GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales

Iechyd Rhyngwladol International Health

International Horizon Scanning and Learning to Inform Wales' COVID-19 Public Health Response and Recovery

Report 28, 13/05/2021

Canolfan Gydweithredol Sefydliad Iechyd y Byd ar Fuddsoddi ar gyfer Iechyd a Llesiant

World Health Organization Collaborating Centre on Investment for Health and Well-being

Overview

The International Horizon Scanning and Learning work stream was initiated following and informing the evolving coronavirus (COVID-19) public health response and recovery plans in Wales. It focuses on COVID-19 international evidence, experience, measures, transition and recovery approaches, to understand and explore solutions for addressing the on-going and emerging health, wellbeing, social and economic impacts (potential harms and benefits).

The learning and intelligence is summarised in weekly reports to inform decision-making. These may vary in focus and scope, depending on the evolving COVID-19 situation and public health / policy needs.

This work is aligned with and feeding into the Welsh Government Office for Science and into Public Health Wales Gold Command. It is part of a wider Public Health Wales' systematic approach to intelligence gathering to inform comprehensive, coherent, inclusive and evidence-informed policy action, which supports the Wellbeing of Future Generations (Wales) Act and the Prosperity for All national strategy towards a healthier, more equal, resilient, prosperous and globally responsible Wales.

Disclaimer: The reports provide high-level summary of emerging evidence from country experience and epidemiology; research papers (peer-reviewed/not); and key organisations' guidance / reports, including sources of information to allow further exploration. The reports do not provide detailed or in-depth data/evidence analysis. Due to the novelty of COVID-19 virus/disease, and dynamic change in situation, studies and evidence can be conflicting, inconclusive or depending on country/other context.

In focus this week

- **Long COVID**
- **Telework due to COVID-19**

Contents

At a glance: summary of international learning on COVID-19

"The progress made so far in combating the coronavirus has been encouraging. However, this is not a battle that ends when the last confirmed case is treated."
(United Nations Development Programme, UNDP)

Long COVID

- 'Long COVID' / 'Post-COVID Syndrome' or 'Post-acute COVID' is an **emerging condition**, **not yet well understood**, but **potentially severely disabling**
- Long COVID causes **persistent ill-health with a wide range of long lasting symptoms** for more than four / eight or twelve weeks
- The **mechanisms involved affect multiple systems** and include persisting inflammation, thrombosis, and autoimmune reaction
- Evidence suggests that Long COVID is **associated with age, female sex, symptoms in the acute phase, hospitalisation, certain co-morbidities and risk factors**
- **A substantial number of adults** with COVID-19 suffer from Long COVID, but **exact numbers are difficult to estimate** and **studies vary substantially** across countries
- Long COVID has a **serious impact on people's ability to go back to work or socialise**, and may have **significant economic consequences**
- **Multidisciplinary approach** to assessment and management; **monitoring, surveillance and research**; and **patient involvement** are instrumental to addressing Long COVID
- Policy response needs to consider the **complexity and dynamic evolution** of Long COVID, using an **organised health system approach**, including designated clinics

More information is summarised on pp.4-10

Telework due to COVID-19

- Social distancing measures to contain COVID-19 have **increased the prevalence of 'telework', including working from home (remote) and flexible working**
- The **prevalence of telework varies substantially between countries, sectors, and occupations** before and after the COVID-19 pandemic
- **Telework has reached a tipping point due to COVID-19**, as more companies and institutions have introduced home/flexible working **to keep their employees safe**, while **ensuring the continued delivery of critical services**
- There are **significant global disparities in the type of employment, infrastructure and opportunities for telework** across countries and regions
- **Key advantages** of teleworking include increased productivity; reduced cost of living; reduced time and cost of commute; and reduced air pollution in some countries
- **Key barriers** to teleworking include lack of skills and training; lack of organisational health and safety guidelines; labour rights legislation; data security and privacy issues; digital divide and lack of appropriate IT infrastructure and devices
- **Key challenges and risks** of telework include work-home interference; ineffective communication; procrastination; loneliness and isolation; impact on mental health
- Introducing **flexible, people-centred national, local and organisational policies** is essential to protect employees' health and well-being, enable productivity and innovation, harness the benefits and mitigate the risks of remote working

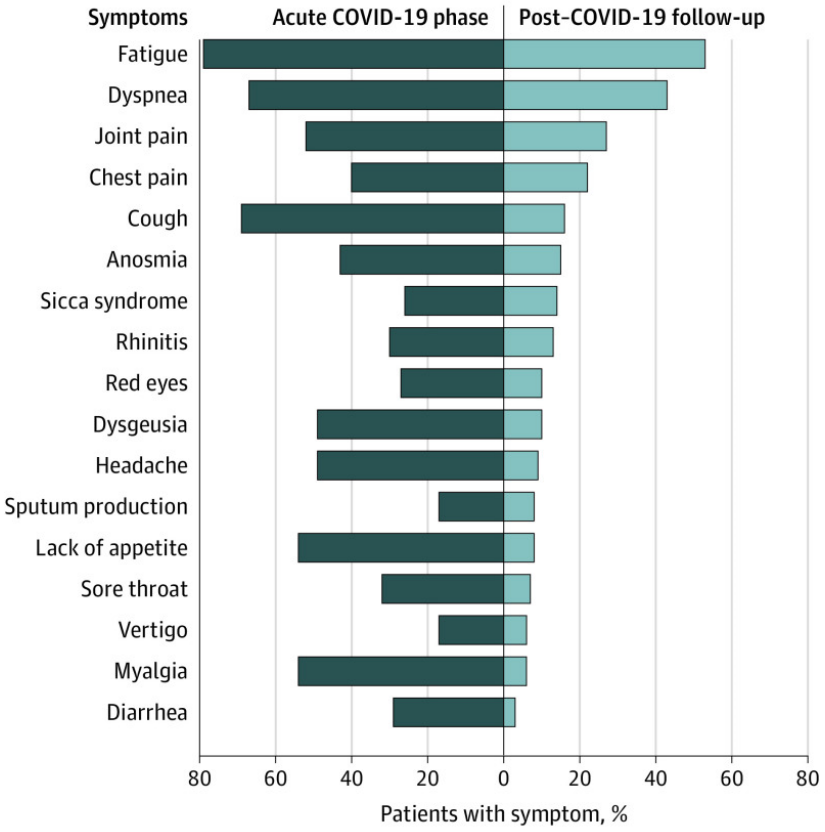
More information is summarised on pp.11-15

