

Background Paper

The health impacts of COVID-19 for precarious workers

A scientific review of the health and economic consequences of infection control measures for people in precarious employment during the COVID-19 pandemic.

Key messages

This background paper summarizes the scientific evidence on whether precariously employed workers are particularly affected by measures to control the spread of COVID-19 and by the resulting economic recession. Its conclusions are intended to inform policy to reduce the social and health risks for precarious employees.

- Increased unemployment and job insecurity and reduced hiring and incomes have disproportionately affected persons in precarious employment due to their lower social and economic security.
- Greater economic impacts are associated with increased health risks. Compared to other sectors of the workforce, precarious workers face greater risk of short- and long-term health problems.
- In the short term, we recommend financial support to bridge the income losses caused by the pandemic, expanded care, training and support programs delivered at local and national levels to those affected by unemployment, and protection of precariously employed persons against risks of infection.
- In the long term, improved co-ordination of departments and professionals is needed to improve the social and health situation of precariously employed persons and to provide accurate and timely information on critical working conditions and health risks caused by the pandemic.

This background paper complements the report on social inequalities in the context of the COVID-19 pandemic by focusing on precariously employed groups, thus illustrating its profound effects on a particularly disadvantaged group. It is aimed at political decision-makers, the general public, and especially professional groups, associations and organizations that share responsibility for occupational health and safety.

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[The state of knowledge on the COVID-19 pandemic is changing rapidly, so we refer here to the date of publication and the date up to which research could be considered. If findings change, this should be considered in later versions.]

Background

In social and economic science, precarious employment is defined along four dimensions: i) job insecurity (e.g. fixed-term contract, job insecurity); ii) low/no integration into social security systems (e.g. unemployment, old age, illness); iii) low pay and lack of recognition; iv) lack of qualification and promotion opportunities (1–3). All four elements of this definition may occur simultaneously but not all are necessary in order to refer to precarious employment. Precarious employment occurs across all sectors and affects not only employees but also the self-employed (4, 5). In Germany, persons with low qualifications, young adults, women and persons with a migrant background are more likely to be precariously employed (6). Precarious forms of employment have increased since the mid-1990s due to more flexible employment relations that allow firms increase or diminish their workforce and reassign employees with ease—a trend referred to as “flexibilization” (7, 8). Their prevalence in Germany varies according to the above-mentioned characteristics, but a recent study estimates that they account for about 15% of all employees (2). Many epidemiological studies have found increased health risks among precarious workers.

Question

This report examines the evidence on the social and health consequences of precarious employment in the context of the COVID-19 pandemic. In doing so, we consider the possible social and health consequences of the 'lock-down' measures for infection control and the resulting economic recession.

Methods

This overview of the evidence is based on published meta-analyses (Table 1), systematic reviews and individual studies that were identified using relevant databases (Pubmed, Web of Science) and online searches for documents, including work reports of official bodies (OECD, WHO, ILO, DFG). Systematic reviews are a summary and evaluation of existing study results according to defined criteria, while meta-analyses are based on systematic reviews and attempt to collect and quantify the study results. (9). Both types of study offer a higher degree of reliability than can be achieved from a nonsystematic overview of relevant documents.

Results

Social consequences of the lock-down and the already apparent economic recession

The German economy and the German labor market are directly affected by the COVID-19 pandemic. In addition to immediate policy measures, such as physical distancing, travel restrictions, and closure of many cultural institutions, restaurants and shops, the worldwide recession resulting from the pandemic now affects the entire German economy and thus also the German labor market (9). The COVID-19 pandemic is also expected to result in job cuts and a decline in new hires in addition to a unprecedented expansion of short-time work with an increase of 470% in the number of applications to temporary positions compared to the previous year to 587,515 in April 2020 (10, 11). According to the Federal Statistical Office, 381,000 people lost their jobs in April 2020 alone (12). Between April 2019 and April 2020, unemployment registrations increased in hotels and restaurants (+208%), trade (+53%), other services (+54%) and temporary work (+30%) (12). In addition, 86% more self-employed people registered as unemployed in April 2020 than in April 2009 (12).

Despite a lack of empirical evidence, initial reports suggested that specific risk groups of precarious employment, such as the low-skilled, women or low-wage earners, are or will be most affected by short-term economic consequences on their social situation. A recent analysis of socio-economic panel data found that workers with a low level of education (23%) were nearly

twice as likely to be affected by short-time work than highly educated workers (13%) (13). Moreover, at around 18%, low educated workers are far more likely to express great concern about their own economic situation than highly educated workers at around 3%. Another study found that women, low-skilled and low-income earners show increased job insecurity and also temporarily work less or not at all due to the COVID-19 pandemic (14) Finally, given the experience of previous crises, it is expected that short-term workers and mini-jobbers will become more vulnerable to unemployment because they cannot resort to short-time working (15). Current statistics show an overall decrease in employment of mini-jobbers of 3.3% in March 2020 compared to the same month of the previous year, with the largest decreases in hotels and restaurants (11.1%) and in manufacturing (6.3%) (16).

Short- and medium-term health consequences of the lock-down and already apparent recession for precarious employees

The deep social impacts of COVID-19—as already seen in the uncertainty of continued employment, unemployment, job loss, and loss of income—will reverberate in short- and long-term health consequences for precariously employed persons (Table 1). Due to knowledge gaps on this topic with respect to specific groups and health conditions that are affected by COVID-19, the following will refer to previously published study results which can be applied to the current situation of precariously employed persons.

