

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

Report 13, 06/08/2020



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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 don't 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

-  **Obesity and COVID-19**
-  **COVID-19 impact on unemployment**
-  **BAME populations and COVID-19**
-  **Environmental and social impacts of PPE**

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

***“Strengthen community engagement, empower individuals,
and build trust by addressing mis/disinformation...”***
International Health Regulations Emergency Committee fourth meeting

Obesity and COVID-19

- ✚ **Excess weight is associated with increased risks for/from COVID-19**, including: a positive test, hospitalisation, serious complications, advanced levels of treatment and death
- ✚ **Obesity-related conditions can worsen the effect of COVID-19**
- ✚ **Lockdown and quarantine measures have had a negative impact** on the health and well-being of the population, **exacerbating all risk factors**, associated with weight gain
- ✚ **Vulnerable populations, including BAME and deprivation, are disproportionately affected** by the pandemic and at a higher risk of obesity and its health implications
- ✚ Several European countries have classified obese (and in some cases overweight) people as **‘vulnerable’** to reduce their exposure to the coronavirus
- ✚ The **UK and Wales have a relatively high prevalence of overweight / obesity**, compared to other countries, though it is not yet clear how this has affected the high incidence / severity of COVID-19
- ✚ Excess weight is potentially one of the few **modifiable risk factors** for COVID-19 with evidence of weight loss interventions that are effective

More information is summarised **on pp.5-7**

COVID-19 impact on unemployment

- ✚ COVID-19 pandemic outbreak has had an **enormous economic impact** with estimated number of unemployed between **5.3 and 24.7 million globally**
- ✚ The economic downturn of COVID-19 can have **significant consequences on people’s health outcomes in the short and longer term**
- ✚ The **impact on youth employment** (15-24 year olds) **and low-income** workers is likely to be **more severe**
- ✚ Rises in unemployment are associated with significant **short-term increases in premature deaths from intentional violence**, while **reducing traffic fatalities**
- ✚ **Mass Unemployment Events (MUEs)** can have detrimental impact on the health, social and financial situation of individuals/families, destabilising communities over generations
- ✚ **Job loss / job insecurity** can have **complex detrimental impacts on health**, triggered by direct loss of income (falling into poverty); stress anxiety and loss of self-esteem; increase in harmful behaviours, such as smoking, alcohol misuse and attempted suicide
- ✚ Some economic sectors / businesses are more severely affected and can take longer to recover, such as **tourism, hospitality, transport and leisure**
- ✚ **Active labour market programmes** that keep and reintegrate workers in jobs and government support could mitigate some adverse health effects of economic downturns
- ✚ There is an **opportunity to ‘build back better’ a more sustainable and inclusive economy - investing in health and social protection, and avoiding austerity**

More information is summarised **on pp.8-13**

Black, Asian and Minority Ethnic (BAME) populations and COVID-19

- ✚ Causes for COVID-19 disparities in incidence and death rates are multifactorial, but it is clear that **structural inequalities are partly driving the pandemic**
- ✚ The **BAME populations have been disproportionately affected** by the COVID-19 pandemic, both in terms of infection rates and deaths rates
- ✚ There is no robust evidence that **higher rates of underlying conditions**, leading to increased risk of COVID-19 and severe outcomes (e.g. cardiovascular disease) **in disadvantaged communities** are due to inherent genetic predisposition
- ✚ **Mitigating the impact** of COVID-19 on BAME groups **is complex**, with limited evidence
- ✚ **Robust data on ethnicity and COVID-19 is still sparse and more research is needed** to care better for people more vulnerable / susceptible to COVID-19

More information is summarised **on pp.14-16**

Environmental impacts of PPE

- ✚ Concerns are increasing around the **safe disposal of face coverings** as usage by the general public increases
- ✚ Reports of Personal Protective Equipment (PPE) litter in public places are increasing, as well as **discoveries of PPE in marine ecosystems**
- ✚ Unlike hospitals, **no segregated waste streams exist for the general public** to safely dispose of potentially contaminated PPE
- ✚ When added to general waste or recycling, gloves and masks can be a **potential source of infection for people handling the waste**
- ✚ An **increase in medical waste** may lead to **higher rates of incineration**, which could increase carbon emissions, reduce air quality and lead to poorer health outcomes
- ✚ Countries around the world are experiencing a **surge in single-use plastics** during the COVID-19 pandemic, due to an increase in hygiene products, takeaways and bans on reusable cups to reduce the risk of contamination
- ✚ From an environmental perspective, using a **higher number of reusable face masks** in rotation to allow for machine washing is more favourable than using single-use face masks
- ✚ **Clear communication** to the general public on the safe disposal of mask is essential

More information is summarised **on pp.17-19**

Obesity and COVID-19

Overview¹²³⁴

- ✚ Obesity has reached epidemic proportions globally, with at least 2.8 million people dying each year as a result of being overweight or obese.
- ✚ Being overweight or obese increases the risk of a wide range of chronic diseases, including type 2 diabetes, hypertension, cardiovascular disease, as well as some types of cancer.
- ✚ The health risk of excess weight for some Black, Asian and Minority Ethnic (BAME) groups occur at a lower BMI than for White populations.
- ✚ Obesity-related conditions seem to worsen the effect of COVID-19.
- ✚ The UK has a relatively high prevalence of overweight/obesity in comparison to other countries.
- ✚ It is currently unclear to what extent the high prevalence of overweight/obesity in the UK may have contributed to the high incidence of COVID-19 in comparison to other nations.
- ✚ Quarantine has the potential to exacerbate all risk factors associated with weight gain.
- ✚ It is reasonable to conclude that reducing excess weight could help reduce the risk of severe COVID-19 illness.

Obesity in Wales⁵⁶

- ✚ Almost **60% of adults in Wales are currently overweight or obese**, of which 24% are obese.
- ✚ There is evidence of an upward trend in recent years – prevalence is estimated to increase to around 64% by 2030 if the current trend continues.
- ✚ 54% of adults undertake the recommended 150 minutes of physical activity per week; however, the rate for females is lower than that of males across all ages.
- ✚ **Inequalities** (deprivation) have a clear impact:
 - ✓ The prevalence of obesity in **4-5 year olds is 6% higher in those living in the most deprived areas**, compared to the least deprived; this rises to a **13% difference in adults**.
 - ✓ The percentage of adults meeting physical activity guidelines is **15% higher in the least deprived areas compared to the most deprived areas**.

The evidence: obesity and COVID-19³⁷

- ✚ Evidence suggests **excess weight is associated with an increased risk** for COVID-19, including: a positive test, hospitalisation, advanced levels of treatment (including mechanical ventilation or admission to intensive or critical care) and death (*Figure 1*).
- ✚ Despite its limitations, evidence consistently suggests that people with COVID-19 who are overweight/ obese are at a **notably increased risk of serious complications and death**.
- ✚ Vaccinated adults living with obesity have a two-fold risk of influenza compared with vaccinated adults not living with obesity. It is not known if this is relevant to COVID-19.
- ✚ Evidence shows **lockdown and quarantine** measures have had a **negative impact** on the health and well-being of the population (*Figure 2*).

