

**OCCUPATIONAL DISEASES IN HEALTHCARE IN THE SLOVAK REPUBLIC  
AND THE CZECH REPUBLIC: THE IMPACT OF COVID-19  
CHOROBY Z POVOLANIA V ZDRAVOTNÍCTVE V SLOVENSKEJ  
A V ČESKEJ REPUBLIKE: VPLYV COVID-19**

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#### ABSTRACT

**Introduction:** Healthcare workers are an integral part of the healthcare system. The aim of this study was to analyze and compare the incidence of occupational diseases (ODs) among healthcare workers in the Slovak Republic (SR) and the Czech Republic (CR).

**Methods:** This study is a retrospective comparative analysis of statistical data of ODs from 2014 to 2023. The data were obtained from the National Health Information Centre (SR) and the Institute of Health Information and Statistics (CR).

**Results:** In recent years, the incidence of ODs has risen, primarily due to the COVID-19 pandemic. In the SR, the incidence of ODs remained stable around 3 cases per 1,000 healthcare workers, the CR experienced a sharp increase in 2020 from 5.81 to 38.14 cases. Until the COVID-19 pandemic, scabies was the most frequently reported OD. The incidence of scabies was consistently low in both countries, with the CR recording the highest rates in 2017 (0.4 cases per 1,000 healthcare workers). During the pandemic, COVID-19 became the leading occupational diagnosis. Across 2020 – 2022, a total of 16,175 cases (9.13 per 1,000 healthcare workers) were reported in the CR and 495 cases (0.44 per 1,000 healthcare workers) in the SR.

**Conclusion:** We identified significant differences in statistical reporting between the observed countries, which need to be harmonized. A thorough analysis of ODs and a unified methodology for reporting and data collection within the European Union would improve data comparability.

**Key words:** Occupational disease. Healthcare workers. Comparative analysis. Scabies. COVID-19.

#### ABSTRAKT

**Úvod:** Zdravotnícki pracovníci sú neoddeliteľnou súčasťou systému zdravotníctva. Cieľom práce bolo analyzovať a porovnať výskyt chorôb z povolania (ChzP) u zdravotníckych pracovníkov v Slovenskej republike (SR) a v Českej republike (ČR).

**Metódy:** Štúdiu je retrospektívnou komparatívnou analýzou štatistických údajov o ChzP v rokoch 2014 až 2023. Údaje boli získané z Národného centra zdravotníckych informácií (SR) a Ústavu zdravotníckych informácií a štatistiky (ČR).

**Výsledky:** V posledných rokoch vzrástol výskyt ChzP, predovšetkým v dôsledku pandémie COVID-19. V SR zostala incidencia ChzP stabilná, približne 3 prípady na 1 000 zdravotníkov, v ČR došlo v roku 2020 k prudkému nárastu z 5,81 na 38,14 prípadov. Do obdobia pandémie COVID-19 bol svrab najčastejšie hlásenou ChzP. Výskyt svrabu bol v oboch krajinách trvalo nízky, Česká republika zaznamenala najvyššie miery v roku 2017 (0,4 prípadu na 1 000 zdravotníckych

pracovníkov). Počas pandémie zaujala prvenstvo práve diagnóza COVID-19. Medzi rokmi 2020 – 2022 bolo v ČR hlásených 16 175 (9,13 na 1000 zdravotníkov) a v SR 495 (0,44 na 1000 zdravotníkov) prípadov COVID-19.

**Záver:** Medzi sledovanými krajinami sme identifikovali výrazné rozdiely v štatistickom vykazovaní, ktoré je potrebné zosúladiť. Dôkladná analýza ChzP a jednotná metodika zberu a hlásenie v rámci Európskej únie by zlepšili porovnateľnosť údajov.

**Kľúčové slová:** Choroba z povolania. Zdravotnícki pracovníci. Komparatívna analýza. Svrab. COVID-19

#### INTRODUCTION

Healthcare workers, as the pillar of the healthcare system, play a key role in ensuring the right to health for all citizens. The number of doctors and nurses is one of the most important indicators, which is also reflected in the health and performance of healthcare workers. In the Slovak Republic (SR), it is 3.7 general practitioners and 5.7 nurses per 1,000 inhabitants. In the Czech Republic (CR), it is 4.3 doctors and 9 nurses per 1,000 inhabitants [1].

