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Valuing a reduction in the risk and severity of asthma: A large scale multi-country stated preference approach

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Abstract

Asthma is a non-communicable and non-curable lung disease that affects 10% of children and 4% of adults worldwide and that is associated with an array of environmental contaminants and chemicals. This paper offers values suitable for use in cost-benefit analyses of the willingness to pay (WTP) for reduced severity of asthma in adults and children and in reduced probability of getting asthma for these two population groups, all in the context of reducing chemical exposures. To that end, an online survey was administered between November 2021 and May 2022 to 12 727 respondents from seven OECD countries. This paper applies two stated preference methods for eliciting WTP: the contingent valuation method for reduced asthma severity and choice experiments for reduced probability of getting asthma of various severities. The context for such elicitations was a set of household products that contain fewer hazardous chemicals than what is currently available in supermarkets but are more expensive. The study finds that the WTP for reducing adult asthma severity by one step, e.g. from “moderate plus” to “moderate”, is USD₂₀₂₂ 529 per year on average. The parental WTP for reducing asthma severity in their children is USD₂₀₂₂ PPP 948 per year and is on average 1.8 times higher than their WTP for themselves. The mean Value of a Statistical Case (VSC) of adult asthma which would be applied to predictions of new cases of asthma avoided by a regulation equals USD₂₀₂₂ 280 000 while the mean VSC of childhood asthma equals USD₂₀₂₂ 430 000.

Keywords: Asthma, Health risk, Economic valuation, Stated preferences, Value of a statistical case.

JEL Codes: D61, I18, J17, Q51

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