¹ <https://www.nice.org.uk/guidance/ph53/chapter/recommendations#recommendation-7-address-the-expectations-and-information-needs-of-adults-thinking-about-joining-a>

² <https://www.who.int/features/factfiles/obesity/en/>

³ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/903770/PHE_insight_Excess_weight_and_COVID-19.pdf

⁴ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7282788/>

⁵ <http://www.publichealthwalesobservatory.wales.nhs.uk/obesity>

⁶ http://www.publichealthwalesobservatory.wales.nhs.uk/sitesplus/documents/1208/ObesityInWales_Report2018_v1.pdf

⁷ <https://www.worldobesity.org/news/statement-coronavirus-covid-19-obesity>

Figure 1. Risks associated with COVID-19 and obesity³

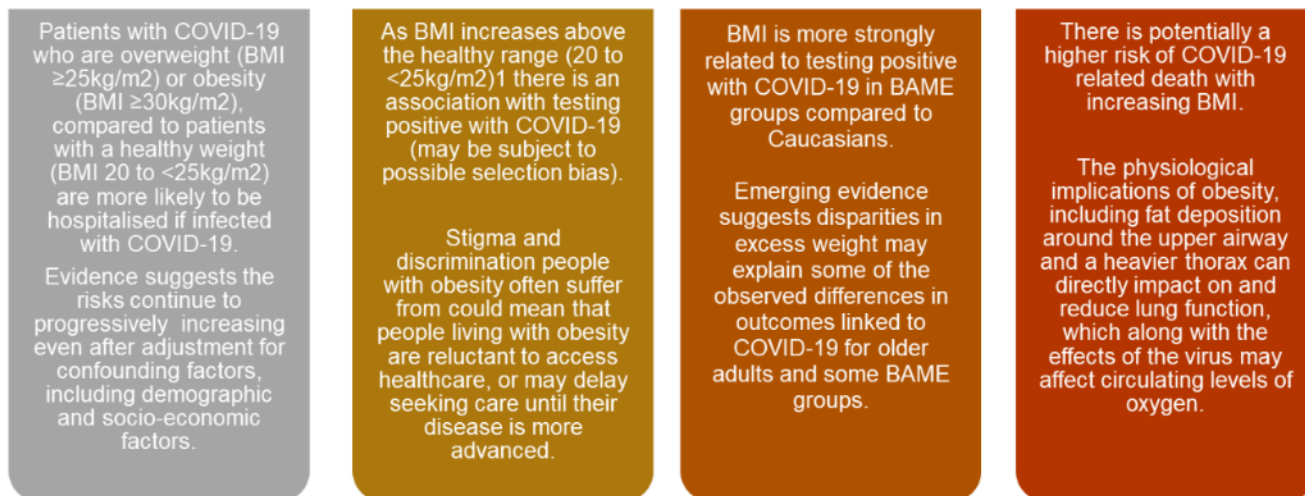


Figure 2. Impact of lockdown on obesity⁸⁹¹⁰¹¹¹²¹³¹⁴¹⁵¹⁶¹⁷¹⁸¹⁹²⁰²¹



⁸ <https://www.worldobesity.org/news/statement-coronavirus-covid-19-obesity>

⁹ <https://phw.nhs.wales/news/staying-at-home-policy-has-reduced-spread-of-coronavirus-but-has-also-had-other-positive-and-negative-impacts-on-the-well-being-of-welsh-society/a-health-impact-assessment-of-the-staying-at-home-and-social-distancing-policy-in-wales-in-response-to-th/>

¹⁰ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7282788/>

¹¹ <https://www.pubfacts.com/detail/32324954/Weight-Stigma-and-the-Quarantine-15>

¹² <https://www.ese-hormones.org/education/ese-talks/ese-talks-endocrine-conditions-in-the-covid-19-era/obesity/>

¹³ https://foodfoundation.org.uk/wp-content/uploads/2020/04/Report_COVID19FoodInsecurity-final.pdf

¹⁴ <https://phw.nhs.wales/topics/latest-information-on-novel-coronavirus-covid-19/how-are-you-doing/weekly-hayd-reports/week-6-report-how-are-we-doing-in-wales/>

¹⁵ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7312512/>

¹⁶ <https://www.worldobesity.org/news/obesity-and-covid-19-policy-statement>

¹⁷ <https://onlinelibrary.wiley.com/doi/abs/10.1002/oby.22861>

¹⁸ <https://www.sport.wales/media-centre/latest-news/2020-05-27-inequalities-gap-has-grown-during-lockdown/>

¹⁹ <https://www.karger.com/Article/FullText/510005>

²⁰ <https://www.sport.wales/media-centre/latest-news/2020-05-26-survey-reveals-exercise-habits-during-lockdown/>

²¹ <https://senedd.wales/aid%20documents/cr-ld13267/cr-ld13267%20-e.pdf>

Mitigation strategies

- ✚ Excess weight is potentially one of the few modifiable risk factors for COVID-19 with evidence of weight loss interventions that are effective
- ✚ There is currently no high-quality research on the effects of weight loss on COVID-19 risks

Recommendations from European Association for the Study of Obesity²²:

- ✚ Obesity prevention and treatment should be a priority area.
- ✚ **Formally include people with obesity as a high risk group**, and where appropriate, identify people with obesity within the “**shielded category**” of **vulnerable people**.
- ✚ Prioritise people with obesity for COVID-19 for testing, including antibody.
- ✚ Facilitate measures to ensure healthcare delivery sites are equipped to **accommodate the physical and mental health needs of people with severe obesity**.
- ✚ Multidisciplinary obesity clinics should be supported with **additional resources for staffing and education, equipment, infrastructure and research**.
- ✚ Systematic efforts should be initiated to collect and connect health and disease progression data between obesity, other chronic diseases and COVID-19 to inform both clinical and policy decision-making.

Country examples (Table 1)

- ✚ Limited evidence has been identified across countries regarding obesity strategies
- ✚ Several countries in Europe have classified obese people as ‘vulnerable’ to reduce their exposure to the coronavirus

Table 1: Examples of mitigation strategies in Europe

Country	Mitigation strategies at a national level
France ^{23,24}	- People with a BMI[*]>40 and in some cases with BMI>30, are considered at risk of serious disease and classified as vulnerable - Employees with a BMI>30 have been partially released from work
Switzerland ²⁵	- Individuals with severe obesity should be carefully evaluated for the presence of other risk factors and, in the case of suspected COVID-19 infection, priority screening is recommended - The Switzerland Federal Council identified individuals with a BMI>40 as particularly vulnerable and they were advised to stay at home
UK ²⁶	Following Public Health England (PHE) advice, the UK Government has introduced anti-obesity measures under the ‘Better Health’ campaign, including: - Banning unhealthy food adverts before 9pm - Restricting the promotion of foods high in fat, sugar, such as ‘buy one get one free’ offers. A ban on these items being placed in prominent locations in stores, such as at checkouts, entrances and online. - Requiring large restaurants, cafes and takeaways with more than 250 employees to add calorie labels to the food they sell. - Alcohol calorie labelling - Expanding NHS services, such as self-care apps and online tools for people with obesity-related conditions and accelerating the NHS Diabetes Prevention Programme

*Body Mass Index (kg/m²)

²² <https://cdn.easo.org/wp-content/uploads/2020/06/30110904/EASO-Policy-Position-Statement.pdf>

²³ <https://adipositas-gesellschaft.de/deutsche-adipositas-gesellschaft-zum-europaeischen-adipositas-tag-am-16-mai-2020/>

