



# **Taking inventory of the effects of new forms of work on health - Gig Work**

**Final report for the Federal Office of Public Health (FOPH) and  
Gesundheitsförderung Schweiz**

**Bern, January 2025**

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Citation recommendation:

Zwettler, Clara & Straub, Caroline (2025). Taking inventory of the effects of new forms of work on health - Gig Work. Report for the Federal Office of Public Health (FOPH) and Gesundheitsförderung Schweiz

Project number: 142006690

## Abstract (EN)

The gig economy has experienced significant growth in recent years. This growth is reshaping labor markets globally, including in Switzerland. Compared to traditional employment, gig work presents unique challenges, such as for example financial instability, irregular work hours, and social isolation. Given the difference between gig work and more traditional forms of employment, past research on factors influencing the health of traditional workers may not be applicable to gig workers.

This report systematically reviews the existing scientific and grey literature to analyse the health outcomes associated with gig work, focusing on psychological, physical, and social health dimensions as defined by the World Health Organization (WHO). It organizes findings around three vulnerabilities - precarious working conditions, occupational vulnerabilities, and platform-based vulnerabilities - and provides recommendations for improving gig workers' health outcomes at the micro, meso and macro levels.

- **Psychological Health:** Gig workers' psychological health is influenced by precarious working conditions, including financial instability and irregular working hours. Studies also highlight that the type of gig work impacts psychological health; for instance, location-based workers are likely to encounter verbal abuse and racial discrimination. Additionally, platform-based vulnerabilities, such as unpredictable market demands, play a role in shaping psychological health outcomes such as mental well-being. Protective factors, such as the absence of traditional supervisory structures, can help mitigate stressors.
- **Physical Health:** Physical health risks are particularly pronounced for location-based gig workers, who frequently experience fatigue, accidents, and long working hours. In contrast, online gig workers face fewer physical risks but are exposed to hazards such as prolonged screen time and poor ergonomics. Notably, the review did not identify studies specifically examining the impact of platform-based vulnerabilities on physical health. However, flexibility regarding working times have been recognized as a potential protective measure to mitigate physical health risks.
- **Social Health:** Social health is significantly influenced by precarious working conditions, as for example unstable incomes and unpredictable schedules often make it challenging for gig workers to maintain social connections. Regarding occupational vulnerabilities, both location-based and online gig workers frequently report dissatisfaction with the lack of social connections among colleagues. However, certain protective factors, such as participating in emotional support activities with customers, can help improve social health and mitigate feelings of isolation.

Based on the findings of this review, we identified fields of actions for research and practice. Concerning research, we argue that while considerable research has focused on low-skilled location-based gig workers, there is a gap in studies on high-skilled location-based and high-skilled online gig workers. Furthermore, the existing literature often treats psychological, physical, and social health dimensions separately, even though they interact and overlap. Longitudinal studies are needed to better understand the complexities of health in gig work.

Further, we provide fields of actions for practice to mitigate the negative health effects of gig work at the micro, meso, and macro levels. By implementing the proposed recommendations, stakeholders—including platforms, policymakers, and workers themselves—could create a more sustainable and supportive environment within the gig economy.

## Abstract (DE)

Die Gig Economy hat weltweit, auch in der Schweiz, stark zugenommen und bringt im Vergleich zu traditioneller Beschäftigung besondere Herausforderungen mit sich. Diese betreffen vor allem finanzielle Unsicherheit, unregelmäßige Arbeitszeiten und soziale Isolation. Der Bericht untersucht systematisch die gesundheitlichen Auswirkungen der Gig-Arbeit anhand der WHO-Dimensionen psychische, physische und soziale Gesundheit. Die Ergebnisse werden entlang von drei Vulnerabilitäten analysiert: prekäre Arbeitsbedingungen, berufliche und plattformbasierte Risiken.

**Psychische Gesundheit:** Gig-Worker leiden häufiger unter Stress, Ängsten und psychischer Belastung – insbesondere wegen unvorhersehbarer Arbeitszeiten und unsicherem Einkommen. Vor-Ort-Gig-Worker sind zusätzlich öfter Diskriminierung und verbalen Übergriffen ausgesetzt.

**Körperliche Gesundheit:** Gig-Worker vor Ort haben ein erhöhtes Risiko für körperliche Beschwerden, etwa durch Ermüdung und lange Arbeitszeiten. Online-Gig-Worker sind körperlich weniger gefährdet, leiden aber unter ergonomischen Problemen. Plattformbasierte Risiken wurden hier bislang kaum erforscht.

**Soziale Gesundheit:** Instabile Arbeitsbedingungen erschweren soziale Beziehungen. Viele Gig-Worker berichten von Isolation, insbesondere durch fehlende Kollegenkontakte. Emotionale Interaktionen mit Kunden können jedoch positive Effekte auf die soziale Gesundheit haben.

**Forschungsbedarf:** Es fehlen Studien zu hochqualifizierten Gig-Workern sowie zur Wechselwirkung der verschiedenen Gesundheitsdimensionen. Längsschnittstudien wären nötig, um gesundheitliche Entwicklungen besser zu verstehen.

**Empfehlungen für die Praxis:** Um gesundheitliche Risiken zu reduzieren, sollten Maßnahmen auf individueller (Mikro-), betrieblicher (Meso-) und politischer (Makro-) Ebene umgesetzt werden. Ziel ist ein nachhaltigeres, gesundheitsförderndes Arbeitsumfeld in der Gig Economy.

## Abstract (FR)

La gig economy a connu une forte croissance dans le monde entier, y compris en Suisse, et pose des défis particuliers par rapport à l'emploi traditionnel. Ceux-ci concernent principalement l'insécurité financière, les horaires de travail irréguliers et l'isolement social. Le rapport examine systématiquement les effets du travail en gig sur la santé à l'aide des dimensions de la santé mentale, physique et sociale définies par l'OMS. Les résultats sont analysés selon trois vulnérabilités : conditions de travail précaires, risques professionnels et risques liés aux plateformes.

**Santé mentale** : les travailleurs en gig souffrent plus souvent de stress, d'anxiété et de troubles psychologiques, notamment en raison de leurs horaires imprévisibles et de l'instabilité de leurs revenus. Les travailleurs à la tâche sur site sont en outre plus souvent victimes de discrimination et d'agressions verbales.

**Santé physique** : les travailleurs à la tâche sur site courent un risque accru de troubles physiques, notamment en raison de la fatigue et des longues heures de travail. Les travailleurs à la tâche en ligne sont moins exposés aux risques physiques, mais souffrent de problèmes ergonomiques. Les risques liés aux plateformes ont jusqu'à présent été peu étudiés.

**Santé sociale** : l'instabilité des conditions de travail complique les relations sociales. De nombreux travailleurs à la tâche font état d'isolement, notamment en raison du manque de contacts avec leurs collègues. Les interactions émotionnelles avec les clients peuvent toutefois avoir des effets positifs sur la santé sociale.

**Besoins en matière de recherche**: il n'existe pas d'études sur les travailleurs à la tâche hautement qualifiés ni sur l'interaction entre les différentes dimensions de la santé. Des études longitudinales seraient nécessaires pour mieux comprendre l'évolution de la santé.

**Recommandations pour la pratique**: afin de réduire les risques pour la santé, des mesures doivent être mises en œuvre aux niveaux individuel (micro), opérationnel (mésoscopique) et politique (macroscopique). L'objectif est de créer un environnement de travail plus durable et plus favorable à la santé dans la gig economy.

