

**FIRST MINISTER'S BAME COVID-19 ADVISORY GROUP
REPORT OF THE SCIENTIFIC RISK ASSESSMENT SUBGROUP**

CHAIRS:

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REPORT OF THE SSCIENTIFIC RISK ASSESSMENT SUBGROUP, CHAIR: PROFESSOR KESHAV SINGHAL MBE. AUGUST 2021

Executive Summary

1. It became obvious early on in the pandemic (March 2020) that Black, Asian and ethnic minority populations were disproportionately affected by higher mortality.
2. Various organisations including British Association of Physicians of Indian Origin (BAPIO) and Race Council Cymru (RCC) brought this to the attention of the Welsh Government.
3. Reports from the King's Fund, Office of National Statistics (ONS), Intensive Care National Audit & Research Centre (ICNARC), and Institute of Fiscal studies and the Nuffield Foundation confirmed these observations.
4. In addition to ethnicity and social behaviours, certain comorbidities were seen to have an impact on the mortality also.
5. In response to these concerns the Welsh Government proactively set up a Black, Asian and ethnic minority Covid-19 Advisory Group under the Chairmanship of Judge Ray Singh CBE and Dr Heather Payne.
6. Two subgroups of this group were set up. A Socio-economic subgroup chaired by Prof Emmanuel Ogbonna and a Scientific Risk Assessment subgroup chaired by Prof Keshav Singhal MBE (setup on 29th April 2020). The Risk Assessment subgroup was tasked with developing a risk assessment tool for use by NHS and Social care staff.
7. The Risk Assessment (RA) subgroup decided to take a pragmatic approach developing a simple, easy to use and self-administered Covid-19 risk assessment tool (RA tool). Within one month the RA tool was made available to minimise avoidable risk and protect lives, to keep health and social care staff safe during the peak of the pandemic.
8. The first version of the RA Tool was prepared within 2 weeks of the group's constitution and the final version was launched by the Welsh Government for use by all NHS/Social care staff on 27th May 2020 by the First Minister of Wales. ([Launching risk assessment to support BAME workers | GOV.WALES](#))
9. The RA tool has kept pace with emerging evidence over the last year with only minor modifications and has proven to be robust and fit for purpose. **93.8% respondents felt that the tool correctly identified their risk level for Covid-19.**
10. The RA tool has provided confidence to the public sector workers to manage their risks and continue working, helping to sustain the NHS and public services during the second wave of the pandemic. More than 71,000 NHS/Social care employees and over 74,000 public sector employees have used the online version of the tool, with an estimated 45,000 additional paper versions downloaded and used.

BACKGROUND: The Pandemic and ethnicity

By March 2020, it became obvious that the Black, Asian and Minority Ethnic (BAME) populations and BAME NHS staff were being affected disproportionately from Covid-19 both in terms of the severity of the disease and also in terms of increased mortality.

1. Ethnic minority deaths and Covid-19: A report from King's fund

[Ethnic minority deaths and Covid-19 | The King's Fund \(kingsfund.org.uk\)](https://kingsfund.org.uk/ethnic-minority-deaths-and-covid-19)

“People from ethnic minority backgrounds constitute 14 per cent of the population but, according to a recent study, account for 34 per cent of critically ill Covid-19 patients and a similar percentage of all Covid-19 cases. These patterns are not unique to the UK – in Chicago, black people constitute 30 per cent of the population but account for 72 per cent of deaths from the virus.

Of 119 NHS staff known to have died in the pandemic, 64 per cent were from an ethnic minority background.” (only 20 per cent of NHS staff are from an ethnic minority background). This disproportionate toll is shocking...

...those from BAME (black, Asian and minority ethnic) backgrounds have higher incidences of cardiovascular disorders and diabetes which can reduce people's ability to recover from Covid-19. We also know that people from ethnic minority backgrounds constitute a disproportionately high number of key frontline workers – public transport drivers, cleaners, carers, Band 5 nurses, etc. In London, 67 per cent of the adult social care workforce are from minority ethnic group backgrounds. And those from ethnic minority groups are more likely to be concentrated in poorer areas, live in overcrowded housing and in inter-generational households...

2. A report from Institute of Fiscal Studies and Nuffield Foundation, May 2020

Are some ethnic groups more vulnerable to COVID-19 than others?

[Are-some-ethnic-groups-more-vulnerable-to-COVID-19-than-others-IFS-Briefing-Note.pdf](https://www.ifs.org.uk/publications/1004)

After stripping out the role of age and geography, Bangladeshi hospital fatalities are twice those of the white British group, Pakistani deaths are 2.9 times as high and black African deaths 3.7 times as high. The Indian, black Caribbean and 'otherwhite' ethnic groups also have excess fatalities, with the white Irish group the only one to have fewer fatalities than white British.

Occupational exposure may partially explain disproportionate deaths for some groups.

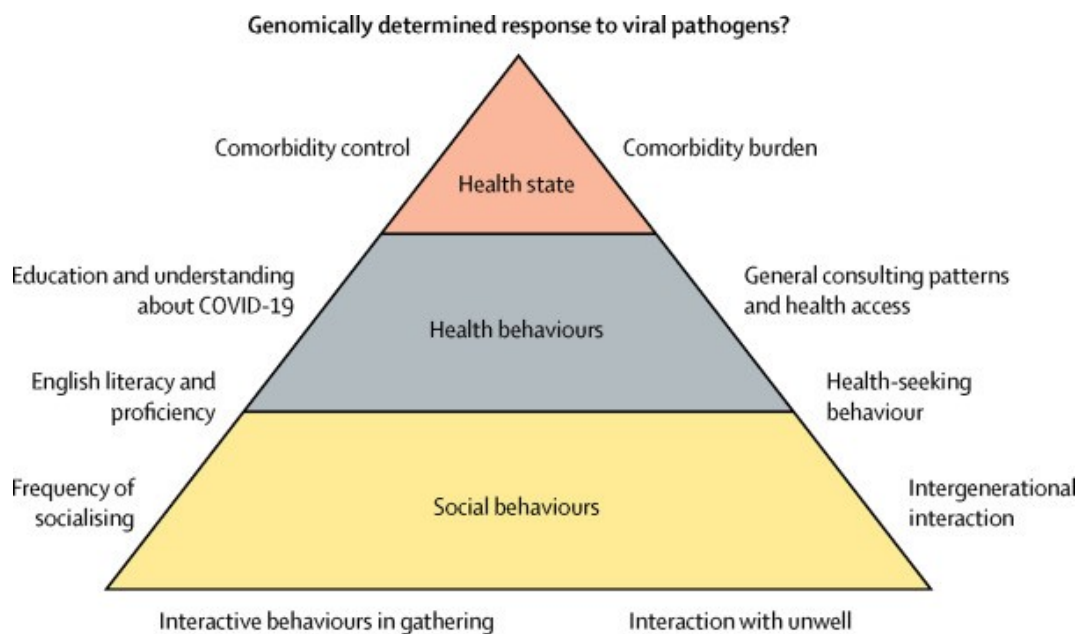
Key workers are at higher risk of infection through the jobs they do. More than two in ten black African women of working age are employed in health and social care roles. Indian men are 150% more likely to work in health or social care roles than their white British counterparts. While the Indian ethnic group makes up 3%

of the working-age population of England and Wales, they account for 14% of doctors.