Long COVID

Overview[1234567]

- COVID-19 infection can cause **persistent ill-health with a wide range of long lasting symptoms**, commonly referred to as **'Long COVID'**, **'Post-COVID Syndrome'** or **'Post-acute COVID'**
- Currently, there is **no consensus on an officially accepted definition** for Long COVID
- Most clinical definitions describe it as '**symptoms that develop during and/ or after an infection with COVID-19 and continue for more than 12 weeks and have not been explained by any alternative diagnosis'**
- There is growing evidence that **Long COVID is both common and debilitating**
- The **most prevalent symptoms**, associated with Long COVID include chronic fatigue, difficulty breathing, chest pain, joint/muscle pain, persistent cough, difficulty concentrating / cognitive dysfunction, headache, loss of smell/taste, and others[8] *(Figure 1)*
- The **mechanisms involved affect multiple systems** and include persisting inflammation, thrombosis, and autoimmune reaction
- Long COVID has a **serious impact** on people's ability to go back to work or socialise, and **may have significant economic consequences** for them, their families and for society

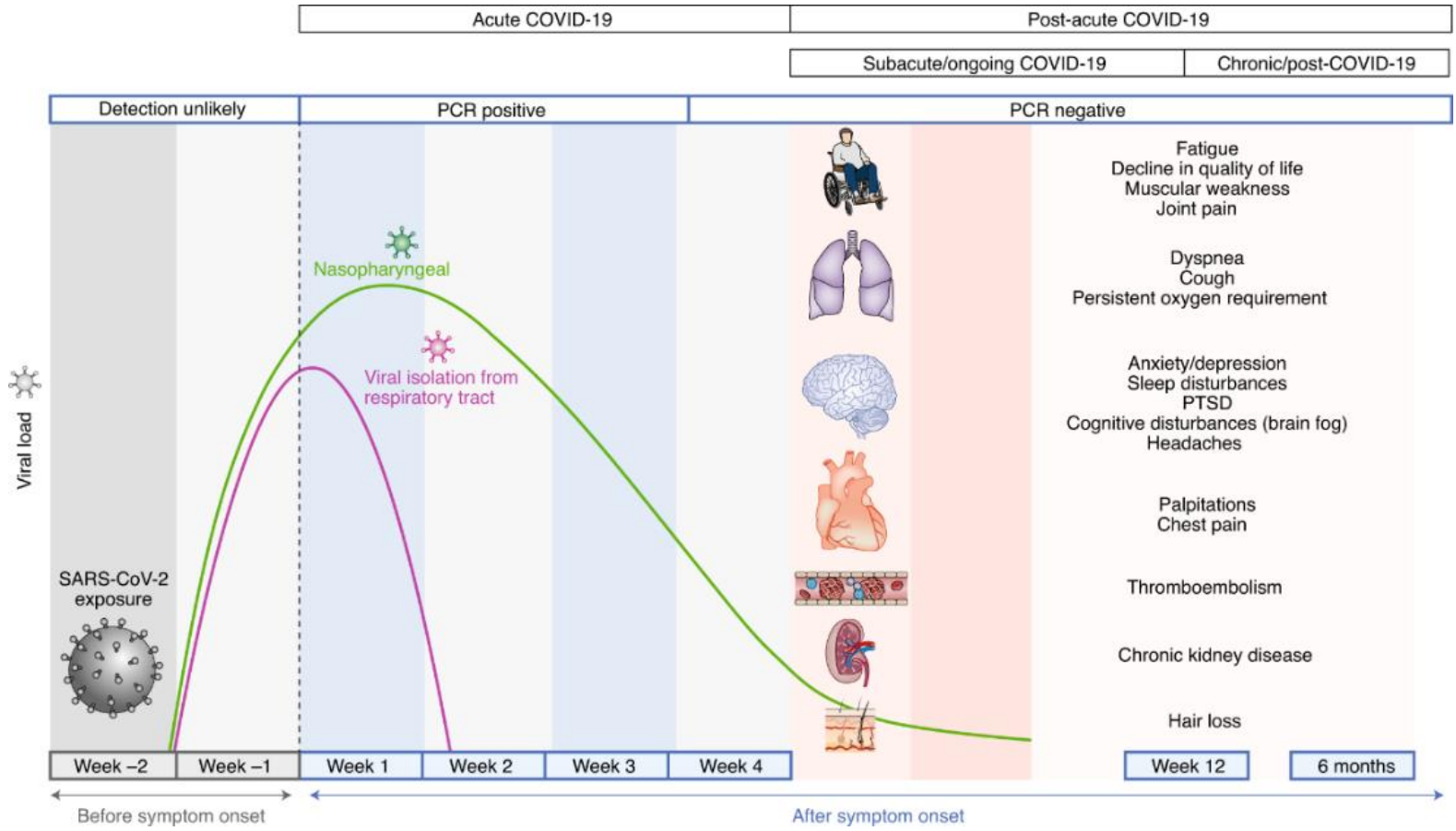
Figure 1. COVID-19 related symptoms of patients during acute and post-acute phase (%)[8]



[1] https://www.nice.org.uk/guidance/ng188
[2] https://www.nice.org.uk/guidance/ng188/chapter/common-symptoms-of-ongoing-symptomatic-covid-19-and-post-covid-19-syndrome
[3] https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects.html
[4] https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(21)00125-9/fulltext
[5] https://www.nature.com/articles/s41591-021-01283-z
[6] https://www.who.int/docs/default-source/coronaviruse/risk-comms-updates/update54_clinical_long_term_effects.pdf?sfvrsn=3e63eee5_8
[7] https://eurohealthobservatory.who.int/publications/i/in-the-wake-of-the-pandemic-preparing-for-long-covid-(2021)
[8] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7349096/

