

## Self-reported Acute Pesticide Intoxication in Ethiopia

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**Abstract :** Background: Pesticide exposure is an important public health concern in Ethiopia, but there is limited information on pesticide intoxications. Residents may have an increased risk of pesticide exposure through proximity of their homes to farms using pesticides. Also the pesticide exposure might be related to employment at these farms. This study investigated the prevalence of acute pesticide intoxications (API) by residence proximity to a nearby flower farm and assessed if intoxications are related to working there or not. Methods: A cross-sectional survey involving 516 persons was conducted. Participants were grouped according to their residence proximity from a large flower farm; living within 5 kilometers and 5-12 kilometers away, respectively. In a structured interview, participants were asked if they had health symptoms within 48 hours of pesticide exposure in the past year. Those, who had experienced this and reported two or more typical pesticide intoxication symptoms, were considered as having had API. Chi-square and independent t-tests were used to compare categorical and continuous variables, respectively. Confounding variables were adjusted by using binomial regression model. Results: The prevalence of API in the past year among the residents in the study area was 26%, and it was higher in the population living close to the flower farm (42%) compared to those living far away (11%), prevalence ratio (PR) = 3.2, 95% CI: 2.2-4.8, adjusted for age, gender & education. A subgroup living close to the farm & working there had significantly more API (56%) than those living close & did not work there (16%), adjusted PR = 3.0, 95% CI: 1.8-4.9. Flower farm workers reported more API (56%) than those not working there (13%), adjusted PR = 4.0, 95% CI: 2.9-5.6. Conclusion: The residents living closer than 5 kilometers to the flower farm reported significantly higher prevalence of API than those living 5-12 kilometers away. This increased risk of API was associated with work at the flower farm.

**Keywords :** acute pesticide intoxications, self-reported symptoms, flower farm workers, living proximity

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