3. Pareek et al, The Lancet April 21, 2020 DOI [The Lancet: Ethnicity and COVID-19: an urgent public health research priority](#)

Ethnicity is a complex entity composed of genetic make-up, social constructs, cultural identity, and behavioural patterns.

Ethnic classification systems have limitations but have been used to explore genetic and other population differences. Individuals from different ethnic backgrounds vary in behaviours, comorbidities, immune profiles, and risk of infection, as exemplified by the increased morbidity and mortality in black and minority ethnic (BME) communities in previous pandemics.



BME communities might be at increased risk of acquisition, disease severity, and poor outcomes in COVID-19 for several reasons ([Figure: The potential interaction of ethnicity related factors on SARS-CoV-2 infection likelihood and COVID-19 outcomes](#)). Specific ethnic groups, such as south Asians, have higher rates of some comorbidities, such as diabetes, hypertension, and cardiovascular diseases, which have been associated with severe disease and mortality in COVID-19.

Ethnicity could interplay with virus spread through cultural, behavioural, and societal differences including lower socioeconomic status, health-seeking behaviour, and intergenerational cohabitation.

If ethnicity is found to be associated with adverse COVID-19 outcomes, this must directly, and urgently, inform public health interventions globally.

1. Data from intensive care units in the UK had been published by ICNARC (01.05.2020)

[ICNARC: Report on COVID-19 in critical care](#)

The key points from this report about the demographics of intensive care admissions with Covid-19 are as under:

a. Age: *Median age at admission was just under 60*

Mortality goes up very significantly with advancing age as under

Age bracket	% Deaths
16-39	21.4%
40-49	25.6%
50-59	40.7%
60-69	55.7%
70-79	67.1%
80+	65.0%

It is important to note that intensive care patients tend to be younger than other hospitalised patients with Covid-19.

b. Sex: *71.5 % of admissions were Males. Of all mortalities, 53.3% were males and 44.2% were females*

c. Ethnicity:	Admissions	Discharged alive	% Deaths
White	4470 (66.0)	1689(53.3)	1479 (46.7%)
Mixed	111 (1.6)	34(49.3)	35(50.7)
Asian	1043 (15.4)	300(45.6)	358(54.4%)
Black	698 (10.3)	212(46.9)	240(53.1%)
Other	448 (6.6)	167(56)	131(44.0%)

When matched with the percentage of these groups in the local population, whites are underrepresented and BAME are overrepresented both for ICU admissions and mortality.

d. Index of Multiple deprivations: *Patients from the most deprived groups are significantly overrepresented both for ICU admissions and mortality from Covid-19 when compared with age and sex matched population. Category 4+5 (most deprived) make up 50% of the ICU admissions.*

According to latest data from the Office for National Statistics (ONS), of the 20,283 Covid-19 registered deaths in England and Wales to 17 April an overwhelming proportion of fatalities were of people from the poorest areas. The most deprived area had 55.1 deaths per 100,000 people, more than

double (118%) that in the least deprived areas, where the rate was 25.3 deaths.

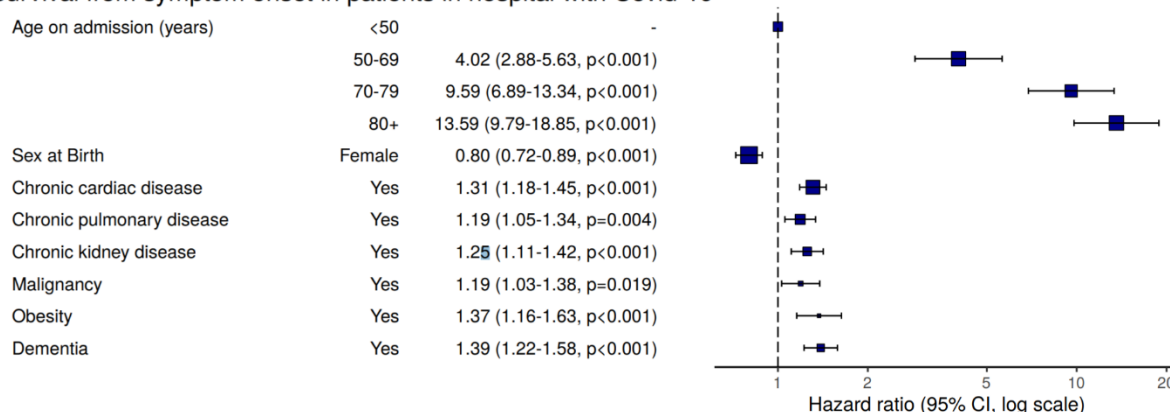
However, this probably does not tell the whole story. Of the 34 doctors who have died of Covid-19 so far, 30 were BAME. This group would be expected to be amongst the least deprived and it is therefore safe to assume that while deprivation is a major factor, other factors like ethnicity may be important.

- e. **Comorbidities:** 7.8% had a very severe co morbidity, out of which 60% died. A previous ICNARC audit had shown that 91% of all ICU admissions had at least one comorbidity.
- f. **BMI:** 73.3% had a BMI of over 25 and 38.8% had a BMI over 30.

2. Further data from UK hospitalised patients with Covid-19 comes from the ISARIC dataset of 16,749 patients between 6th February and 18th April 2020:

[Features of 16,749 hospitalised UK patients with COVID-19 using the ISARIC WHO Clinical Characterisation Protocol \(medrxiv.org\)](#)

Survival from symptom onset in patients in hospital with Covid-19



These data showed the effect of age, sex and various comorbidities on survival in patients hospitalised with Covid-19.

Advancing age was a significant risk factor, with age 50-69 associated with a 4-fold increase in risk of death, and age 70-79 associated with a nearly 10-fold risk of death, compared with patients under 50.

