



## Miscellaneous

# What should we know about precarious employment and health in 2025? framing the agenda for the next decade of research

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## Abstract

The generalization of flexible labour markets, the declining influence of unions and the degradation of social protection has led to the emergence of new forms of employment at the expense of the Standard Employment Relationship, as well as a considerable amount of research across social and scientific disciplines. Years ago we suggested the urgent need to disentangle the consequences of new types of employment for the health and well-being of workers, contending that the study of precarious employment and health is in its infancy. Today, research challenges include clearer, more precise definitions of the original concepts, a more detailed understanding of the pathways and mechanisms through which precarious employment harms worker health, stronger information systems for monitoring the problem and a complex systems approach to employment conditions and health research. All of these must be guided by the theoretical and policy debates linking precarious employment and health, and be geared towards developing better tools for the design, implementation and evaluation of policies intended to minimize precariousness in the labour market and its effects on public health and health inequalities. Our aim in this paper is to outline an agenda for the next decade of research on precarious employment and health, establishing a compelling programme that expands our understanding of complex causes and links.

**Key words:** Precarious employment, social determinants of health, social epidemiology, occupational health, employment conditions, working conditions, health inequalities

**Key Messages**

- Precarious employment is an emerging social determinant that affects the health of workers and their families. Yet its study remains in its infancy.
- Research tasks to be developed include more precise definitions, a detailed understanding of the pathways and mechanisms (how and why precariousness might affect health), stronger information systems and better tools for the design, implementation and evaluation of policies.
- We propose an agenda for the next decade of research, establishing a compelling programme that expands our understanding of health-related employment precariousness and the evaluation of policy programmes.

**Introduction**

Since the 1970s, technological change and the increased international mobility of workers and capital have transformed employment conditions in wealthy countries. The generalization of flexible labour markets, the declining influence of unions and the degradation of social protection led to the emergence of new forms of employment at the expense of the Standard Employment Relationship.<sup>1,2</sup> Though there are currently no single indicators that adequately capture the full extent of employment precariousness, there is empirical evidence that points to its increasing presence. Between 2004 and 2010, an increase in job insecurity was observed, especially in liberal Anglo-Saxon countries and in the southern and eastern European countries.<sup>3</sup> In Spain, a country that underwent flexibility-prone labour market reforms early on, temporary employment grew rapidly and reached 30% of all salaried employment in a few years. Lately an additional, albeit very slight, increase in precarious employment (measured through the Employment Precariousness EPRES scale) has been observed between 2005 (48%) and 2010 (49%) among salaried workers, and it is reasonable to expect that recent labour market reforms and austerity policies in that country have amplified this tendency. As for the USA, Kalleberg (2009) points to a number of trends since the 1970s, including a decline in attachment to employers, increases in long-term unemployment, growth in perceived job insecurity, growth of non-standard work arrangements and contingent work, and increased risk-shifting from employers to employees, as evidence of the growth of precarious work.<sup>1</sup> As a result of this shifting landscape, a considerable amount of research across social and scientific disciplines has begun to focus on the problem of non-standard work arrangements and precarious employment in particular.

For years, public health research has highlighted the proximal psychosocial work environment determinants of health.<sup>4-6</sup> Yet this approach addresses a small portion of a complex system involving labour markets, employment and working conditions, psychosocial environments and health.<sup>7,8</sup> At the turn of the century, we suggested that public health researchers must disentangle the consequences of new types of employment for the health and well-being of

workers and the wider population they support.<sup>9</sup> Some years later we also contended that the study of precarious employment and health was still in its infancy.<sup>10</sup> Although interesting scientific research has been conducted over the past 7 years, demonstrating a consistent association between precarious employment and several dimensions of health, a number of key tasks remain in order to take research on non-standard and precarious employment to the next level. These include clearer, more precise definitions of the original concepts (e.g. precarious employment), a more detailed understanding of the pathways and mechanisms through which non-standard employment harms worker health, stronger information systems and a complex systems approach to employment conditions.<sup>11,12</sup>