- **COVID-19 timeline**[9] includes *(Figure 2)*:
  - ✓ **Short COVID-19 lasting up to ten days** from the onset of symptoms without a relapse
  - ✓ **Acute COVID-19 lasting up to four weeks** from the onset of symptoms
  - ✓ **Post-acute COVID-19 persisting beyond four weeks**, including:
    a) more than 4 weeks (28 days) – Long Covid **LC28**
    b) more than 8 weeks (56 days) – Long Covid **LC56**
    c) more than 12 weeks (84 days) – Long Covid **LC84**

Figure 2. Timeline for acute and post-acute COVID-19[9]



Epidemiology of Long COVID[9][10][11]

- There is **no conclusive evidence about the prevalence of people experiencing Long COVID** and numbers are currently difficult to estimate
- There are significant differences between studies across countries; and between studies in hospitalised and non-hospitalised patients *(Tables 1, 2 and 3)*[10]
- At least one in five people (20%) infected with COVID-19 experience persisting ill health following the acute phase of infection; around a quarter (25%) experience symptoms that continue for at least a month (4 weeks); and one in ten (10%) are still unwell after 12 weeks

[9] https://www.nature.com/articles/s41591-021-01283-z
[10] https://eurohealthobservatory.who.int/publications/i/in-the-wake-of-the-pandemic-preparing-for-long-covid-(2021)
[11] https://www.nature.com/articles/s41591-021-01292-y

Table 1. Summary of selected studies on the prevalence of Long COVID in non-hospitalised patients[10]

COUNTRY	STUDY	SAMPLE	NUMBER OF CASES INCLUDED	RESULTS
United Kingdom	Office for National Statistics (2020)	Population representative	8 193	• **21%** had symptoms **5 weeks** after infection • **10%** had symptoms **12 weeks** after infection
	Sudre et al. (2020)	COVID Symptom App users (out of which 14% were hospitalized)	4 182	• **13%** of cases had symptoms lasting **28 days** after symptom onset • **5%** of cases had symptoms for over **8 weeks** and **2%** for over **12 weeks** after symptom onset
	Townsend et al. (2020)	Hospital outpatients (out of which 56% were hospitalized)	127	• **52%** reported persistent fatigue at **10 weeks** after symptom onset
USA	Tenforde et al. (2020)	Hospital outpatients (out of which 7% were hospitalized)	292	• **35%** had symptoms after a median of **16 days** after testing positively for SARS-CoV-2 infection
Switzerland	Nehme et al. (2020)	Hospital outpatients	669	• About **33%** of cases had symptoms **30–45 days** after diagnosis
The Netherlands and Belgium	Goërtz et al. (2020)[b]	Facebook group for coronavirus patients with persistent complaints (out of which 5% were hospitalized)	2 113	• Over **99%** infected individuals did not fully recover within **12 weeks** after symptom onset

[a]Some of the studies reported in this table included hospitalized patients
[b]Included suspected cases

Table 1. Summary of selected studies on the prevalence of Long COVID in hospitalised patients post discharge[10]

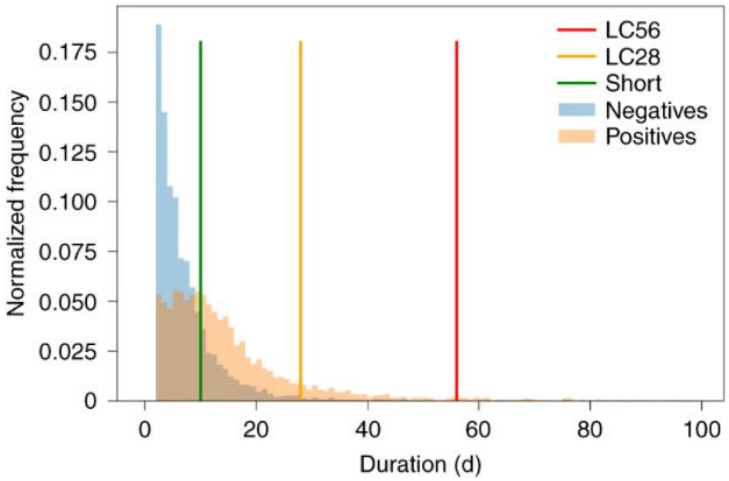
COUNTRY	STUDY	NUMBER OF CASES INCLUDED	RESULTS
Canada	Wong et al. (2020)	78	• **51%** had persistently reduced quality of life and **50%** had shortness of breath at **12 weeks** after symptom onset
France	Carvalho-Schneider et al. (2020)	130	• **40%** reported persistent fatigue and **30%** breathlessness at **60 days** after symptom onset
Italy	Carfì, Bernabei & Landi (2020)	143	• **87%** had symptoms, **55%** had three or more symptoms at **60 days** after discharge
United Kingdom	Cruz et al. (2020)	119	• **68%** reported persistent fatigue, **57%** sleep disturbance and **32%** breathlessness at **60 days** after discharge
	Arnold et al. (2020)	110	• **74%** had persistent symptoms, typically breathlessness and fatigue and **10%** had persistent anomalies on chest X-ray or respiratory function testing at **12 weeks** after discharge
USA	Donnelly et al. (2020)	2 179	• **19.9%** were readmitted, **9.1%** died and **27%** were readmitted or died within **60 days** after discharge
China	Huang et al. (2021)	1 733	• **76%** reported persistent symptoms, and **50%** had residual anomalies on chest imaging **6 months** after discharge

Table 3. Long COVID-19 across selected countries[12][13][14][15][16][17][18][19][20]

