



COVID-19 Transmissions by Occupation Report

8 May 2020



Background

Coronavirus disease 2019 (COVID-19) is a respiratory disease caused by the SARS-CoV-2 virus, with over 3.5 million cases and approximately 260 000 deaths to date worldwide. As lockdown continues to impact industries and workers around the globe severely, the risk of occupational exposure to SARS-CoV-2 varies, depending on the industry and the need for close contact (within 2 m) with suspected or confirmed COVID-19 cases. Surveillance of the health and safety of workers at risk is therefore vital to understand the impact of COVID-19 on the workforce in South Africa. This report describes the confirmed COVID-19 positive cases by sex, age-group and occupation.

Methods

We obtained anonymized data (n = 4793) of all COVID-19 positive cases, up until the 28 April 2020, from the National Institute of Communicable Diseases (NICD) at the National Health Laboratory Services (NHLS). Data were obtained from forms submitted by healthcare workers for all confirmed or suspected COVID-19 cases. Occupation groups were adapted from the South African Standard Classification of Occupations (SASCO) [1]. Individuals younger than 18 years were excluded from the analysis.

Results

COVID-19 positive cases with missing occupation information constituted 73% of all cases. (Figure 1).



Figure 1 COVID-19 positive cases by occupation information

Among those with occupation information, 56% (n = 692) of cases were female, with a median age of 40 years, interquartile range (IQR, 19-86 years). Men were significantly older (median age 45, IQR 19-86 years).

Table 1 COVID-19 positive cases by age and sex distribution (n=1225)

Age group	Male	Female	Total
15-24 years	40 (7.5)	71 (10.3)	111
25-34 years	99 (18.6)	173 (25.0)	272
35-44 years	117 (21.9)	183 (26.5)	300
45-54 years	129 (24.2)	119 (17.2)	248
55-64 years	87 (16.3)	86 (12.4)	173
>=65 years	61 (11.4)	60 (8.7)	121
Total	533	692	1225

Figure 2 COVID-19 positive cases by employment status

Individuals who were unemployed (21%) and those who worked in service and sales (21%) contributed the largest proportions of COVID-19 positive cases, followed by health care workers (17%), managers (8%) and self-employed individuals (8%). Approximately 14% were unclassified (Figure 2).

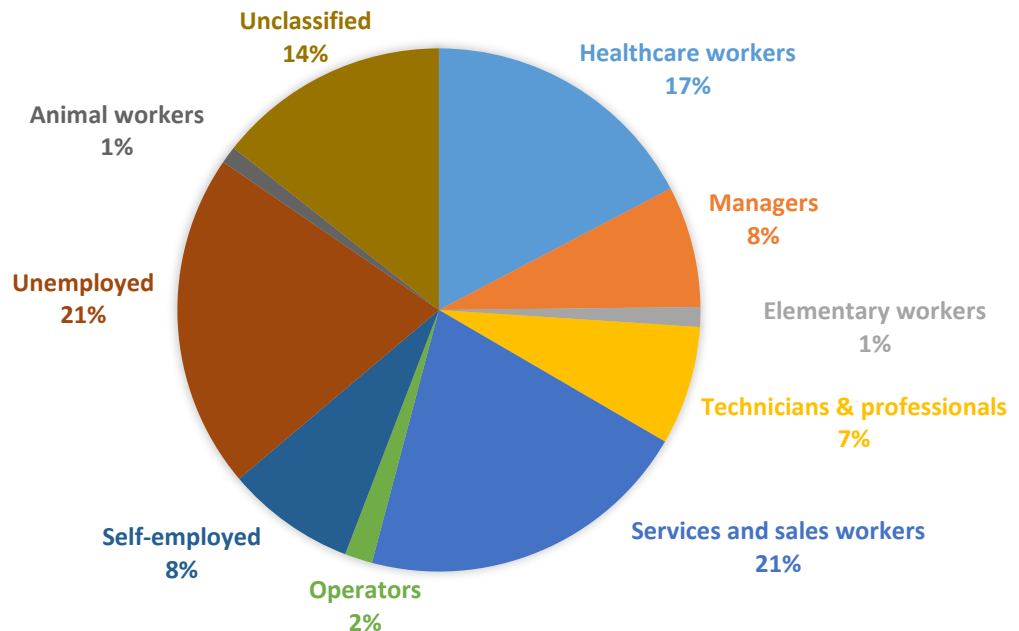


Figure 3 COVID-19 positive cases by occupation (n = 1225)

Conclusion

Data on occupation is frequently not submitted by attending clinicians. This may in part be driven, by lack of understanding of the importance of these data. Incomplete occupation information captured on laboratory forms can result in inaccurate risk quantification per occupation. It is, therefore, imperative that the laboratory forms of suspected COVID-19 cases are complete and data are as accurate as possible. There are ongoing efforts to improve the quality and completeness of data on laboratory confirmed COVID-19 cases. These include an online tool for data collection on all COVID-19 cases through the notifiable medical conditions programme. The collection of complete high-quality data from all cases relies heavily on the ongoing contribution of attending healthcare workers to correctly report information on all data fields required.

References

1. Statistics South Africa. South African Standard Classification of Occupations (SASCO). Pretoria: Statistics South Africa; 2012. Available from: http://www.statssa.gov.za/classifications/codelists/SASCO_2012.pdf. Date accessed 6 May 2020.