## Abstract (IT)

La gig economy ha registrato una forte crescita in tutto il mondo, anche in Svizzera, e presenta sfide particolari rispetto all'occupazione tradizionale. Queste riguardano soprattutto l'insicurezza finanziaria, gli orari di lavoro irregolari e l'isolamento sociale. Il rapporto esamina sistematicamente gli effetti del lavoro gig sulla salute sulla base delle dimensioni della salute mentale, fisica e sociale definite dall'OMS. I risultati vengono analizzati sulla base di tre vulnerabilità: condizioni di lavoro precarie, rischi professionali e rischi legati alla piattaforma.

**Salute mentale:** i lavoratori gig soffrono più spesso di stress, ansia e disagio psicologico, in particolare a causa degli orari di lavoro imprevedibili e del reddito incerto. I lavoratori gig in loco sono inoltre più spesso esposti a discriminazioni e aggressioni verbali.

**Salute fisica:** i lavoratori gig in loco hanno un rischio maggiore di disturbi fisici, ad esempio a causa della stanchezza e degli orari di lavoro lunghi. I lavoratori gig online sono meno esposti a rischi fisici, ma soffrono di problemi ergonomici. I rischi legati alle piattaforme sono stati finora poco studiati.

**Salute sociale:** le condizioni di lavoro instabili rendono difficili le relazioni sociali. Molti lavoratori gig riferiscono di sentirsi isolati, in particolare a causa della mancanza di contatti con i colleghi. Tuttavia, le interazioni emotive con i clienti possono avere effetti positivi sulla salute sociale.

**Necessità di ricerca:** mancano studi sui lavoratori gig altamente qualificati e sull'interazione tra le diverse dimensioni della salute. Sarebbero necessari studi longitudinali per comprendere meglio gli sviluppi in materia di salute.

**Raccomandazioni pratiche:** per ridurre i rischi per la salute, dovrebbero essere attuate misure a livello individuale (micro), aziendale (meso) e politico (macro). L'obiettivo è un ambiente di lavoro più sostenibile e salutare nella gig economy.

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## 1. Introduction

The gig economy has experienced significant growth in recent years. In Europe, the proportion of people who have used an online labor platform (OLP) to find work is ten percent, with two percent of the adult population earning 50% or more of their monthly income (Pesole et al., 2018). In Switzerland, it is estimated that 0.4% of the adult population works on OLPs (Bundesamt für Statistik, 2020). However, just six percent of Swiss platform workers make more than 12,000 Swiss francs annually—nearly not enough for earning a living (Bundesamt für Statistik, 2020). Nevertheless, according to a 2022 Swiss governmental assessment, the platform economy was expanding and is predicted to do so in the years to come (EFK, 2022). It is important to recognise that the observed variations in figures are due to differences in conceptualisation and measurement methods between studies, which may lead to discrepancies and limit the direct comparability of data.

Workers on OLPs are labelled as 'gig worker' or platform workers. In the following, we will use these terms interchangeably. Cropanzano et al. (2023) identified four attributes of gig work, including non-membership in an organization, temporary nature of the work, project- or piece-based compensation, and connection with clients via intermediaries such as OLPs (e.g., Uber, Upwork, and Fiverr). Compared to traditional employment, gig work presents unique challenges. The greater independence brings along financial and existential insecurity, as gig workers struggle to support themselves and maintain a work identity (Petriglieri et al., 2018). While a high flexibility (i.e., locations, time and content) offers variety and new job opportunities, it also complicates their working lives (Caza et al., 2021). Greater autonomy from organizations can lead to isolation and, if unmanaged, loneliness (Kunda et al., 2002; Lam & Lau, 2012). To sum up, even though gig workers enjoy higher job autonomy, they also suffer from higher levels of job insecurity, financial instability, career path uncertainty, and possibly social isolation (Ashford et al., 2018; Cropanzano et al., 2023).

Gig workers' work experience also differs from the experiences of other types of nonstandard work (e.g., self-employed freelancers) due to structural characteristics emergent alongside the role of OLPs. In detail, OLPs use algorithms to match gig workers to jobs and to manage performance through visible rating systems (e.g., clients can rate workers online) (Meijerink & Keegan, 2019). This use of online assessments and algorithmic matching may reshape workplace relationships, affecting how gig workers experience work (Vallas & Schor, 2020).

Given the difference between gig work and more traditional forms of employment, past research on factors influencing the health of traditional workers may not be applicable to gig workers. The growing interest in gig workers has prompted several initial literature reviews, focusing primarily on the distinctions between traditional employment and gig work, as well as how gig workers should adapt to these differences (Ashford et al., 2018; Cropanzano et al., 2023). Additionally, reviews have explored the various categories of non-standard work including gig work, examining the unique characteristics and challenges associated with each group (Spreitzer et al., 2017; Watson et al., 2021). Another literature review employed a framework that organizes hazards associated with gig work by mapping them across different levels: government and external influencers, regulators and associations, companies, frontline workers, and environment and equipment (Taylor et al., 2023). The most recent integrative review of existing research on gig work examines major themes of gig work (e.g., career



development, health and well-being) (Wu & Huang, 2024). Although these reviews touched upon the topic of health, they did not specifically focus on how different characteristics of gig work are related to health and well-being. This gap leaves room for a report that examines how the unique aspects of gig work impact the psychological, physical, and social health of gig workers.

This report aims to address this gap by providing a systematic review of current scientific and grey literature on gig work resp. platform work, focusing on health risks associated with gig work, structured according to the World Health Organization (WHO) categories of health: physical, mental and social well-being (Ford et al., 2011; Tetrick & Quick, 2003). Specifically, the WHO states: “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (Callahan, 1973 p. 77). Additionally, this report synthesizes the findings within the literature along three distinct vulnerabilities based on Bajwa et al. (2018), which are directly connected to the unique characteristics of gig work: precarious work conditions, occupational vulnerabilities and platform-based vulnerabilities. The findings of the report should support gig workers, decision-makers in companies and industry associations, and policy makers in addressing the health challenges associated with gig work. Moreover, this report suggests future research directions against the backdrop of recent developments.

In sum, this report includes:

- A description of the characteristics of platform work / gig work.
- A review of national and international scientific literature and grey literature on the working conditions and health effects of platform work / gig work and an overview on the protective and the risk factors related to platform work / gig work that act as resources or stressors and thus influence the health of workers.
- Recommendations for actions based on the findings with targeted measures to mitigate the negative health effects of platform work / gig work at the individual, company and industry level.
- Recommendations on future research and methodologies to monitor gig workers health.

## 2. Gig Work and Health

While there is a growing literature on gig work, limited research has focused on estimating its impact on workers' health (Berger et al., 2020a). Research on gig work often highlights various challenges and vulnerabilities faced by gig workers. Caza et al. (2021) identified several key challenges, including viability challenges, such as sustaining a desired lifestyle and dealing with unpredictable income cycles. Organizational challenges involve managing logistical tasks outside core work activities, while identity challenges arise from maintaining a stable work identity despite varying tasks and client interactions. Gig workers also experience emotional challenges, with frequent swings between positive and negative emotions, and relational challenges, such as isolation and the need to continuously promote themselves. Finally, career-path uncertainty creates anxiety about the long-term prospects of gig work.