For healthcare workers to fully carry out their mission, it is essential that they themselves work in healthy and safe conditions. These factors are essential not only for their own health, but also for the quality of care provided and patient satisfaction. Similarly, healthcare workers represent one of the most vulnerable professional groups in terms of occupational diseases (ODs), due to their constant exposure to biological hazards, physical strain, and psychosocial stressors. According to the World Health Organization (WHO), healthcare professionals are up to three times more likely to contract workplace-related infections compared to workers in other sectors. In recent years, particularly during the COVID-19 pandemic, the incidence of ODs, ranging from respiratory infections and musculoskeletal disorders to mental health conditions, has

increased significantly within the healthcare sector [2, 3].

Two countries compared (SR, CR) are very similar in several indicators, but we can observe significant differences in health care indicators. In both the SR and the CR, musculoskeletal and infectious diseases have remained among the most frequently recognized occupational conditions. While these neighbouring countries share a common history and similarly structured healthcare systems, differences in legislation, reporting mechanisms, and preventive measures may influence how ODs are documented and managed.

### AIM

The aim of the study was to analyze trends of ODs among healthcare workers in the SR and the CR over a ten-year period (2014 – 2023).

### METHODS

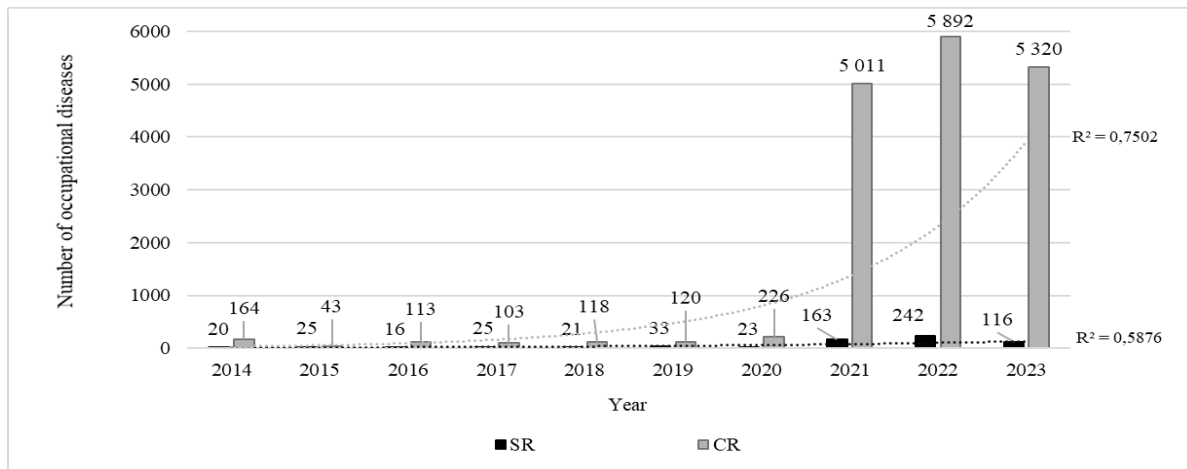
In this comparative study the development of ODs among healthcare workers in the SR and the CR was analyzed in the period from 2014 to 2023. The target group consisted of all healthcare workers in both countries. In the analysis, we examined the types of ODs and trends in their occurrence. The trends in the incidence of ODs were determined and visualized using an exponential trendline ( $y = a \cdot e^{(bx)}$ ) with  $R^2$ , which was applied to the respective time series data. The research design was carried out through quantitative analysis of statistical data of ODs using existing epidemiological data. The data were obtained from the National Health Information Centre (SR) and the Institute of Health Information and Statistics (CR). The lists of ODs in the CR and the SR differ in several ways. The Slovak list is partially open, allowing new conditions to be recognized more flexibly, while the Czech list is closed, recognizing only predefined diseases. Differences also exist in disease classification, criteria for recognition, update frequency, and the range of professions covered, all of which affect the comparability of reported cases. In both countries, COVID-19 was officially recognized as an OD in 2020; however, in the CR it was already recorded in official statistics that same year, whereas in the SR it appeared in the statistics in 2021 [4-23]. The collected data were recalculated per 1,000 healthcare workers, and the trend in the occurrence of the three

most common groups of ODs was subsequently analyzed. The number of healthcare workers (individual persons) as of December 31 of the given year was used. Data for the ten-year observation period were processed using Microsoft Office Excel and were evaluated graphically.