²⁴ https://prod.liguecontrelaobesite.org/app/uploads/2020/04/hcspa20200331_corsarcovprienchadesperrisdeforg-3.pdf

²⁵ <https://www.sgedssed.ch/diabetologie/covid-19>

²⁶ <https://www.gov.uk/government/news/new-obesity-strategy-unveiled-as-country-urged-to-lose-weight-to-beat-coronavirus-covid-19-and-protect-the-nhs>

COVID-19 impact on unemployment

Overview of impact

- ✚ COVID-19 pandemic outbreak has had an enormous economic impact, including on employment and working practices, with the number of unemployed estimated to be between **5.3 and 24.7 million globally**²⁷
- ✚ COVID-19 measures may lead to downsizing or closure of large employers, resulting in loss of a high number of jobs, referred to as a **Mass Unemployment Event (MUE)**²⁸
- ✚ MUEs, or the threat of these, can have **detrimental impact on the health, social and financial situation** of individuals/families, and can **destabilise communities over generations**²⁸
- ✚ Evidence on the health impacts of business-cycle fluctuations and recessions shows that the resulting economic downturn of COVID-19 can have **significant consequences on people's health outcomes in the short and longer term**²⁹
- ✚ The **impact on youth employment is likely to be severe** given that young people (15-24 years old) are already three times more likely to be unemployed than adults; and are more likely to be in casual employment with fewer contractual protections³⁰
- ✚ **Low-income workers** are more mobile and having to visit densely populated areas, unlike higher-income workers who are more able to work remotely³¹
- ✚ **Rises in unemployment** are associated with significant short-term **increases in premature deaths from intentional violence**, while **reducing traffic fatalities**
- ✚ **Job loss / insecurity** can have **complex detrimental impacts on health**, triggered by²⁸:
 - ✓ direct loss of income and falling into poverty
 - ✓ stress from the event, subsequent increased anxiety and loss of self-esteem
 - ✓ increase in harmful behaviours, such as smoking, excess alcohol consumption and attempted suicide

Mitigation measures

- ✚ The debate between **life and livelihood** is a false debate – we need targeted policy recommendations for countries to maintain their economic and education systems, while combatting community transmission of COVID-19³²
- ✚ **Active labour market programmes** that keep and reintegrate workers in jobs could mitigate some adverse health effects of economic downturns³³
- ✚ **A prosperous sustainable economic recovery** is possible with COVID-19 under control, prioritising investing in health and social protection and avoiding austerity - **an opportunity to 'build back better' a more inclusive and equal economy**³⁴
- ✚ **Planning** to anticipate / mitigate mass unemployment and related health and wellbeing impacts should include an understanding of²⁸:
 - ✓ **The labour market:** incorporating mapping of strategic employers in an area; and national and global industrial trends can help identify areas at risk of MUE

²⁷ https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/wcms_738753.pdf

²⁸ [http://www.wales.nhs.uk/sitesplus/documents/888/Watermarked%20PHW%20Mass%20Unemployment%20Report%20E\(15\).pdf](http://www.wales.nhs.uk/sitesplus/documents/888/Watermarked%20PHW%20Mass%20Unemployment%20Report%20E(15).pdf)

²⁹ [https://www.ifs.org.uk/publications/14799#:~:text=In%20the%20absence%20of%20measures,labour%20market%20\(Fujita%20et%20al.](https://www.ifs.org.uk/publications/14799#:~:text=In%20the%20absence%20of%20measures,labour%20market%20(Fujita%20et%20al.)

³⁰ <https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/04/YOUTH-FLASH-Special-issue-on-COVID-19-1.pdf>

³¹ <https://www.un.org/development/desa/dpad/publication/un-desapolicy-brief-65-responses-to-the-covid-19-catastrophe-could-turn-the-tide-on-inequality/>

³² <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/statements/statement-sustainability-of-health-care-frameworks-during-the-pandemic>

³³ <https://www.sciencedirect.com/science/article/pii/S0140673609611247>

³⁴ <http://www.euro.who.int/en/about-us/regional-director/statements/statement-recovery-must-lead-to-a-different-economy,-an-economy-of-well-being>

- ✓ **Geography and connectivity:** areas that are more isolated, with less infrastructure and transport connectivity, are likely to suffer most, in particular if reliant on a single large employer. This can also determine the speed of regeneration
- ✓ **The assets and resilience** within local communities is essential to inform action to protect and support communities at risk
- ✓ **Local and/or national public health planning processes**

Country examples

- ✚ Many national economies are forecasted to experience significant rates of unemployment by the end of 2020 (*Figure 3*)
- ✚ The impact of a 'double-hit scenario' (i.e. 'second wave') can be more severe in countries with larger low-level service sectors, particularly if heavily impacted by lockdown, such as Spain, Portugal, US, Ireland and the UK (*Figures 3 and 8*)
- ✚ Women are disproportionately affected by unemployment (fewer women employed as a baseline) (*Figure 4*). This may result in more men reporting mental health issues, related to employment instability³⁵
- ✚ Many young people (15-24 years old) are in temporary working contracts and face significant employment instability (*Figure 5*)
- ✚ Germany and the Netherlands have established re-training opportunities with their respective emergency employment retention schemes

Figure 3: Projected unemployment rates in selected countries, OECD, quarter 4, 2020^{36,37}



³⁵ <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-018-5282-3>

³⁶ <http://oecd.org/employment-outlook>

³⁷ <https://www.ft.com/content/e9280a42-0f67-4388-ac88-ef8b1a85afe9>

Figure 4: Employment rate as percentage of total working age population, by sex, OECD, 2019³⁸