United Kingdom	– Approximately 1 in 7 people with COVID-19 continue to experience symptoms affecting their quality of life beyond 12 weeks
Italy	– A study reported that 87% of individuals discharged from hospital were still experiencing at least one symptom 60 days after the onset on COVID-19; and 55% had three or more symptoms including fatigue (53%), difficulty breathing (43%), joint pain (27%), and chest pain (22%) with 40% saying it had reduced the quality of their life
France	– A chronic illness research project 'ComPaRe' carried out a survey with 600 patients. They identified at least 50 symptoms reported in connection with Long COVID
Norway	– A meta-analysis of 43 studies, looking at the long-term effects of COVID-19, found that hospitalised patients reported having symptoms long after infection (beyond 28 days) – A prospective cohort study of 312 COVID-19 patients found that 61% had persistent symptoms after 6 months, with the most common symptom being fatigue (37% of patients); and young, home-isolated adults with mild COVID-19 are at risk of long-lasting dyspnoea and cognitive symptoms such as memory loss
Israel	– In March 2021, around 50 people have reported having Long COVID, with most being children
Canada	– A study with 2,000 COVID-19 patients is planned looking at one-year outcomes
United States	– Studies have shown that COVID-19 patients experiencing symptoms beyond three months is between 50% and 80% – Early studies have indicated that one in ten are likely to experience symptoms for at least a year
Australia	– An observational study, carried out on 478 COVID-19 patients, found that 51% had reported new onset of symptoms with fatigue affecting a third of the respondents

– Data from an international study exploring the **duration of COVID-19 symptoms in individuals who tested positive in the UK, USA and Sweden (total number = 4,182)** shows *(Figure 3)*[21]*:*
  - ✓ Overall median symptom duration of 11 (6–19) days
  - ✓ 1,591 (38.0%) individuals had short COVID-19 with symptom duration of 6 (4–8) days
  - ✓ 558 (13.3%) people met the LC28 definition; from those: 189 (4.5%) had LC56 (duration ≥ 56 days) and 108 (2.6%) had LC84 (duration ≥ 84 days)

Figure 3. Distribution of symptom duration in COVID-19 patients[21]



[12] https://www.timesofisrael.com/21-year-old-said-in-serious-condition-from-long-covid/
[13] https://www.connexionfrance.com/French-news/Long-Covid-France-considers-how-to-help-long-term-cases-months-after-diagnoses
[14] https://www.fhi.no/en/publ/2021/Long-Term-Effects-of-COVID-19/
[15] https://assets.researchsquare.com/files/rs-238339/v1/2d00debf-de4d-431e-872e-b4fa8a587744.pdf
[16] https://www.cbc.ca/news/canada/toronto/long-haul-covid-19-care-1.5970257
[17] https://www.health.harvard.edu/blog/the-tragedy-of-the-post-covid-long-haulers-2020101521173
[18] https://www1.racgp.org.au/newsgp/clinical/long-covid-may-occur-in-more-than-half-of-all-case
[19] https://jamanetwork.com/journals/jama/fullarticle/2768351
[20] https://eurohealthobservatory.who.int/publications/i/in-the-wake-of-the-pandemic-preparing-for-long-covid-(2021)
[21] https://www.nature.com/articles/s41591-021-01292-y

- It is still **unclear why** some individuals experience Long COVID and others do not
- Evidence suggests that Long COVID is **associated with age, female sex, number of symptoms in the acute phase, hospitalisation, certain co-morbidities and risk factors**[22] *(Figures 4 and 5):*
  - ✓ LC28 is **significantly associated with age**, rising from 9.9% in the individuals aged 18-49 years to 21.9% in those aged ≥70 years, with an escalation in odds ratio (OR) by age decile
  - ✓ LC28 **disproportionately affects women** (14.9%) compared with men (9.5%), although not in the older age group (≥70 years)
  - ✓ Individuals with LC28 were **more likely to have required hospital assessment**
  - ✓ **Asthma** as a pre-existing condition is significantly associated with LC28 (OR = 2.14 (95% confidence interval (CI) 1.55–2.96))
- Long COVID **affects all socioeconomic groups** with somewhat increased odds (likelihood) of LC56 in the most deprived quintile *(Figure 6)*[22]
- **Children can also, rarely, be affected** by a separate multisystem condition

Figure 4. Odds ratios (with 95% confidence intervals) for female and male sex indicating the risk of developing Long COVID for age deciles above 30 years of age, compared to the 20-30 year-old age group (OR = 1 means no increased risk)[22]

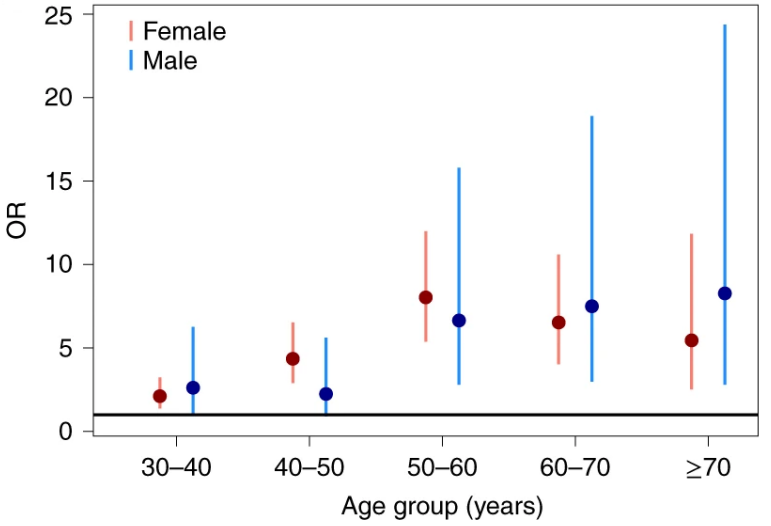


Figure 5. Odds ratios (with 95% confidence interval) indicating increased risk developing Long COVID for different comorbidities / risk factors, according to age (OR = 1 means no increased risk)[22]