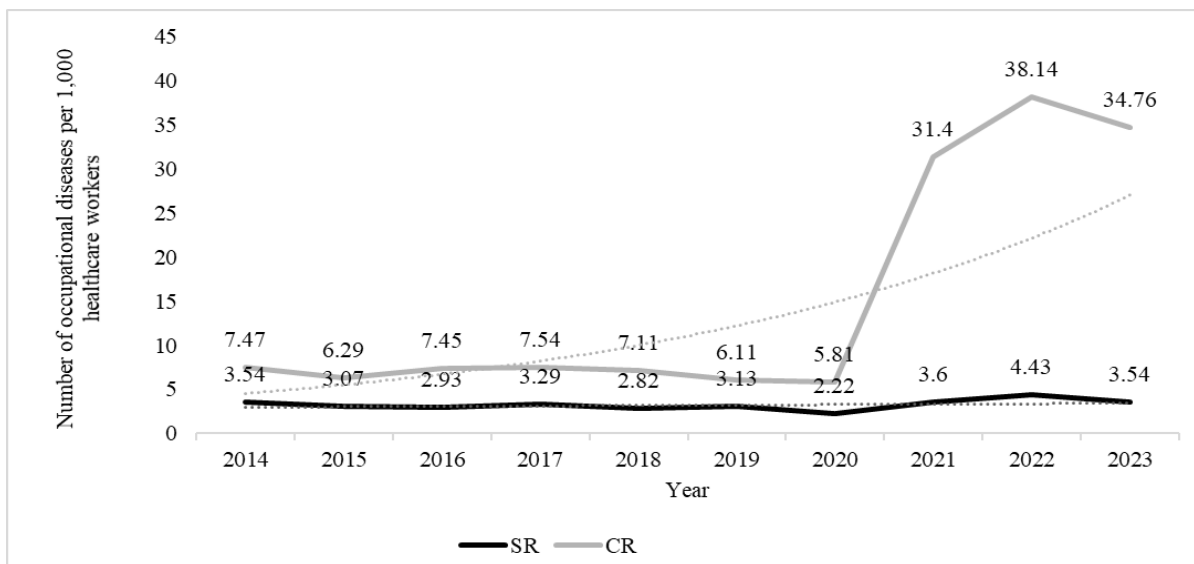
### RESULTS

In the period of 2014-2023, were reported 3,657 (1,920 males, 1,737 females) ODs in the SR and 6,937 (1,295 males, 5,642 females) in the CR. In the SR, during the years 2014 – 2023, most ODs were reported in 2022 (525 cases of which were 196 males, 329 females). The same trend was observed in the CR, with 7,383 cases in 2022 (1,537 males and 5,846 females). The most frequent ODs were infectious diseases in both countries. According to the economic sector, the healthcare and social assistance sector dominated in the occurrence of ODs, mainly during the COVID-19 pandemic. In the pre-pandemic period, the industrial production sector was the leading sector in both countries. The dynamics of the occurrence of ODs by sex during the monitored period indicate a shift in trend regarding the distribution of cases between men and women. While in the early years of the observed period, men represented the dominant group, in later years the differences gradually decreased, leading to a notable increase in the proportion of women. Especially in recent years (2021 – 2023), there has been a marked rise in this group. Despite annual fluctuations, a long-term trend towards balancing the differences between sexes is evident.

Figure 1 presents the trend in the number of reported ODs in the SR and the CR over the period 2014 – 2023. In the SR, a relatively stable trend is evident, with only minor fluctuations and no statistically significant deviations. In contrast, the CR experienced a substantial increase in reported cases in 2021 and 2022, largely attributable to the COVID-19 pandemic. During this period, COVID-19 began to be officially classified as an OD, particularly among healthcare workers and other frontline professionals. Although a slight decline in reported cases was observed in the CR in 2023, the figures remained elevated compared to pre-pandemic levels. Overall, the data highlights the impact of the COVID-19 pandemic on the reporting of ODs, with the most pronounced effects observed in the CR.