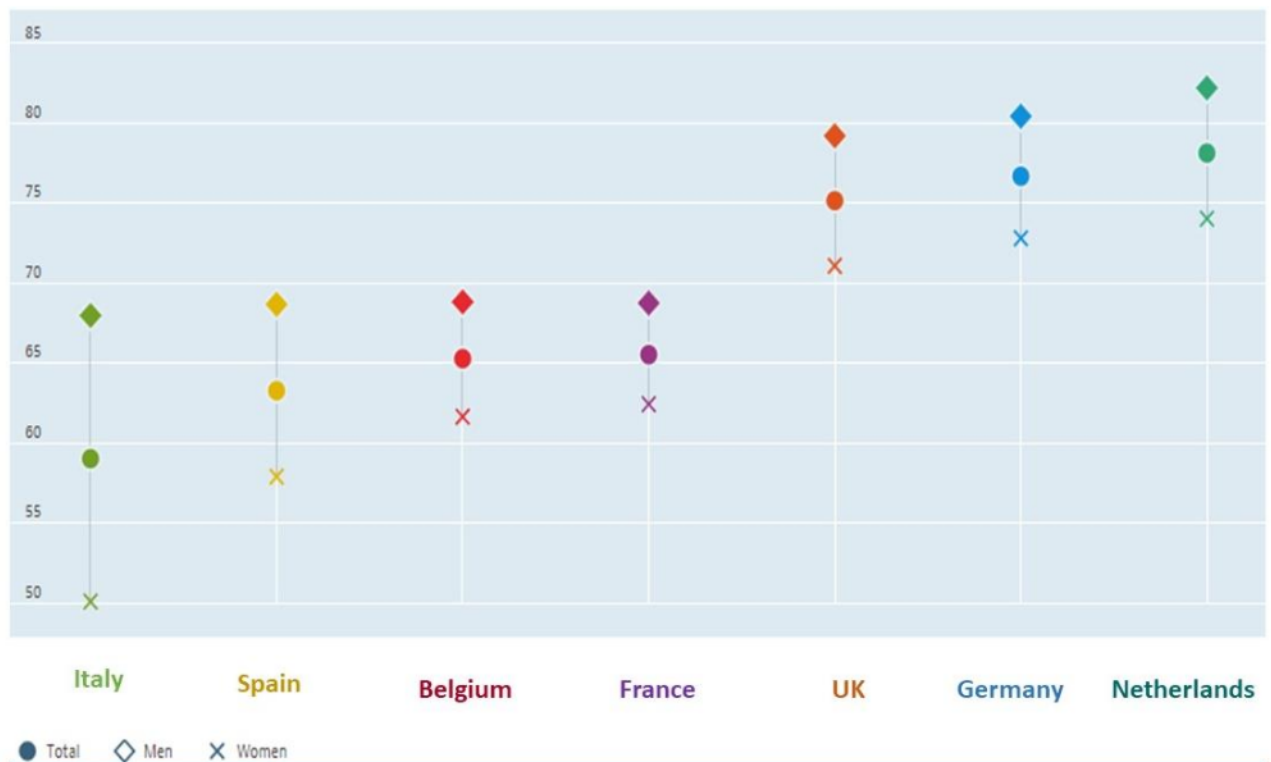
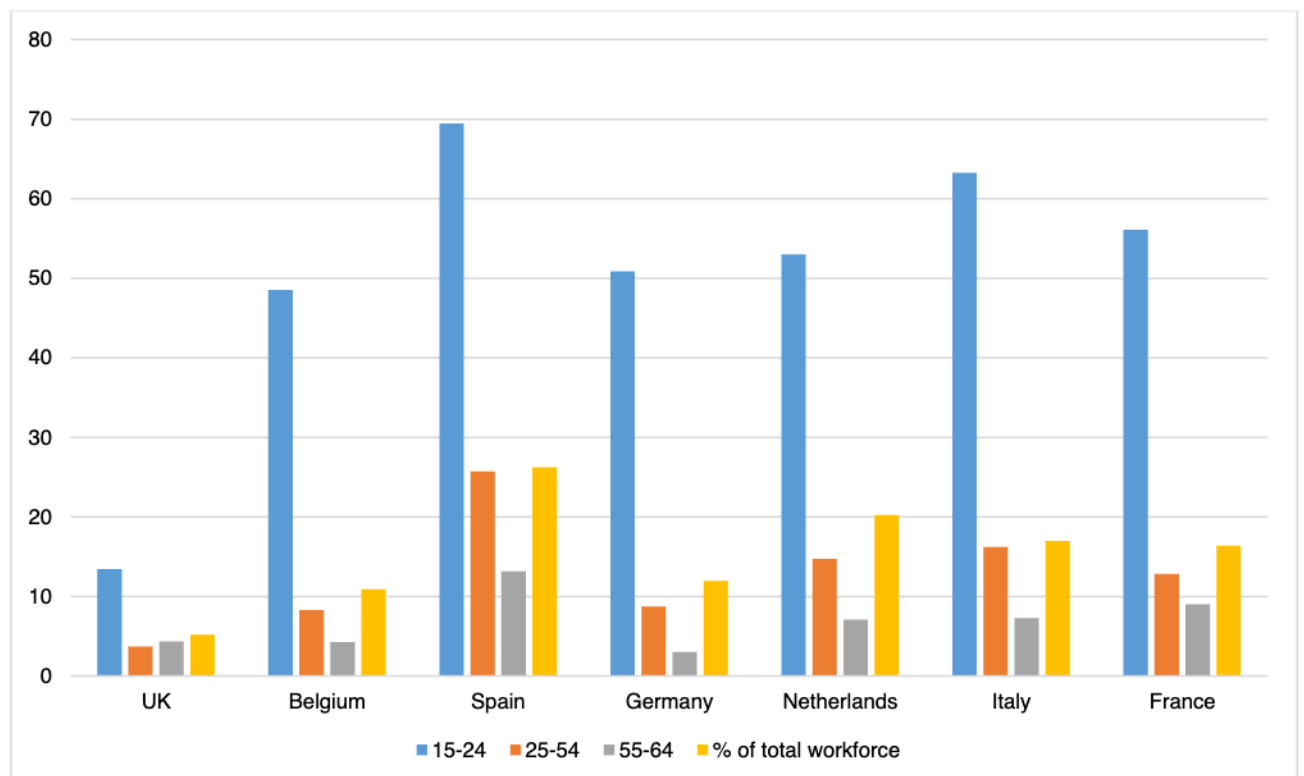


Figure 5: Percentage of individuals in temporary contracts by age, OECD³⁹



³⁸ <https://data.oecd.org/emp/employment-rate.htm>

³⁹ <https://data.oecd.org/emp/temporary-employment.htm#indicator-chart>

Spain⁴⁰⁴¹⁴²⁴³

- ✓ The stringent COVID-19 measures are projected to have an **unprecedented impact on the economy**, which is likely to be exacerbated by the structure of the Spanish workforce
- ✓ Improvement seen over the past two years towards addressing unemployment issues are likely to be reversed due to the pandemic (*Figure 6*)
- ✓ A relatively low percentage of total working age individuals are in employment, with women and foreign-born individuals being disproportionately affected (*Figure 4*)
- ✓ A reliance on temporary working contracts, which disproportionately affect younger populations (*see Figure 5*)
- ✓ The immediate shock to the Spanish economy is predicted to be the most significant, especially for sectors such as tourism / leisure / hospitality / accommodation (*Figure 7*)

Figure 6: Spain unemployment rate as % of total workforce⁴⁴



Mitigation measures⁴⁵

- ✓ The ERTE scheme (furlough) covers 70% of employee wages, €3m was rolled out at height of pandemic (1/6th Spanish workforce), which has reduced to around €1.8m
- ✓ Employers may not dismiss employees within six months of joining the ERTE scheme, therefore a stronger impact is expected at end of 2020 (six month grace period ends)
- ✓ A minimum guaranteed income scheme, providing €462/month per adult living alone and €139 per additional person (adult/child) up to a maximum of €1,015/month per household has been implemented. Funds will be allocated in line with other income, so those in a low-paid employment will have their salary topped up to meet the threshold
- ✓ This is expected to benefit around 850,000 households and a total of 2.3 million people, 30% of whom are minors with an expected cost of around €3 billion annually
- ✓ The Spanish government plans to use its proposed share (around €140 billion) of the €750 billion central stimulus package for restructure⁴⁶

⁴⁰ <https://www.ft.com/content/e9280a42-0f67-4388-ac88-ef8b1a85afe9>

⁴¹ https://english.elpais.com/spanish_news/2020-06-08/bank-of-spain-forecasts-fall-in-gdp-of-up-to-151-due-to-covid-19-crisis.html

⁴² https://ec.europa.eu/economy_finance/forecasts/2020/spring/ecfin_forecast_spring_2020_es_en.pdf

