

**P-129** PREVALENCE OF POST-TRAUMATIC STRESS DISORDER IN HEALTH CARE WORKERS FOLLOWING COVID-19: PRELIMINARY RESULTS OF A TWO-GROUP CROSS-SECTIONAL STUDY.

<sup>1</sup>Samia Machghoul, Marouen Hayouni, Ines Rassas, Manel Makhloufi, Imen Jammeli, Neila Chaari, Adnene Hanchi, Mohamed Akrouf, Iryah Merchaoui. <sup>1</sup>Faculty of Medicine of Monastir, Tunisia

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**Introduction** The COVID-19 pandemic has attracted worldwide attention for its rapid and exponential diffusion. The history of past human coronavirus outbreaks resulting in similar health emergencies suggests there will be post-traumatic stress disorders (PTSD) among COVID-19 survivors. This might add to the increasing stress that health care professionals are enduring.

**Objectives** The purpose of this study was to assess the prevalence and the determinant factors of post-traumatic stress disorder (PTSD) among health care workers with COVID-19.

**Methods** A two-group cross-sectional study among health care workers (150 cases of COVID-19 and 150 randomly sampled matched controls) was conducted. We present the preliminary results of 91 cases of COVID-19. Demographic data, occupational information and some psychological dimensions were collected using a self-administered questionnaire. Post-traumatic stress disorder was evaluated using the Post-traumatic Stress Disorder Checklist based on the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders.

**Results** The average age of the population was  $36.5 \pm 9.35$  years, with a female predominance and a sex ratio of 0.21. The most represented professional categories were nurses and medical residents. The acute clinical manifestations lasted between 10 to 20 days in 41% of the patients. Moderate to severe levels of anxiety and depression were noted among respectively 27.5% and 14% of the population. PTSD was found among 8.8% of the study population. Significant correlations were found between COVID-19-PTSD scores and caring for children or parents ( $p=10^{-3}$ ), anxiety level ( $p=10^{-3}$ ), being admitted to the hospital ( $p=0.008$ ) and the symptoms presented ( $p=0.003$ ).

**Conclusion** These preliminary results are relevant from a clinical point of view because they suggest that the COVID-19 pandemic could be considered as a traumatic event among health care workers. Psychological and organizational interventions to counteract short- and long-term psychopathological effects, consequent to the COVID-19 pandemic, appear to be necessary.

**P-131** COVID-19 IN ESSENTIAL ACTIVITIES: REPORT ON SUCCESSFUL MEASURES IN OCCUPATIONAL HEALTH FOR 7,000 WORKERS IN AN ENVIRONMENTAL SANITATION COMPANY IN BRAZIL

<sup>1</sup>Telma de Cassia dos Santos Nery, Ayrton Jouti, Wellington Yschisaki, Monica Aparecida de Oliveira Augusto. <sup>1</sup>HCFMUSP, Brazil

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**Introduction** According to a WHO note, since March 11, 2020, the planet has been living with an important pandemic. Human behavior and the environment are different at this point. There are countless deaths. Workers in environmental sanitation services such as water and sewage are considered

essential and need a special approach to COVID-19. Until May 9, 2021, there were in Brazil 15,000,000 infected people. This work describes the safety measures of a group of 7,000 workers of the largest environmental sanitation company in Latin America.

**Objective** To describe measures adopted to deal with COVID-19 through the safety and health protocol.

**Methodology** We describe the participation of the occupational medical service in the construction and institution of an appropriate protocol from April 2020 to April 2021 considering a bibliographic survey, management discussions, discussions with workers and measures implemented on the site, monitoring of positive cases, guidelines and preventive health care.

**Results** Approximately 1,000 telephone surveys were carried out for everyone suspected and/or diagnosed COVID-19. The implementation of a health protocol and daily dissemination of guidance via videos/reports. 60% of workers were allocated to teleworking. 770 cases and 12 deaths were identified. 12% of cases occurred in workers of essential activities. Such data in this Unit corresponded to 45% of the cases of the entire company and 30% of deaths.

**Conclusion** The adoption of specific measures and protocols, increased the participation of workers with the impact of COVID-19 on workers in environmental sanitation. The adoption of preventive measures and protocols before COVID-19 can contribute to the reduction of cases in essential work activities.

**P-132** A PROFILE OF OCCUPATIONAL ACCIDENTS IN BRAZIL ACCORDING OF NOTIFICATION, IN THE PERIOD 2012 TO 2020

<sup>1</sup>Telma de Cassia dos Santos Nery, Daniel Nery Cardoso. <sup>1</sup>HCFMUSP, Brazil

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**Introduction** Occupational Accidents (OA) in Brazil are mandatory to report, but they are very underreported. In 2020, Brazil had a population of 212 million inhabitants. According to the International Labor Organization, Brazil occupies the fourth position in the world ranking of occupational accidents, behind China, India and Indonesia. There are various notification systems and an important underreporting. In 2012, according to a survey by the IBGE, 5 million suffered OA. Officially registered data for 2019 were 700,000 cases. Analyzing existing data considering notification systems can contribute to the identification of profiles and the adoption of specific measures that involve communities beyond specific ones.

**Objective** To analyze OA in Brazil in the period 2012 to 2020.

**Methodology** Descriptive study based on the analysis of data from the Health and Safety Observatory at Work, from 2012 to 2020. Data: by state, economic sectors, most frequent injuries, most frequently affected body parts, groups of causative agents, occupations, social security absences, gender.