Further risk factors identified were:

- Male sex
- Chronic cardiac disease
- Chronic pulmonary disease
- Chronic kidney disease
- Malignancy
- Obesity
- Dementia

Diabetes was not included in this dataset

3. ONS data 07.05.2020

[Coronavirus \(COVID-19\) related deaths by ethnic group, England and Wales - Office for National Statistics \(ons.gov.uk\)](https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronaviruscovid19relateddeathsbyethnicgroupenglandandwales/20200507)

- *This provisional analysis has shown that the risk of death involving the coronavirus (COVID-19) among some ethnic groups is significantly higher than that of those of White ethnicity.*
- *When taking into account age in the analysis, Black males are 4.2 times more likely to die from a COVID- 19-related death and Black females are 4.3 times more likely than White ethnicity males and females.*
- *People of Bangladeshi and Pakistani, Indian, and Mixed ethnicities also had **statistically significant** raised risk of death involving COVID-19 compared with those of White ethnicity.*
- *After taking account of age and other socio-demographic characteristics and measures of self-reported health and disability at the 2011 Census, the risk of a COVID-19-related death for males and females of Black ethnicity reduced to 1.9 times more likely than those of White ethnicity.*
- *Similarly, males in the Bangladeshi and Pakistani ethnic group were 1.8 times more likely to have a COVID- 19-related death than White males when age and other socio-demographic characteristics and measures of self-reported health and disability were taken into account; for females, the figure was 1.6 times more likely.*
- *These results show that the difference between ethnic groups in COVID-19 mortality is partly a result of socio-economic disadvantage and other circumstances, but a remaining part of the difference has not yet been explained.*
- *There is no significant difference between NHS England figures and those of ONS which also include Wales, except for the “other ethnic group” where the mortality is higher in the NHS England dataset at 4.5% compared to the ONS dataset at 2.2%*
- *There is a significant jump in mortality in the age group 65+ across all ethnic groups*

4. OpenSAFELY: factors associated with COVID-19-related hospital death in the linked electronic health records of 17 million adult NHS patients.

[OpenSAFELY: factors associated with COVID-19-related hospital death in the linked electronic health records of 17 million adult NHS patients | medRxiv](#)

Population: 17,425,445 adults.

Time period: 1st Feb 2020 to 25th April 2020.

Primary outcome: Death in hospital among people with confirmed COVID-19.

Methods: Cohort study analysed by Cox-regression to generate hazard ratios: age and sex adjusted, and multiply adjusted for co-variables selected prospectively on the basis of clinical interest and prior findings.

Results: There were 5683 deaths attributed to COVID-19. In summary after full adjustment, death from COVID-19 was strongly associated with: being male (hazard ratio 1.99, 95%CI 1.88-2.10); older age and deprivation (both with a strong gradient); uncontrolled diabetes (HR 2.36 95% CI 2.18-2.56); severe asthma (HR 1.25 CI 1.08-1.44); and various other prior medical conditions.

Compared to people with ethnicity recorded as white, black people were at higher risk of death, with only partial attenuation in hazard ratios from the fully adjusted model (age-sex adjusted HR 2.17 95% CI 1.84-2.57; fully adjusted HR 1.71 95% CI 1.44-2.02); with similar findings for Asian people (age-sex adjusted HR 1.95 95% CI 1.73-2.18; fully adjusted HR 1.62 95% CI 1.43-1.82).

Conclusions: We have quantified a range of clinical risk factors for death from COVID-19, some of which were not previously well characterised, in the largest cohort study conducted by any country to date. People from Asian and black groups are at markedly increased risk of in-hospital death from COVID-19, and contrary to some prior speculation this is only partially attributable to pre-existing clinical risk factors or deprivation; further research into the drivers of this association is therefore urgently required. Deprivation is also a major risk factor with, again, little of the excess risk explained by co-morbidity or other risk factors. The findings for clinical risk factors are concordant with policies in the UK for protecting those at highest risk. Our OpenSAFELY platform is rapidly adding further NHS patients' records; we will update and extend these results regularly.

Diabetes and its role in Covid positive patients including the BAME populations

A meta-analysis ([Disparities in type 2 diabetes prevalence among ethnic minority groups resident in Europe: a systematic review and meta-analysis - PubMed \(nih.gov\)](#)) published in 2016 of 20 studies published in Europe between 1994-2014 suggested that:

1. Individuals from South East Asian origin are around 4 times (OR 3.7, 95% CI 2.7-5.1) more likely to develop Type 2 Diabetes Mellitus in comparison to those of White European descent.
2. Individuals of Middle Eastern and North African heritage were around 3 times more likely (OR 2.7, 95% CI 1.8-3.9), Sub-Saharan African slightly lower (OR 2.6, 95% CI 2.0-3.5).
3. Levels of risk were higher for females among all ethnic minority populations and were particularly high for those from Bangladeshi (OR 6.2, 95% CI 3.9-9.8), Pakistani (OR 5.4, 95% CI 3.2-9.3) and Indian (OR 4.1, 95% CI 3.0-5.7) populations.
4. Explanations of this may be a combination of genetic and environmental factors, though it is recognised that obesity is particularly more common among some ethnic minority groups.
5. Further evidence suggests dyslipidaemia may occur at lower levels of BMI and body fat in some BAME groups, mainly those with South Asian background.
6. Furthermore, hypertension appears to be more common in certain ethnic groups, particularly Black and Asian communities. Given this evidence and broader research identifying higher rates of certain cardiovascular disease, particularly stroke, among these communities it appears clear that there is evidence from epidemiological studies of significantly greater levels of cardiovascular risk among BAME populations.

A meta-analysis showed that diabetes mellitus was associated with increased Covid-19 disease severity and a more than two-fold increased mortality risk. [Diabetes mellitus is associated with increased mortality and severity of disease in COVID-19 pneumonia – A systematic review, meta-analysis, and meta-regression - ScienceDirect](#)

A study from China published on 01/05/2020 by Zhu et al in Cell Metabolism of 7336 patients noted that subjects with T2D required more medical interventions and had a significantly higher mortality (7.8% versus 2.7%; adjusted hazard ratio [HR], 1.49) and multiple organ injury than the non-diabetic individuals. Further, we found that well-controlled BG (glycemic variability within 3.9 to 10.0 mmol/L) was associated with markedly lower mortality compared to individuals with poorly controlled BG (upper limit of glycemic variability exceeding 10.0 mmol/L) (adjusted HR, 0.14) during hospitalization.

[Association of Blood Glucose Control and Outcomes in Patients with COVID-19 and Pre-existing Type 2 Diabetes - ScienceDirect](#)

BACKGROUND: Covid19 demographics from other countries?

