

Infectious Disease Experience

Over 25 of our staff have experience in infectious disease projects, including

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A Wealth of Experience

At RTI Health Solutions, we have collaborated with our clients on over 270 projects researching infectious disease treatment and prevention. Our experience includes:

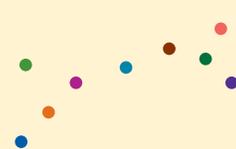
- Cholera
- H1N1
- Hepatitis
- Herpes
- HIV/AIDS
- Hospital-acquired infections
- Human papillomavirus
- Influenza
- Invasive fungal infections
- Malaria
- Meningococcal disease
- MRSA
- Respiratory tract infections
- Respiratory syncytial virus (RSV)
- Vaccines

Types of Projects

We have implemented studies to help our clients develop strategies in the infectious disease market and to develop and gain market access for products to treat or prevent multiple diseases. Recent projects have included:

- Epidemiology of disease
- Analyses of treatment patterns and outcomes
- Analyses of disease state and incidence of disease
- Disease surveillance studies
- Observational cohort studies
- Patient-reported outcomes studies
- Measurement of patient preferences for treatment options
- Exploratory analyses of data from trial data or other sources, including observational and health care utilization data
- Meta-analysis studies
- Systematic literature reviews
- Conjoint analyses to estimate the value of treatments
- Development of decision-analytic models to predict disease prevalence and the budget impact and cost-effectiveness of treatment/prevention options
- Development of global and country-specific value dossiers
- Development of product value and access kits
- Economic burden of illness studies

(continued)



See How We've Helped Others

Tetanus, Diphtheria, and Acellular Pertussis (Tdap) Vaccine Use in Wound Management

We developed a decision-analytic economic model to estimate the expected increase in direct medical costs and the expected number of cases of pertussis avoided associated with the use of Tdap instead of Td vaccine in the wound management setting. The study estimated that for the US population aged 10+ years, vaccination with Tdap instead of Td would result in protection against pertussis for an additional 2.7 million patients annually, for an additional cost of \$121,101,671, to avoid 42,104 cases of pertussis for 3 years. For all of the alternative scenarios tested, the expected increase in per-member-per-month costs ranged from <\$0.01 to \$0.03. Given the potential reduction in pertussis cases at the population level, vaccination with Tdap for routine wound management could be considered as another strategy to help address the pertussis public health concern in the United States. Study results were published in the *Journal of Managed Care Pharmacy*, 2015 Jan;21(1):88-99.

Discrete Choice Experiment for Meningococcal Vaccination

We performed a discrete choice experiment to quantify pediatricians' preferences for specific features of hypothetical infant meningococcal vaccines. A total of 216 pediatricians completed a web-enabled survey in which respondents chose between pairs of hypothetical vaccines in a series of trade-off questions. Pediatricians' choices indicated that increases in vaccine effectiveness were among the most important factors in their vaccine recommendations, followed by increases in the number of injections. The results suggest that virtually all (99.9%) physicians in the sample would recommend a vaccine even with the least-preferred features rather than no infant meningococcal vaccine. Study results were published in *Value in Health*, 2015 Jan;18(1):67-77.

Adherence to Antiretroviral Treatment (ART) Among HIV Patients

Using a US claims database comprising a large cohort of patients diagnosed with HIV, we assessed differences in ART adherence based on the number of pills taken per day and evaluated how adherence affected hospitalization rates. Over 7,000 patients were evaluated and required to remain on treatment for at least 60 days. The study showed that HIV patients receiving ART consisting of a single pill per day (i.e., combining all ART regimen components into a single tablet) had significantly better ART adherence compared with patients receiving multiple pills per day. The study also showed that improved adherence was associated with lower odds of hospitalization. Study results were published in *PLoS One*, 2012;7(2):e31591.

Selected Publications By Our Staff

Brogan AJ, Smets E, **Mauskopf JA**, Manuel SA, Adriaenssen I. Cost-effectiveness of darunavir/ritonavir combination antiretroviral therapy for treatment-naive adults with HIV-1 infection in Canada. *Pharmacoeconomics*. 2014 Sep;32(9):903-17.

DiBonaventura MD, Yuan Y, Lescauwaet B, L'italien G, Liu GG, Kamae I, **Mauskopf JA**. Multicountry burden of chronic hepatitis C viral infection among those aware of their diagnosis: a patient survey. *PLoS One*. 2014 Jan 21;9(1):e86070.

McGrath LJ, Cole SR, Kshirsagar AV, Weber DJ, Stürmer T, Brookhart MA. Hospitalization and skilled nursing care are predictors of influenza vaccination among patients on hemodialysis: evidence of confounding by frailty. *Med Care*. 2013 Dec;51(12):1106-13.

Villa M, Black S, Groth N, **Rothman KJ**, Apolone G, Weiss NS, Aquino I, Boldori L, Caramaschi F, Gattinoni A, Malchiodi G, Crucitti A, Della Cioppa G, Scarpini E, Mavilio D, Mannino S. Safety of MF59-adjuvanted influenza vaccination in the elderly: results of a comparative study of MF59-adjuvanted vaccine versus nonadjuvanted influenza vaccine in northern Italy. *Am J Epidemiol*. 2013 Oct;178(7):1139-45.

Karve S, Meier G, **Davis KL**, Misurski DA, Wang CC. Influenza-related health care utilization and productivity losses during seasons with and without a match between the seasonal and vaccine virus B lineage. *Vaccine*. 2013 Jan;31(33):3370-88.

McGrath LJ, Kshirsagar AV. Influenza and pneumococcal vaccination in dialysis patients: merely a shot in the arm? *Am J Kidney Dis*. 2012 Dec;60(6):890-2.

Colosia AD, Masaquel A, Hall CB, **Barrett AM**, Mahadevia PJ, Yogev R. Residential crowding and severe respiratory syncytial virus disease among infants and young children: a systematic literature review. *BMC Infect Dis*. 2012;12:95.

Kauf TL, Mohamed AF, **Hauber AB**, Fetzer D, Ahmad A. Patients' willingness to accept the risks and benefits of new treatments for chronic hepatitis C virus infection. *Patient: Patient-Centered Outcomes Res*. 2012;5(4):265-78.

Mauskopf J, **Brogan A**, **Talbird SE**, Martin S. Cost-effectiveness of combination therapy with etravirine in treatment-experienced adults with HIV-1 infection. *AIDS*. 2012;26(3):355-64.

Poulos C, Riewpaiboon A, Stewart JF, Clemens J, Guh S, Agtini M, Sur D, Islam Z, Lucas M, Whittington D. Costs of illness due to endemic cholera. *Epidemiol Infect*. 2012;140(03):500-9.