



# Attitudes toward Vaccines in People with Multiple Sclerosis

Lien Nguyen DO<sup>1</sup>, Kevin Alschuler PhD<sup>2</sup>, Annette Wundes MD<sup>1</sup>, Lakshman Arcot MD<sup>1</sup>, Gloria von Geldern MD<sup>1</sup>  
<sup>1</sup> Neurology, <sup>2</sup> Rehabilitation Medicine, University of Washington, Seattle, WA

UNIVERSITY of  
WASHINGTON

## Background

- Advances in multiple sclerosis (MS) disease modifying therapies have introduced medications that have a greater effect on the immune system.
- Clinicians treating MS need to address the risk of infections including the appropriate use of vaccinations.
- Understanding how patients perceive vaccinations in the context of MS is important for guiding patient-provider interactions around vaccination.

To characterize the attitudes and knowledge of people with MS towards vaccines.

## Methods

All patients with MS in our clinic from Sep to Dec 2017 were invited to complete an anonymous questionnaire.

### Measures:

- Perceptions and beliefs towards vaccines
- Sources of information re vaccination
- Vaccines received
- Reasons for not getting recommended vaccinations.

Demographics (n=197)	
Age (years, mean ±SD)	48.5 (± 12.7)
Gender	133 (67%) women
Ethnicity	174 (88.33%) white
Education	32 (16.33%) graduated high school or less 107 (54.59%) graduated college or higher
Duration of MS (years, mean ±SD)	11 (± 9.9)
PDDS (Patient Determined Disease Steps)	71 (35.86%) Normal, mild disability (0-1) 64 (32.32%) Moderate disability (2) 32 (16.16%) Early cane (3) 20 (10.10%) Late cane, bilat support (4-5) 11 (5.56%) Wheelchair (6)
Disease Modifying Therapy (DMT)	29 (17.90%) No current DMT 133 (82.09%) on DMT (41% oral, 30% injectable, 29% infusion)

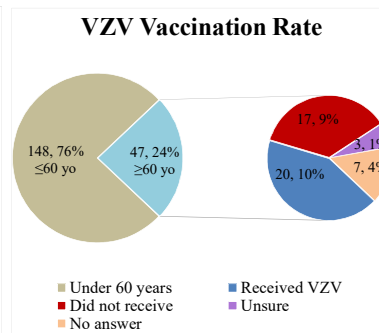
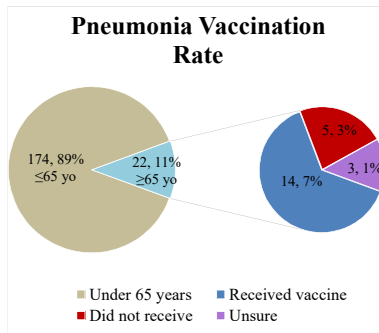
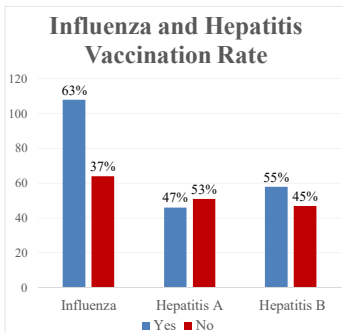
## Conclusions

While attitudes to vaccines were generally positive, specific knowledge about vaccines in people with MS was lacking. A large percentage of those surveyed had not talked to a healthcare provider about vaccines and many patients had not received vaccinations.

**This study highlights the importance of educating people with MS about the role and safety of vaccines in their specific situation.**

## Results

### Vaccination rates varied by vaccine



### Only 40.7% reported that a health care professional had discussed vaccines with them.