**Results** In 2020 there were 400 thousand OA. 2013 was the year with the highest number of deaths 2,841. The state of SP was the most prevalent (35%) of OA, the Hospital economic sector represented 10% of all accidents, 72 thousand received social security benefits. It is estimated that 25% of OA in 2018 were underreported. The most frequent injuries (21%) being cuts, lacerations. The most affected part was the

finger (24%). The most frequent user group was machinery (15%), followed by chemical agents (14%). 35 thousand victims were nursing technicians (6%). 18.8 thousand occurred in adolescents. Men were 60% and in the age group 18–24 years were 672 thousand. In women, the most frequent age group was 30–34 years.

**Conclusion** Analyzing periodic data and from different sources can contribute to a profile of work accidents with the implementation of public policies in Brazil.

**P-134 COVID-19: ANALYSIS OF NOTIFICATIONS ACCORDING TO SOCIAL SECURITY BENEFITS AND ACCIDENTS AT WORK IN BRAZIL IN 2020**

<sup>1</sup>Telma de Cassia dos Santos Nery, Naiara Santos, Eric Kiyoshi Mochizuki Hara, Daniel Nery Cardoso. <sup>1</sup>HCFMUSP, Brazil

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**Introduction** On March 11, 2020, the World Health Organization declared the existence of a pandemic by SARS-CoV-2. On May 10, 2021, Brazil had reached the 410,000 mark, becoming the second country in number of deaths from COVID-19 and more than 15 million infected. COVID-19 generates withdrawal from work activities and consequent social security benefits. Knowing the profile of employees and benefits can contribute to a better overview of occupational approaches to COVID-19.

**Objective** To analyze social security benefits generated by COVID-19 leave in Brazil.

**Methodology** Descriptive analysis of data from the Observatory of Safety and Health at Work, in the period 2020, referring to social security benefits by COVID-19, with a comparative analysis of the year 2019. All social security gaps were considered. Used ICD - 10 = U07 and B34. Data analyzed: state of Brazil, occupation, economic activity, notification with 'report of work accident - CAT', age, gender, economic sector.

**Results** 50 thousands were dismissed from social security benefits in 2020 according to CID U07 and B34. The state of Sao Paulo had the highest frequency with 36%. Men were 68%. The most prevalent economic sector was hospital (15%) and the occupation was nursing technicians (38%) The most frequent age group in men was 18–24 years and in women, it was 35 to 39 years.

**Conclusion** Occupational epidemiology acting in the analysis of secondary, social security data on COVID-19 can contribute to the definition of public policies, expanding health promotion and prevention.

**P-139 COMPARATIVE ANALYSIS OF THE FRENCH OCCUPATIONAL EXPOSURE DATABASES COLCHIC AND SCOLA**

<sup>1</sup>Gautier Mater, Jean-Francois Sauve, Jérôme Lavoué. <sup>1</sup>Institut national de recherche et de sécurité (INRS), France

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**Objectives** In France, two occupational exposure databases with different goals co-exist. Colchic was built to store measurements from prevention activities since 1987, while Scola

contains measurements from compliance monitoring since 2007. We aimed to compare exposure levels between these databases targeting the same population of workers.

**Methods** Despite their different objectives, both databases share the same structure. We selected personal measurements with a sampling duration  $\leq 12$  hours of airborne chemical substances with  $\geq 1,000$  results in each database between 2007 and 2015 and combined into a single dataset. We used Tobit models to measure associations between log-transformed concentrations and six predictors (sampling year and duration, global ventilation, number of workers, personal protective equipment (PPE) and region) for each agent. We combined agent-specific models using meta-analytic approaches. We assessed average differences between Colchic and Scola for four prediction scenarios based on sampling year and duration.

**Results** We selected 239,968 measurements (25% from Colchic and 75% from Scola) across fifteen substances (66% organic solvents, 27% dusts, and 7% metals). The most prevalent agents were wood dust ( $n=42,193$ ), respirable dust ( $n=25,299$ ) and quartz ( $n=23,774$ ). Non-detects represented 45% of all measurements. PPE, sampling year and duration were the main predictors of exposure levels. For 2007, predicted exposure levels in Scola were 2.3 times lower than in Colchic, regardless of sampling duration. This difference decreased in recent years: predicted exposure levels for 2015 were 1.25 times higher in Scola than Colchic for a sampling duration of 30 minutes, and 1.18 times lower in Scola than Colchic for a duration of 240 minutes.

**Conclusions** Colchic and Scola both represent important sources of information on historical and current occupational exposures in France. Despite a notable early difference in average exposure levels between Colchic and Scola, our results suggest that the contrasts in exposure are getting smaller over time.

**P-150 PESTICIDE EXPOSURE OF OPERATORS DURING TREATMENT TASKS IN APPLE GROWING: RESULTS FROM THE CANEPA STUDY IN FRANCE**

<sup>1</sup>Mathilde Bureau, Béatrix Béziat, Geoffroy Duporté, Yannick Lecluse, Elsa Robelot, Lucie De Graaf, Morgane Bresson, Emmanuelle Barron, Valérie Bouchart, Alain Garrigou, Marie-Hélène Dévier, Hélène Budzinski, Pierre Lebailly, Isabelle Baldi. <sup>1</sup>Université de Bordeaux, France

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**Introduction** Although apple trees are heavily sprayed, few studies are available on pesticide exposures of workers in apple orchard. However, these data are crucial for assessing the health impact of such exposures.

**Objectives** The CANEPA study was performed to measure pesticide exposures during treatment tasks in apple orchard and to identify their determinants.

**Methods** A non-controlled field study was conducted in apple orchards in four regions of France in 2016–2017. We measured operators' external contamination to captan and dithianon, two fungicides representative of pesticide use in apple growing. Measurements of contamination were performed during mixing/loading, spraying and equipment cleaning tasks, following the OECD guidelines with cotton pads placed onto 11 body areas, cotton gloves or hand rinsing