**Figure 1** Trend of occupational diseases in the SR and the CR, 2014 - 2023 (own processing using data of NCZI, SZÚ)



**Figure 2** Trend of occupational diseases in the SR and the CR per 1,000 healthcare workers, 2014 - 2023 (own processing using data of NCZI, SZÚ)

In 2014, the SR registered 105,382 healthcare professionals, whereas the CR reported a total of 162,617. A comparison with data from 2023 indicates an increase in the number of healthcare professionals in both countries, with 121,082 registered in the SR and 199,567 in the CR. Over the observed period, a total of 679 cases were reported among healthcare workers in the SR, compared to 17,110 cases in the CR. During the initial years, the number of reported cases in both countries remained relatively low and stable. The significant change occurred in the CR starting in 2021 (5,011 cases), when there was a sharp increase in reported cases, largely due to the recognition of COVID-19 as an OD. Notably, the highest number was recorded in

2022 with 5,892 cases and, although it slightly declined in the following year, the number remained higher than pre-pandemic levels. In contrast, the SR experienced a much more moderate rise, and the overall case numbers remained substantially lower. The peak was observed in 2022, when 242 cases were recorded. Figure 2 illustrates the trend in all ODs per 1,000 healthcare workers in the SR and CR from 2014 - 2023. While in the SR demonstrates a relatively stable incidence rate, fluctuating around 3 cases per 1,000 workers (maximum 4.43 in 2022), the CR shows a dramatic surge in 2020 from 5.81 to 38.14 cases with elevated levels persisting in subsequent years.

Prior to 2020, the leading occupational diagnoses among healthcare workers were scabies and skin conditions resulting from physical, chemical, or biological factors. Other commonly reported ODs included peripheral nerve disorders, with carpal tunnel syndrome being the most prevalent. Following 2020, COVID-19 became by far the most frequently reported diagnosis. Since the SR and the CR do not share an identical list of ODs, the individual items have been divided into two separate tables, one for each country.

In the SR, between 2014 and 2018, a total of 91 cases were reported under category 24 (infectious and parasitic diseases), of which 56 were scabies cases. In stark contrast, by 2022, the number of reported cases among healthcare workers had surged to 237, including 233 cases of COVID-19 — representing the highest recorded number within the entire observation period (Table 1).

In the CR, the highest number of reported ODs among healthcare workers was recorded in 2022, with a total of 5,854 cases of COVID-19. Notably, in 2018, the highest number of reported scabies cases within the observation period was recorded, with 69 cases (Table 2).

Prior to the pandemic, scabies was the predominant OD in both countries. Among the frequently recognized ODs were also repetitive strain injury. The pandemic led not only to modifications in the official list of recognized ODs but also to significant changes in the incidence and distribution within the healthcare sector. During the pandemic, COVID-19 emerged as the leading diagnosis. In both countries, the most frequently reported ODs were scabies, repetitive strain injury, and COVID-19 (Table 3).

After adjusting for the number of healthcare professionals, the overall incidence of ODs remained low, except for COVID-19. The highest incidence was observed in the CR in 2022, reaching 30.2/1,000 healthcare workers and 1.97 cases of COVID-19 per 1,000 healthcare workers in the SR. A total (years 2020 - 2023) of 16,175 (9.13/1,000 healthcare workers) and 495 (0.44/1,000 healthcare workers) cases of COVID-19 were reported in the CR and the SR, respectively. In contrast, the incidence of scabies was consistently low in both countries, with the CR recording the highest rates in 2017, peaking at 0.4 cases per 1,000 healthcare workers (Figure 3).

