Measuring residents risk perception of non-dietary exposure to agricultural pesticides to increase trust in risk assessment and the production of awareness-raising material

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Introduction and Objective

Most pesticides in the use phase (where behavioural element is of high interest) can lead to substantial environmental and health risks, if not used in compliance with Good Agricultural Practices. Recently a growing body of literature analyses farmers perceptions of pesticide risk, but much less attention has been given to residents or bystanders in relation to non-dietary exposure to agricultural pesticides and their perceptions, attitude and behaviours.

The object of this pilot study is to produce guidelines that can assist policy-makers, and risk communicators in the development of targeted awareness-raising material for bystanders and residents with respect to non-dietary exposure to agricultural pesticides.

Methodology

We are exploring, through a household survey, (face-to-face questionnaires), habits, knowledge of, health risk perceptions of, and information sources related to non-dietary exposure to agricultural pesticides in residents indoor and outdoor environment.

The survey was implemented in the rural area of Piacenza province (Italy) with high population density, and an intensive agricultural activities. Farmers have been also included in the survey, who consider both operator and resident.

Specific questions were designed including the evaluation of the relation between residential air quality and health status; habits; cultural interest and consumptions and their influence on the awareness of the problem (with particular reference to pesticides as air pollutants); the level of knowledge of respondents with respect to environmental problems in general and pesticides and the factors that nudge individuals to give importance to several possible sources of pollution; mitigation measure or precautions that residents take to protect themselves from possible sources of outside-inside pollution.

Preliminary Results

The preliminary results suggest that there is a perception of the relationship between non-dietary exposure to pesticides and treatments however, not supported by proper information, but rather by psycho-sensory factors. Awareness-raising material should take into account the different target age, splitted by category (farmers should be sensitized on the importance of observation of standards and best practices) and besides communicating the correct mitigation measures to limit the risks of exposure of residents and bystanders, important is also training professionals (such as doctors) to which people rely for correct information.

Note - the project is ongoing. Sample of 129 individuals (M 45%, F 55%, age 11-90, avg 45y; 61% living in rural areas, 39% in urban areas; 61% with a medium-high level of education). The current graphs are extracted by the ongoing results report.

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