Data from US:

[Search Results | CDC](#)

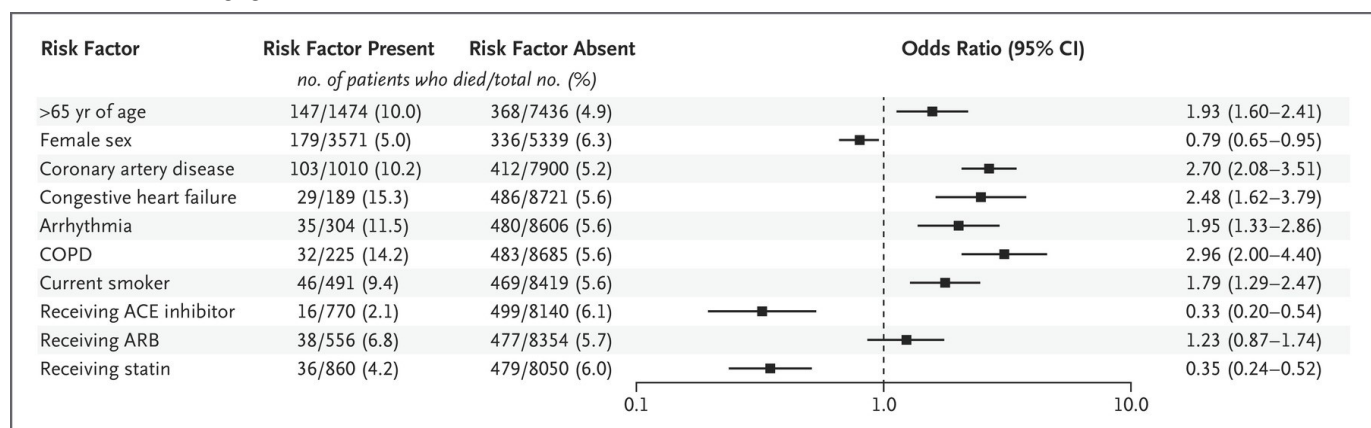
“A recent [Hospitalization Rates and Characteristics of Patients Hospitalized with Laboratory-Confirmed Coronavirus Disease 2019 | MMWR \(cdc.gov\)](#) report included race and ethnicity data from 580 patients hospitalized with lab-confirmed COVID-19 found that 45% of individuals for whom race or ethnicity data was available were white, compared to 55% of individuals in the surrounding community. However, 33% of hospitalized patients were black compared to 18% in the community and 8% were Hispanic, compared to 14% in the community. These data suggest an overrepresentation of blacks among hospitalized patients. Among COVID-19 deaths for which race and ethnicity data were available, identified death rates among Black/African American persons (92.3 deaths per 100,000 population) and Hispanic/Latino persons (74.3) that were substantially higher than that of white (45.2) or Asian (34.5) persons.”

Data from Europe/China/rest of the world:

[Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19 | NEJM](#)

8910 hospitalized patients from 169 hospitals- 1536 patients (17.2%) from North America, 5755 (64.6%) from Europe, and 1619 (18.2%) from Asia

63.5% were white,
7.9% were black,
6.3% were Hispanic, and
19.3% were Asian



A multivariable logistic-regression model showed that age greater than 65 years, coronary artery disease, congestive heart failure, cardiac arrhythmia, COPD, and current smoking were associated with a higher risk of in-hospital death. Female sex, the use of ACE inhibitors, and the use of statins were associated with a better chance of survival to hospital discharge

BACKGROUND: The Pandemic and Vitamin D

A recent and preliminary study on Vitamin D and Covid-19 ([Vitamin D insufficiency is prevalent in severe COVID-19 | medRxiv](#)) concluded:

“Vit insufficiency (VDI) is highly prevalent in severe COVID-19 patients. VDI and severe COVID-19 share numerous associations including hypertension, obesity, male sex, advanced age, concentration in northern climates, coagulopathy, and immune dysfunction.”

Vit D deficiency is not covered in ICNARC or ONS data but there is very strong observational link between Vit D deficiency and severe form of Covid-19 disease and enhanced mortality rates:

[COVID-19: Vitamin D deficiency; and, death rates | The BMJ](#)

[Evidence that Vitamin D Supplementation Could Reduce Risk of Influenza and COVID-19 Infections and Deaths \(mdpi.com\)](#)

[MitoFit Preprint Arch Vitamin D deficiency: a factor in COVID-19, progression](#)

Vitamin D might reduce risk of respiratory infections through several mechanisms. It can lower viral replication rate and reduce pro-inflammatory cytokines that produce inflammation that injures the lung, leading to pneumonia as well as increasing the concentration of anti-inflammatory cytokines.

BAME particularly South Asians populations are very often severely deficient in Vit D due to:

1. Dark skin not synthesising adequate Vitamin D
2. Vegetarian or vegan diets
3. Cultural aversion to sun and outdoor activities

There have however been conflicting and totally contradictory reports about the role of Vit D in Covid 19 mortality or severe form of disease and this remains ripe for further research

Initial Concerns raised to the Welsh Government

These concerns were raised by Race Council Cymru to the First Minister through their letter of 14th April 2020

[Letter to First Minister.pdf - Race Council Cymru](#)

BAPIO had independently written to the NHS England on 7th April and to NHS Wales on 17th & 24th April 2020 through letters as under.

[Risk Assessment Covid19.pdf - BAPIO](#)

[Risk Assessment recommendations Covid19.doc - BAPIO](#)

This second BAPIO letter of 24th April 2020 contained the germ of what would become the All Wales Covid-19 Risk Assessment Tool and recommended as under.

Risk assessment be carried out for BAME staff based on the ABCD-GHO Score.

A: Age >55=1 <55=0

B: BP/Hypertension High=1 normal=0

C: Chest Disease (Asthma/COPD etc) Yes=1 No=0

D: Diabetes Yes=1 No=0

G: Gender Male=1 Female=0

H: Heart disease Yes=1 No=0

O: Obesity Yes=1 No=0

A score of 4 or more must be considered high risk. Thus, a BAME male 55 years with 2 comorbid conditions would be high risk. It would be very simple for the staff member to fill out a form, followed by a more detailed assessment if needed.

In the meantime, a report published in HSJ on 22nd April 2020 provided an objective measure of the disproportionate mortality amongst the BAME NHS staff.

[\(Exclusive: deaths of NHS staff from covid-19 analysed | Comment | Health Service Journal \(hsj.co.uk\)\)](#)

Welsh Government Response – BAME Advisory Group and Risk Assessment Sub Group

Following these representations and taking note of the concerns raised, the Welsh Government acted with speed and set up the BAME Advisory group Chaired by Judge Ray Singh CBE and Dr Heather Payne, the first meeting of which was held on 29th April.

[Covid bame measures to protect the health and social care workforceeng.pdf \(gov.wales\)](#)

On the same day Prof. Keshav Singhal MBE was asked to Chair a Risk Assessment subgroup along with Helen Arthur with the terms of reference as under.

