# **I FTTFR**

# Working from home in the time of covid-19: how to best preserve occupational health?

In response to the covid-19 pandemic, many countries have adopted a broad spectrum of containment measures, from recommendations to stay at home to quarantines of large geographic regions. As part of this response, corporations and governments alike have strongly encouraged workers to telecommute where possible. More than 3.4 billion people in 84 countries have been confined to their homes, as estimated in late March 2020, which potentially translates to many millions of workers temporarily exposed to telecommuting. Since 2000, the emergence of digital and broadband internet has facilitated the development of home telework. Despite limited research interest on its impact on occupational health, several health benefits and risks of telework have been identified in academic or grey literature (table 1) (for a review see Ref. 1).

Assessing how health risks and benefits of telework are affected by its sudden, large-scale uptake in the context of covid-19 is key to best preserve occupational health. The current pandemic context carries several specificities. First, the sudden shift to teleworking could not have been anticipated by workers or employers, so the safety of the home working environment has not necessarily been ensured. However, for many the uptake of telework will be temporary, so a limited duration of exposure may mitigate risks of injury or pain associated with the home environment, or risks of musculoskeletal disorders associated with unergonomic

workstations.<sup>2</sup> Second, in many organisations telework has temporarily switched from the exception to the rule. This may reduce isolation risks associated with social distancing in the workplace setting that teleworkers face in normal times. Conversely, widespread school closures have forced many parents to telework and mind their children at the same time, including having to plan for schooling at home or online. These overlapping responsibilities amplify psychosocial risks associated with unstructured working time.<sup>3</sup> Third, the current uptake of telework has occurred in an anxiety-provoking context linked to the pandemic. This is likely to worsen teleworkassociated psychosocial and behavioural risks, especially those associated with addictions. Among workers with psychological frailties, isolation may also lead to decompensation with more difficult psychiatric care. Taken together, these suggest that the covid-19 pandemic may exacerbate occupational hazards beyond the more obvious examples of healthcare settings or other jobs on the front line.4

For employers, maximising health benefits of teleworking in times of containment while minimising its negative impacts constitutes a continuity in their duty to preserve the health of their employees. To do so, they should provide key messages specifically tailored to an unanticipated and anxietyprovoking context in which employees may struggle to adapt their homes and lifestyles to telework.5 They should also allow teleconsultations as well as systems for listening to employee complaints with occupational practitioners to provide employees with optimised working conditions despite the pandemic circumstances. Companies are increasingly recognised as an integral player

in outbreak management. They also have a role to play in minimising the unintended health consequences of outbreak control measures.

Hanifa Bouziri <sup>(1)</sup>, <sup>1</sup> David R M Smith, <sup>1,2</sup> Alexis Descatha <sup>(1)</sup>, <sup>3</sup> William Dab, <sup>1</sup> Kevin Jean <sup>1</sup>

<sup>1</sup>Laboratoire MESuRS, Conservatoire national des Arts et Métiers, Paris, France

<sup>2</sup>Laboratoire Épidémiologie et modélisation de l'Échappement aux Antibiotiques, Institut Pasteur, Paris, France

<sup>3</sup>Occupational Health Unit-UMS 011 U1168, Université de Versailles St-Quentin-Inserm APHP, Paris, France

Correspondence to Hanifa Bouziri, Laboratoire MESuRS, Conservatoire national des Arts et Métiers, Paris. France: hanifa.bouziri@lecnam.net

**Contributors** HB, WD and KJ conducted the literature search and analysis. HB and KJ wrote the first draft of the report and all authors contributed to subsequent revisions.

**Funding** The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not required.

**Provenance and peer review** Not commissioned; internally peer reviewed.



# **OPEN ACCESS**

**Open access** This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.

© Author(s) (or their employer(s)) 2020. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

Family of risk	Effect of telework	Amplification or reduction in the context of covid-19-related containment	Key prevention measures for employers
Risks associate	d with transportation		
	Decreased	None	-
Risks associate	d with home working environment		
	Increased risks associated with housing (fire, and slip, trip and fall hazards, temperature conditions)	Amplified (lack of anticipation)	Diffusion of simple, pragmatic security messages
	Increased risks associated with workstation (musculoskeletal pain)	Ambiguous (potentially amplified due to the lack of anticipation, poorly suited home working environment and reduced physical activity, but short duration of exposure)	Diffusion of simple, pragmatic messages on ergonomics <sup>5</sup> ; financial contribution to adapted equipment (adjustable chair and computer station); promotion of physical activity
Psychosocial ris	sks		
	Increased risks of social isolation in the professional sphere	Reduced (universalisation of telework)	Adoption of virtual collective working periods (teleconferences
	Increased risk of blurring of boundaries between work and home time	Potentially amplified by the multiplication of non- work-related tasks such as caring for children and facilitating home schooling	Adapt working time and schedule for workers ensuring home childcare
Behavioural ris	ks (diet, sleep, addiction)		
	Ambiguous	Amplified (confinement, covid-linked anxiety)	Allow and promote teleconsultations with occupational practitioners

Table 1 Health impacts of telework specificity of pandemic covid-19-related containment and key prevention measures for employers

# **PostScript**



**To cite** Bouziri H, Smith DRM, Descatha A, et al. Occup Environ Med Epub ahead of print: [please include Day Month Year]. doi:10.1136/oemed-2020-106599

Received 13 April 2020 Revised 21 April 2020 Accepted 22 April 2020

Occup Environ Med 2020;**0**:1–2. doi:10.1136/oemed-2020-106599

# ORCID iDs

Hanifa Bouziri http://orcid.org/0000-0002-3563-3700 Alexis Descatha http://orcid.org/0000-0001-6028-3186

# **REFERENCES**

- 1 Tavares Al. Telework and health effects review. *Int J Healthc* 2017;3:30.
- 2 Montreuil S, Lippel K. Telework and occupational health: a Quebec empirical study and regulatory implications. Saf Sci 2003;41:339–58.
- 3 Standen P, Daniels K, Lamond D. The home as a workplace: work-family interaction and psychological

- well-being in telework. *J Occup Health Psychol* 1999;4:368–81.
- 4 Sim MR. The COVID-19 pandemic: major risks to healthcare and other workers on the front line. *Occup Environ Med* 2020;77:281–2.
- 5 International Labour Organization. Ergonomic tips when teleworking COVID-19: Protecting workers, 2020. Available: https://www.ilo.org/global/about-the-ilo/multimedia/video/institutional-videos/WCMS\_740265/lang-en/index.htm
- 6 Fadel M, Salomon J, Descatha A. Coronavirus outbreak: the role of companies in preparedness and responses. *Lancet Public Health* 2020;5:e193.