**Table 1** Number of occupational diseases among healthcare workers in the SR, 2014 - 2023 (own processing using data of NCZI, SZÚ)

Year Item n.	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
18	-	-	-	-	-	-	-	1	-	-	1
20	-	-	-	-	1	-	-	-	-	-	1
22-11	-	-	-	-	-	1	1	-	-	-	3
22-15	-	-	-	1	-	-	-	-	-	-	1
22-4	-	-	-	-	-	-	-	-	1	-	1
24	17	22	12	23	17	29	19	163	233	110	645
28-1	-	-	-	-	-	-	-	-	-	1	1
29-1	1	-	-	-	-	-	-	-	-	-	1
29-2	1	1	4	1	-	1	2	-	1	2	12
29-4	1	-	-	-	1	-	1	-	2	2	6
37-6	-	-	-	-	1	-	-	-	-	-	2
44	-	-	-	-	-	1	-	-	-	-	1
45	-	2	-	-	1	-	-	-	-	-	3
46	-	-	-	-	-	-	-	-	-	1	1
47	-	-	-	-	-	1	-	-	-	-	2
<b>Total</b>	<b>20</b>	<b>25</b>	<b>16</b>	<b>25</b>	<b>21</b>	<b>33</b>	<b>23</b>	<b>163</b>	<b>237</b>	<b>116</b>	<b>679</b>

**Notes:** 18, Disease caused by warfare agents or chemical agents with effects equivalent to warfare agents; 20, Disease caused by electromagnetic radiation, including laser; 22-11, Occupational dermatitis caused by rubber and rubber industry chemicals; 22-15, Occupational dermatitis caused by disinfectants; 22-4, Occupational dermatitis caused by cleaning agents; 24, Infectious and parasitic diseases excluding tropical infectious and parasitic diseases and diseases transmitted from animals to humans; 28-1, Vibration-induced damage, mainly of blood vessels and nerves; 29-1, Bursitis caused by constant local pressure; 29-2, Tendon, tendon sheath, and muscle attachment disorders due to excessive strain; 29-4, Peripheral nerve disorders of the limbs; 37-6, Bronchial asthma – hypersensitivity to disinfectants; 44, Extrinsic allergic alveolitis and its consequences caused by inhaling organic dusts (e.g., farmer's lung); 45, Allergic upper respiratory diseases with proven hypersensitivity to workplace allergens; 46, Occupational cancers arising from proven chemical carcinogens in the worker's environment, manifesting in target organs not listed elsewhere; 47, Other work-related health damage.

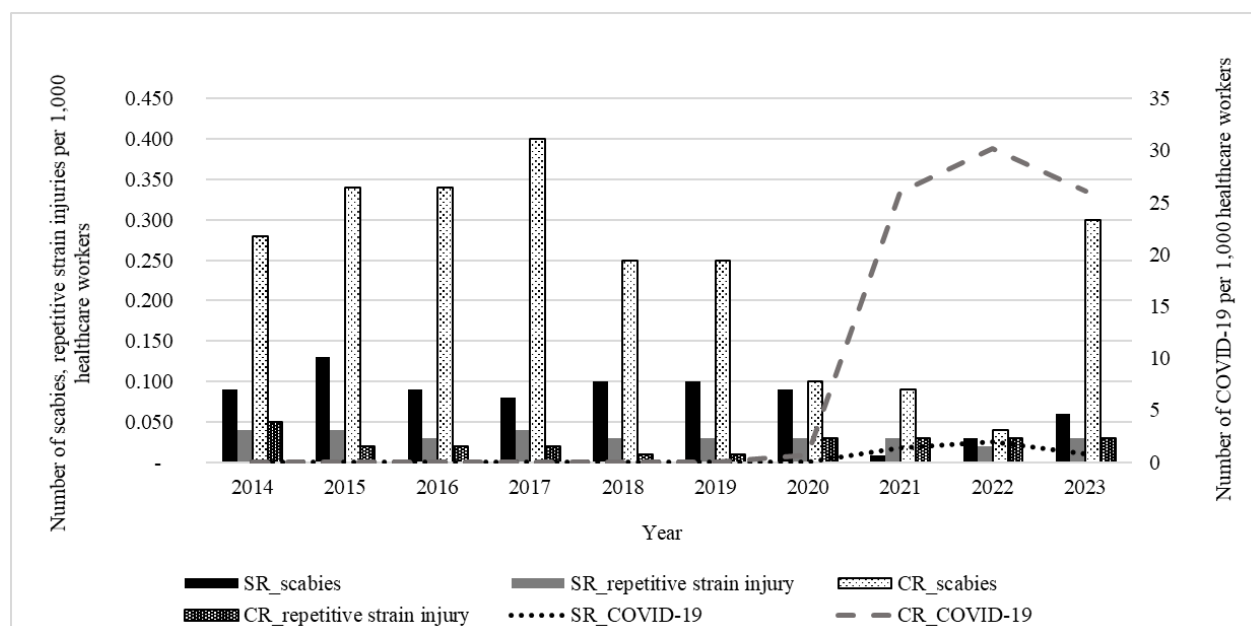
**Table 2** Number of occupational diseases among healthcare workers in the CR, 2014 - 2023 (own processing using data of NCZI, SZÚ)