All of these must be guided by the theoretical and policy debates linking precarious employment and health<sup>8</sup> (e.g. flexicurity regimes, labour market protectionism, special economic zones and so on) and be geared towards developing better tools for the design, implementation and evaluation of policies intended to minimize precariousness in the labour market and its effects on public health in specific contexts. For instance, whether labour market flexibility may or not lead to precarious employment conditions is often debated, but there is suggestive evidence that ‘flexicurity’ labour markets generate flexible employment conditions that are less damaging to health.<sup>13</sup> The argument put forward by those in favour of flexible employment is that it reduces unemployment and that flexible employment does not have to be precarious if it is accompanied by strong social protection.<sup>14</sup> Yet success stories such as Denmark and The Netherlands in the 90s are generally hard to come by and attempts at ‘flexicurity’ labour markets often end up being just ‘flexible’, therefore creating precarious employment.<sup>15</sup>

With this in mind, our aim here is to outline an agenda for the next decade of research on precarious employment and health, establishing a compelling programme that expands our understanding of complex causes and links, and helps identify what groups are most affected by these policies and which are the most health-damaging dimensions of the problem.

## Clearer definitions, more refined multidimensional constructs

Though there is still little consensus on a working definition of the concept, several scholars have sketched out definitions of precariousness and the broader social environment it is embedded in. In *The New World of Work*, Ulrich Beck<sup>16</sup> situates precariousness as a key aspect of a broader trend towards a 'world risk society' characterized by a political economy of insecurity, wherein Western countries increasingly take on features associated with the informal economies of poorer countries. Meanwhile, Ross writes of precariousness as a 'disputed zone' between competing versions of flexibility in labour markets.<sup>17</sup> Guy Standing's 'precariat', characterized by chronic uncertainty and insecurity, is described as a 'class-in-the-making', still divided within itself but representing an alternative approach to precariousness as it focuses on the capacity of workers in precarious jobs to act collectively in their own interest (i.e. as a class). Moreover, Standing defines the 'precariat' in terms of demographic properties such as age and gender, and not only in terms of employment conditions.<sup>18</sup> In our own research<sup>19</sup> we understand precarious employment as a multi-dimensional construct encompassing dimensions of employment insecurity, individualized bargaining relations between workers and employers, low wages and economic deprivation, limited workplace rights and social protection, and powerlessness to exercise legally granted workplace rights.<sup>20</sup>

Many of the findings regarding the influence of precarious employment on health rely on one-dimensional measures such as perceptions of job insecurity or temporary contracts. These measures do not account for the various dimensions postulated above and thus provide limited insight into the influence of precariousness on worker's health.<sup>19</sup> As a result, recent approaches have addressed various dimensions of employment quality involved in the broader concept of precarious employment. These include the Pressures, Disorganization and Regulatory failure model (PDR-model) with three dimensions: economic and reward pressures that encompass sources of income insecurity; disorganization at the workplace, which refers to the extent to which occupational health and safety (OHS) practices and management are weakened by precarious employment arrangements; and regulatory failure, related to a weakening of labour standards and their enforcement.<sup>22</sup> Another example is the 'Employment Strain model', an adaptation of the popular demand/control model of job strain that refers to the stress produced by dealing with uncertainty and lacking control over diverse dimensions of the employment relationship while responding to the demand of constantly having to find new jobs and struggling to keep the current one.<sup>23</sup> Other approaches include using mutually exclusive

