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Exploring the Relationship between Medical Insurance and Vaccine Acceptance Rates

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INTRODUCTION
- Last year the National Travel and Tourism Office estimated that 93,000,000 US travelers went abroad.
- Missed opportunities for vaccination in the higher risk group of travelers may result in increased disease rates in this population.
- A previous study looking at GTEN travel clinics noted that 28% of travelers had refused at least one recommended vaccine.
- As a quality initiative to improve vaccination rates at our travel clinic, we sought to determine if there might be an association between the traveler’s medical coverage and acceptance of recommended vaccines.

ABSTRACT
Background: Every year increasing numbers of US travelers, including older/displaced individuals, are traveling abroad. Many are at increased risk for vaccine preventable diseases. Insurance plans typically cover routine immunizations but do not cover many travel vaccines. Little data has been published regarding rates of vaccine acceptance as related to traveler’s medical insurance, specifically the likelihood of accepting vaccine recommendations per person at the time of pre-travel visit.

Objective: We sought to describe the relationship between a traveler’s medical insurance and the likelihood of accepting vaccine recommendations at the time of pre-travel visit.

Methods: As a QI project, we reviewed existing billing records in comparison to vaccines ordered by the providers, between 11/4/16 – 12/22/16. Travel Medicine notes were retrieved, all vaccine recommendations were collated and matching billing information was reviewed.

Results: A total of 696 patients were included in the sample. Slightly more than half (58.3%) were female and the median age was 45 years. There were 1,628 vaccines recommended with an average of 2.3 per traveler. Of the 658 travelers with a recommended vaccine, 31.9% declined at least one recommended vaccine. Reasons for declining were [N (%)]: not being concerned about the risk of illness 122 (58.1), concerns about cost 72 (34.3), referral to PCP 12 (5.7), and contraindication 41 (9). The insurance type with the highest rate of overall vaccine acceptance was Commercial (Non-HMO) 1,011 (85.2), followed by Medicare HMO 197 (76), Medicare 130 (71.4), Self-Pay 53 (67.9), Medicaid HMO 125 (45.5) and HMO 69 (51.5). Compared with other insurance types, Self-pay and HMO insured travelers had lower rates of vaccine acceptance, except for Typhoid and Yellow Fever. The vaccine with the lowest acceptance rates was Rabies.

Conclusion: Our QI project showed that vaccine acceptance rates varied based on the specific vaccine recommended and insurance coverage. It is not known whether some of these travelers ultimately received recommended vaccines elsewhere – future studies to explore this would be helpful to optimize the overall health of our travelers.

REFERENCES/FOOTNOTES
2. Components of this data collection methodology were supported by the Global Travel and Tourism Partnership (GTTTP), a CDC-supported consortium of clinics that collects data on health interventions pre-travel. The analysis and views expressed in this report do not necessarily reflect endorsement by GPP or CDC.