Year Item n.	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
I.58	-	-	-	1	1	-	-	-	-	-	2
II.10	1	5	2	8	3	2	2	-	-	2	25
II.7	-	-	1	-	-	-	-	-	-	-	1
II.8	-	-	-	1	-	-	-	-	-	-	1
II.9	7	-	2	-	1	4	2	2	5	3	26
III.10.1	2	-	-	-	1	-	-	-	-	-	3
III.10.2	1	-	-	-	-	-	-	-	-	-	1
III.9	-	-	-	1	-	-	-	-	1	-	2
IV.1	36	7	22	11	8	10	20	7	5	9	135
V.1.01	3	2	2	5	3	3	-	-	-	1	19
V.1.02	3	6	2	1	6	6	2	-	1	1	28
V.1.03	-	2	2	-	-	-	-	-	-	-	4
V.1.05	3	1	1	5	2	2	2	-	-	-	16
V.1.06	51	1	-	9	5	5	2	-	-	-	73
V.1.09	45	15	57	47	69	44	47	27	17	60	428
V.1.10	-	-	2	1	-	1	-	-	-	-	4
V.1.11	-	-	-	-	-	-	-	1	-	-	1
V.1.12	-	1	-	2	-	1	-	1	1	2	8
V.1.17	1	-	-	-	-	-	-	1	-	1	3
V.1.18	-	1	11	6	9	3	3	-	-	1	34
V.1.20	1	1	1	-	2	-	1	-	-	-	6
V.1.21	1	-	-	-	-	3	7	3	5	6	25
V.1.24	-	-	1	-	-	-	-	-	-	-	1
V.1.25	-	-	-	-	-	1	-	-	-	-	1
V.1.29	1	-	1	1	3	1	1	-	1	1	10
V.1.30	-	-	-	-	1	-	-	-	-	-	1
V.1.33	-	1	2	4	2	1	1	1	-	1	13
V.1.34	6	-	3	-	-	32	7	4	2	1	55
V.1.36	1	-	-	-	-	-	-	-	-	-	1
V.1.38	-	-	-	-	-	1	-	-	-	-	1
V.1.39	1	-	1	-	1	-	-	-	-	-	3
V.1.43	-	-	-	-	-	-	2	-	-	-	2
V.1.44	-	-	-	-	1	-	1	-	-	-	2
V.1.45	-	-	-	-	-	-	126	4,964	5,854	5,231	16,175
<b>Total</b>	<b>164</b>	<b>43</b>	<b>113</b>	<b>103</b>	<b>118</b>	<b>120</b>	<b>226</b>	<b>5,011</b>	<b>5,892</b>	<b>5,320</b>	<b>17,110</b>