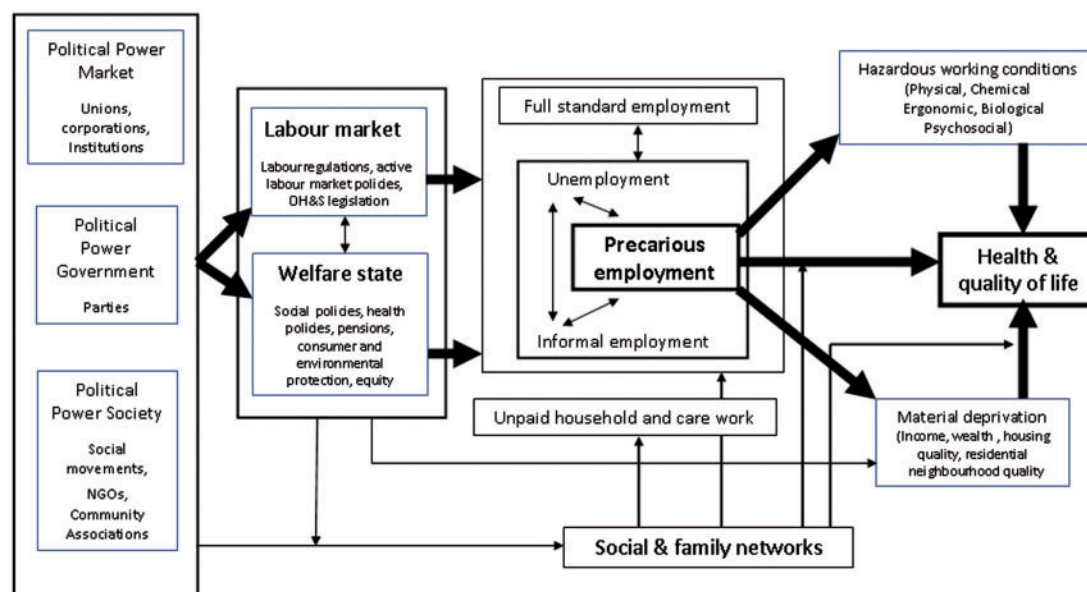
combinations between different legal types of contracts (e.g. permanent full-time, permanent part-time, casual full-time, casual part-time) and other multidimensional approaches related to Rodger's seminal multidimensional definition of precarious employment<sup>21</sup>—the first attempt at uncovering the various dimensions of precarious work, including the degree of certainty of continuing employment, control over work, regulatory and social protection and income level. Finally, our team's Employment Precariousness Scale (EPRES)<sup>24</sup> emphasizes the unequal power relations underlying employment relationships, overcoming the common limitations of one-dimensional indicators and yielding consistent moderate associations with self-perceived and mental health [odds ratios (ORs) between 2 and 3 for both men and women], with inequalities in the prevalence of employment precariousness across employee subgroups and stronger associations with increasing levels of precariousness.<sup>25,26</sup> Unfortunately, it has only been applied in a limited number of labour markets and countries.

At a broad level, multidimensional scales must be adapted to include the precarious forms of employment emerging from the historical peculiarities and social dynamics of different labour markets. Examples of these include the lack of workers' power to adopt stable schedules and tasks, in addition to involuntary part-time work, sole traders or own-account workers and informal workers. Absent a conceptual framework and operationalization that adequately captures all of these dimensions and forms of employment, it is simply not possible to convincingly measure the extent to which precarious employment exists, much less its impact on public health.

## Identifying pathways and mechanisms

To comprehend the conditions under which precarious employment arises, and how and why it may affect health, a number of research challenges must be met. One important step forward would be to produce theoretical models that capture the diversity of welfare and labour market regimes that exist within and between countries, as well as the links between employment conditions, health outcomes and other working and social conditions.

We recently proposed a model with several pathways potentially linking precarious employment to negative health outcomes and quality of life.<sup>19</sup> (Figure 1). In this, precarious workers experience higher exposures to detrimental physical and psychosocial working conditions, weaker occupational health and safety measures, and under-protection from social risks such as unemployment, incapacity and, later in life, retirement. This lack of social protection may create another leap towards material



**Figure 1.** Conceptual model linking precarious employment and health and quality of life (main potential pathways are shown; increasing arrow thickness indicates greater importance). Abbreviations: NGOs, nongovernmental organizations; OHS, occupational health and safety.\*

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deprivation and its associated health consequences. Research has found links between precarious employment, the ‘social precariousness’ related to absolute and relative social deprivation, and having precariously employed family members.<sup>27</sup> Multilevel extensions of structural equations modelling<sup>28</sup> may shed light on these pathways and mechanisms, while showing to what extent factors at the macro (e.g. macroeconomic policy, labour market and social protection), meso (employment and working conditions, organisational and psychosocial factors) and micro levels (family and personal characteristics) influence health.

