

that a proportional decrease in list price decreased the ICER disproportionately in favor of adding a single dose of PCV13.

**Conclusion.** Expanding the recommendation of only PPV23 to PCV13→PPV23 among Dutch adults aged 60 years and older is a cost-effective use of healthcare resources. In particular adding a single dose of PCV13 for those with moderate or high risk of pneumococcal disease was shown to be cost-saving.

**Disclosures.** M. Rozenbaum, Pfizer: Employee and Shareholder, Salary.

#### 1435. The Cost-Effectiveness of Vaccinating With an Adjuvanted Trivalent Influenza Vaccine for the 65+ Population in Argentina

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**Background.** Despite the current vaccination program in Argentina for older adults (OA), influenza continues to have severe consequences. Estimates based on Argentinian information surveillance system suggest that influenza-like illness reaches an average rate of 3,570/100,000 annually, a hospitalization rate of 15.5/100,000 and a death rate of 0.32/100,000 in OA aged 65+. The high burden of disease in this population is in part due to immunosenescence and the resulting suboptimal clinical effectiveness of influenza vaccines in this age group. There is an unmet clinical need in those aged 65+ for an influenza vaccine that offers enhanced protection. The objective of this study was to evaluate the cost effectiveness (CE) of the MF59 adjuvanted vaccine (aTIV) in Argentina compared with current vaccination policy with an un-adjuvanted vaccine (TIV).

**Methods.** A static decision tree CE model of aTIV was developed to estimate the cost effectiveness compared with TIV vaccine in those aged 65+ in Argentina. The model compares cost and health benefits of vaccination in an influenza season from the payer and the societal perspective. The main outcomes include events, death, LLY, QALYs, and costs. To the extent possible, model inputs were sourced from Argentina; in cases where local data were insufficient, international inputs were utilized. Vaccine efficacy assumptions were extracted from recent literature search.

**Results.** Using aTIV instead of TIV resulted in additional 530 deaths averted and 3,980 incremental quality-adjusted life-years (QALYs) gained. The incremental cost-effectiveness ratio (ICER) was US\$243 and US\$937 per QALY from societal and payer's perspective respectively. In all univariate sensitivity analyses, aTIV remained highly cost-effective meeting the threshold of one GDP per capita in Argentina. From a societal perspective, the probabilistic sensitivity analyses showed aTIV cost-saving in 30% of the simulations.

**Conclusion.** This analysis suggests that vaccinating with aTIV in Argentina would be a highly cost-effective in providing additional health gains while reducing healthcare resources utilization and costs.

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#### 1436. Risk Factors for Invasive Pneumococcal Disease in Adults ≥65 Years Old Following Pneumococcal Conjugate Vaccine Recommendation

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**Background.** In 2014, pneumococcal conjugate (PCV13) and polysaccharide (PPSV23) vaccines were recommended in series for all US adults ≥65 years. We conducted a case-control study to evaluate risk factors for invasive pneumococcal disease (IPD) among adults ≥65 years old.

**Methods.** IPD cases (isolation of pneumococcus from sterile sites) were identified through Active Bacterial Core surveillance during 2015–2018. Isolates were serotyped using whole genome sequencing. Four controls, identified through a commercial database, were matched per case by age and zip code. We obtained vaccination and medical histories from providers, vaccine registries and participant interviews. A functional status score was calculated based on participant interview. We calculated IPD odds ratios using multivariable conditional logistic regression.

**Results.** We enrolled 328 IPD cases and 1,280 matched controls. Fifty percent of case-patients and 55% of controls received a dose of PCV13. Case-patients were

more likely than controls to have a chronic condition (heart, liver, or lung disease, diabetes, cochlear implant, alcohol abuse, smoking; 82% vs. 59%), immunosuppression (60% vs. 32%), poor functional status (score of ≥ 3; 71% vs. 50%), annual household income <\$30,000 (38% vs. 25%) and education level of high school or less (36% vs. 25%). In a multivariable model, case-patients were more likely than controls to have a chronic condition (OR 2.48, 95% CI 1.72, 3.58), immunosuppression (OR 2.56, 95% CI 1.92, 3.42), poor functional status (OR 3.66, 95% CI 2.42, 5.54), and primary or secondary smoking exposure (OR 3.09, 95% CI 1.32, 7.2). In analysis limited to PCV13-type cases and matched controls, adjusting for PCV13 receipt, measures of association were no longer significant for chronic conditions (OR 1.45, 95% CI 0.71, 2.95), immunosuppression (OR 1.51, 95% CI 0.83, 2.74), or poor functional status (OR 1.98, 95% CI 0.91, 4.3).

**Conclusion.** Chronic and immunosuppressive conditions remain IPD risk factors for adults in the era of PCV13 use; poor functional status was also identified as a risk factor. Targeted evaluation of adults with poor functional status could inform IPD prevention strategies. PCV13 may reduce the risk of PCV13-type IPD associated with chronic conditions and poor functional status.

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#### 1437. Family Duty and Safety Linked to Overcoming Attitudinal Barriers to Adult Pneumococcal Vaccination in Disparate Populations

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**Background.** Minority adult populations are at a higher risk for invasive pneumococcal disease and also have significantly lower vaccination rates when compared with the general population. Ingrained attitudes are a significant barrier to receipt of pneumococcal vaccine in these disparate populations, and therefore we tested targeted informational messaging to overcome these.

**Methods.** A survey instrument of attitudinal questions related to pneumococcal vaccination was administered via YouGov, an online public national survey house in 2017. Socioeconomic information was captured and linked to baseline Likert scale attitudinal question responses. Respondents were randomly assigned into subsamples that received different science-based messages that included information on pneumococcal vaccines related to: pneumonia prevention, fatality/consequences, vaccine safety information, family duty/safety, and a combined vignette including all of these. Because of the random assignment, any differences observed in the respondents' outcomes across subsamples can be attributed to the messages. Descriptive statistics were used to compare the persuasive effectiveness of these messages to conventional vaccine information across racial and ethnic groups.

**Results.** A total of 2,608 respondents, 1,327 (51%) white and 1,281 (49%) non-white (over-sampled) were represented. Of the total respondents as well as in white, and non-white respondents, the combined vignette was associated with positive coefficients of  $b = 0.26$ ,  $b = 0.24$ , and  $b = 0.32$ , respectively ( $P$ -values all <0.05). In whites, the vaccine safety information and family duty/safety also had significant coefficients  $b = 0.24$  ( $P = 0.012$ ) and  $b = 0.24$  ( $P = 0.016$ ), respectively. In non-Whites, family duty/safety was the only additional message with a significant coefficient  $b = 0.25$  ( $P = 0.007$ ).

**Conclusion.** In this survey assessing attitudes toward pneumococcal vaccination across racial and ethnic subpopulations, the disparate population was persuaded to receive the vaccine only when family duty and safety were linked within the informational messages. Future studies implementing this informational messaging strategy should be performed to validate this finding.

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#### 1438. Uptake of 13-Valent Pneumococcal Conjugate Vaccine in High-Risk Adults Aged 19–64 Years: A Kaplan–Meier Approach

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**Background.** Coverage estimates for pneumococcal vaccination in the United States come from the National Health Interview Survey (NHIS) and do not differentiate between 13-valent conjugated vaccine (PCV13) and 23-valent polysaccharide vaccine (PPSV23). This study was conducted to assess coverage of PCV13 among adults