**Notes:** I.58, Multiple myeloma — IgG kappa; II.7, Peripheral nerve disorders of the upper; II.8, Diseases of bones and joints of the hands/wrist/elbow caused by vibration (occupational joint/bone disorders from vibrating tools); II.9, Disorders of tendons, tendon sheaths, bursae or insertions of muscles/joints of the limbs from long-term unilateral overuse (repetitive strain injury); II.10, Peripheral nerve disorders of the limbs of entrapment (compressive) type due to long-term unilateral overuse; III.10.1, Bronchial asthma; III.10.2, Allergic rhinitis; III.9, Exogenous allergic alveolitis (hypersensitivity pneumonitis); IV.1, Skin diseases caused by physical, chemical or biological factors; V.1.01, Viral hepatitis; V.1.02, Tuberculosis (pulmonary and extrapulmonary forms); V.1.03, Infectious mononucleosis and other Epstein–Barr virus infections / EB-virus-related infections; V.1.05, Chickenpox; V.1.06, Measles; V.1.09, Scabies; V.1.10, Epidemic parotitis (mumps); V.1.11, Erysipelas; V.1.12, Herpes zoster (shingles); V.1.17, Impetigo; V.1.18, Influenza (flu) — or viral respiratory infection with complications; V.1.20, Bacterial pneumonia / bacterial lung infections; V.1.21, Infectious keratoconjunctivitis and conjunctivitis (infectious eye inflammations); V.1.24, Cytomegalovirus pneumonia; V.1.25, Intestinal infection caused by *Campylobacter* (campylobacteriosis); V.1.29, Other bacterial intestinal infections; V.1.30, Aspergillosis; V.1.33, Viral intestinal infections (viral gastroenteritis); V.1.34, Pertussis (whooping cough); V.1.36, Other mycobacterial infections (non-tuberculous mycobacterioses); V.1.38, Diseases caused by chlamydiae (chlamydial infections); V.1.39, Staphylococcal infections; V.1.43, Acari (mite) dermatitis (dermatitis caused by mites); V.1.44, Enteroviral vesicular stomatitis with rash; V.1.45, COVID-19 (SARS-CoV-2 infection)

**Table 3** The three most frequently reported occupational diseases among healthcare workers in the SR and the CR, 2014 - 2023 (own processing using data of NCZI, SZÚ)

Item \ Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
<b>SR total</b>	20	25	16	25	21	33	23	163	237	116	679
Scabies	10	14	10	9	13	13	10	1	0	7	91
Repetitive strain injury	4	4	4	1	1	0	3	0	3	4	24
COVID-19	x	x	x	x	x	x	x	159	233	103	495
<b>CR total</b>	164	43	113	103	118	120	226	5,011	5,892	5,320	17,110
Scabies	45	15	57	47	69	44	47	27	17	60	428
Repetitive strain injury	8	5	4	8	4	2	2	5	5	5	48
COVID-19	x	x	x	x	x	x	126	4,964	5,854	5,231	16,175

**Figure 3** Comparison of selected occupational diseases per 1,000 healthcare workers in the SR and the CR, 2014-2023 (own processing using data of NCZI, SZÚ)

## DISCUSSION

The COVID-19 pandemic has had a profound impact on the mental health of frontline healthcare workers. Additionally, the healthcare profession is globally associated with an increased risk of suicide. Adverse working conditions contributing to the development of non-communicable diseases, occupational injuries, and increased absenteeism represent a significant financial burden on healthcare systems, estimated at approximately 2 % of total health expenditures. Despite these challenges, only 26 out of 195 WHO member states have implemented policies and national programs aimed at managing the safety and health protection of healthcare workers [2].

The COVID-19 pandemic has claimed many lives worldwide, including among employees of

healthcare and social facilities. The situation has necessitated the addition of reporting and recognition of COVID-19 as an OD under precisely defined conditions. For this reason, the pandemic has also had its impact on statistics. Work-life balance, high work pace, work shifts, lack of sleep, limited personnel and financial resources, and risk factors of work and the work environment contribute to adverse psychological consequences for healthcare professionals. Several foreign studies have demonstrated and confirmed the impact of the COVID-19 pandemic on the mental health of workers and the direct connection with burnout syndrome [24-28].

According to WHO, during the COVID-19 pandemic, 23% of front-line healthcare workers worldwide suffered depression and anxiety and 39 % suffered insomnia. Furthermore, medical professions

are at higher risk of suicide in all parts of the world [2]. Although we record an increase in global prevalence of burnout syndrome in healthcare professionals, in most countries of the European Union, burnout syndrome is not explicitly listed as an OD, and therefore is not recognized as an OD.