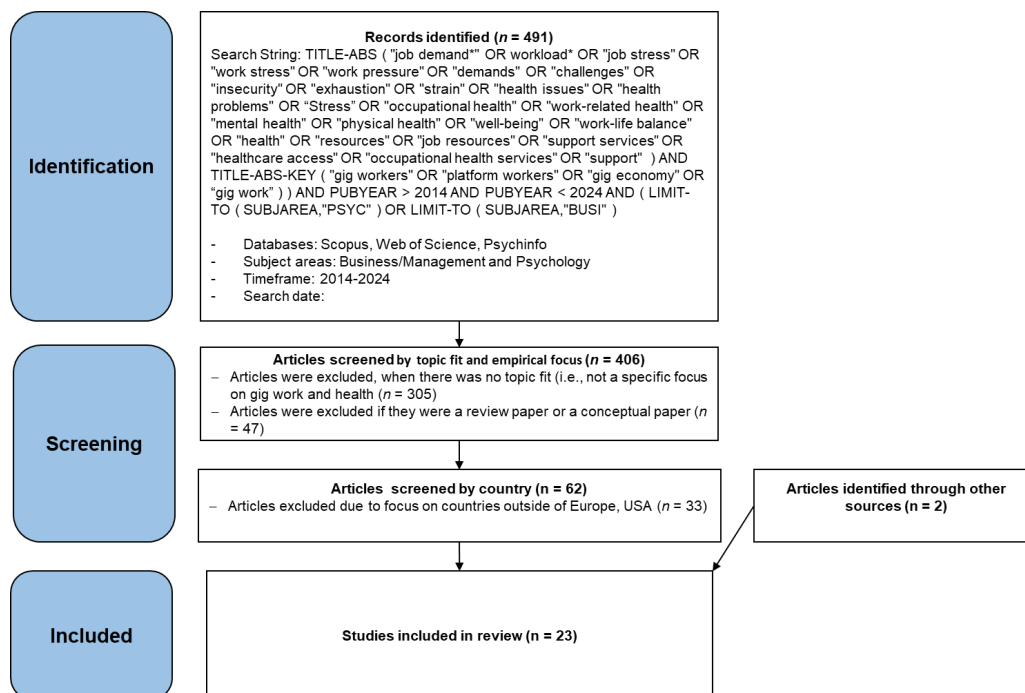
In a review of grey literature Bajwa et al. (2018) specifically zoom in on gig work vulnerabilities that affect the health of gig workers, including occupational vulnerabilities that are related to the type of work they perform (e.g., driving a car, biking, or using computers), the precarious conditions of their work (e.g., the unpredictable workload and the lack of health insurance), and platform-based vulnerabilities (e.g., low information transparency and high surveillance). In the following, we build onto this understanding and identify three vulnerabilities of gig work and expand on this by systematically including empirical literature in our analysis. Furthermore, we draw onto the conceptualization of the WHO and define health – as encompassing a state of physical, mental, and social well-being (Ford et al., 2011; Tetrick & Quick, 2003). More specifically, our perspective on health draws on the framework developed by Testa and Simonson (1996), which outlines health-related quality of life along three key areas: (1) physical health, involving an individual's symptoms, physical functioning, and disabilities; (2) mental or psychological health, referring to emotional experiences and behavior; and (3) social health, which focuses on interpersonal relationships. In our approach, we emphasize on all these three main dimensions of health-related quality of life.

In sum, this systematic review highlights articles that examine a wide range of psychological health factors, such as (subjective) psychological/mental well-being, experience of stress, quality of life, unhappiness, feeling depressed, as well as being under constant strain. In terms of physical health, the review identifies aspects that have been explored, such as fatigue/tiredness, physical harms/problems, physical injuries from accidents and the impact of both physical exertion and fitness opportunities. Furthermore, this review identifies social health factors, highlighting work-life balance, loneliness, and the nature of social relationships within gig work. By organizing the literature across these health dimensions and associated vulnerabilities, this review provides a comprehensive understanding of how gig work influences health.

### 3. Literature Search for the Review

We conducted a comprehensive and extensive literature search. We searched for relevant articles using a three-step process, outlined in Figure 1 as a PRISMA flowchart. First, we searched SCOPUS, Web of Science and the PsycINFO database to include articles published between 2014 and the end of July 2024, and limited our search on peer-reviewed scientific articles published in business/management and psychology journals. We concentrated on studies covering samples from Europe and the United States. The search included literature published in both English and German, ensuring comprehensive coverage of the relevant research in these languages. The first set of keywords were associated with the gig economy including gig economy, sharing economy, gig work, on-demand work, contingent work, temporary work, independent work, crowd work, freelance, and multiple jobholders. The second set of keywords were associated with the research topic that focuses on gig workers and health. These keywords included work pressure, work stress, and health among others (see Figure 1).

Figure 1. Flow diagram of search process



This initial search yielded 491 articles. In a second step, we manually screened the articles to ensure that they had a tight focus on gig work and health in relevant management, organizational behavior, and organizational psychology outlets. Furthermore, we focused on high-skilled workers in both online and location-based work settings, as well as low-skilled and high-skilled workers in locations-based work-settings. Studies involving low-skilled gig workers in online-based work settings, such as click workers, were excluded from the review to maintain a focused scope on workers who have the potential to earn a sustainable living within the gig economy in Switzerland (when there was no topic fit or focus on click workers, n = 305). Furthermore, we excluded 47 articles as they were reviews or conceptual papers, and therefore had no empirical focus. In a last step, we assessed 62 articles for eligibility, and excluded 33 articles as they had a focus on countries outside of Europe and the United States. We finally included 21 articles in our review.

## 4. Themes on Gig Work and Health in the Literature

In the following sections, we review the major themes on gig work and health that emerged in our literature search. We systematically organize the literature around an antecedent - outcome framework. First, we identify antecedents respectively the vulnerabilities in gig work based on Bajwa et al. (2018). Second, in terms of outcomes, we focus on major health outcomes of gig work in line with the WHO health dimensions, psychological, physiological, and social health. Third, we highlight protective factors that were proposed to hinder respectively promote the health of gig workers.

Table 1 presents the key health themes identified in the literature and the associated data used. Psychological health has been addressed in five qualitative data sets and eight quantitative data sets. This highlights that psychological health is a major area of focus in both qualitative and quantitative gig work research. In the case of physical health, seven qualitative data sets and two quantitative data sets were identified, indicating a stronger emphasis on qualitative insights into how physical health issues are perceived and experienced in gig work. Social health is explored in four qualitative data sets and six quantitative data sets, showing that both methodological approaches are used to examine this aspect of gig workers experience. It is important to note that sum scores cannot be calculated from this table, as multiple types of health and different data sources may be analyzed within a single study. This reflects the complexity of health-related research in gig work, where different dimensions of health and data sets often overlap and are explored simultaneously.