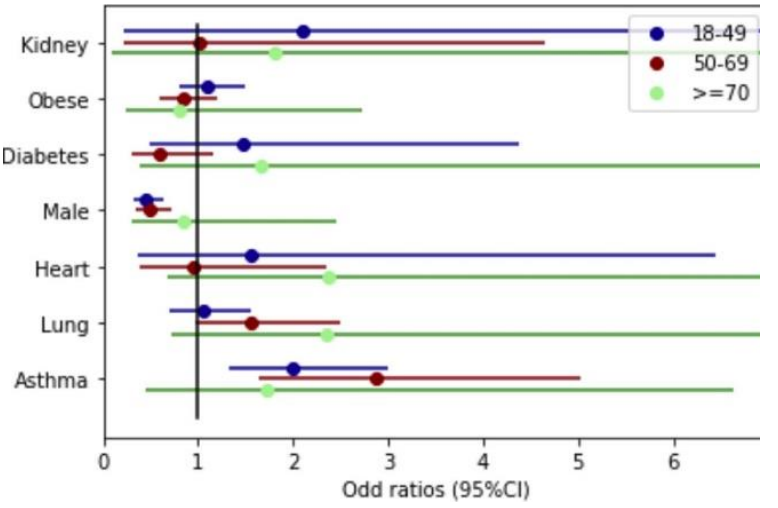
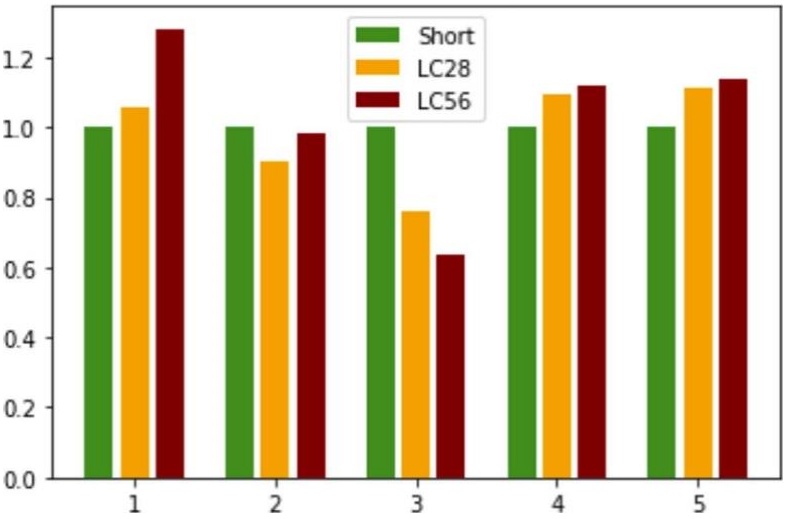


Figure 6. Ratio of LC28 and LC56 versus Short COVID by Index of Multiple Deprivation (IMD)[22]
1 - the most deprived quintile
5 - the least deprived quintile



[22] https://www.nature.com/articles/s41591-021-01292-y

Diagnosis, treatment and policy response[23][24]

- There is **no simple symptom or test for diagnosing Long COVID**
- **No specific treatment of Long COVID-19** has been identified yet
- **More robust data, surveillance mechanisms and a consensus** around Long COVID definition is needed to better understand the symptoms, improve treatment services and allocate resources more appropriately to support patients and families
- **Surveillance** is a critical part of monitoring Long COVID but is not widespread in Europe
- **Multidisciplinary collaboration and management** is essential to provide integrated outpatient care to survivors of COVID-19 in designated clinics *(Figure 7)*
- Patients with Long COVID often report their difficulties are **not taken seriously**
- **Policy response** needs to take account of the **complexity and dynamic evolution** of Long COVID, including:
  - ✓ Multidisciplinary, multispecialty approaches to assessment and management
  - ✓ Development of new care pathways and guidelines for health professionals, in association with patients and their families, especially in primary care
  - ✓ Creation of appropriate services, including rehabilitation and online support tools
  - ✓ Action to tackle the wider consequences of Long COVID, including employment rights, sick pay policies, access to benefit and disability benefit packages
  - ✓ Involving patients to foster self-care and self-help; and in shaping awareness of Long COVID and related services and research
  - ✓ Implementing patient registers and other surveillance systems
- **National health system responses** include development of dedicated treatment guidelines and pathways, and creation of post-COVID clinics and online support tools

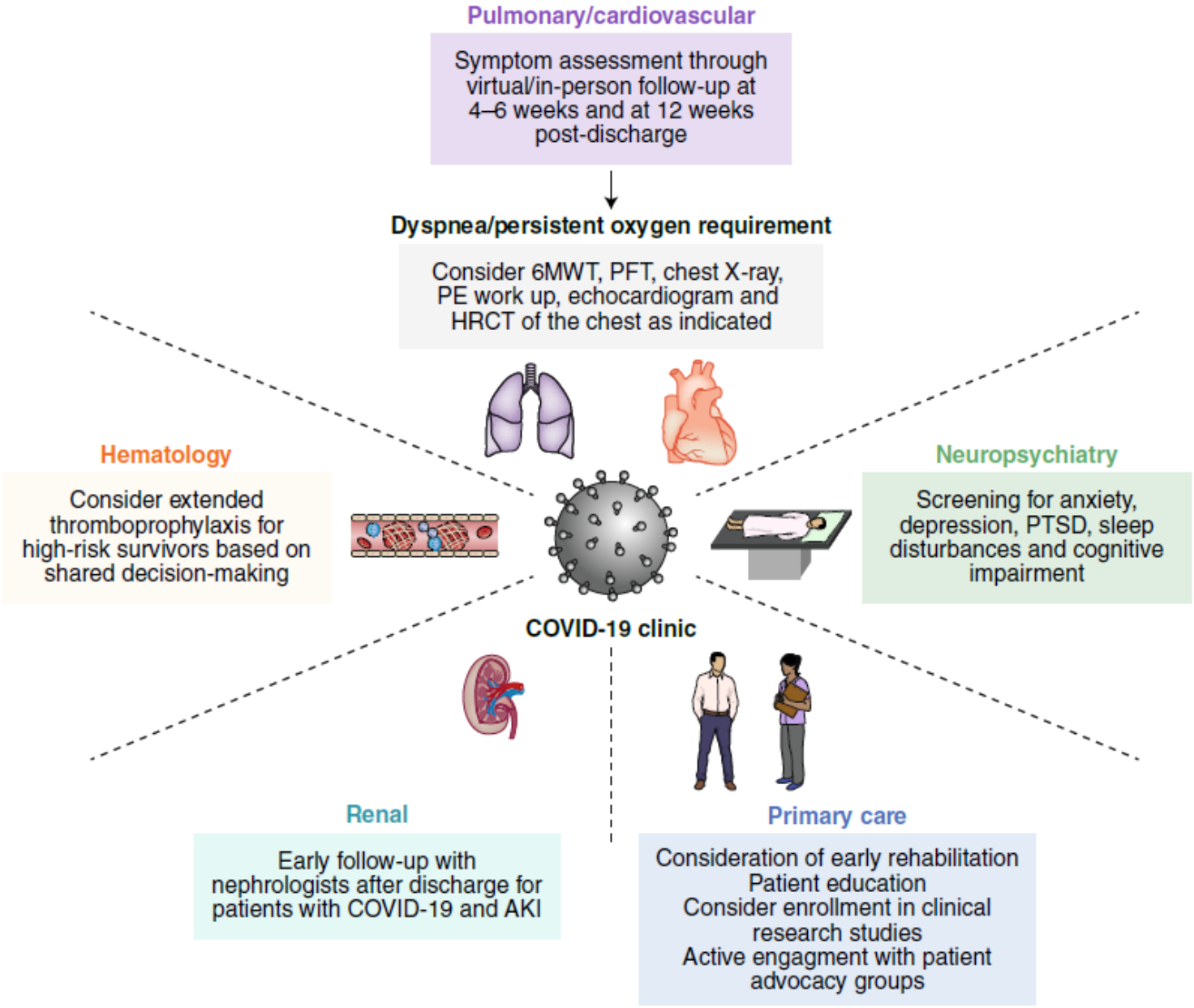
Country insight: the UK[25][26][27][28][29] and the US[30]