BAME Covid-19 Scientific Subgroup – Risk Assessment

Terms of Reference

Co-chairs: Professor Keshav Singhal MBE, Chair BAPIO Wales

Helen Arthur, Director of Workforce and Corporate Business

Aim of the Sub Group:

A scientific group convened to consider the evolving evidence in order to make recommendations to the First Minister's COVID-19 BAME Advisory Group:

- Workplace risk assessment for frontline health and social care workers in Wales;*
- Suggest practical steps to mitigate the risk for the staff identified as vulnerable; and*
- Consider the evolving evidence and implications for the wider community.*
- To report recommendations to Dr Andrew Goodall CBE, NHS Wales Chief Executive, Chief Medical Officer, Chief Nursing Officer and Albert Heaney, Director of Social Services and Integration, during the Covid crisis.*

Membership:

- The membership of the Subgroup is provided at Annexe 1.*
- The Group will meet by virtual means and report weekly to the Covid-19 BAME Advisory Group during the Covid crisis period.*
- Agreed advice or recommendations will be submitted to Andrew Goodall, NHS Wales Chief Executive & be published.*

Deliverables

- Recommend appropriate precautionary principles for use by NHS and Social Care employers in Wales, in consultation with WG, employers and unions.*
- Recommend a workplace Risk Assessment tool for staff with co-morbidities and encourage BAME colleagues to utilise this route, to promote best practice in health and safety at work.*
- Consider approaches under consideration in the other UK countries and recommend any additional interventions to protect against Covid, including implications for workforce and safe, effective PPE usage.*
- Recommend ongoing data collection and further analysis to monitor progress and outcomes and learn lessons for the future.*

The Risk Assessment Sub Group was launched on 30th April 2020

The risk assessment group had a diverse membership of doctors, public health experts, epidemiologists, endocrinologists, intensivist, community leaders, general practitioners, geneticists, and NHS Wales leaders.

Before the first meeting of the group, on 30th April 2020, colleagues from Aneurin Bevan University Health Board (ABUHB) led by Dr Marysia Hamilton-Kirkwood had also issued a preliminary version of a risk assessment tool incorporating the known risk factors as noted above on page 12.

Because of the urgency of the situation, the Welsh Government initially endorsed the use of the Risk Tool from ABUHB pending the development of the definitive risk assessment tool from our group.

First meeting of Risk Assessment Subgroup- 5th May 2020

The first meeting of the risk assessment group was held on the 5th of May 2020. The concept of the risk assessment tool (below) was tabled in the meeting for discussion and this concept gained the acceptance of the group members.

Welsh Risk Assessment Tool Covid-19 (WRATC) discussed on 5th May 2020

Risk factor	Score
<u>Age</u>	
50-59	1
60-69	3
<u>Sex at birth</u>	
Male	1
<u>Comorbidity</u>	
Cardiovascular disease (including HTN, previous MI, heart failure)	1
Diabetes Mellitus	1
Chronic pulmonary disease (including asthma, COPD, interstitial lung disease)	1
Chronic kidney disease	1
BAME	1
Obesity (BMI >30)	1

Maximum possible score is 10

Risk Stratification

- 0-3** Low risk - Continue current duties with adherence to infection control
4-6 High risk - Consider enhanced PPE & modification of duties
>7 Very High-Risk - Work from home/ non patient facing roles

Current Duties	Score 0-3	Score 4-6	Score 7 or more
Community	Continue with caution	Enhanced PPE	Very High risk, Work from home if possible
Primary care	Continue with caution	Enhanced PPE	Very High risk, Work from home if possible
Secondary care Non AGP	Continue with caution/Enhanced PPE	Modified duties and enhanced PPE	Very High risk, Work from home only
Secondary care with AGP	Enhanced PPE	Redeploy out of AGP areas	Work from home only

First Minister's written statement on 6th May 2020

The First Minister Prof. Mark Drakeford MS published a written statement on the 6th May 2020 confirming the launch of the BAME Advisory Group and the Risk Assessment and Socio Economic Subgroups

[Wales BAME Covid-19 health advisory group takes a cross-Government approach | GOV.WALES](#)

BAME only or universally applicable?

Though the risk assessment group had been formed to recommend risk assessment for BAME staff, we recognised the importance of having a tool that was universally applicable, irrespective of race or ethnicity as there were other risk variables to be taken into account for any staff member or indeed member of public.

Methodology and Guiding Principles in the production of the RA Tool

The Risk Assessment subgroup adopted the following approach in the production of the RA Tool

1. Collate all available clinical evidence at pace
2. Tease out the common threads and corroboration between all the major studies
3. Identify comorbidity clusters
4. Identify age, sex and ethnicity clusters and their overlap with comorbidity clusters
5. Prepare a simple risk assessment matrix which would be easy to use and self-administered encouraging the maximum number of people to use it.

6. Engage all stakeholders in the development process including wide consultations with BAME advocates and community groups, Unions and professional associations like the British Medical Association and the Royal College of Nursing.
7. Prepare an online version linked to the electronic staff records and E-learning Wales
8. Continually monitor ongoing research and adapt the risk assessment tool as required
9. Collect data on an All-Wales basis particularly to identify concordance between the risk assessment given by the tool and the individual perception of their Covid-19 risk.
10. Monitor ongoing risk assessment tool development in other UK Nations to identify learning points.

This approach was different to that adopted by the other UK Nations who relied on a data intensive approach. The RA Sub-group was however conscious about the need of developing the RA Tool at pace to save lives and decided to rely on the abundance of data already available to quickly produce a simple to use tool.

The group met weekly at formal meetings and would work on a daily basis in its urgent efforts to prepare a definitive tool as soon as possible.

Intangible Factors probably a complex set of economic, social & cultural factors

The risk assessment subgroup realised that apart from ethnicity and comorbidities, there were a number of intangible and less obvious factors as under which were being dealt with by the Socio-Economic Subgroup of Prof. Ogbonna. The various observations and hypotheses included the following.

1. Pakistanis, black Africans and black Caribbeans are over-represented among key workers overall.
2. Working age black African being 50% more likely to be a key worker than a white British working-age person, and nearly three times as likely to be a health and social care works
3. Facing bullying and microaggression regarding PPE availability.
4. Members of racial and ethnic minorities may be more likely to live in densely populated areas
5. Racial residential segregation is linked with a variety of adverse health outcomes and underlying health conditions
6. multi-generational households
7. More Reluctant to speak out & ask for PPE

8. Less likely to be heard, if they raise concerns
9. Locums, high risk in patients areas, Unsafe rotas, ? Less breaks
10. Relatively poor state of health working long hours, lack of exercise, financial stress, and work-related stress.

The risk assessment subgroup therefore decided to focus attention on tangible risk factors which had already been published in various studies and scientific papers as discussed above, which would lend themselves to immediate mitigation.