Table 1. Key themes from empirical research on health and gig work

Themes	Description	Example Topics	Methods used	
			Qualitative	Quantitative
1. Psychological Health	Mental or psychological health referring to an individual's affective experiences and behaviour	<ul style="list-style-type: none"> <li>- Psychological/ mental well-being (Berger et al., 2020b; Li et al., 2023; Švagan, 2023)</li> <li>- Experience of Stress (Mäntymäki et al., 2019; Mbare, 2023)</li> <li>- Technostress (Cram et al., 2022)</li> <li>- Quality of Life (Crayne &amp; Brawley Newlin, 2023)</li> <li>- Mental health status (Lu et al., 2023)</li> <li>- Unhappiness, feeling depressed, being constantly under strain (Apouey &amp; Stabile, 2022)</li> <li>- Cognitive Load (Nilsen et al. (2022)</li> </ul>	n = 6	n = 9
2. Physical Health	Physical health referring to an individual's experienced symptoms, physical functioning and disability	<ul style="list-style-type: none"> <li>- Fatigue/ Tiredness (Christie &amp; Ward, 2019; Li et al., 2023; Mbare, 2023)</li> <li>- physical harm/problems (Arcidiacono &amp; Piccitto, 2023; Li et al., 2023; Lu et al., 2023; Nilsen et al., 2022; Švagan, 2023)</li> <li>- physical injuries from accidents (Christie &amp; Ward, 2019; Gregory, 2020)</li> <li>- physical exertion and fitness opportunities (Li et al., 2023; Švagan, 2023)</li> </ul>	n = 7	n = 2
3. Social Health	Social health referring to interpersonal relations	<ul style="list-style-type: none"> <li>- Work-family conflict (Glavin et al., 2024)</li> <li>- Work-life balance (Švagan, 2023)</li> <li>- Loneliness (Lu et al., 2023)</li> </ul>	n = 4	n = 7

		<ul style="list-style-type: none"> <li>- Alienation (Arcidiacono &amp; Piccitto, 2023; Cameron, 2022)</li> <li>- Social well-being (Li et al., 2023; Lu et al., 2023; Švagan, 2023)</li> </ul>		
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Note. Sometimes different types of health are analyzed in one study. Therefore, it is not possible to calculate sum scores in this table.

Figure 2 shows the different types of gig work addressed in the different studies. The research on health issues among gig workers shows varying attention across work locations—online, location-based, and mixed environments. For online gig workers, the focus is limited, with only one study on psychological health, one study on physical health and two studies on social health. In contrast, location-based gig workers receive more attention across all health domains, with six studies each on psychological, physical, and social health. The mixed category (covering both online and location-based work environments) includes two studies on psychological health, three on physical health and two on social health. Summarizing, while there is a focus on location-based gig work, online gig work remains less explored, particularly in terms of psychological and physical health.

Figure 2. Types of gig work and research on health

Online vs. Location-based Gig Worker		
Online	Location-based	Mixed
Psychological health: 1 Physical health: 1 Social health: 2	Psychological health: 8 Physical health: 6 Social health: 6	Psychological health: 3 Physical health: 2 Social health: 3

Skill Level Gig Worker		
High Skilled	Low / Medium Skilled	Mixed
Psychological health: 2 Physical health: 0 Social health: 2	Psychological health: 8 Physical health: 6 Social health: 7	Psychological health: 2 Physical health: 3 Social health: 2

Note. Sometimes different types of health are analyzed in one study. Therefore, it is not possible to calculate sum scores in this figure. Furthermore low-skilled online gig work was not a focus of this study.

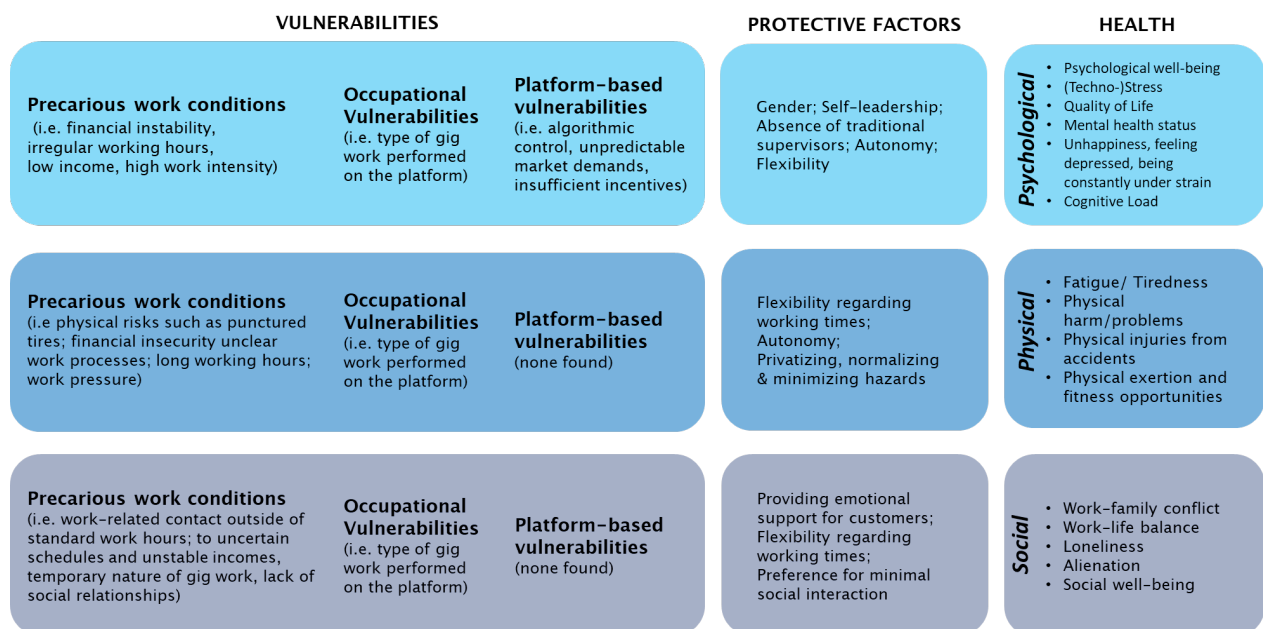
Figure 2 also shows the distribution of studies on health issues among gig workers of different skill levels: high-skilled, low-skilled, and mixed-skilled. High-skilled gig workers have the least research coverage, with only two studies each on psychological health and social health, and no studies on physical health. Research on low-skilled gig workers is the most comprehensive, with a strong focus on social health (seven studies), followed closely by psychological and physical health (six studies each). Mixed-skilled gig workers receive a more balanced level of attention, with two studies each on psychological and social health and three studies on physical health. This distribution highlights a research gap in understanding the different dimensions of health of high-skilled gig workers.

## 4.1. Vulnerabilities and Psychological Health

Figure 3 provides an overview of vulnerabilities, protective factors and health in gig work. In the following, we will zoom in on psychological health in gig work. Precarious working conditions (i.e. financial instability, irregular working hours, low income, high work intensity), occupational vulnerabilities (i.e. type of gig work) and platform-based vulnerabilities (i.e. algorithmic control, unpredictable market demands, insufficient incentives) impact the psychological health of gig workers (See Figure 3).

First, regarding precarious working conditions, the literature points to financial instability and irregular working hours, as factors associated with psychological health outcomes. Mbare (2023) interviewed food delivery workers in Helsinki. Participants reported that precarious work conditions such as low income, job insecurity, lack of social protection, irregular working hours lead to the experience of stress (Mbare, 2023). Having a low income was particularly relevant for experienced stress as it forced couriers to seek additional jobs resulting in longer working hours and a higher work intensity.

Figure 3. Overview of vulnerabilities, protective factors and health in gig work.