- **Actions across the UK** to research and combat the effects of Long COVID include:
  - ✓ £18.5 million invested by the UK government into four research studies to understand Long COVID, including its characteristics, susceptibility and treatment
  - ✓ The NHS has launched a Long COVID service to support recovery
  - ✓ NHS England have invested £10 million in specialist Long COVID clinics
  - ✓ Numerous support groups have been established over social media to connect people who believe they are suffering from Long COVID

- **In the US**, Long COVID care clinics are being established at medical centres, featuring multidisciplinary teams providing comprehensive treatment and aftercare, and survivor support groups and resources

[23] https://eurohealthobservatory.who.int/publications/i/in-the-wake-of-the-pandemic-preparing-for-long-covid-(2021)
[24] https://www.nature.com/articles/s41591-021-01283-z
[25] https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/prevalenceofongoingsymptomsfollowingcoronaviruscovid19infectionintheuk/1april2021
[26] https://www.gov.uk/government/news/185-million-to-tackle-long-covid-through-research
[27] https://www.health.org.uk/news-and-comment/blogs/what-might-long-covid-mean-for-the-nations-health
[28] https://www.bbc.co.uk/news/health-56601911
[29] https://www.yourcovidrecovery.nhs.uk/
[30] https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/post-covid-conditions.html

Figure 7. Interdisciplinary management in COVID-19 clinics[31]



[31] https://www.nature.com/articles/s41591-021-01283-z

Telework due to COVID-19

Overview and prevalence of telework[32][33][34][36][37]

Prior to the COVID-19 pandemic

- The International Labour Organisation (ILO) estimated that 7.9% of the world workforce (260 million workers) worked from home on a permanent basis
- **Globally, the prevalence of telework was very low with significant variation between countries, sectors, and occupations**, for example:
  - ✓ Overall 2% in Europe, varying from 30% or more in Denmark, Netherlands, and Sweden; to 25% or less in Portugal, Greece, Poland, Czech Republic, and Italy
  - ✓ 20–37% in the US
  - ✓ 16% in Japan
  - ✓ 1.6% in Argentina

During the COVID-19 pandemic

- Physical/social distancing measures to contain the virus have **increased the prevalence of 'telework', including working from home (remote) and flexible working**
- Telework has reached a tipping point due to COVID-19, as more companies and institutions have **introduced home/flexible working in an effort to keep their employees safe**, while **ensuring the continued delivery of critical services**
- A survey of 250 large companies in March 2020 found that the **percentage of workers who worked from home has risen immensely**, for example:
  - ✓ Approximately **40% of those currently working in the European Union** (EU) started to work remotely fulltime as a result of the pandemic
  - ✓ The **percentage of those working from home ranges** between 60% in Finland, 50% in Belgium and the Netherlands, and 40% in Austria and Ireland
  - ✓ Around 50% in the US; and in a recent poll, nearly 62% of hiring managers stated their intention to rely more on teleworking in the future
  - ✓ 93% in Argentina
- Data from the UK Office for National Statistics (ONS) found that in April 2020:
  - ✓ 46.6% of people in employment did some work at home
  - ✓ From those who did some work from home, 86% did so as a result of the pandemic
  - ✓ Of those who worked from home, around one-third worked fewer hours than usual (34.4%), and around one-third worked more hours than usual (30.3%)
- Findings from the UK Household Longitudinal Study 'Understanding Society' *(Figure 8)* found that:
  - ✓ Telework appears to be more prevalent among those who are better qualified and skilled, and higher paid
  - ✓ The proportion of graduates reporting that they worked exclusively at home increased from 8% before lockdown to 62.4% in the first month of lockdown; then dropped by 3% in May 2020; and by a further 3% in June 2020
  - ✓ Before lockdown, telework was more prevalent among the self-employed, however, the gap between employed and self-employed shrank dramatically during lockdown

[32] https://www.oecd.org/coronavirus/policy-responses/productivity-gains-from-teleworking-in-the-post-covid-19-era-a5d52e99/
[33] https://ec.europa.eu/jrc/sites/jrcsh/files/jrc120945_policy_brief_-_covid_and_telework_final.pdf
[34] https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/coronavirusandhomeworkingintheuk/april2020
[35] https://wiserd.ac.uk/sites/default/files/documents/Homeworking%20in%20the%20UK_Report_Final_3.pdf
[36] https://voxeu.org/article/working-home-estimating-worldwide-potential
[37] https://onlinelibrary.wiley.com/doi/epdf/10.1111/wusa.12498

