

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.

P-436

'STUDIES OF COMMON MENTAL DISORDERS OF ENDEMIC WORKERS IN THE STATE OF RIO DE JANEIRO, BRASIL

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Introduction Endemic workers are among the categories most exposed to the effects of pesticides used in vector control. They also face unsafe working conditions with reports of bullying, inadequacy or lack of training, and almost non-existent educational processes. Previous studies have observed damage to the mental health of rural workers caused by exposure to pesticides.

Objective To analyze the relationship between mental health and the activities of workers in the fight against endemic diseases in the state of Rio de Janeiro, Brazil in the current situation.

Methods To this end, an online questionnaire was applied with questions related to work, health, sleep quality, and working and health conditions in the pandemic, including the Self-Reporting Questionnaire for screening common mental disorders (CMD). We obtained 139 valid questionnaires and employed the Chi-square and Fisher's exact test for statistical analysis.

Results The study identified the frequency of 43.2% of symptoms indicative of CMD in the studied population regarding CMD. When stratified by gender, we observed that the occurrence was almost twice more likely in males than in

females ($p \leq 0.04$). Marital status and education were also associated with $p \leq 0.01$ and $p \leq 0.05$, respectively. The work associations were sprinkler pump ($p \leq 0.02$), referred intoxication symptoms ($p \leq 0.00$), and the previous diagnosis of depression ($p \leq 0.00$). Concerning cases of a previous diagnosis of depression, we identified associations with females ($p \leq 0.03$); activity involving contact, handling, or application of agrototoxic in the past ($p \leq 0.04$); referred symptoms of intoxication ($p \leq 0.00$); reported use of malathion in the last decade ($p \leq 0.02$); activities related to field agent ($p \leq 0.05$), and suicidal ideas ($p \leq 0.00$).

Conclusion The results reinforce that work conditions and processes have been a triggering factor for illness in the studied population. Changes in the work process are necessary to avoid work that is harmful to the worker's health.

P-438

UNMASKING THE TRUTH: A LONGITUDINAL STUDY EXAMINING WORKPLACE PROTECTIVE STRATEGIES, WORKING ARRANGEMENTS, AND THEIR IMPACT ON WORKERS' HEALTH, SAFETY AND PRODUCTIVITY IN NEWFOUNDLAND AND LABRADOR DUR

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Introduction Under federal and provincial legislations, employers across Canada have a responsibility to reasonably protect the health and safety of their workforce. The COVID-19 pandemic has created many challenges for employers to meet these responsibilities. Employers have been particularly hindered in their efforts to protect their workers due to changing understandings of COVID-19 risks over time. Knowledge of effective public health measures is continuously evolving, with new evidence emerging almost daily. Workplace-led strategies have been designed and implemented to specifically protect workers from exposure to the COVID-19 virus. What we don't know is the unintended long-term consequences these workplace protection measures may be having on workers' health and ability to work safely during the pandemic.

Objectives To examine the influences of geographical region, sex and gender, industry, occupation, and perceptions of worker autonomy on the relationship between workplace-led strategies to protect workers from exposure to COVID-19 on measures of worker health safety and productivity.

Methods Using a longitudinal survey with a purposive sampling of Newfoundland and Labrador workers at regular intervals over a 12-month period, data were collected across six domains: participant demographics, pandemic-specific workplace policies and practices, working environment (including remote and on-campus work), psychosocial working conditions, physical health and mental health.

Results Findings from the baseline, 3 month and 6-month follow-up surveys will be presented. Preliminary results from this work highlight the challenges faced by workers under remote and standard work arrangements and the relationship among these working conditions and impacts on worker health, safety and productivity during the changing nature of work throughout the COVID-19 pandemic.

Conclusion The outcomes from our research will provide new knowledge through the collection of stakeholder perspectives

about how current workplace strategies to prevent the spread of COVID-19 may be having unintentional consequences on worker health and safety.

P-440 CHRONIC EXPOSURE TO PESTICIDES (AGROTOXICS) BY ENDEMIC WORKERS IN THE STATE AND MUNICIPALITY OF RIO DE JANEIRO, BRAZIL.

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Introduction The use of pesticides (agrototoxic), including some that were restricted or banned worldwide, is a key element of the Brazilian vector control strategy, making them potential exposure sources. This exposure is more intense for professionals directly involved with the manipulation and application of these substances, like the Endemic Workers (EW), who suffered for decades a process of continuous exposure to agrototoxics associated with several health problems, including neurotoxic damage and cancer.