Second, regarding occupational vulnerabilities, Nilsen et al. (2022) conducted 35 interviews with online gig workers (i.e. Information and Communication Technology, ICT workers) and location based workers (i.e. couriers), highlighting the differences in cognitive load (i.e., demand due to the need to filter through large amounts of information). Gig workers working as couriers reported experiencing low cognitive load, as their work primarily requires them to “follow the app”. In contrast, online gig workers working as ICT professionals reported experiencing high cognitive load, as their work requires them to use specialized skills for client solutions and managing their businesses. Mbare (2023) sheds light on the challenges faced by location-based gig workers, particularly highlighting their experiences with verbal abuse and racial discrimination in the neighborhoods where they work. Furthermore, a quantitative study, Berger et al. (2020b) examined the subjective well-being of Uber drivers in London.

Despite being at the lower end of the city's income distribution, Uber drivers reported higher levels of life satisfaction compared to traditionally employed individuals.

Third, regarding platform-related vulnerabilities, the literature points to algorithmic control, unpredictable market demands, and insufficient incentives, as factors associated with psychological health outcomes. Li et al. (2023) used semi-structured interviews and daily diaries to assess the psychological well-being (i.e., autonomy; self-acceptance, personal development, environmental mastery,) of food delivery workers, Uber drivers and event freelancers during the Covid-19 pandemic. The study found that some workers perceived greater autonomy and opportunities for personal growth on the platforms, benefiting from the flexibility and skill development offered by gig work. Conversely, other workers felt constrained by unpredictable market demands, such as unstable number of gigs, which reduced their sense of control and negatively affected their mental well-being. Cram et al. (2022) quantitatively examined the impact of algorithmic control on Uber drivers' experiences with technostress defined as stress that is experienced by workers due to an inability to cope with technology demands. The study distinguished two types of algorithmic control: gatekeeping (which controls access to work) and guiding (which directs task execution). Both are positively linked to challenge techno-stressors (viewed as motivators) and threat-techno stressors (viewed as obstacles). Additionally, when algorithms are more transparent, the stress caused by gatekeeping control is reduced. In addition, Mbare (2023) has shown that high levels of algorithmic control were experienced by food delivery workers as frustrating and stressful, undermining their psychological health.

### **Protective Factors and Psychological Health**

Several protective factors such as the absence of a traditional supervisor, autonomy, flexibility and a workers' gender (i.e. with men reporting better psychological health) have been reported in the literature to protect psychological health (see for an overview Figure 3). Švagan (2023) conducted semi-structured interviews with food delivery workers in Slovenia, who reported predominantly positive psychological well-being outcomes (e.g., autonomy and flexibility as empowering). The absence of traditional supervision, which many workers associated with stress in previous jobs, was perceived as a benefit of gig work. In addition, the freedom to work independently was seen as a source of relief, contributing to a sense of control, satisfaction, and reduced stress. Additionally, Mäntimäki (2019) adds onto this, by conducting a qualitative study on ride share drivers, focusing on work-related stress and pressure management. The findings revealed that drivers valued the autonomy of gig work, particularly noting the absence of a traditional boss. Crayne and Brawley Newlin (2023) found that self-leadership (i.e. degree to which an individual perceives or takes control over the structure and incentives of work) helped gig work drivers to increase their well-being.

Lu et al. (2023) examined quantitatively the impact of gig work during the COVID-19 pandemic, with a specific focus on gender differences. Their analysis of transitions into gig work during the pandemic revealed that men who moved from unemployment to gig work experienced improved psychological health, mainly due to financial stability and reduced social isolation. However, women did not experience the same psychological benefits. However, both men and women in gig work reported worse psychological health outcomes compared to those who transitioned into traditional employment. These findings suggest that while gig work can offer certain psychological advantages for men, it may



not provide advantages for women. Finally, Cram et al. (2022) suggest that algorithmic control (which directs task execution) can act as a protective factor by motivating workers to enhance their skills and effectiveness (see Section 4.2 for its detrimental effects). The authors argue that features like algorithmic control, which offers a real-time view of performance, provide workers with valuable feedback, and encourages improvement. This view positions certain technological demands not just as stressors, but as opportunities for professional growth and motivation.

## 4.2. Vulnerabilities and Physical Health

Physical health is affected by precarious working conditions (i.e. physical risks such as punctured tires; financial insecurity unclear work processes; long working hours; work pressure) and occupational vulnerabilities (i.e. the type of gig work performed on the platform) (see Figure 3 for an overview). First, regarding precarious work conditions, research highlights physical risks such as punctured tires, long working hours, and work pressure. For instance, Gregory (2020) interviewed food delivery workers, identifying several risks such as physical harm, financial insecurity, and risks stemming from unclear work processes, due to the algorithm that structures their personal work allocation. Specifically, road accidents contributed to high levels of stress and anxiety among couriers. This also highlights the link between physical and psychological health. Additionally, the visibility associated with branded uniforms made couriers targets for harassment and hostility from other road users.

Mbare (2023) highlights several physical risks faced by food delivery workers. The study notes the frequently reported fatigue due to tasks such as climbing stairs, cycling for extended hours and punctured tires. Christie and Ward (2019) provide further insight into the pressures on parcel couriers. Their mixed-methods study depicts that tiredness was a critical issue affecting physical health. They highlight the work pressure and demanding nature of parcel delivery gig workers, leading to fatigue and reliance on stimulants like caffeine. Couriers frequently worked long hours, sometimes violating commercial driver regulations, and reported numerous collisions and close calls. Furthermore, 42 percent of the respondents report vehicle damage due to collisions, and ten percent experience injuries, primarily involving themselves.

Second, regarding occupational vulnerabilities, Nilsen et al. (2022) conducted 35 interviews with online gig workers (i.e. ICT workers) and location-based workers (i.e. couriers), highlighting the differences in physical risks (i.e. physical hazards and physical conditions under which work is performed) depending on the type of gig work. Couriers face various physical risks, including exposure to air pollution, harsh weather, and injuries from cycling and carrying heavy loads, whereas IT workers, who work from home with more autonomy in selecting clients and projects, reported no physical health risks (Nilsen et al., 2022). Similarly, Arcidiacono and Piccitto (2023) conducted interviews with managers, founders, and workers from various platforms, revealing differences in health and safety concerns between online and location-based gig work. For online gig workers, there was limited awareness of health risks like prolonged monitor exposure; instead, concerns focused on privacy protection and datafication risks. In contrast, health and safety risks were more prominent among location-based workers.



Third, regarding platform-related vulnerabilities, we did not find any studies examining the impact of platform-based vulnerabilities on physical health.

### **Protective Factors and Physical Health**

Li et al. (2023) illustrate the dual impact of flexibility regarding working times and autonomy in gig work. For some workers, the autonomy and flexibility associated with gig work provided opportunities to integrate physical exercise into their routines, benefiting their health. However, for others, the insecure and on-demand nature of gig work led to unpredictable and unbalanced workloads, with extended working hours and experiences of physical exhaustion and sleep deprivation. In addition, Nilsen et al. (2022) found that couriers adopted strategies to cope with physical and psychological stress, including relying on themselves to stay safe (i.e. privatizing), normalising investment costs as part of an ideal job (i.e. normalizing) and improving the material used for tasks (i.e. minimizing hazards), and building support networks.

## **4.3. Vulnerabilities and Social Health**

The social health among gig workers is shaped by precarious work conditions (e.g. work-related contact outside of standard work hours; uncertain schedules, unstable incomes and the temporary nature of gig work itself, lack of social connections) and occupational vulnerabilities (e.g. type of gig work performed on the platform) (see Figure 3 for an overview).

