

Potential impact of COVID-19 on HSE's main statistical data sources in 2019/20

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Overview

The 2020 coronavirus (COVID-19) pandemic has had a major impact on all corners of life, both in Great Britain and around the world. In Great Britain the first case was confirmed on 31 January 2020ⁱ and the country entered a period of lockdown on 23rd March 2020. This lockdown introduced major disruption to businesses, although even prior to this many businesses would have been making adjustments, some earlier than others, particularly essential services such as healthcare.

HSE statistics for the period 2019/20 fall largely outside this affected period although some data collection processes reporting for 2019/20 fall within this period of disruption. Where reporting for the year was more towards the end of the 2019/20 reporting had the potential to be affected. For example, administrative data collection could be affected by businesses or organisations not reporting because of focus elsewhere, or there may have been no cases to report during the latter part of 2019/20 because work had stopped or changed in nature. In the case of administrative returns from local authorities, routine data collection returns were largely suspended, for example reports from local authorities on enforcement, and fatal injuries among members of the public. In the case of the Labour Force Survey, the operation of the survey had to change design towards the end of 2019/20 and responses at this time, although recalling over 2019/20 have possibly been influenced by the extraordinary events at the time.

Untangling the multiple effects of COVID-19 is extremely difficult although we have investigated two of HSE's main statistical data sources, namely the Labour Force Survey and workplace injury reports made by employers under the Reporting of Injuries, Diseases and Dangerous Occurrence Regulations (RIDDOR) (see Annex).

Initial analysis detailed below has found that the emergence of COVID-19 as a national health issue over the first quarter of 2020 **does not appear to be the main driver of changes** seen in the 2019/20 data, though it is possible that COVID-19 **may be a contributory factor**.

HSE analysts are putting in place plans to assess the influence in 2020/21 which will cover the main impact of COVID-19. Inevitable as with any major shock or change the effects will become clearer with time.

Annex: Initial analyses on effects on principle sources

Labour Force Survey (LFS): Initial analysis of effects on the overall work-related ill-health and injury results 2019/20

Effects on Fieldwork

The workplace health and safety Labour Force Survey questions are asked of participating households over the three months January-March, and relate to ill health cases caused or made worse by work and non-fatal injuries sustained at work in the 12 months prior to interviewⁱⁱ.

The LFS is a quarterly survey, and each quarter is made up of 5 waves. Participants in the LFS are interviewed in 5 successive waves at quarterly intervals. The first wave is face to face questioning and subsequent waves 2 to 5 are generally telephone interviews. HSE's workplace health and safety questions are asked in quarter 1 January-March. Details of key features of the quarter 1 2020 LFS fieldwork are given in the Labour Force Survey performance and quality monitoring report: January to March 2020ⁱⁱⁱ. In essence there was a drop off in response rate for the early weeks of March from about week 10 of the 13 weeks represented in quarter 1. This was particularly marked in wave 1 interviews. Wave 1 face to face interviews were suspended just after this and moved to telephone administration for the rest of the period. Towards the end of March (weeks 12 and 13) response rates recovered a little but wave 1 did not return to initial high response levels previously seen. Consequently, the achieved sample was lower in the last four weeks of the quarter. Overall achieved sample for 2020 quarter 1 is about 11% lower than 2019 quarter 1

To account for this the Office for National Statistics (ONS) refined the weighting process moving to weekly weighting, so each week is more representative. The effect was that the average weights assigned in weeks 10-13 were higher than weeks 1-9.

The change in method of initial contact has not only had an impact on the level of response, but also on the non-response bias of the survey. In mid-October 2020, ONS revised the weights to account for this bias. Revisions have been made to the period January-March 2020; the employment rate was revised downward by 0.3% and unemployment rate upwards by 0.1%. More information about the methods used to develop the new weights can be found in an article on the ONS web site: Coronavirus and its impact on the Labour Force Survey^{iv}.

The impact of the revised weights on the health and safety statistics from the Labour Force Survey is very small, and results have not been revised for the November 2020 release. Changes will form part of the standard reweighting exercise included in the 2021 release.