Clinically Extremely Vulnerable - Automatic scoring of 7 (Very High Risk)

In keeping with the ethos of simplicity, all those over 70 and those who had been sent shielding letters (Clinically extremely vulnerable) were automatically assigned a score of 7 (very high risk) and advised to work from home. This group of people included those with the following conditions

1. Solid organ transplant recipients
2. People with specific cancers:
 - People with cancer who are undergoing active chemotherapy or radical radiotherapy for lung cancer
 - People with cancers of the blood or bone marrow such as leukaemia, lymphoma or myeloma who are at any stage of treatment
 - People having immunotherapy or other continuing antibody treatments for cancer
 - People having other targeted cancer treatments which can affect the immune system, such as protein kinase inhibitors or PARP inhibitors
 - People who have had bone marrow or stem cell transplants in the last 6 months, or who are still taking immunosuppression drugs
3. People with severe respiratory conditions including all cystic fibrosis, severe asthma and severe Chronic Obstructive Pulmonary Disease (COPD)
4. People with severe single organ disease (e.g. Liver, Cardio, Renal, Neurological).
5. People with rare diseases and inborn errors of metabolism that significantly increase the risk of infections (such as Severe Combined Immunodeficiency (SCID), homozygous sickle cell).
6. People on immunosuppression therapies sufficient to significantly increase risk of infection.
7. Pregnant women with significant heart disease, congenital or acquired.

8. Children up to the age of 18 with significant heart disease, congenital or acquired.

First Version of the Risk Assessment Tool developed – 13th May 2020

On 13th May 2020, less than 2 weeks from its inception the risk assessment group submitted the first draft of the tool to the Welsh Government for consideration. The tool was further tweaked over the next 2 weeks and the final version was launched by the First Minister Prof Mark Drakeford MS on 27th May 2020

[First Minister's Statement launching the tool.pdf - Google Drive](#)

Other Risk Assessment tools across the UK and the world

Members of the Risk Assessment group particularly Dr Heather Payne Senior Medical Officer Wales, Ronan Lyons of SAIL and Daniel Thomas of NHS Wales were in regular contact with the similar groups in other UK Nations. Following discussions, it became clear that the Oxford group in England were focussing on a data intensive approach preparing a risk assessment tool which would be linked to the patient's medical records and would require to be administered by a health care professional, whereas the Scottish approach was to assign an age score to each comorbidity thereby calculating the Covid age which would guide the degree of risk.

The All Wales Covid-19 Risk Assessment subgroup decided following consultations that their own pragmatic approach which would allow everyone, including members of the public to risk assess themselves would be best suited to Wales and allow greatest penetration and almost universal use of the tool.

Controversies and discussions

A number of risk factors were keenly debated both within the group and with stakeholders. These included Sick cell trait, mild asthma, controlled diabetes, increased score for BAME females, particularly black and Pilipino females, increase weightage for over 60s, differential weightage for different ethnic groups, pregnancy etc.

The group engaged additional experts (Annex 3), including patient and representative groups to discuss individual issues. In some instances, like sickle cell trait, the group decided to go with a safe approach assigning them an extra point whereas on other issues, where there was a plethora of

available evidence, the group decided to go with an evidence-based approach always keeping in mind the overarching objective of simplicity.

Some comments made by group members during the formative stages will show the thought process of the group in the formulation of the risk assessment tool.

8th May

It is very comprehensive. I am also contacted by good number of medical staff requesting to count BAME as a risk factor. I am pleased that it is included

9th May

This is a preliminary risk assessment tool, which may evolve as further information is accessible at the national and international level

9th May 2020

The advice I have taken from the literature, my clinical colleagues, Kings Fund and occupational health – is “Keep it simple”.

11th May

As a equality practitioner I’m also aware that we need to make sure that the final risk assessment isn’t too academic

May

I think we have major role of producing the tool and this looks good.

Of course, we may have to alter weightage to different factors as we go along

13th May 2020 (the date of production of the 1st version of the tool)

I think an important point raised by many yesterday, is that this is a helpful tool, but only a tool, to enable sensible management decisions, and there should be accompanying guidance for line managers so they know how to deal pragmatically and compassionately with individual members of staff.

Representations were received from the BMA and RCN and other focus groups principally about varying the weightage given to one or the other risk factors. These were duly discussed and validated against available evidence and the risk assessment tool tweaked as appropriate

9th May 2020

- the shielding/’extremely clinically vulnerable’ list will need to be added as an initial exclusionary list of all who should automatically be at home.

15th May 2020

We don't claim ours(tool) is perfect but it's got a clear, coherent evidence base and has achieved full consensus. We are committed to monitoring and ongoing evaluation to refine and improve it.

21st May 2020

I think it looks really good. It is clear and easy to follow for staff members, which in turn will help their discussion with their line managers.

25th May 2020

Thank you for keeping us updated and I am sorry you all are working on this lovely Bank holiday.

By 19th May, Gemma Louise Nye and colleagues had prepared a clear and concise pictogram and PowerPoint slides depicting the exclusionary criterion (clinically extremely vulnerable) and a flow chart and guidance notes for the employee and the employers.

Vitamin D:

The role for Vitamin D was keenly debated and though there was evidence to suggest that Vit D levels were lower in BAME populations, and the Welsh Government issued widely publicised messaging about Vit D supplements, the group did not feel that including low Vit D levels was necessary for the risk tool.

BAME Females:

The group initially thought of allocating BAME females and extra 0.5 score, but as the published evidence rolled in, we felt that adding a further score to BAME females would be double counting and this decision turned out to be correct in hindsight.

Pilot testing:

During the formative days of the creation of the tool, a small pilot was run involving 24 BAME staff members, 21 out of whom felt that the tool correctly identified their own perception of Covid-19 risk.

All Wales Covid-19 Risk Assessment Tool launched 26th May 2020

Finally on 26th May 2020, nearly 3 weeks after the risk assessment subgroup had been formed, the risk assessment tool was launched by the First Minister Prof Mark Drakeford MS

[Launching risk assessment to support BAME workers | GOV.WALES](#)

Uptake amongst other public sectors:

2 days after the launch of the tool, other public sector employers starting with South Wales Police expressed an interest in using the risk assessment tool and very soon, other sectors like education, Welsh Government departments and employees, Higher education, businesses etc. Bespoke risk matrixes were prepared for some of these services keeping in mind their unique work place risk factors.

Nationally, the tool was adopted by the British Association of Physicians of Indian Origin and was one of the risk tools highlighted on the NHS employers website

[Risk assessments for staff | NHS Employers](#)

Further discussions

Following the release of the tool, considerable debate and discussions took place both within NHS Wales and on a national stage. There were considerable anxieties on the part of employees and trade unions about the risk tool either overestimating or underestimating risk and, comparisons were made with other risk stratifications exercises going on nationally and internationally.

In response Prof Keshav Singhal said on 15th June 2020

There are a number of scoring systems in use across the UK. When we developed this system for Wales, we had two overriding considerations.