### Novel indicators for more robust information systems

In the era of Big Data, even a rough estimate of the prevalence of precarious employment is missing from national social and health surveys. Most information systems collect data on a limited number of one-dimensional indicators such as the percentage of temporary contracts. The current lack of standardized definitions of precarious employment has important consequences for effective monitoring of its evolution within and across countries.

There is a need to include standardized indicators in cross-national surveys. The specificity of local labour markets, however, imposes the adaptation of some of these indicators

of precariousness, resulting in a variety of indicators within and across countries. Information systems must emphasize middle- and low-income countries and seek to overcome the difficulties inherent to cross-country comparisons, which arise from the variety of forms that precarious employment takes and the lack of available data. Employment arrangements must be understood as part of a progressive continuum from extreme forms of precariousness toward more secure forms of employment. Precarious employment is not necessarily restricted to specific groups of workers. Although evidence is limited, ‘precarisation’ is increasingly acknowledged to be affecting all groups of workers, including those in stable jobs.<sup>20–28</sup> Thus, it seems plausible that we should adopt Ross’s view and expand our focus to examine ‘employment precariousness’, not just ‘precarious employment’.<sup>17</sup>

Monitoring precarious employment and its impact on health is crucial to determining its prevalence, evolution and distribution in the population, and to identifying policy entry points. A case in point is the relationship between precarious employment, gender and health. Employment conditions tend to be gendered, with women carrying the largest burden of precarious employment. Although some studies suggest that precarious employment may damage women’s health more than men’s, our knowledge is currently rather limited.<sup>29</sup> Women suffer from several layers of labour market discrimination and are segregated into precarious forms of employment that are peripheral,

insecure, hazardous and low-paying.<sup>30</sup> Evidence suggest that countries with more egalitarian gender policies<sup>31</sup> also have less hazardous employment conditions,<sup>32</sup> which should lead to less gender inequalities in health. The implications extend beyond paid labour market work, affecting unpaid domestic work with potentially serious consequences for the mental health of workers and that of their families. In such cases, ameliorating the adverse effects of precarious employment through policy involves addressing both the links between precarious employment and the work-life balance.<sup>33</sup> Studying the gender dimension in its intersection with other key dimensions such as social class, educational attainment, migrant status, ethnicity, age and territory would further inform policy design by identifying at-risk populations. Doing so through a comparative approach would be particularly fruitful. With this in mind, initiatives such as the WORLD Policy Analysis Center's data<sup>34</sup> on adult labour and working conditions, child labour, gender and equal rights and discrimination in all United Nations member states, represent a useful and positive step forward.

### A transdisciplinary complex systems approach

Currently, research on precarious employment is often based on static approaches. Yet labour markets can be remarkably dynamic, and workers' employment trajectories vary considerably over time. This requires studies in which different precarious employment conditions are not considered in isolation from one another, but from an integrated, longitudinal perspective that enables analyses of the health impacts of different trajectories while accounting for interactions with spells of unemployment, informal employment etc. This would help elucidate the extent to which the potentially toxic effects of precarious employment conditions accumulate over time, whether they are persistent or transitory, and whether they are modified by changing contextual factors. For instance, precarious employment sustained over time may act as a chronic stressor, possibly affecting mental health more severely and over longer periods than short isolated exposures. Insight into this aspect will allow us to answer many key, unresolved questions. Is precarious employment a better option for workers' well-being than unemployment? If so, under what circumstances? Is financial instability the most crucial health-related aspect of precarious employment trajectories? If not, what are the critical factors? Currently, research indicates that precarious jobs are better tolerated by workers who have a supportive family to cover needs not met by their job. Does this hold when we account for age, gender, educational level, migrant status, ethnicity or

social class? Also, the interplay between precarious employment and unemployment may generate vicious cycles animated by causation and health selection. Both may be causes and consequences of poor health, and are thus causally linked to each other.