Objectives Identify and characterize the harmfulness of agrototoxics used by endemic workers.

Methods Through a documentary research using official documents from the health departments of the state and municipality of Rio de Janeiro and a literature review, the agrototoxics used by the EW in the region between the years 2000 and 2019 and its implications to human health, were identified and analysed, aiming to contribute to the elaboration of the exposure profile of these workers.

Results The study identified a total of 11 active ingredients of pesticides in the products used in the state and municipality of Rio de Janeiro. Among the effects on humans associated with exposure to these substances, the neurotoxic effect of 7 of them (alpha-cypermethrin, bendiocarb, deltamethrin, phenitrothione, malathion, permethrin and temephos) and the carcinogenic potential of alpha-cypermethrin, malathion and permethrin stands out. During the pandemic, new agrototoxics have been introduced in vector control actions, containing clothianidin, deltamethrin, pralethrin, imidacloprid and Saccharopolyspora spinosa, agrototoxics that already have been associated with several health effects, so is likely that the EW will continue to be chronic exposed to harmful substances in their labour activities.

Conclusion The implications of the exposure to agrototoxics reinforce the need to reformulate the national vector control policy that employs them in a massive volume, exposing the EW category, as well as the general population and the environment to these harmful effects.

P-442 ALLERGIC ASTHMA IN THE WORKPLACE

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Introduction Allergic asthma is currently the most frequent respiratory pathology in the workplace. Whether induced or aggravated by the work environment, the adequacy

between this morbid state and work is often subject to re-evaluation.

Objectives Study the socio-professional, clinical, para-clinical characteristics of allergic asthma in the workplace, to assess their impact on the ability to work and to compare occupational asthma (OA) and work exacerbated asthma (WEA) in terms of associated professional and extra-professional factors and in terms of repercussions on aptitude.

Methods Retrospective study of occupational allergic asthma collected from the Department of Occupational Medicine of La Rabta hospital during the period from January 2000 to December 2020.

Results This is a series of 232 cases of work-related allergic asthma, including 76.7% OA and 23.3% WEA. The mean age was 40.28 ± 8.96 years. The female gender was represented in 50.9% of cases. The sectors that provided the most asthma were textile sector (10%) and health sector (10.9%). The clinical symptoms were dominated by wheezing dyspnea (51.5%). The responsible agents were high molecular weight allergens (HMW) in particular vegetable textile dust (9.9%), low molecular weight (LMW) such as isocyanate (11.6%), formaldehyde (11.2%). The age and seniority were higher in the OA group, ($p = 0.002$) and ($p = 0.005$). This group was associated with the grade of unskilled worker ($p = 0.035$), exposure to HMW allergens ($p = 0.008$), and the mutation of workplace ($p \leq 10^{-3}$). In addition, WEA was associated with a history of personal and family atopy with respectively ($p \leq 10^{-3}$) and ($p = 0.017$), work in the transport sector ($p \leq 10^{-3}$) and temporary unfitness to work ($p \leq 10^{-3}$).

Conclusion Allergic asthma in workplace, reflects inappropriate working conditions. The adoption of preventive measures at the same time as medical treatment is the only guarantee to keep the ability to work.

P-443 MANAGEMENT OF BLOOD EXPOSURE ACCIDENTS VICTIMS EXPOSED TO HIV BY THE OCCUPATIONAL HEALTH DEPARTMENT OF RABTA HOSPITAL

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Introduction Post-exposure prophylaxis (PEP) reduces the risk of transmission of human immunodeficiency virus (HIV) following blood exposure accidents (BEA). However, there are no updated Tunisian recommendations for its use.

Objectives To describe the circumstances of BEA requiring PEP and to evaluate the prescribing practices of PEP and clinical, biological and serological follow-up of victims.

Methods We conducted a descriptive retrospective study of victims of BEA who sought medical care in the occupational medicine department of Rabta hospital in Tunis, from 1998 to 2018 and for whom a PEP was prescribed.

Results A total of 456 cases were included with a median age of 30 ± 10.3 years and a sex-ratio of 0.56. They were healthcare workers in 98% of cases, mainly physicians (35.4%), hospital porters and cleaning staff (22.3%). The most frequent tasks leading to the accidents were waste disposal (16%) and taking blood samples (10.8%). In cases of known sources (72.6%), the PEP was prescribed because the sources were HIV positive (23.6%) or had risk factors for