

Diagnostic Test Value

How Treatability and Transmissibility interact with individual traits

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Abstract

Diagnostic tests have become a cornerstone of early disease detection, playing a crucial role in curbing the spread of infectious diseases and enhancing the management of non-infectious conditions. Nonetheless, testing rates remain below public health objectives. This paper focus on the individual's decision to undergo testing. Using a representative sample of the French population, we examine how two disease features, its treatability and transmissibility, and personal characteristics shape people's willingness to get tested and the hedonic value they assign to diagnostic information for a hypothetical disease. Repeated elicitation of willingness to pay while making diseases characteristics vary enables the estimation of within individual variation in diagnostic valuation. We employ an interval-censored regression model with endogenous selection correction and correlated individual-specific random intercept to accurately capture individuals' choices to undergo testing and their monetary assessment of its worth, serving as an indicator of their underlying utility. We find that both transmissibility and treatability shape test-seeking behaviour, with substantial heterogeneity across individuals. In particular, risk, time, and social preferences, together with trust in science, play an important role in the decision-making process. These findings inform strategies to increase participation in screening programmes and improve public-health outcomes by distinguishing traits linked to a general propensity to test from those that make individuals especially responsive to treatability or transmissibility.

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