First, regarding precarious work conditions, Glavin et al. (2024) found that gig workers experience more work-family conflict compared to traditional employees and self-employed individuals. This conflict is especially pronounced for those who depend primarily on gig work, partly due to increased work-related contact outside of standard work hours. In contrast, Mäntimäki (2019) explored work-life balance among ride-share drivers, particularly focusing on individuals facing challenging life circumstances, such as single mothers and those caring for sick spouses. The study found that the flexibility of gig work enabled these drivers to maintain employment even in demanding personal situations.

Furthermore, Li et al. (2023) qualitatively explored gig workers' perceptions of social well-being in relation to their families, friends, and colleagues. The data revealed that the on-demand nature of gig work posed challenges for some participants, particularly due to uncertain schedules and unstable incomes, which hindered their ability to maintain social connections with friends and family. However, others reported benefits, such as having more free time to engage in social activities or making new friends through the time flexibility in various gig jobs. Additionally, some participants found it difficult to integrate and feel accepted in their workplaces because of the temporary nature of gig work. Similarly, Caza et al. (2022) found difficulties for gig workers concerning isolation and the ongoing need for self-promotion at work, suggesting that the struggle to build and sustain social and professional networks may cause stress.

Second, concerning occupational vulnerabilities, Arcidiacono and Piccitto (2023) report that both location-based and online gig workers expressed dissatisfaction with the lack of social connections with other workers, frequently describing their experiences as “alienation” from social relationships. Similarly, Glavin et al. (2021) analyzed data from two national Canadian surveys, revealing that gig

workers report higher levels of loneliness compared to non-gig workers. A pattern not fully explained by financial strain. Further analysis shows that rideshare driving is more strongly linked to powerlessness and isolation than online gig work.

Despite these insights, there is a gap in the literature regarding specific platform-based vulnerabilities – such as low transparency of information and high levels of surveillance – and their effects on social health among gig workers.

### **Protective Factors and Social Health**

Despite the vulnerabilities associated with gig work, some studies highlight potential protective factors in relation to social health and well-being (e.g. providing emotional support for the customers; flexibility regarding working times, preference for minimal social interaction). Cameron (2022) explored how gig work drivers create their own strategies for connecting with customers through the provision of emotional support for their customers. Through the interactions, they not only built personal relationships but also developed professional contacts, such as finding contacts for various services (e.g., termite inspector, babysitter, book agent).

A qualitative study by Švagan (2023) found that gig workers perceived gig work as offering a better work-life balance than traditional employment, especially if they were enrolled in a study program or had family commitments. However, several gig workers acknowledged that they had to adjust their schedules to work at times of high demand to be profitable. The interviews also revealed different preferences for social interaction, with some workers actively seeking to connect with peers through social media or during breaks, while others valued the job for its lack of social contact. This preference for minimal social interaction was particularly evident among those who use food delivery to supplement their income, as they already have established social networks in their main jobs.

## **4.4. Grey Literature & Reports**

The ILO assessed gig workers' health through surveys conducted in 2019 and 2020, encompassing about 5,000 workers on platforms across nine (2019) and eleven (2020) countries. The proportion of respondents reporting poor or very poor health varied across countries. Approximately 2% of online gig workers reported having poor or very poor health. Among ride share drivers, the reported range of health concerns was 0% to 4%, while for delivery workers, it ranged from 0% to 2%, depending on the country. (ILO, 2021). However, these findings may be influenced by the healthy worker effect, as individuals with significant health impairments may be less likely to engage in gig work, leading to an underestimation of health-related challenges within the sector.

Expanding on the health status of gig workers, Bérastégui (2021) offers a summary of the literature concerning risks in gig work according to three dimensions: First, physical and social isolation can blur the boundaries between work and personal life, making it challenging for individuals to establish a consistent professional identity. Second, algorithmic management and digital surveillance contribute to a high-paced work environment and exacerbate power imbalances, limiting workers' ability to express concerns. Third, the transient nature of gig work fosters job insecurity, pushing workers to perform emotional labor to maintain employability in a boundaryless career landscape.

Banks (2019) argues that the compounded risks to health and safety in the grey literature on gig work underscores the need for innovative policy interventions. For instance, interdisciplinary policy interventions could improve gig workers' basic needs by redesigning work, creating support systems, and implementing protections like employer-funded compensation and better apps. In this regard it has to be noted, that in April 2024, the European Parliament approved such new regulations aimed at enhancing the working conditions of gig economy workers (Parliament, 2024). The EU Platform Workers Directive seeks to address the misclassification of workers as self-employed, ensuring that they receive the employment rights to which they are entitled. The directive introduces measures to enhance transparency and regulate the role of algorithms and data in decision-making processes that affect platform workers. A key provision prohibits the termination of workers based solely on algorithmic or automated decision-making, mandating human oversight in decisions impacting working conditions. Furthermore, the directive restricts platforms from processing certain categories of personal data, such as private communications and personal beliefs. Additionally, platforms are required to disclose the use of algorithms in decisions related to employment terms, working conditions, and remuneration.

In sum, the grey literature and reports point to a critical need for comprehensive, interdisciplinary policy approaches that account for both regional disparities and the unique characteristics of gig work, underscoring the need for innovative, multi-level solutions.

## 5. Moving forward: Fields of Action

Building on Bajwa et al.'s (2018) framework of vulnerabilities—precarious working conditions, occupational vulnerabilities, and platform-based vulnerabilities this systematic literature review synthesizes findings on how different characteristics (i.e., vulnerabilities, protective factors) of gig work impact gig workers' physical, psychological, and social health. Based on the findings of this review, we identified fields of actions for research and practice. In the following, we make recommendations for future research and for methodologies to monitor gig workers health. Further, we provide recommendations for practice to mitigate the negative health effects of gig work at the micro, meso, and macro levels.

### 5.1. Fields of Actions for Future Research

From a sample perspective, we find that most studies have primarily focused on low skilled location-based gig workers, particularly ride-share and food delivery drivers, which has left gaps in understanding other groups of gig workers such as high-skilled location-based gig workers (e.g., nurses, craftsmen), as well as high skilled online gig workers (e.g., designers, accountants). The experiences and health outcomes of different types of gig workers may vary and therefore warrants further study.

From a conceptual perspective, while psychological health generally has received considerable attention in research, there is room for more in-depth exploration of social health and physical health outcomes. For example, research on how the precarity of gig work and platform-mediated management (e.g., algorithmic control and rating systems) exacerbates conditions like work-family conflict (resp. social health) and physical injuries (resp. physical health), is still limited and warrants further study. But also, examining more psychological health outcomes such as depression and burnout would further contribute to a better understanding of health impacts of gig work.

From a measurement perspective, the operationalization of key constructs also presents challenges in the current research. Studies have employed varying measurements of health outcomes and working conditions, making it difficult to compare findings across different studies. Standardizing these constructs would improve the consistency and comparability of future research and provide clearer insights into the health impacts of gig work. Table 2 presents the vulnerabilities, protective factors, and health outcomes associated with gig work, along with the measurement scales we propose for assessing these constructs. These scales are commonly used in existing psychological research to evaluate similar aspects in the workplace. Incorporating these scales in future studies could help address gaps in the literature, enhancing our understanding of the health challenges faced by gig workers.

