (%)	n (%)
Total	44 (100.0%)	35 (100.0%)
Participatory	36 (81.8%)	30 (85.7%)
Presumptive	8 (18.2%)	5 (14.3%)
Initiation format	By patient gender	
	Female	Male
	n (%)	n (%)
Total	34 (100.0%)	45 (100.0%)
Participatory	28 (82.4%)	38 (84.4%)
Presumptive	6 (17.6%)	7 (15.6%)
Initiation format	By patient race/ethnicity	
	Non-White	White
	n (%)	n (%)
Total	34 (100.0%)	45 (100.0%)
Participatory	29 (85.3%)	37 (82.2%)
Presumptive	5 (14.7%)	8 (17.8%)
Initiation format	By time of year	
	In season	Out of season
	n (%)	n (%)
Total	41 (100.0%)	38 (100.0%)
Participatory	36 (87.8%)	30 (78.9%)
Presumptive	5 (12.2%)	8 (21.1%)

Table S10: Adapted PhyReCS (Scherr 2017) recommendation strength score (stratified)<sup>2</sup>

Score	By observed outcome			
	Patient accepts rec/plan	Patient verbalizes intent to receive	Plan is not for patient to vaccinate	Other
	n (%)	n (%)	n (%)	n (%)
Total	27 (100.0%)	37 (100.0%)	14 (100.0%)	22 (100.0%)
-2: Strong recommendation against	0 (0.0%)	0 (0.0%)	1 (7.1%)	0 (0.0%)
-1: Mild recommendation against	0 (0.0%)	0 (0.0%)	2 (14.3%)	0 (0.0%)
0: Neutral	6 (22.2%)	11 (29.7%)	9 (64.3%)	5 (22.7%)
1: Mild recommendation for	8 (29.6%)	7 (18.9%)	1 (7.1%)	9 (40.9%)
2: Strong recommendation for	13 (48.1%)	19 (51.4%)	1 (7.1%)	8 (36.4%)
Average score	1.3	1.2	-0.1	1.1

Table S11: Adapted PhyReCS (Scherr 2017) recommendation strength score (stratified)<sup>2</sup>

Score	By patient age	
	50–64 years	65+ years
	n (%)	n (%)
Total	55 (100.0%)	45 (100.0%)
-2: Strong recommendation against	1 (1.8%)	0 (0.0%)
-1: Mild recommendation against	1 (1.8%)	1 (2.2%)
0: Neutral	16 (29.1%)	15 (33.3%)
1: Mild recommendation for	12 (21.8%)	13 (28.9%)
2: Strong recommendation for	25 (45.5%)	16 (35.6%)
Average score	1.1	1.0
Score	By patient gender	
	Female	Male
	n (%)	n (%)
Total	48 (100.0%)	52 (100.0%)
-2: Strong recommendation against	1 (2.1%)	0 (0.0%)
-1: Mild recommendation against	2 (4.2%)	0 (0.0%)
0: Neutral	15 (31.3%)	16 (30.8%)
1: Mild recommendation for	11 (22.9%)	14 (26.9%)
2: Strong recommendation for	19 (39.6%)	22 (42.3%)
Average score	0.9	1.1
Score	By patient race/ethnicity	
	Non-White	White
	n (%)	n (%)
Total	42 (100.0%)	58 (100.0%)
-2: Strong recommendation against	0 (0.0%)	1 (1.7%)
-1: Mild recommendation against	0 (0.0%)	2 (3.4%)
0: Neutral	13 (31.0%)	18 (31.0%)
1: Mild recommendation for	4 (9.5%)	21 (36.2%)
2: Strong recommendation for	25 (59.5%)	16 (27.6%)
Average score	1.3	0.8
Score	By time of year	
	In season	Out of season
	n (%)	n (%)
Total	53 (100.0%)	47 (100.0%)
-2: Strong recommendation against	1 (1.9%)	0 (0.0%)
-1: Mild recommendation against	2 (3.8%)	0 (0.0%)
0: Neutral	16 (30.2%)	15 (31.9%)
1: Mild recommendation for	14 (26.4%)	11 (23.4%)
2: Strong recommendation for	20 (37.7%)	21 (44.7%)
Average score	0.9	1.1

### Abbreviations

PhyReCS, Physician Recommendation Coding System.

### References

- (1) Opel DJ, et al. Pediatrics. 2013;132(6):1037-1046.  
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## Supplement

Table S12: Apparent decision/outcome regarding vaccination against HZ (stratified)

Outcome	By patient age	
	50–64 years	65+ years
	n (%)	n (%)
Total	55 (100.0%)	45 (100.0%)
Patient accepts recommendation/plan to receive vaccination	15 (27.3%)	12 (26.7%)
Patient verbalizes intent to receive vaccination	19 (34.5%)	18 (40.0%)
Plan is for patient not to vaccinate	7 (12.7%)	7 (15.6%)
Other	14 (25.5%)	8 (17.8%)
Outcome	By patient gender	
	Female	Male
	n (%)	n (%)
Total	48 (100.0%)	52 (100.0%)
Patient accepts recommendation/plan to receive vaccination	10 (20.8%)	17 (32.7%)
Patient verbalizes intent to receive vaccination	23 (47.9%)	14 (26.9%)
Plan is for patient not to vaccinate	8 (16.7%)	6 (11.5%)
Other	7 (14.6%)	15 (28.8%)
Outcome	By patient race/ethnicity	
	Non-White	White
	n (%)	n (%)
Total	42 (100.0%)	58 (100.0%)
Patient accepts recommendation/plan to receive vaccination	12 (28.6%)	15 (25.9%)
Patient verbalizes intent to receive vaccination	15 (35.7%)	22 (37.9%)
Plan is for patient not to vaccinate	6 (14.3%)	8 (13.8%)
Other	9 (21.4%)	13 (22.4%)
Outcome	By time of year	
	In season	Out of season
	n (%)	n (%)
Total	53 (100.0%)	47 (100.0%)
Patient accepts recommendation/plan to receive vaccination	13 (24.5%)	14 (29.8%)
Patient verbalizes intent to receive vaccination	20 (37.7%)	17 (36.2%)
Plan is for patient not to vaccinate	7 (13.2%)	7 (14.9%)
Other	13 (24.5%)	9 (19.1%)

### Abbreviations

HZ, herpes zoster.