These complex relationships are difficult to unravel and require an understanding of employment trajectories that is not possible within a single discipline or a single methodological approach. Emphasis must be placed on the intersections between precarious employment and other social and employment conditions, including self-employment or own-account work, informal employment and unpaid work. Different theoretical perspectives, types of data and methodologies drawn from different disciplines are necessary to connect the different pieces of the puzzle. Thus, a longitudinal study with a transdisciplinary, mixed-methods approach would be the ideal research design for addressing these issues.

### Evaluating, implementing and designing effective policies

The ultimate goal of the proposed research agenda (Box 1) is not just to advance scholarship on precarious employment and health but to effectively implement, evaluate and design policies oriented towards reducing health inequalities. To achieve better employment conditions and reduce precariousness, public policies require active engagement from policy makers, workers and community organizations in the

#### Box 1. Research agenda recommendations

- Research on precarious employment and health must be guided by theoretical models that capture its multiple dimensions and the diversity of welfare and labour market regimes, as well as the linkages between health and employment conditions, working and other social conditions.
- There is a great need to include standardized multi-dimensional indicators of precarious employment in health surveys and other systems of information, to determine its prevalence, evolution and distribution in all countries and labour markets.
- Precarious employment must be studied as a complex integrated phenomenon by analysing employment trajectories and dynamic intersections with other social and employment conditions, including workers in stable jobs.
- Research should monitor, analyse and evaluate policies and interventions aiming to reduce precarious employment, its health-related impacts and health inequalities.



implementation of integrated, intersectorial actions and programmes. Ideally, efforts to improve health and health equity should be understood at both the general and the particular levels. To develop and evaluate policy programmes that effectively put an end to precarious employment and its health-related impacts, a crucial issue to consider is the need to expand the participation of workers. Effective action is needed to minimize, if not eliminate, precarious employment and other harmful work arrangements through legislation, universalistic policies, income transfers such as guaranteed annual income and empowering groups that represent disadvantaged worker populations.