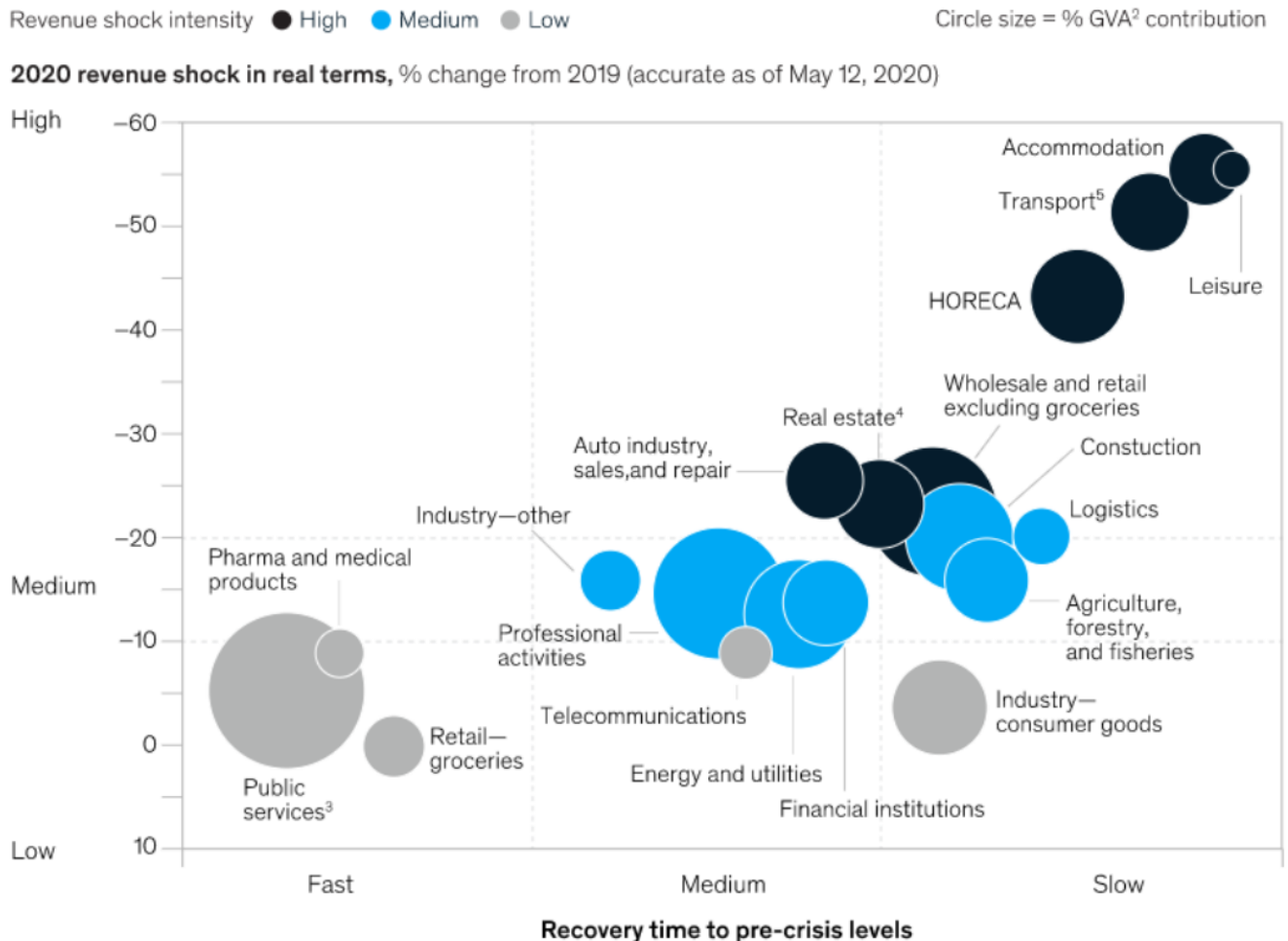
⁴³ <https://data.oecd.org/unemp/unemployment-rate.htm#indicator-chart>

⁴⁴ https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736176918&menu=ultiDatos&idp=1254735976595

⁴⁵ <https://www.lamoncloa.gob.es/lang/en/gobierno/councilministers/Paginas/2020/20200529council-extr.aspx>

⁴⁶ <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>

Figure 7: Projected revenue shock and recovery expectations by sector⁴⁷
(HORECA = Hotels, Restaurants and Catering)



Italy

Italian unemployment figures should be considered with caution, as they record individuals actively looking for employment. Subsequently, the decline in unemployment rate during the pandemic was due to fewer people actively looking for employment⁴⁸.

Measures and impact include:

- ✓ A temporary redundancy ban (in effect until end of August)
- ✓ A temporary unemployment scheme (until end of October)

These measures limited the decline in employment to 538,000 from February to May⁴⁹

⁴⁷ <https://www.mckinsey.com/business-functions/risk/our-insights/spain-after-covid-19-from-resilience-to-reimagination>

⁴⁸ <https://uk.reuters.com/article/us-italy-economy-jobs/italy-march-jobless-rate-plummets-as-people-give-up-search-for-work-amid-coronavirus-crisis-idUKKBN22C17P>

⁴⁹ <https://think.ing.com/articles/italy-unemployment-rate-rebounded-in-may/>

Belgium⁵⁰

- ✓ All employers forced to temporarily close or experiencing a reduction in business may invoke temporary unemployment
- ✓ During temporary unemployment, the employment contract is suspended without pay
- ✓ Temporary unemployment may be invoked on a full-time or part-time basis
- ✓ Scheme users are entitled to 70% of the previous salary (capped at €2,754.76 per month) plus a daily allowance of €5.63 (up to €150 per month) payable directly to the employee by the National Unemployment Office

Germany

- ✓ 'Kurzarbeit' (short-time working) scheme has performed relatively well in preventing large increases in unemployment⁵¹
- ✓ The scheme, in place until the end of 2020, allows companies to cut working hours, in return receiving generous subsidies to keep paying at least 60% of a worker's salary⁵²
- ✓ It allows for training towards qualifications to be used in general labour market

France⁵³

- ✓ The pre-existing short-time work scheme was reformed with an increased funding, bringing the replacement rate to 100% at the minimum wage and 84% of higher gross wages, up to a maximum of 4.5 times the minimum wage
- ✓ The scheme, revised in June, now requires firms to support 15% of the actual cost.
- ✓ As a result, the usage of the scheme has hugely increased
- ✓ In May, company requests for support summed to 55% of dependent employees, (compared to 25% on average across the OECD). This has increased to 60% of the initial requests
- ✓ To retarget the scheme on companies in need and encourage return to work, the replacement rate will drop to 72% of net earnings from October, with companies contributing 40% of the costs

Netherlands

- ✓ The 'Temporary Emergency Measure Bridging Employment' (NOW) scheme provides compensation for the wage costs of employers who expect a loss of turnover of at least 20% over a period of three consecutive months^{54,55}
- ✓ The second instalment of the scheme will provide compensation for the period of 1 June to 31 August 2020 with dismissals prohibited
- ✓ The penalty for submitting a dismissal application to the Employee Insurance Agency under the NOW scheme was a compensation reduction of 150% of the wages of the employee(s) for whom a dismissal request is submitted (first phase). This has been reduced to 100% under the second phase
- ✓ Launching of a re-training scheme for workers at risk of losing their jobs, projected to run between July and end of 2020