– A recent study using the Delphi research method with labour market experts to estimate **probability of telework in the future**[38], suggests *(Figure 9):*
  - ✓ Overall, around 18% of workers globally have occupations and live in countries with the infrastructure that would allow them to work remotely
  - ✓ Around 30% of North American and Western European workers are in occupations that allow telework
  - ✓ Latin American and Eastern European workers who would be able to work remotely are between 23% and 18% respectively
  - ✓ Only 6% of sub-Saharan African and 8% of South Asian workers would be able to work remotely

Figure 8. Exclusive use of the home as a workplace, before and during lockdown by highest qualification, UK[39]

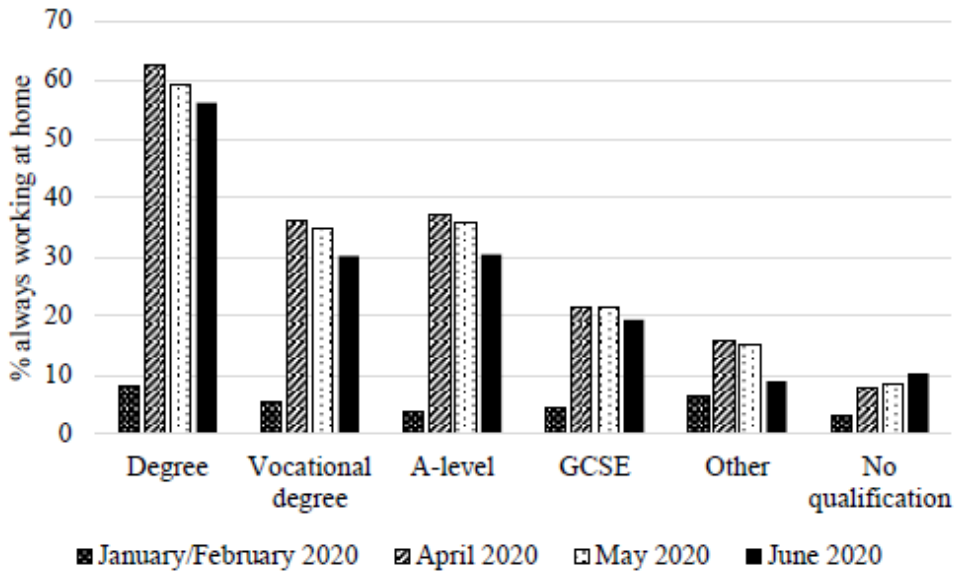
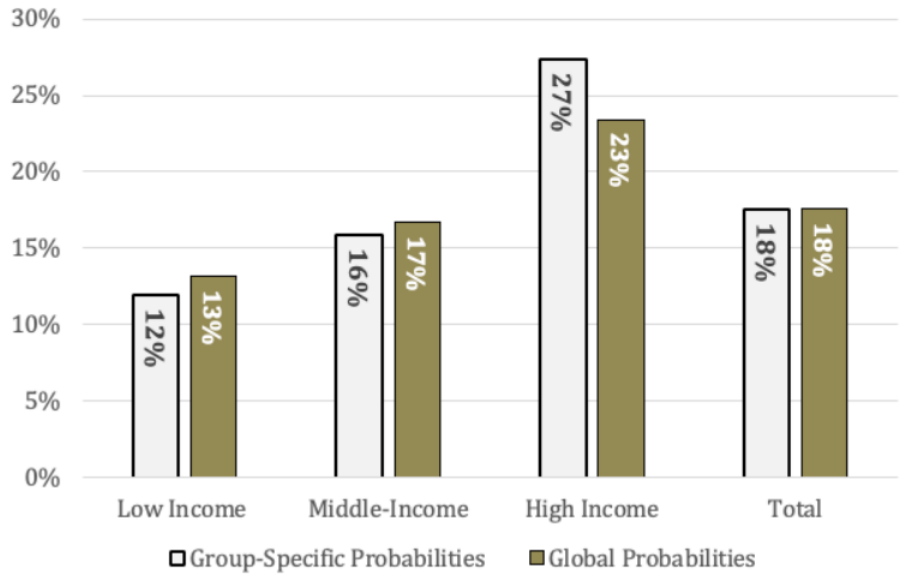


Figure 9. Home-based global work estimates[38]



[38] https://voxeu.org/article/working-home-estimating-worldwide-potential
[39] https://wiserd.ac.uk/sites/default/files/documents/Homeworking%20in%20the%20UK_Report_Final_3.pdf

Advantages, barriers and challenges of telework

Advantages[40]

– **Increased productivity**

Two surveys found that around two-thirds of employees report they are more productive when working from home

– **Reduced commute and cost of living**

A recent survey revealed that on average, employees working from home will save £44.78 a week due to reduced costs and claiming on expenses whilst working from home

– **Reduced air pollution** in some countries, such as the UK

Reduced emissions from workers not commuting and from manufacturing or transport companies that have reduced operations as their employees are not able to work from home

Barriers[41][42]