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## References

- Kalleberg AL. *Good Jobs, Bad Jobs: The Rise of Polarized and Precarious Employment Systems in the United States, 1970s to 2000s*. New York, NY: Russell Sage Foundation, 2011.
- Vosko L. *Managing the Margins: Gender, Citizenship, and the International Regulation of Precarious Employment*. Oxford, UK: Oxford University Press, 2011.
- Gallie D (ed). *Economic Crisis, Quality of Work and Social Integration: The European Experience*. Oxford, UK: Oxford University Press, 2013.
- Karasek R, Theorell T. *Healthy Work*. New York, NY: Basic Books, 1990.
- Siegrist J. Adverse health effects of high effort/low reward conditions. *J Occup Health Psychol* 1996;**1**:27–41.
- Kristensen TS, Hannerz H, Høgh A, Borg V. The Copenhagen Psychosocial Questionnaire – a tool for the assessment and improvement of the psychosocial work environment. *Scand J Work Environ Health* 2005;**31**:438–49.
- Muntaner C, O'Campo PJ. A critical appraisal of the demand/control model of the psychosocial work environment: epistemological, social, behavioral and class considerations. *Soc Sci Med* 1993;**36**:1509–17.
- Benach J, Muntaner C, Solar O, Santana V, Quinlan M. *Employment, Work and Health Inequalities: A Global Perspective*. Barcelona, Spain: Icaria, 2014.
- Benach J, Benavides FG, Platt S, Diez-Roux A, Muntaner C. The health-damaging potential of new types of flexible employment: a challenge for public health researchers. *Am J Public Health* 2000;**90**:1316–17.
- Benach J, Muntaner C. Precarious employment and health: developing a research agenda. *J Epidemiol Community Health* 2007;**61**:276–77.
- Muntaner C, Chung H, Solar O, Santana V, Castedo A, Benach J. A macro-level model of employment relations and health inequalities. *Int J Health Serv* 2010;**40**:215–21.
- Benach J, Solar O, Santana V, Castedo A, Chung H, Muntaner C. A micro-level model of employment relations and health inequalities. *Int J Health Serv* 2010;**40**:223–27.
- Kim IH, Muntaner C, Shahidi FV, Vives A, Vanroelen C, Benach J. Welfare states, flexible employment, and health: a critical review. *Health Policy* 2012;**104**:99–127.
- Faccini R. Reassessing labour market reforms: Temporary contracts as a screening device. *Econ J* 2014;**575**:167–200.
- Afzal Z, Muntaner C, Chung H, Mahmood Q, Ng E, Schrecker T. Complementarities or contradictions? Scoping the health dimensions of 'flexicurity' labor market policies. *Int J Health Serv* 2013;**43**:473–82.
- Beck U. *The Brave New World of Work*. Cambridge, UK: Polity Press, 2000.
- Ross A. *Nice Work if You Can Get It: Life and Labor in Precarious Times*. New York, NY: New York University Press, 2009.
- Standing G. *The Precariat: the New Dangerous Class*. London, UK: Bloomsbury Academic, 2011.
- Benach J, Vives A, Amable M, Vanroelen C, Tarafa G, Muntaner C. Precarious employment: understanding an emerging social determinant of health. *Annu Rev Public Health* 2014;**35**:229–53.
- Vives A, Amable M, Ferrer M *et al*. The Employment Precariousness Scale (EPRES): psychometric properties of a new tool for epidemiological studies among waged and salaried workers. *Occup Environ Med* 2010;**67**:548–45.
- Rodgers G. Precarious work in Western Europe. In: Rodgers J, Rodgers G (eds). *Precarious Jobs in Labour Market Regulation: The Growth of Atypical Employment in Western Europe*. Geneva: International Institute for Labour Studies, 1989.
- Quinlan M, Bohle P. Contingent work and occupational safety. In: Barling J, Frone MR (eds). *The Psychology of Workplace Safety*. Washington, DC: American Psychological Association, 2004.
- Lewchuk W, Clarke M, De Wolff A. Working without commitments: precarious employment and health. *Work, Employment & Society* 2008;**22**:387–406.
- Vives A, González F, Moncada S, Llorens C, Benach J. Measuring precarious employment in times of crisis: the revised Employment Precariousness Scale (EPRES) in Spain. *Gac Sanit* 2015;**29**:379–82.
- Vives A, Vanroelen C, Amable M *et al*. Employment precariousness in Spain: prevalence, social distribution, and population-attributable risk percent of poor mental health. *Int J Health Serv* 2011;**41**:625–46.
- Vives A, Amable M, Ferrer M *et al*. Employment Precariousness and Poor Mental Health: Evidence from Spain on a New Social Determinant of Health. *J Environ Public Health* 2013;**2013**: 978656. doi
- Grotti R, Scherer S. Accumulation of Employment Instability Among Partners—Evidence from Six EU Countries. *Eur Sociol Rev* 2014;**30**:627–39.

28. Rabe-Hesketh S, Skrondal A, Andrew Pickles A. Generalized Multilevel Structural Equation Modeling. *Psychometrika* 2004; **69**:167–90.
29. O'Campo P, Eaton WW, Muntaner C. Labor market experience, work organization, gender inequalities and health status: results from a prospective analysis of US employed women. *Soc Sci Med* 2004; **58**:585–94.
30. Menéndez M, Benach J, Muntaner C, Amable M, O'Campo P. Is precarious employment more damaging to women's health than men's?. *Soc Sci Med* 2007; **64**:776–81.
31. Borrell C, Palència L, Muntaner C, Urquía M, Malmusi D, O'Campo P. Influence of macrosocial policies on women's health and gender inequalities in health. *Epidemiol Rev* 2014; **36**:31–48.
32. Muntaner C, Chung H, Benach J, Ng E. Hierarchical cluster analysis of labour market regulations and population health: a taxonomy of low- and middle-income countries. *BMC Public Health* 2012; **12**:286.
33. Artazcoz L, Borrell C, Cortès I, Escribà-Agüir V, Cascant L. Occupational epidemiology and work related inequalities in health: a gender perspective for two complementary approaches to work and health research. *J Epidemiol Community Health* 2007; **61**(Suppl II):ii39–ii45.
34. Heymann J, Rho HJ, Schmitt J, Earle A. Ensuring a healthy and productive workforce: comparing the generosity of paid sick day and sick leave policies in 22 countries. *Int J Health Serv* 2010; **40**:1–22.