Effects on results

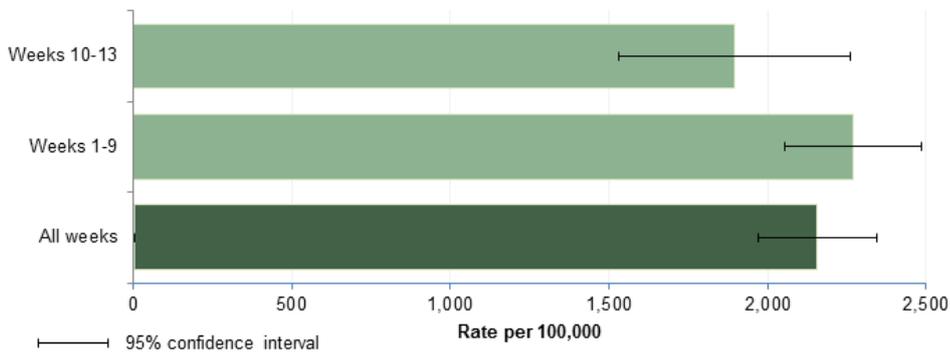
Estimates of the rate of all work-related ill-health and specifically stress, depression or anxiety from the LFS showed statistically significant increases between 2018/19 and 2019/20. Similarly, there was a statistically significant increase in the rate of all workplace injury between these years

Cases linked to COVID-19 cannot be identified based on information reported by LFS respondents. However, to assess whether there is any evidence that the emergence of COVID-19 and the changes to the LFS in the latter weeks of 2019/20 can explain these increases, analysis looked at estimates based on the week of survey. Results based on interviews which took place from early in March (weeks 10-13) which relate to the twelve months prior to interview and include the period when public awareness was heightened about COVID-19^v, were compared with results from interviews which took place prior to early March (weeks 1-9) where the twelve month reference period excludes the period of heightened awareness of COVID-19.

Results in figures 1 and 2 show that the estimated annual rates based on interviews conducted prior to heightened public awareness of COVID-19 in early March (weeks 1-9) are of a similar order (not statistically significantly different) to the estimated annual rates based on interviews conducted during the rest of March (weeks 10-13) for both ill-health and injury.

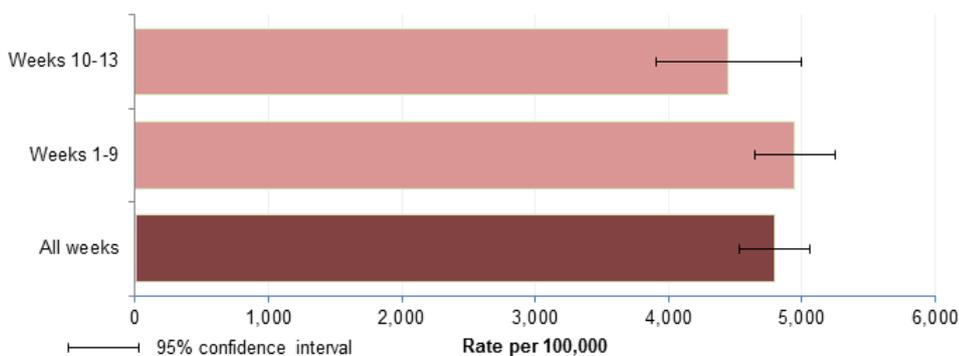
This suggests that **in the absence of COVID-19, we would still have seen an increase in rates.**

Figure 1: Estimated annual incidence rates of self-reported workplace non-fatal injury per 100,000 workers by week of interview, 2019/20



Source: LFS 2019/20

Figure 2: Estimated annual prevalence rate of self-reported work-related illness by week of interview, for people working in the last 12 months, 2019/20



Source: LFS 2019/20

The effects of COVID-19 would probably have been more prominent in some industry sectors e.g. human health sector, prior to the heightened public awareness in early March. Although the rate of work-related ill health in the human health and social work activities sector was statistically significantly higher in 2019/20 than in 2018/19, based on available information reported by LFS respondents we cannot reliably assess whether any of the increase was due to COVID-19. The plan is to administer some supplementary questions in 2021 LFS, which relate to the period 2020/21, asking LFS respondents whether their work-related ill health condition is linked to COVID-19. Analysis of these data by industry when available in 2021 will provide some insight also into the 2019 data.

Initial analysis has found that the emergence of COVID-19 as a national health issue over the first quarter of 2020 **does not** appear to be the main driver overall of these increases in work-related ill-health and injury. However, the potential for COVID-19 to be a contributory factor cannot be ruled out completely.

RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations): Initial analysis of effects on the overall employer reported injury results 2019/20

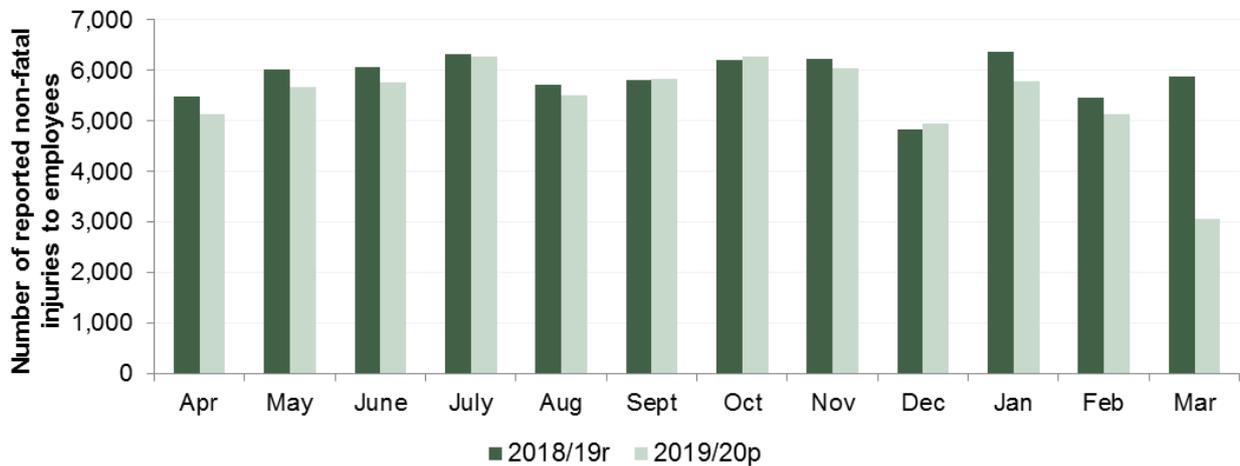
RIDDOR requires employers to report among other things certain workplace injuries (generally the more serious) shortly after they have occurred^{vi}.

The number of non-fatal workplace injuries to employees reported under RIDDOR fell by almost 5,000 (7%) between 2018/19 and 2019/20. To assess whether this lower number of reported injuries was entirely a result of COVID-19, or COVID-19 had some contribution, reporting was investigated by month and compared with the previous year.

Analysis of number of reports made by month show that **even without COVID-19, 2019/20 was on track for a lower number of reported non-fatal injuries to employees over the year** compared with other recent years, though almost certainly the impact of COVID-19 on the economy in March accentuated the fall seen.

In the first 11 months of the year, the number of non-fatal injuries to employees was down just over 2,000 on the previous year. However, the numbers reported in March 2020 fell back significantly – from 5,872 in March 2019 to 3,068 in March 2020 (fall of over 2,800 compared with March 2019). While this may be due to a genuine reduction in number of injuries as ways of working changed over the month, equally it may be due to a fall in reporting levels by employers (or a combination of the two).

Figure 3: Number of reported non-fatal injuries to employees by month, 2018/19 and 2019/20



Source: RIDDOR

Based on this analysis, the emergence of COVID-19 **does not appear to be the sole driver** of the fall in employer reported injuries in 2019/20, although **it is likely to have accentuated** the overall scale of the annual decrease.

Note and references to annex

Note: The Office for National Statistics is the provider of the LFS data. The analysis of these data presented in this document is the sole responsibility of HSE.

References:

ⁱ BBC News <https://www.bbc.co.uk/news/health-51325192> accessed October 2020

ⁱⁱ LFS Technical Note www.hse.gov.uk/statistics/lfs/technicalnote.htm

ⁱⁱⁱ Labour Force Survey performance and quality monitoring report: January to March 2020 www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/aboutforcesurveyperformanceandqualitymonitoringreports/labourforcesurveyperformanceandqualitymonitoringreportjanuarytomarch2020#impact-of-coronavirus-covid-19-on-the-labour-force-survey

^{iv} Coronavirus and its impact on the Labour Force Survey www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/coronavirusanditsimpactonthelabourforcesurvey/2020-10-13.

^v Heightened COVID-19: move to the second stage of dealing with COVID-19 (from "containment" to the "delay" phase), advise against non-essential travel, working from home if possible and lockdown

^{vi} See RIDDOR within HSE data sources www.hse.gov.uk/statistics/sources.pdf?pdf=sources

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