Research from Turkey indicates an increasing trend in the number of ODs. While in 2014 the number reached 494 cases, by 2019 the highest recorded number was 1,088 ODs. In 2020, this figure decreased to 908. Notably, this study did not cover the pandemic years of COVID-19, during which an increase in ODs could have been expected. The research also monitored several other countries, specifically Norway, Sweden, Lithuania, and Germany, where an upward trend in ODs was similarly observed. In contrast, the study revealed that Finland was the only country among those surveyed that showed a declining number of ODs between 2016 and 2020 [29]. In comparison with the results from Turkey, the trend in the occurrence of ODs appears to be more stable in both countries we monitored. However, under the influence of the COVID-19 pandemic, a sharp increase in the number of ODs was observed both in the SR and the CR, with the rise being more pronounced in the CR than in the SR. Based on the findings from Turkey and other countries, compared with data from the CR and the SR, it becomes evident that the development of ODs is significantly influenced not only by pandemic-related factors but also by legislative and working conditions.

Scabies is among the most frequently reported occupational infectious diseases among healthcare workers in Europe, particularly affecting nurses, caregivers, and staff in social care facilities [30]. It is estimated to affect more than 200 million people worldwide, with a prevalence ranging between 0.2 % and 71 % [31, 32]. In both countries we studied, scabies ranked among the most frequently reported OD among healthcare workers.

In the SR and the CR, there are no officially recorded and reported precise numbers of ODs broken down by individual healthcare professions. Available statistics provide only aggregated data on the overall occurrence of ODs within the healthcare sector, without detailed differentiation by specific categories of healthcare workers. This lack of detailed records can hinder accurate analysis of ODs incidence. Our findings indicate that among healthcare workers, the number of ODs increased

over the observed period (2014 – 2023), with a sharp rise particularly recorded in the years 2021 – 2023, both in the SR and the CR. Research on infectious ODs among healthcare workers in the dental sector shows that the number of reported infections among hospital healthcare workers rose by 164.2 % in 2016 compared to 2006, then decreased to 104.8 % in 2019. Among dental healthcare workers, however, the number of infections in 2019 decreased by 34.4 % compared to 2006 [33].

In studies conducted in Germany, South Korea, South Africa, the Czech Republic, and the United Kingdom focusing on the healthcare sector, infectious diseases were found to be the predominant health issues among healthcare workers. A study carried out in the Czech Republic most frequently reported cases of occupational skin diseases among healthcare professionals. The most common skin conditions observed were allergic contact dermatitis, irritant contact dermatitis, and contact urticaria [34].

The most pronounced disparities were identified in the number of reported ODs among healthcare workers, particularly in relation to COVID-19 diagnoses. In the SR, the recorded figures were markedly lower compared to those in the CR. This discrepancy can be attributed to several factors, including differences in the systems for assessing, recognizing, and officially reporting ODs. The key explanation for the differences in the number of recognized ODs, especially COVID-19, between the two observed countries lies in the differing approaches to recognition, clinical-diagnostic criteria, and the acceptance of occupational linkage in cases of COVID-19.

A notable limitation of the present findings is the inherent variability arising from these systemic differences, as well as the distinct national lists of recognized ODs and variations in statistical reporting methodologies. Despite these challenges, we regard the comparative analysis as a valuable and meaningful contribution, offering critical insights that enhance our understanding of the issue and support the development of evidence-based recommendations for improving occupational health surveillance and reporting practices.

## CONCLUSION

In recent years, the COVID-19 pandemic has significantly influenced the number of ODs reported among healthcare workers, not only in the SR but

also in the CR. Our findings show that despite the previously stable number of ODs cases among healthcare professionals at the beginning of the observation period in both countries, the impact of the COVID-19 pandemic in recent years has markedly increased these numbers. The results of analysis contribute to a deeper understanding of the issue of ODs in healthcare workers, emphasizing the importance of their monitoring and analysis. The comparative analysis offers valuable insights into the differences and similarities between the SR and the CR, enabling the formulation of more effective recommendations for improving preventive measures and workplace conditions in both countries. Moreover, the research findings highlight the factors influencing the occurrence of these diseases and underscore the importance of effectively protecting the health of healthcare personnel as a key element of a sustainable healthcare system.

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