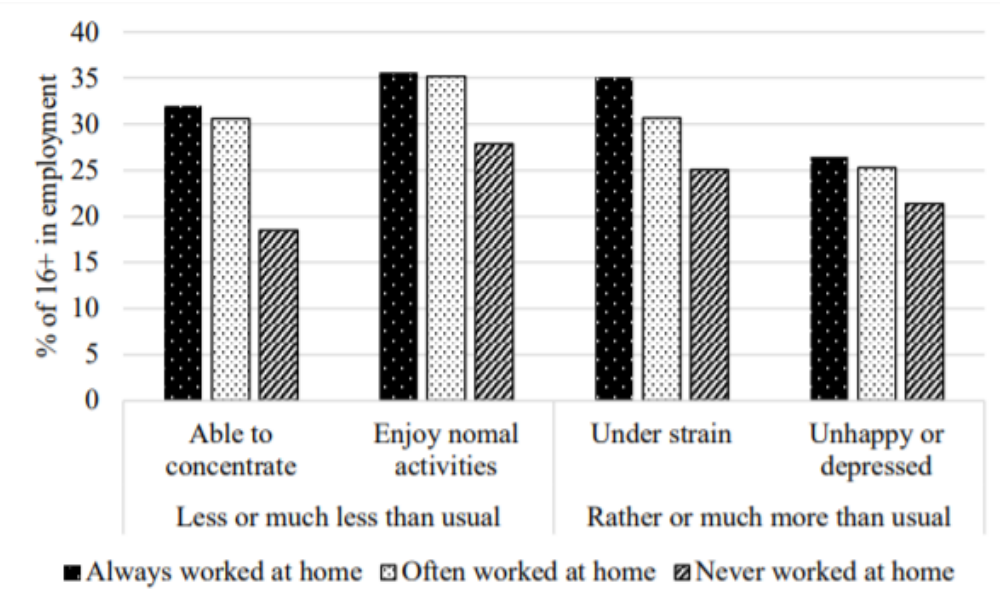
– **Lack of skills and training resources** to support teams switching to teleworking
– **Lack of organisational health and safety guidelines** for the home office
– **Labour legislation** where home workers do not have the same rights and protections as workers working in the office
– **Data security concerns and privacy issues**
– **A digital divide**, including **lack of appropriate IT tools and devices** in many communities and families

Challenges and risks[43]

– **Work-home interference**
  ✓ More interruptions from family members which may, in turn, influence work productivity
  ✓ Difficulty 'switching off' from work
– **Ineffective communication**
  ✓ Lower efficiency in ICT-mediated communication
  ✓ Inability to engage in face-to-face meetings
– **Procrastination**
  ✓ Defined as an irrational delay of doing the required work
  ✓ Delay working on the core tasks by spending time on non-work-related activities during working hours, such as using social media and having long breaks
– **Loneliness and isolation**
  ✓ Fewer face-to-face interactions with colleagues and supervisors
  ✓ Loss of social opportunities to meet friends or colleagues
– **Impact on mental health**, especially among those who always or often worked at home *(Figure 10)*
  ✓ For example, over 30% of those working always or often at home in June 2020 reported that they were able to concentrate less or much less than usual; compared to less than 20% of those who reported that they had not worked at home at all.
  ✓ Those who worked mainly at home reported greater difficulties in enjoying normal day-to-day activities and more often felt constantly being under strain and unhappy with life

[40] https://www.finder.com/uk/working-from-home-statistics
[41] https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/instructionalmaterial/wcms_751232.pdf
[42] https://onlinelibrary.wiley.com/doi/epdf/10.1111/wusa.12498
[43] https://iaap-journals.onlinelibrary.wiley.com/doi/epdf/10.1111/apps.12290

Figure 10. Intensity of homeworking by selected mental health indicators as of June 2020[44]



Policies to supporting telework[45][46][47]

- The continuing need to undertake telework requires **flexible, people-centred national, local and organisational policies and guidelines to protect employees' health and well-being and to enable productivity and innovation**
- The **opportunity for communication** between managers and their team, and between colleagues, is essential to reduce the negative impacts associated with isolation
- **National and local government policies are instrumental** in successfully implementing telework in the long-term, including:
  - ✓ Ensuring **access to digital infrastructure** and reliable, fast broadband, and boosting digital development, which aims to **reduce the digital divide** across geographical areas, communities and socio-economic (deprivation) levels
  - ✓ Promoting the diffusion of **managerial best practices**, **self-management and ICT skills**, and **investments in home offices**
  - ✓ Supporting a **knowledge-based economy and capacity building across all sectors**, such as education, health, science, as well as the private sector
  - ✓ Investing in **technology and education infrastructure**, applying innovative solutions
  - ✓ Considering environmental impacts, climate change and economic impacts (inequities)
- Appropriate **organisational policies** can enable companies/institutions and their staff to benefit from the advantages offered by telework, including increased productivity and better well-being
- To **minimise the risks and challenges** of widespread teleworking, policy makers should ensure that **teleworking remains a choice**; and address concerns, such as **'hidden overtime'**

[44] https://iaap-journals.onlinelibrary.wiley.com/doi/epdf/10.1111/apps.12290
[45] https://bmcpublichealth.biomedcentral.com/track/pdf/10.1186/s12889-020-09875-z.pdf
[46] https://onlinelibrary.wiley.com/doi/epdf/10.1111/wusa.12498
[47] https://www.oecd.org/coronavirus/policy-responses/productivity-gains-from-teleworking-in-the-post-covid-19-era-a5d52e99/

Country insight: Belgium[48][49]

- One of the main measures taken by the Belgian Government during the COVID-19 pandemic has been an **obligation for employers to organise teleworking**
- Initially, the Government based the measures on the 'Effective and Flexible Work Act' which enables 'occasional' teleworking in case of force majeure
- However, a more permanent solution was needed in the longer term, related to non-occasional teleworking, i.e. a written annex to the employment contract had to be provided and employers also had to bear some of the costs of teleworking
- In January 2021 a new nation-wide Collective Bargaining Agreement ('the CBA') was introduced with **specific rules covering teleworking** in Belgium until the end 2021, including:
  - ✓ Payment of an allowance to cover all costs related to the installation, use, maintenance, repair and amortization of equipment for the employee
  - ✓ Reinforcing privacy protection for teleworkers in the context of authorized monitoring of work
  - ✓ Introducing policies relating to the use of IT equipment
  - ✓ Employers are required to take adequate measures to ensure that teleworkers stay connected with colleagues and the company by organising 'return-to-the-office-moments' in order to ensure workers' wellbeing and prevent isolation
  - ✓ Introducing a 'right to disconnect' in favour of the teleworker

[48] https://www.twobirds.com/en/news/articles/2021/belgium/belgium-new-rules-on-covid-19-teleworking
[49] https://journals.sagepub.com/doi/full/10.1177/2031952520934554

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