⁵⁰ https://www.ey.com/en_be/tax/tax-alerts/covid-19-temporary-unemployment-benefits

⁵¹ <https://www.destatis.de/EN/Themes/Economy/Short-Term-Indicators/Labour-Market/arb210a.html;jsessionid=66BED564473FCE6B16434EA687D89822.internet8732#fussnote-1-241606>

⁵² www.arbeitsagentur.de/finanzielle-hilfen/kurzarbeitergeld-arbeitnehmer

⁵³ <http://oecd.org/employment-outlook>

⁵⁴ <https://www.mondaq.com/redundancy/951788/the-netherlands-extends-its-coronavirus-job-retention-scheme-how-does-it-work>

⁵⁵ <https://www.government.nl/latest/news/2020/03/19/coronavirus-dutch-government-adopts-package-of-new-measures-designed-to-save-jobs-and-the-economy>

Black, Asian and Minority Ethnic (BAME) populations

Overview⁵⁶⁵⁷⁵⁸

- COVID-19 is **affecting population groups differently especially the BAME population**
- Causes for COVID-19 disparities in incidence and death rates are multifactorial, but it is clear that **structural inequalities are partly driving the pandemic**
- Emerging evidence suggests that **BAME individuals are at an increased risk of contracting COVID-19 and present worse clinical outcomes**
- Data on ethnicity in patients with COVID-19 remains limited**
- Mitigating the impact of COVID-19 on BAME group is **complex, with limited evidence**
- There is **limited evidence of health related effects of interventions aimed to support socially or economic vulnerable groups** exposed to the COVID-19
- New research** is funded in the UK⁵⁹, covering topics such as 'Designing culturally relevant COVID-19 health messages' and 'Using Biobank data to determine why minority ethnic groups may be at increased risk of COVID-19'

Country examples

- Overall, there is **insufficient data about the ethnic distribution** of those affected or deceased from COVID-19, as governments are releasing limited demographic information
- Few countries** and their respective surveillance agencies **report ethnicity data**. Only the Centres for Disease Control and Prevention (CDC, USA) and Public Health England are reporting COVID-19 data by ethnic group⁶⁰ (Table 2).

Table 2: Assessment of ethnic group data from national surveillance agencies of the ten countries with the highest incidence of COVID-19 cases as of 15th May 2020

Country	Reporting Agency	Ethnic Group Reporting
United States of America	Centers for Disease Control and Prevention https://www.cdc.gov/	Yes
Russia	Russian Federal Service for Surveillance on Consumer Rights Protection and Human Wellbeing https://xn--80aesfpebagmfb1c0a.xn--p1ai/information/	No
United Kingdom	Public Health England https://www.gov.uk/government/organisations/public-health-england	Yes
Spain	Government of Spain https://covid19.isciii.es/	No
Italy	Dipartimento della Protezione Civile http://www.protezionecivile.gov.it/en/risk-activities/health-risk/emergencies/coronavirus	No
Brazil	Ministério da Saúde (Brazil) https://covid.saude.gov.br/	No
France	French Public Health Agency https://www.santepubliquefrance.fr/l-info-accessible-a-tous/coronavirus	No
Germany	Robert Koch-Institut https://www.rki.de/EN/Home/homepage_node.html	No
Turkey	Turkish Ministry of Health https://covid19.saglik.gov.tr/	No
Iran	Iran Health Ministry http://ird.behdasht.gov.ir/	No

⁵⁶ [https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(20\)30148-6/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(20)30148-6/fulltext)

⁵⁷ <https://www.bmj.com/content/369/bmj.m2282>

⁵⁸ <https://www.fhi.no/globalassets/dokumenterfiler/rapporter/2020/social-and-economic-vulnerable-groups-during-the-covid-19-pandemic-report-2020-v3.pdf>

⁵⁹ <https://www.nih.ac.uk/news/multimillion-investment-in-new-research-projects-to-investigate-higher-covid-19-risk-among-certain-ethnic-groups/25333>

⁶⁰ <https://www.thelancet.com/action/showPdf?pii=S2589-5370%2820%2930148-6>

United Kingdom

- ✚ Concerns were raised after the first ten doctors in the UK to die from COVID-19 were identified as being from ethnic minorities⁶¹
- ✚ Observational data from the Intensive Care National Audit and Research Centre, showed that 1/3 of COVID-19 patients in critical care units are from an ethnic minority background⁶²
- ✚ Of 2,249 patients admitted to 201 critical care units in England, 64.8% were white, 13.8% were Asian, 13.6% were black, and 7.8% were from other / mixed ethnic groups. This unadjusted descriptive data take no account of other factors that could influence the risk

England⁶³

- ✚ An association between ethnicity and the likelihood of contracting or dying from COVID-19 has been reported
- ✚ The highest diagnosis rates of COVID-19 per 100,000 population (age standardised) were in people of Black ethnic groups (486 in females and 649 in males) and the lowest were in people of White ethnic groups (220 in females and 224 in males)
- ✚ Survival analysis among confirmed COVID-19 cases showed that, after accounting for the effect of sex, age, deprivation and region, people of Bangladeshi ethnicity had around twice the risk of death when compared to people of White British ethnicity
- ✚ People of Chinese, Indian, Pakistani, Other Asian, Caribbean and Other Black ethnicity had between 10 and 50% higher risk of death when compared to White British
- ✚ Death rates from COVID-19 were higher for Black and Asian ethnic groups compared to White ethnic groups. This is the opposite of observations made in previous years, when the all-cause mortality rates are lower in Asian and Black ethnic groups.

Wales⁶⁴

- ✚ Initial reporting of COVID-19 deaths in confirmed hospital cases through the Welsh Clinical Portal (WCP) surveillance did not record ethnicity
- ✚ Ethnic group was added as a field to the WCP surveillance e-Form on 6th May 2020. Completeness of this field in records submitted subsequently is only around two thirds
- ✚ Ethnicity is not captured on death certificates and therefore no breakdown of COVID-19 deaths by ethnic group is available
- ✚ Cases of COVID-19 disaggregated by ethnic group are not reported in the public domain

France

- ✚ France has a high proportion of ethnic minorities but has limited information on COVID-19 and ethnic groups
- ✚ Ethnicity is not included in the public health statistics reported⁶⁵

⁶¹ <https://www.theguardian.com/society/2020/apr/10/uk-coronavirus-deaths-bame-doctors-bma>

⁶² Intensive Care National Audit and Research Centre. Covid-19 study case mix programme. 2020.