- a. that the system is simple, easy to use, self-administered.*
- b. That the system should take into account the workplace risk and combined with the individual risk should be able to come up with a recommended course of action.*

We know that no risk assessment system is perfect or ideal because we just do not have validated data to produce an ideal tool. It is also futile to try and compare the scores from this system to the scores from another system as the systems would be completely different. Therefore, someone may score seven on the Welsh tool and be very high risk whereas in another system 7 may be a moderate risk

In the same way, the actual weight given to a particular risk factor becomes irrelevant because we believe that it is a combination of various factors coming together which contribute to the severity of the infection and the mortality and this is what our tool attempts to do.

I am sure you would be aware of various large studies including the open safely collaborative, the ICNARC and ISARIC study, the ONS statistics, and

the papers from the US all of which come to slightly different risk stratifications.

Our group considered all the available evidence and is continuing to monitor the emerging evidence to see if any modifications are needed, but have not found the need to do so with the evidence currently available.

We have run the tool through a sample of around 100 health staff and over 90% are satisfied that it reflects their risks accurately. If at all, there is a feeling that it overestimates the risk for some, and these staff members despite scoring high, are continuing to work.

By August 2020, the tool had been expanded to include a generic version for use in Education, childcare, play work, youthwork and further education.

The risk assessment tool was also made available on electronic staff record (ESR) and on eLearning Wales platform. By 13th August 2020, 7000 staff had completed the risk assessment on the electronic platform whereas the number as of July 2021 was 10 times more (74,260), in addition to the estimated 45,000 pdf versions downloaded and used for the risk assessment.

Stakeholder engagement August 2020:

The Welsh Government facilitated ongoing stakeholder engagement through established advisory groups and took the following actions.

- HSS animation live on YouTube and publicised
- Posters for HSS settings on WG website
- “Key points for managers” flyer on WG website
- Webinars for employers delivered
- Social media plan delivered from @WGHealthandCare supported by
- @WG_Communities running
- Phase 2 of the social media and display paid for ads drawing to a close
- Stakeholder Toolkit (social media suggested content, poster, animation, GIFs) issued to HSS and equalities stakeholders
- Ministerial column printed in the Wales on Sunday on the day shielding
- Paused promoting and encouraging use of the tool
- Up to date FAQs and guidance live

Forward look August 2020:

- Deputy Minister to record video clip for use on social media on Tuesday 22 September.
- Dependent on qualitative feedback and evaluation being received by policy teams we may have an opportunity for a further comms activity burst if we are able to identify positive case studies
- Evaluation of activity has begun and initial indications show an encouraging picture in terms of awareness of the tool. Report to follow.

Paper and Electronic versions

Initially the tool was released as a pdf version and cascaded to all NHS Wales employees and health boards through staff bulletins and emails. However, the need to cascade the information widely on an electronic platform led to the development of an animation for the public published on YouTube

[Risk Tool animation: YouTube](#)

Chronology of actions:

	Activity
21 April	Minister for Health and Social Services Written Statement: COVID-19 and BAME Communities on the emerging evidence of the disproportionate impact that COVID-19 is having on some individuals from Black, Asian and Minority Ethnic (BAME) backgrounds.
29 April	BAME Covid-19 Expert Advisory Group weekly meetings commence.
1 May	Dr Andrew Goodall CBE , endorses the use of an existing Risk Assessment Tool developed by Aneurin Bevan University Health Board (ABUHB) as an immediate way forward and directs Chief Executives and Chairs in this approach recognising and making clear the expectation that further advice arising from the work of the Risk Assessment Subgroup would be implemented without delay.
2 May	Minister for Health and Social Services Written Statement: COVID and BAME – measures to protect the Health and Social Care workforce welcoming the Joint Statement made by NHS Employers, the Association of Directors of Social Services, Trade Unions and making clear the need for a precautionary approach as the evidence base for the differential impact of COVID-19 on health and social care workforce continues to evolve.
5 May	Covid-19 BAME Risk Assessment Subgroup weekly meetings commence.
26 May	Minister for Health and Social Services Press release Wales BAME Covid-19 health advisory group takes a cross-Government approach
27 May	First Minister Written Statement: All-Wales COVID-19 Workforce Risk Assessment Tool The Workforce Risk Assessment Tool is made available as a pdf on WG website, for immediate use across the NHS and social care
10 June	Targeted Digital media campaign commences 

	Activity
10 June	Links to the pdf version of the Workforce Risk Assessment is included within education guidance published on 10 June. The Risk Assessment used across Wales to support return of staff to schools ahead of re-opening on 29 June.
22 June	The Tool was made available on the Learning@Wales e-learning platform . In the first week around 700 people completed the Risk Assessment The Learning@Wales platform, also provides access to a range of other e-learning modules that are relevant including infection prevention and control.
30 June	An animation describing how to use the Tool made available in English and Welsh provided on YouTube shared through BAME networks as well as formal comms channels, this continues to receive much positive feedback. ENGLISH: Risk Tool animation: YouTube WELSH: Risk Tool animation Welsh: YouTube
31 July	Circa 4000 risk assessments completed by NHS Staff in their Electronic Staff Record (ESR). Just 10 days after being made available through ESR. 2500+ risk assessments completed by staff in health, social care and education on the Learning@Wales e-learning platform.
7 Aug	Updated risk assessment tool live (both online & PDF) which has taken account of the changes in shielding advice (paused from 16 August). The WG website also updated to signpost different sectors to the most appropriate format of the tool.
10 Aug	Adapted Tool for Education, Childcare, Playwork, Youth Work and FE Adapted Tool to be used by other workplace settings
19 Aug	Chair of BAME Advisory Group and Chair of Risk Assessment Subgroup attending NHS Chief Executives meeting to discuss the Risk Assessment Tool

Evaluative Feedback July 2020: Dr Heather Payne and Natasha Harley

[Evaluative Report COVID-19 Risk Assessment 2.pdf - Google Drive](#)

The feedback received from stakeholders as under was considered by the risk assessment group and the Welsh Government leading to a number of positive actions including the tool being more widely publicised and replacing all other versions in circulation previously. Communications were tweaked to confirm that the risk assessment tool was for use by everyone irrespective of ethnicity and the shielding group being “very high risk” was reiterated. The feedback was very encouraging to the group as it validated our basic premise of producing a risk assessment tool that was simple and easy to use and also promoted individual responsibility for the user, empowering them.

Positive Feedback

- The tool was well-received by employees and they were grateful to have it. They felt the main higher risk characteristics had been captured.
- It was straight-forward and easy to use.
- Users found the tool to be empowering, colleagues liked the lifestyle advice included.
- Having one 'go to' risk assessment was preferable to having one for each health board.
- The animation helped to make using the tool clearer.
- Glad to see ethnicity data was being captured.
- Typical responses praising the tool were: 'it feels like the Welsh government are trying to find solutions, and this is appreciated'. 'The tool outlined good advice for personal responsibility, which made it empowering'. 'People were confused initially at the different risk assessments available, so having one is definitely better'.

