

Morbidity and mortality of workers in the vector control of the state of Rio de Janeiro, Brazil

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Abstract

Introduction Brazilian vector control, characterized by the intensive use of pesticides (agrototoxic), has resulted in decades of continuous exposure of endemic workers to these harmful substances, including organochlorines (BHC and DDT), organophosphates (temephos and malationa), carbamates (bendiocarb), pyrethroids (deltamethrin) and benzoylureas (diflubenzuron), which are associated with several deleterious health effects, such as neurotoxicity, carcinogenicity and endocrine disruption.

Objective To evaluate data on morbidity and mortality of endemic workers in the state of Rio de Janeiro, Brazil.

Methods The evaluation is part of a multicenter, observational, descriptive and cross-sectional study. 109 death certificates provided by work unions were analyzed through documentation provided by family members and data on work leave, between 1942 and 2018, by the Rio de Janeiro State Nucleus of the Ministry of Health.

Results 70.64% of workers died at a productive age (40–59 years), with an average of 54 years (SD: 9.77). The main causes of death were diseases of the circulatory system (38.7%) and cancer (14.7%). The number of deaths has progressively increased from around 5 annual deaths in 2010 to 40 from 2015 onwards. In addition, various types of illnesses have caused 5,024 instances of work leave.

Conclusion Considering the preliminary results, the occurrence of deaths in working age demonstrate their precocity, with a reduction of at least 20 years in life expectancy. The results show morbidity and mortality and the increase in the number of cases related to the use of agrototoxic, the precarious working conditions and the absence of work process monitoring by workers.