⁶³ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/892376/COVID_stakeholder_engagement_synthesis_beyond_the_data.pdf

⁶⁴ <https://gov.wales/sites/default/files/publications/2020-06/first-ministers-bame-covid-19-advisory-group-report-of-the-socioeconomic-subgroup.pdf>

⁶⁵ <https://www.ft.com/content/5fd6ab18-be4a-48de-b887-8478a391dd72>

Nordic countries⁶⁶

- ✚ Some immigrant groups are affected at higher rates than the general population
- ✚ **In Norway**, 25% of the residents born abroad tested positive for COVID-19 by April. Somalis are the largest immigrant group testing positive, with 425 confirmed cases, accounting for 6% of all confirmed cases
- ✚ **In Sweden**, Somalis have the highest incident rate among migrant population: 283 positive tests account for about 5% of the nearly 6,000 cases documented between March 13 and April 7 - seven times their share of the population. Iraqis, Syrians and Turks also made up disproportionately large shares of positive cases
- ✚ In **Finland's** capital city of Helsinki, almost 200 Somalis had tested positive by mid-April, accounting for about 17% of infected, 10 times the average number in city's population

United States (US)

- ✚ The US experience may be influenced by the lack of universal health care (unlike the UK) and caution is required when extrapolating data across different health systems
- ✚ Ethnic minority groups are disproportionately affected by COVID-19 in the US, highlighting potential racial, economic, and other inequalities
- ✚ Analysis by the 'Washington Post' reports that counties with black majorities have three times the rate of COVID-19 cases, and almost six times the rate of deaths, compared with counties where white residents are in the majority
- ✚ Death rates in the hardest hit city, New York, are highest among Black and Latino groups, but similar statistics are emerging across the country⁶⁷
- ✚ Only 28 states and New York City report race and ethnicity stratified COVID-19 mortality. There is large variation in the percentage of missing race and ethnicity data by state
- ✚ Aggregated relative risk of death estimated for Black compared to the White population was 3.57 (95% CI 2.84-4.48). Similarly, Latino population displayed 1.88 (95% CI 1.61-2.19) times higher risk of death than white patients⁶⁸⁶⁹

⁶⁶ <https://uk.reuters.com/article/uk-health-coronavirus-norway-immigrants/covid-19-takes-unequal-toll-on-immigrants-in-nordic-region-idUKKCN2260Y2>

⁶⁷ <https://www.bmj.com/content/369/bmj.m1548>

⁶⁸ <https://www.medrxiv.org/content/10.1101/2020.05.07.20094250v1.full.pdf>

⁶⁹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/892376/COVID_stakeholder_engagement_synthesis_beyond_the_data.pdf

Environmental and social impact of PPE

Overview

- ✚ Concerns are increasing around **the safe disposal of face coverings** as usage by the general public increases⁷⁰⁷¹
- ✚ Reports of Personal Protective Equipment (PPE) litter in public places are increasing, as well as discoveries of PPE in marine ecosystems⁷²⁷³⁷⁴
- ✚ In addition to an increase in PPE waste, countries around the world are experiencing a **surge in single-use plastics** during the pandemic, due to an increase in hygiene products, takeaways and bans on reusable cups to reduce the risk of contamination⁷⁵⁷⁶
- ✚ From an environmental perspective, using a **higher number of reusable face masks** in rotation to allow for machine washing is more favourable than using single-use face masks
- ✚ **Clear communication** to the general public on the safe disposal of mask is essential

PPE disposal

- ✚ Disposable, single-use masks are **usually made from plastic** - polypropylene and combined with materials such as polyethylene or PET polyester⁷⁷
- ✚ Polypropylene is a dense thermoplastic, **non-recyclable and non-biodegradable**. In the environment, it is estimated that it can take **up to 450 years to breakdown**⁷⁸
- ✚ Surgical gloves are usually made of synthetic polymers, such as nitrile rubber, polyvinyl chloride, neoprene and synthetic latex⁷⁹
- ✚ As synthetic polymers breakdown in the environment they release **persistent organic pollutants (POPS)**⁸⁰
- ✚ When added to general waste or recycling, gloves and masks can be a **potential source of infection for people handling the waste**⁸¹
- ✚ PPE exported from China has led to concerns of **enforced labour and human rights abuses**⁸²
- ✚ An **increase in medical waste** may lead to **higher rates of incineration**, which could increase carbon emissions, reduce air quality and lead to poorer health outcomes:
 - ✓ The Philippines reversed a 21 year ban on incineration to allow for disposal of COVID-19 healthcare waste⁸³
 - ✓ Wuhan, China, with 11 million inhabitants, generated 200 tons of clinical waste in one day alone – four times its capacity for incineration⁸⁴. Plans were announced for the building of a new incinerator to cope with increasing amounts of medical waste⁸⁵
 - ✓ In the UK, waste incinerators are three times more likely to be situated in the **most deprived areas, often disproportionately affecting communities of colour**. Plans

⁷⁰ <https://edition.cnn.com/2020/04/21/us/coronavirus-ppe-masks-gloves-environment-hazard-trnd/index.html>

⁷¹ <https://www.bloomberg.com/news/articles/2020-06-22/an-epidemic-of-contaminated-waste-is-following-the-coronavirus>

⁷² <https://www.greenmatters.com/p/coronavirus-gloves-masks-littering>

⁷³ <https://www.weforum.org/agenda/2020/06/ppe-masks-gloves-coronavirus-ocean-pollution/>

⁷⁴ <https://hongkongfp.com/2020/06/21/coronavirus-how-hong-kongs-dramatic-drop-in-recycling-sets-a-dangerous-new-norm/>

⁷⁵ <https://www.wsj.com/articles/war-on-plastic-takes-a-back-seat-in-coronavirus-crisis-11584624140>

⁷⁶ <https://euranetplus-inside.eu/plastics-protecting-or-polluting-during-the-pandemic/>

⁷⁷ <https://earth.org/covid-19-unmasking-the-environmental-impact/>

⁷⁸ <https://www.theguardian.com/environment/2020/jun/08/more-masks-than-jellyfish-coronavirus-waste-ends-up-in-ocean>

⁷⁹ <https://www.thomasnet.com/articles/other/how-to-make-medical-gloves/>

⁸⁰ <https://sciencing.com/environmental-problems-caused-by-synthetic-polymers-12732046.html>

⁸¹ <https://d2zly2hmrvxc0.cloudfront.net/Covid19-Masks-Plastic-Waste-Policy-Briefing.final.pdf?mtime=20200424170934&focal=none>

⁸² <https://www.nytimes.com/video/world/asia/100000007226041/china-coronavirus-masks-ughur-labor-ppe.html>

⁸³ <https://www.news-medical.net/news/20200512/Incineration-is-not-needed-to-dispose-COVID-19-biowaste-says-environmental-scientist.aspx>

⁸⁴ <https://news.cgtn.com/news/2020-03-17/How-Wuhan-cope-with-its-mountains-of-medical-waste--OUxhr4JW1i/index.html>

⁸⁵ <https://111.13.45.133/a/202002/07/WS5e3d152ca310128217275d44.html>

for 50 new incinerators show that almost half are due to be built in the top 25% most deprived neighbourhoods in the UK (Greenpeace data)⁸⁶

A Globally Responsible Wales⁸⁷⁸⁸

- ✚ *The Well-being of Future Generations (Wales) Act 2015* requires Welsh public bodies to take into account global well-being in their actions to improve economic, social, environmental and cultural well-being in Wales
- ✚ Under this goal, public bodies have to ensure that their supply chains are fair, ethical and sustainable
- ✚ In addition, the resilient Wales goal means that public bodies must act to maintain and enhance a biodiverse natural environment with healthy functioning ecosystems
- ✚ Welsh Government's Code of Practice on Ethical Employment in Supply Chains aims to ensure that:
 - All public sector organisations are taking action to eradicate unlawful and unethical employment practices
 - All workers at every stage of the supply chain are treated fairly