Table 2. Overview of Constructs with Measurement Scales

Vulnerabilities	Protective Factors	Health
<b>Precarious Work Conditions</b> <ul style="list-style-type: none"> <li>- Subscale Viability Challenges; Gig Work Challenges (Caza et al., 2022)</li> <li>- Career Insecurity (Spurk et al., 2022)</li> </ul> <b>Occupational Vulnerabilities</b> <ul style="list-style-type: none"> <li>- Assessing type of gig work</li> </ul> <b>Platform-based vulnerabilities</b> <ul style="list-style-type: none"> <li>- Algorithmic control (Alizadeh et al., 2023)</li> </ul>	<ul style="list-style-type: none"> <li>- Self-Leadership Questionnaire (Houghton et al., 2012)</li> </ul>	<b>Psychological Health:</b> <ul style="list-style-type: none"> <li>- General Health Questionnaire (Dp, 1972)</li> <li>- Maslach Burnout Inventory (Maslach et al., 1997)</li> <li>- Technostress (Cram et al., 2022)</li> </ul>
<b>Precarious Work Conditions</b> <ul style="list-style-type: none"> <li>- Physical Risks at Work: European Working Conditions Surveys (EWCS, 2024); Swiss Health Survey (SHS)</li> <li>- Subscale Organizational Challenges; Gig Work Challenges (Caza et al., 2022)</li> </ul> <b>Occupational Vulnerabilities</b> <ul style="list-style-type: none"> <li>- Assessing type of gig work</li> </ul> <b>Platform-based vulnerabilities</b> <ul style="list-style-type: none"> <li>- (none included)</li> </ul>	<ul style="list-style-type: none"> <li>- Work Design Questionnaire (WDQ) (Morgeson &amp; Humphrey, 2006)</li> </ul>	<b>Physical Health:</b> <ul style="list-style-type: none"> <li>- Physical Health Questionnaire (PHQ-short) (Schat et al., 2005)</li> </ul>
<b>Precarious Work Conditions</b> <ul style="list-style-type: none"> <li>- Subscale Relational challenges &amp; Subscale Organizational Challenges; Gig Work Challenges (Caza et al., 2022)</li> </ul> <b>Occupational Vulnerabilities</b> <ul style="list-style-type: none"> <li>- Assessing type of gig work</li> </ul> <b>Platform-based vulnerabilities</b> <ul style="list-style-type: none"> <li>- (none included)</li> </ul>	<ul style="list-style-type: none"> <li>- Availability of flextime, Availability of working from home and availability of telework from other locations (Prem et al., 2021)</li> </ul>	<b>Social Health:</b> <ul style="list-style-type: none"> <li>- Work–Family Conflict Scale (WFCS) (Carlson et al., 2000)</li> <li>- Work–Family Enrichment Scale (WFES) (Carlson et al., 2006)</li> <li>- Work Alienation (Nair &amp; Vohra, 2009)</li> </ul>

From a methodological perspective, while qualitative studies have provided valuable initial insights into the experiences of gig workers, they have generally lacked theoretical grounding, particularly in relation to the mechanisms through which health outcomes arise in gig work arrangements. Frameworks that propose the underlying mechanisms of gig work on health outcomes are missing. For example, research on social health has primarily focused on isolation and loneliness among gig workers, but little is known about the potential of protective factors such as social networks or communities that could mitigate these effects. Future studies could explore how digital communities or co-working spaces might serve as sources of social support, helping gig workers combat isolation and improve their overall social well-being.

In addition, the current research often treats psychological, physical, and social health as separate categories, but these dimensions may overlap and interact. For example, the connection between psychological stress and physical health outcomes like chronic pain or fatigue in gig workers remains largely unexplored. Future research should adopt a more holistic approach, examining the interdependencies among different health dimensions to gain a fuller picture of gig workers' health and

well-being. In the next step, quantitative studies should test these frameworks, exploring the relationships between stressors, resources, and health outcomes. Such studies should also consider the diverse types of gig work, as different forms of gig work may involve different health risks and protective factors. Further we argue, there is a noticeable lack of quantitative studies addressing the effect of risks on all three dimensions of health in gig work. While qualitative insights highlight risks such as long working hours, poor ergonomics, and insufficient occupational health support, more large-scale, empirical research is needed to quantify these risks and understand their prevalence. Additionally, longitudinal studies could provide insights into how various risks impact the health of gig workers over time.

## 5.2. Fields of Actions for Practice

Despite the limited empirical data currently available, we can still propose some field of actions for practice based on existing insights. Our recommendations are structured across three levels to address key stakeholders in the gig economy. Micro-level recommendations focus on what gig workers can do to enhance their health, meso-level recommendations target platforms and the macro-level recommendations are directed at regulatory bodies such as government agencies and global organizations. Additionally, these recommendations are categorized by the different health dimensions—psychological, physical, and social health.

### Psychological Health

#### Micro- level – gig worker

- Development of individual strategies for coping with negative psychological side effects (e.g. developing self-care routines, active individual stress management) (Mäntymäki et al., 2019; Mbare, 2023).

#### Meso-level – online labor platforms

- To reduce negative forms of technostress (resp. obstacles) platforms could implement greater transparency in their algorithms, as highlighted by Cram et al. (2022). Additionally, providing clear and understandable criteria for task assignment and work monitoring could be essential to support worker psychological well-being.
- Limiting supervision and increasing employee autonomy—such as through flexible work hours and choice of assignments—could enhance workers' psychological well-being and reduce stress (Li et al., 2023). Platforms could prioritize these measures to support a healthier, work environment for gig workers.
- To protect workers from experiences of verbal abuse and racial discrimination, as highlighted by Mbare (2023), platforms could protect workers by for example empowering workers to report abuse to the platform. Further, through reverse ratings (workers rate clients) platforms could promote accountability by clients, encourage respectful interactions, and empower workers to address and report inappropriate or challenging customer behavior.

- Financial instability and irregular working hours contribute to stress and poor psychological health among gig workers (Crayne & Brawley Newlin, 2023; Mbare 2023). Measures such as offering a minimum guaranteed hourly rate or saving plans could help reduce financial strain and improve gig workers psychological well-being. Irregular working could be mitigated by platforms implementing more consistent task allocation systems and offering options for predictable work schedules.

#### Macro-level – regulatory bodies

- Furthermore, to protect workers from verbal abuse and racial discrimination, as reported in workplace experiences (Mbare, 2023), establishing an independent ombuds office is recommended. This office would provide social and legal support and resources for gig workers facing harassment or discrimination, ensuring a more inclusive working environment.
- Algorithmic control has been shown to increase stress among platform workers (Cram et al., 2022; Mbare, 2023). Implementing regulatory limits on platform surveillance and promoting worker autonomy may help reduce feelings of powerlessness and potentially improve psychological well-being.

### Physical Health

#### Micro- level – gig worker

- Encourage gig workers to develop individual strategies for mitigating negative physical side effects, such as establishing better sleep and health routines (Christie & Ward, 2019). Online interventions and mobile applications could serve as valuable tools in this regard, providing tailored guidance, reminders, and resources to support gig workers in managing their physical health more effectively.

#### Meso-level – online labor platforms

- Platforms could also help gig workers mitigate physical side effects by offering integrated tools on their online platforms, such as mobile apps and online interventions, to promote better sleep and health routines.
- Occupational vulnerabilities expose gig workers to physical risks such as accidents, fatigue, and injury (Nilsen et al., 2022; Gregory, 2021). Platforms could adjust algorithms and performance ratings to minimize accident risks—for example, ensuring that delays or non-responses are not penalized—while also providing adequate protection (health and legal) and support for workers in the event of work-related injuries
- Online high-skilled gig workers often have limited awareness of health risks related to prolonged monitor exposure, with greater concerns around privacy and datafication risks (Arcidiacono & Piccitto, 2023). Platforms could address health concerns by offering online training sessions that promote healthier work environments, covering topics such as posture, lighting, and screen time management. Platforms could address privacy concerns by offering a help desk that informs on these risks and assists in case of emergency.

