



Postdoctoral Fellowship in Health Policy Modeling

The Institute for Technology Assessment at Massachusetts General Hospital and Harvard Medical School has an opening for a postdoctoral fellowship. The primary role would be to conduct health policy analytics and modeling research to inform policies and optimal clinical decisions in at least one of these disease areas: global elimination of *hepatitis C*, interventions to control *coronavirus/COVID-19*, *non-alcoholic fatty liver disease* screening/treatment. There could be opportunities to work with stakeholders such as the World Health Organization, the Department of Health and Human Services, the National Institutes of Health, and other organizations.

KEY FUNCTIONS

- Develop simulation models for decision analysis, cost-effectiveness analysis, projection of disease burden, budget impact, and value of information analysis.
- Develop risk prediction models using machine learning methods such as artificial neural networks and other advanced analytic methods
- Work with the research team on advancement of methods for cost-effectiveness analysis and modeling
- In coordination with the principal investigator, lead the research team in writing manuscripts and grant applications.

QUALIFICATIONS

- Expertise in agent-based modeling, microsimulation, compartmental modeling, data analytics, and visualization.
- Hands-on experience of some common machine learning methods.
- Working knowledge of general-purpose programming languages such as C++, Java, R, or MATLAB.
- Strong quantitative as well as writing skills.

EDUCATION

Doctorate Degree in industrial engineering, operations research, computer science, health services research, or related quantitative field.

EXPERIENCE

Required: Hands-on experience of building simulation models (e.g., agent-based, discrete event simulation) using general-purpose programming languages such as C++, Java, Excel VBA, and MATLAB; Prior experience of applying OR to public health and medical decision-making is highly desired; working knowledge of data analytics methods.

START DATE: Summer/Fall 2020

TERMS AND CONTACT INFORMATION

The fellowship is a one-year, full-time commitment, renewable for a second year upon mutual consent. There will be opportunities for the fellow to write and submit his/her individual grant (e.g. NIH career development award (K)) with the support of the PIs and the institution.

Interested candidates should submit their CVs and a detailed cover letter to Prof. Jag Chhatwal, JagChhatwal@mgh.harvard.edu with subject: "**Postdoctoral Fellowship Application**"
Contact address: MGH-ITA 101 Merrimac Street #1010, Boston, MA 02114