Recent reviews and meta-analyses of systematically researched longitudinal studies have found that job insecurity increases the risk of various stress-related health problems including depressive symptoms, anxiety disorders, and coronary heart disease (17–21). Their findings also show that the health risks increase with the duration of job insecurity and that men are affected more than women.

There is also a broad range of studies on the health consequences of unemployment. Systematic reviews with meta-analyses show an increased risk of depression and premature death (20, 22). Systematic reviews (19, 23, 24) have concluded that the health risks of unemployment are

greater for men than for women, increase with the duration of unemployment, and are compounded by macroeconomic crises. In contrast, the risk of poor health is mitigated by welfare state measures, including public investment in active labor market programs (23).

Systematic reviews with meta-analyses found that mental health declines as people enter unemployment (25), however the consequences of unemployment for physical and mental health are significantly worse for socially disadvantaged groups than for socially better-off groups (26).

Table 1: Health consequences of unemployment, job insecurity and job loss

	Empirical data	Effects ^a	Reference
Exposure: employment vs. unemployment			
Depression	Meta-analysis; 14 cohort studies N = 17,835	OR 1.19 (1.11-1,28)	(20)
Mortality	Meta-analysis; 42 cohort studies N > 20 million	HR 1.63 (1.49-1.79)	(22)
Exposition: no job insecurity vs. Job insecurity			
Depression	Meta-analysis; 6 cohort studies N = 23,648	OR 1.61 (1.29-2.00)	(21)
	Meta-analysis; 14 cohort studies N = 65,002	OR 1.29 (1.06-1.57)	(20)
Anxiety disorders	Meta-analysis; 2 cohort studies N = 7,910	OR 1.77 (1.18-2.65)	(21)
Coronary heart disease	Meta-analysis; 13 cohort studies N = 174,438	OR 1.19 (1.00-1.42)	(20)
Exposition: job loss of employees			
Bad mental health	Meta-analysis; 86 cohort studies N = 50,234	d 0.19 (0.10-0.29)	(25)

^a OR = Odds Ratio (indicates the quota/odds ratio for a disease between exposed and non-exposed persons. Values above 1 mean that the quota/odds for a disease is increased in the presence of exposure (27); HR = Hazard Ratio (reflects the ratio of the probability of disease within a defined period between the exposed and non-exposed group). d = Effect size d by Cohen (gives the measure of the mean differences between non-exposed and exposed group. Values between 0.2 and 0.5 are generally considered a small effect, from 0.5 to 0.8 a medium effect and from 0.8 a large effect) (28). The values shown in parentheses indicate the 95% confidence interval. This determines the upper and lower limits, in which the true population value lies with a 95% probability. Confidence intervals that exclude 1 indicate statistically significant results (29).

Finally, the effect of large income losses on mental health was examined in two systematic reviews (17, 30). Meta-analyses for this association are not yet available. The systematic reviews found that income losses have negative effects on mental health and increase the risk of poor subjective health, anxiety disorders and depression. Moreover, if working conditions have

several characteristics of precarious employment then the health risk increases significantly (21).

Increased risk of infection for precarious workers

In addition to the negative health consequences mentioned above, there is increased acute risk of infection by the SARS CoV-2 virus, to which precarious workers have disproportionately greater exposure. In 'systemically important' professions, these include transport and friction workers in health care facilities and nursing staff that cannot easily practice physical distancing and must work in precarious employment conditions (31, 32). A recent study from the UK shows that mortality due to COVID-19 is above average for male employees in the lowest professional positions and even exceeds that of directly exposed medical staff in hospitals (33) (*see also statements on social inequality and occupational health and safety*).

Outlook, conclusion and recommendations

In April 2020, when the OECD estimated the economic impact of the pandemic, it assumed that a two-month 'lock-down' would be followed with a gradual economic recovery over the next 4 to 5 months (34). After that, a second wave of infection is expected in the negative case or a further recovery in the positive case. A projection based on extensive company data shows that about 40 percent of all German companies will have to deal with liquidity problems in autumn 2020 (35), with consequences for increased layoffs, worries about job losses, fewer new hires, and lower wages and salaries. In view of the available evidence, precarious workers will bear the brunt of these trends. This was already evident as a result of the financial crisis after 2007/2008 (36). Even if precarious workers manage to keep their jobs, they can expect lower wages and more difficult working conditions characterized by chronic insecurity and stress. Longer-term health risks of these two conditions (continued critical employment; unemployment) have been empirically proven in many cases (23, 37, 38).

Overall, the research findings point to the urgent need for preventive and interventional measures to improve the social and health situation of precariously employed persons. Direct

and indirect threats from infection control measures and the economic recession require specific measures to protect their health, economic and social well-being.

The following recommendations were derived from the existing evidence:

1. Financial support already initiated to bridge the income losses caused by the pandemic should be maintained and, if necessary, extended—even if it can only be achieved gradually or involves major changes in activities, work organization, and social and health policy measures.
2. As a short-term measure, in view of the increased infection rates among precarious workers, infection controls should be stepped up and employers should provide sufficient protective equipment to all workers.
3. Qualified guidance, training and support programs should be provided at local and national levels to those affected by unemployment (39).
4. Medium and long-term remedial processes are required across departments and professions with the aim of promoting the health of precariously employed and unemployed people. It is essential to improve social security and the quality of working conditions for precariously employed persons, in line with national and international guidelines and procedures (e.g. EU OSHA; WHO European Office; ILO).
5. Improved data collection is needed to adequately document critical working conditions and health risks (also due to the pandemic) within the framework of representative population surveys and established measurement concepts and practices. This includes an increased promotion and consideration of corresponding scientific analyses, which support this process.

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