- Extended working hours, work-related contacts outside of office hours, and high work pressure lead to physical exhaustion and adverse health effects (Christie & Ward, 2019; Mbare, 2023). Platforms should follow legal regulations regarding rest periods and maximum working hours to protect gig workers' health and well-being.

#### Macro-level – regulatory bodies

- Introducing quality certifications for platforms to ensure adherence to minimum standards could protect gig workers from work-related injuries. This includes extended social security benefits, such as paid recovery time to alleviate financial strain after injury. Additionally, rigorous monitoring of legal regulations regarding rest periods and maximum working hours, especially for workers with multiple jobs, could be essential to safeguard their health and well-being.

### Social Health

#### Micro- level – gig worker

- Encourage gig workers to develop individual strategies for mitigating negative social side effects (Cameron, 2022), such as participating in networking events and building social connections.

#### Meso-level – online labor platforms

- To address social isolation and loneliness among gig workers (Arcidiacono & Piccitto, 2023; Glavin et al., 2021), platforms could facilitate opportunities for interaction. This can include virtual meetups, social media groups, or in-person events, providing workers with a sense of community and support.
- Gig workers also lack professional networks (Caza et al., 2022). Platforms could establish mentorship programs or peer-exchange groups to help workers navigate the challenges of gig work, establishing networks and contributing to better social and psychological health.
- Providing workers opportunities to engage in job crafting (i.e. creating space and time for them to develop their own strategies for engaging with customers.), as illustrated in the case of gig work drivers (Cameron, 2022), may enhance their social and psychological health.

### Broader Recommendations

- The quality of data on gig work could be enhanced to improve research accuracy and facilitate effective monitoring (see under future research). Higher data quality could support better insights into platform work dynamics and worker well-being, enabling more informed policy and decision-making.
- Although gig workers operate independently, they all work for the same platform. Therefore, ensuring freedom of association and assembly, the right to form trade unions, and the ability to negotiate wages and working conditions—either within the platform or at a sectoral level—should be considered a key area of action (e.g. Cianferoni et al., 2022). Integrating labor unions into policy development and stakeholder discussions can play a crucial role in representing gig workers' interests and concerns. Their active involvement can help advocate for fair working



conditions, social protection measures, and collective bargaining rights, ultimately contributing to a more equitable and sustainable gig economy.

- The unique characteristics of various work models, such as gig work, could be integrated into vocational education and training programs at national employment agencies. This could ensure that workers are better prepared to navigate the specific challenges and opportunities associated with these emerging employment structures.
- Furthermore, clients/ organizations could also ensure fair compensation and timely payments, promote transparent communication and ethical work practices. Additionally, clients can play an active role in advocating for policy improvements that support fair labor conditions and social protections for gig workers.

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## Appendix 1: Evaluation of Platform Strategies in Supporting Gig Workers' Health

We assessed OLPs operating in Germany and Switzerland concerning worker health and safety. The assessment was guided by the Fair Work framework developed by the Oxford Internet Institute (Fair Work Annual Report, 2022). We particularly zoomed in on the second principle concerning fair work conditions. This principle emphasizes that platforms should implement policies to protect workers from fundamental risks associated with work processes. Additionally, they should take proactive steps to safeguard and promote workers' health and safety. To extend the assessment beyond the established Fair Work framework, additional dimensions addressing financial risks and social support was incorporated into the analysis. The criteria for evaluation were as follows:

- **Health and Safety:** The extent to which platforms provide adequate equipment and training to mitigate task-specific risks, ensuring that these measures are implemented without additional financial burden on workers.
- **Social Support:** The degree to which platforms address risks associated with working alone by offering structured support mechanisms and implementing processes that prioritize occupational safety and health.
- **Financial Risks:** The availability of insurance coverage for potential damages, aimed at minimizing financial vulnerabilities faced by workers.

### Location-Based Gig Work Platforms

1. **Helping (Germany) – low skilled gig work:** Helping connects cleaning professionals with clients
  - **Health and Safety:** There is no publicly available information indicating that Helping provides specific health and safety training or equipment to its workers.
  - **Social Support:** The platform does not appear to have structured support systems in place to address the risks associated with working alone.
  - **Financial Risks:** Helping offers basic liability insurance covering damages exceeding €500. However, damages below this threshold require resolution between the cleaner and the client, potentially exposing workers to financial liabilities.
2. **Pflegix (Germany)- high skilled gig work:** Pflegix specializes in connecting caregivers with clients.
  - **Health and Safety:** Workers receive free work attire, which may contribute to health and safety.
  - **Social Support:** There is no specific information on measures addressing the risks of working alone.
  - **Financial Risks:** Pflegix provides liability insurance with coverage up to €3 million, significantly reducing financial risks related to damages.
3. **Just Eat (Switzerland) – low-skilled gig work:** Just Eat is a food delivery platform.

- **Health and Safety:** Just Eat provides its workers with free equipment necessary for deliveries. However, there is no publicly available information indicating that the platform offers specific health promotion initiatives or measures to address task-specific risks.
- **Social Support:** The platform offers on-demand support, providing a (limited) safety net for workers operating alone.
- **Financial Risks:** There is no information suggesting that Just Eat offers insurance for potential damages or initiatives to ensure income stability, leaving workers potentially exposed to financial uncertainties.

4. **Careanesth (Switzerland) – high skilled gig work:** Careanesth is a personnel service provider and gig work platform in the Swiss healthcare sector, specialising in the placement of nursing staff.

- **Health and Safety:** Through the collective labor agreement (GAV), employees contribute 0.7% and employers 0.3% of the total salary to the Temptraining continuing education fund. This provides employees with generous benefits for further training. However, there are no specific health promotion programs in place. However, there are no specific health promotion programs mentioned.
- **Social Support:** There is no specific information on measures addressing the risks of working alone.
- **Financial Risks:** Comprehensive social insurance and sick leave compensation can't mitigate financial risks.

5. **Coople (Switzerland) mix of low-skilled and high-skilled gig work:** Coople is a platform for temporary work that connects workers with organizations.

- **Health and Safety:** Coople provides mandatory SUVA occupational accident insurance covering workplace incidents and commutes. Workers receive free protective equipment and mandatory safety instructions, demonstrating a strong emphasis on health and safety.
- **Social Support:** While the platform does not explicitly address risks associated with lone working, it supports professional development and financial stability, which can reduce stress associated with isolation.
- **Financial Risks:** Coople mitigates financial risks through subsidized training programs worth up to CHF 5,000 and compensation for lost wages up to CHF 2,250. These initiatives promote both immediate and long-term financial stability.

### Online Gig Work Platform

- **Upwork and Fiverr (Global) – low-skilled and high-skilled gig work:** Upwork and Fiverr are global freelancing platforms that connect clients with freelancers in various fields, including design, writing, and programming.

- Health and Safety: Upwork and Fiverr do not provide health and safety measures, such as task-specific training or equipment.
- Social Support: Both platforms offer digital training opportunities, including free courses on freelancing essentials, to support skill development and career optimization.
- Financial Risks: Neither platform offers insurance or financial protections, leaving freelancers to manage potential financial risks.