Project summary for Willingness to Pay

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View Impacts of Food Hypersensitivities on Quality of Life in the UK and Willingness to Pay (WTP) to remove those impacts as PDF(Open in a new window) (1.87 MB)

This project concerns the impacts of food hypersensitivity on people's quality of life and the monetary value people assign to the removal of those impacts. Food hypersensitivities (FHS) are, in this report, defined as comprising food allergy, coeliac disease and food intolerance.

Estimates of the economic value of removal of food hypersensitivity were generated from a stated preference (SP) survey in which people completed a discrete choice experiment (DCE). The DCE comprised of choices between (i) no change in respondents' food hypersensitivity and (ii) the condition being removed for a specified period, at a cost.

The surveys were conducted between July and December 2021 by adults regarding their own food hypersensitivity or by parents/carers regarding their child's food hypersensitivity. The samples comprised 1426 adults and 716 parents.

The average WTP for the removal of an adult's FHS for a year, pooled across all conditions was £718. For models estimated separately by condition, the WTP values for food allergy, coeliac disease and food intolerance were £1064, £1342 and £540 respectively.

In models estimated on DCE data from parents regarding their children's food hypersensitivity the average WTP, pooled across all conditions, was £2501. The annual WTP values by condition were: £2766 for food allergy; £1628 for coeliac disease; £1689 for food intolerance.

Respondents rated their (child's) health and the impacts of their (child's) FHS using several established instruments including the Food Allergy Quality of Life Questionnaire (FAQLQ); Food Intolerance Quality of Life Questionnaire (FIQLQ); Coeliac Disease Quality of Life Questionnaire, (CDQ).

In the adult allergy and intolerance models we find robust evidence of effects of the perceived severity of FHS on WTP – the higher people's FAQLQ and FIQLQ scores, the more they are willing to pay to remove their condition. There was no effect of variation in the CDQ score on

WTP to remove coeliac disease. In the child WTP results we find condition-severity effects in the coeliac sample: the worse the child's CDQ score the higher the parents' WTP to remove the condition.

The WTP values are estimates of the combined annual costs associated with (i) the intangible costs including the pain, anxiety, inconvenience and anxiety caused by FHS and (ii) additional incurred costs (time and money) and lost earnings. The values can be incorporated into the FSA Cost of Illness (COI) model, the Burden of Foodborne disease in the UK which is currently used to measure the annual, social, cost of foodborne disease.

A Best Worst Scaling (BWS) exercise was conducted to identify the relative importance of the many and diverse impacts which comprise the FAQLQ, FIQLQ and CDQ instruments.

The BWS results indicate that people assign very different levels of importance to the impacts comprising the three instruments. This unequal prioritisation contrasts with the equal weighting used in the construction of the FAQLQ, FIQLQ and CDQ measures. Embarrassment and fear related to eating out or social situations feature in the top three impacts for all the conditions. Identifying the effects which most affect quality of life (from the perspective of people living with those conditions) has the potential to inform policy and practice by both regulators and private organisations such as food business operators.