Modelling of mask use and impact on climate change⁸⁹

- ✚ Five scenarios of mask use are highlighted (*Table 3*) with a hot-spot analysis carried out on each scenario's impact on climate change and (*Figure 8*)
- ✚ For single-use masks, the Mask Transport to the UK (from China, the assumed location for the production of all masks) contributes most to the impact (*Figure 8*)
- ✚ Due to the higher number of masks needed for Scenario 1, the contribution of Mask Manufacture is significantly higher in this case
- ✚ Having a higher number of masks in rotation to allow for machine washing (Scenarios 4 and 5) is more environmentally beneficial than manual washing (Scenarios 2 and 3)
- ✚ In Scenarios 4 and 5, each face mask requires 122 washes, however, the products may not withstand this amount of washing.
- ✚ Further analysis shows that, if the amount of machine washes per year stays constant, up to 48 reusable masks can be used per person before Scenario 4 exceeds the impact on climate change, due to the use of single-use masks in Scenario 1

Table 3. Comparative study on the climate impact of face mask use

Scenario Number	Mask Type	Mask Use per Day	Number of Masks per Person per Year	Addition Filters	Number of Filters per Person per Year	Mask Treatment	Filter Treatment
1	Single-use	1	365	No	0	Disposed at the end of day.	N/A
2	Reusable	1	2	No	0	Manual washing	N/A
3	Reusable	1	2	Yes	365	Manual washing	Disposed at the end of day.
4	Reusable	1	4	No	0	Machine washing	N/A
5	Reusable	1	4	Yes	365	Machine washing	Disposed at the end of day.

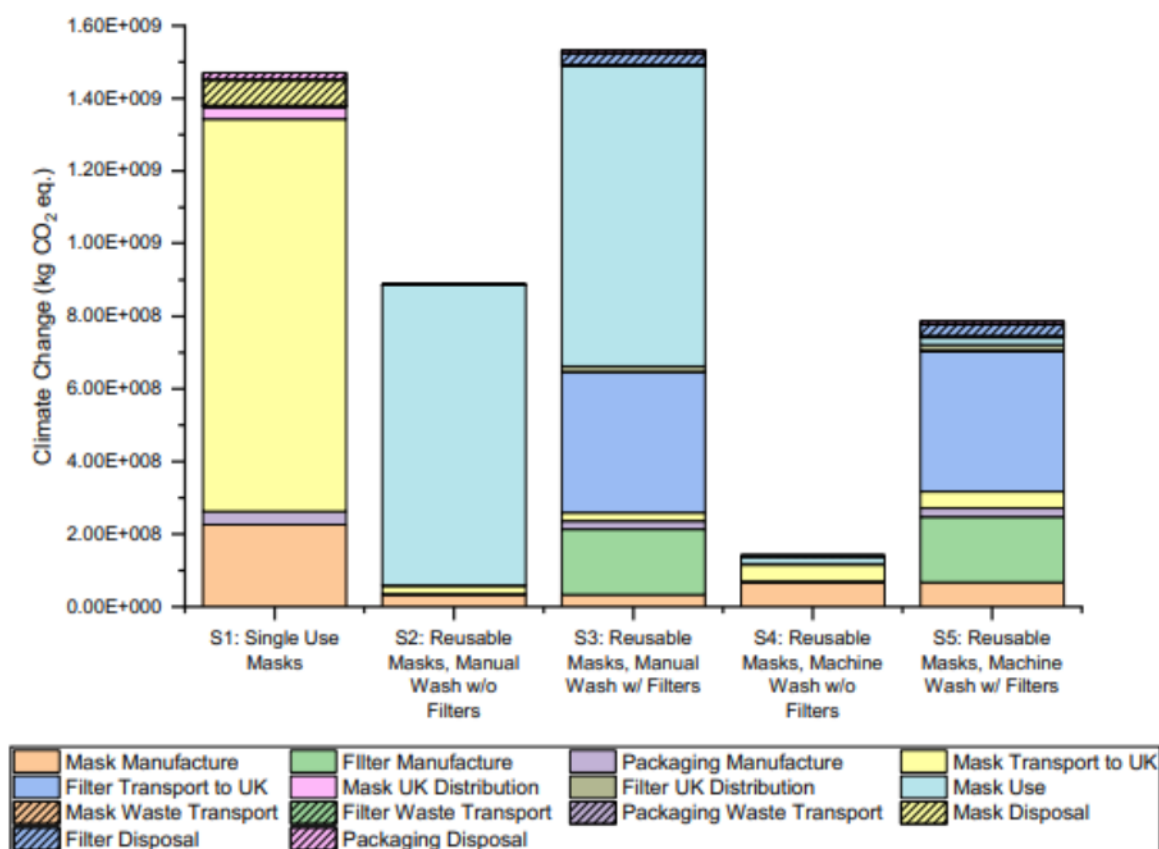
⁸⁶ <https://unearthed.greenpeace.org/2020/07/31/waste-incinerators-deprivation-map-recycling/>

⁸⁷ <https://www.futuregenerations.wales/about-us/future-generations-act/>

⁸⁸ <https://gov.wales/sites/default/files/publications/2019-11/code-practice-ethical-employment-in-supply-chains.pdf>

⁸⁹ <https://d2zly2hmrfvxc0.cloudfront.net/Covid19-Masks-Plastic-Waste-Policy-Briefing.final.pdf?mtime=20200424170934&focal=none>

Figure 8. Climate change results generated for each scenario of face mask use



Examples of environmental contamination early warnings

UK⁹⁰⁹¹⁹²⁹³⁹⁴

- Population-wide daily use of just one disposable mask per person could result in up to 66,000 tonnes of contaminated plastic waste; 128,000 tonnes of unrecyclable plastic waste and 57,000 tonnes of plastic packaging
- There are increasing reports of surgical masks and gloves littering public places
- In Wales, the organisation Keep Wales Tidy reports that coronavirus PPE litter is widespread

Hong Kong⁹⁵⁹⁶

- Piles of discarded masks washed up along a 100 metre stretch of coastline, with more being brought in on the tide

France⁹⁷⁹⁸

- In April, France ordered two billion disposable masks from China
- Dozens of masks, gloves and bottles of hand sanitiser littering the ocean bed along the Côte d'Azur was discovered
- France has increased the fine for littering from €68 to €135, with the potential of it rising to €750

⁹⁰ <https://www.bbc.co.uk/news/business-52362707>

⁹¹ <https://www.gov.uk/government/news/70-million-face-masks-for-nhs-and-care-workers-through-new-industry-deal>

⁹² <https://www.plasticwastehub.org.uk/news/the-environmental-dangers-of-employing-single-use-face-masks-as-part-of-a-covid-19-exit-strategy>

⁹³ <https://www.cieh.org/news/press-releases/2020/discarded-ppe-creating-mounting-litter-problem-says-cieh/>

⁹⁴ <https://www.bbc.co.uk/news/uk-wales-52907686>

⁹⁵ <https://earth.org/covid-19-unmasking-the-environmental-impact/>

⁹⁶ <http://oceansasia.org/beach-mask-coronavirus/>

⁹⁷ <https://www.france24.com/fr/20200404-la-france-a-command%C3%A9-pr%C3%A8s-de-2-milliards-de-masques-en-chine>

⁹⁸ <https://www.euronews.com/2020/06/08/coronavirus-pollution-plastic-masks-and-gloves-are-already-littering-the-seabed-campaigner>

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