Negative feedback

- Respondents reported that the tool seemed poorly publicised on health board websites and was difficult to access on the Learning@Wales platform. Some interviewees felt the risk assessment had been rolled out too late as they had not seen it publicised.
- There was felt to be a lack of clarity as to who should be contacted regarding any issues around engaging with the risk assessment.
- Feedback highlighted confusion surrounding other tools still in circulation, some health boards were using tools with different scoring, leading to discrepancies in overall risk scores.
- Concerns regarding engagement and uptake of the tool within health boards.
- Still some confusion around who the tool is for, some still think this is only for BAME individuals.
- Some members of the BAME community felt 'singled out' as line managers were asking specifically for them to fill out the risk assessment. Didn't seem clear the tool was for use by all staff members.
- There was also some concern regarding what would happen to individuals currently shielding when this is paused and calls for the tool to be updated.
- Common critical responses to the tool were: 'it's hard to create an account on the Learning@Wales page, I think this puts people off'. 'Managers are already busy enough without the risk assessment, it was difficult to know who to contact for further support'. 'The tool needs to be for everyone-not just BAME staff'.

All Wales Covid-19 Risk Assessment tool- Versions

With the waxing and waning of Covid-19 numbers and the onset and subsequent decline of the 2nd wave, there were minor tweaks in the guidance accompanying the tool to ensure that the risk assessment reflected the prevalence of the virus in the society and gave the employees the confidence to keep on working particularly in key services like the NHS and Social care. Despite minor tweaks, there has been remarkably little change between the version released on 7th August 2020 and the one in use today as shown through the following links to the August 2020 and August 2021 versions.

All Wales Covid-19 Risk Assessment Tool Version 07/08/2020

[Covid-19 Workforce Risk Assessment Tool - AMENDED FOR PAUSE IN SHIELDING](#)

All Wales Covid-19 Risk Assessment Tool Version 20/08/2021

[Covid-19 Workforce Risk Assessment Tool 20/08/2021](#)

All published iterations of the risk assessment tool are mentioned in the appendix.

Usage of the All Wakes Covid-19 Risk Assessment Tool (August 2021)

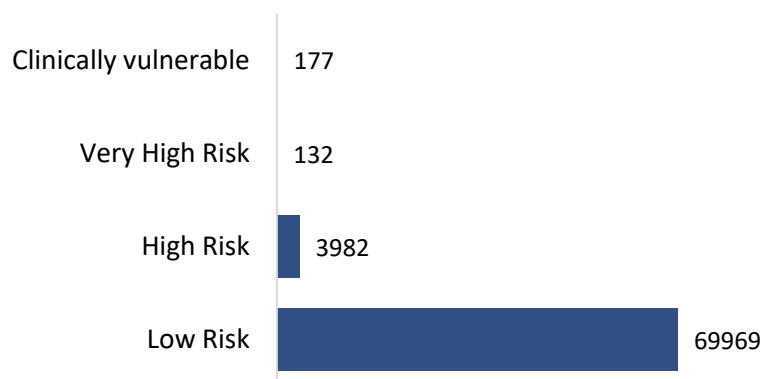
The following tables illustrates the usage of the tool in all public sectors in Wales through the electronic platforms of Learning@Wales and ESR

	Low Risk	High Risk	Very High Risk	Clinically vulnerable	Total
Health	67,190	3,843	74	89	71,196
Further Education	696	27	25	29	777
Social Care	600	32	7	28	667
Other	473	23	8	14	518
Education	400	19	8	6	433
Local Authority	189	6	-	-	195
Primary Care	164	13	3	10	190
Other Public sector	114	11	-	-	125
Childcare	66	4	7	-	77
Private sector	30	1	-	-	31
Not Stated	23	2	-	1	26
Youth Work	9	1	-	-	10
Police	9	-	-	-	9
Playwork	5	-	-	-	5
Students	1	-	-	-	1
All Sectors	69,969	3,982	132	177	74,260

Health is the sector with the maximum usage of over 70000 individual risk assessments covering over 90% of the NHS Wales staff. In addition, it is estimated that over 40000 pdf copies have been downloaded from the Welsh Government website and this would imply that there has been a more or less universal risk assessment of the NHS and Social Care staff using the All

Wales Covid-19 risk assessment tool. The following table gives the risk profile of the staff who have undergone risk assessment,

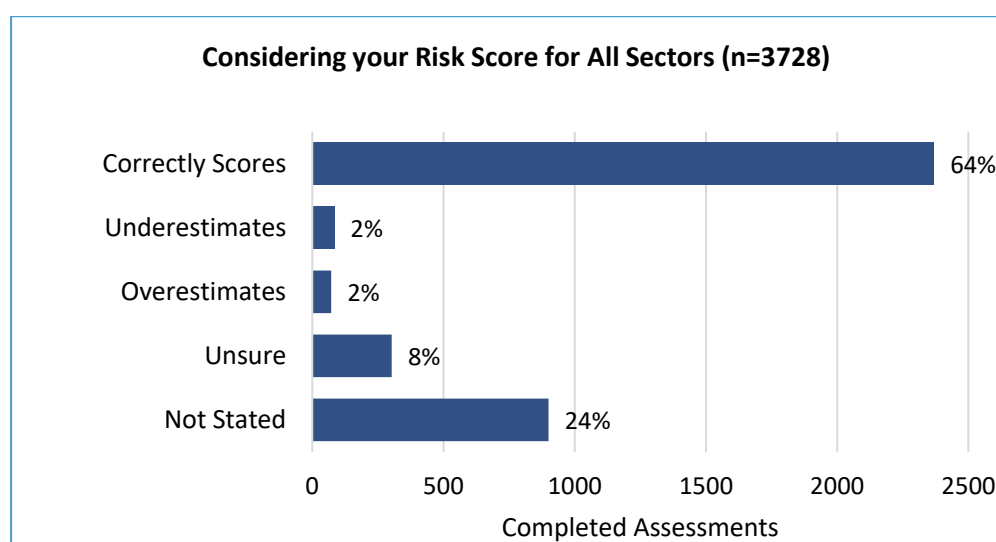
Risk Profile for Health (n=71196)



It is obvious that the majority of the staff were low risk and this assessment provided them with the confidence to continue working during the second wave contributing to sustainability of the NHS services.

Confidence in the tool:

The electronic version of the tool started incorporating a supplementary question about the staff member's own perception of their risk and the concordance with the risk calculated by the tool. The results are as under.



If those stating “*unsure*” and “*not stated*” are taken out, a total of 2525 respondents either stated that the tool was in concordance with their own risk perception or over or underestimated their risk.

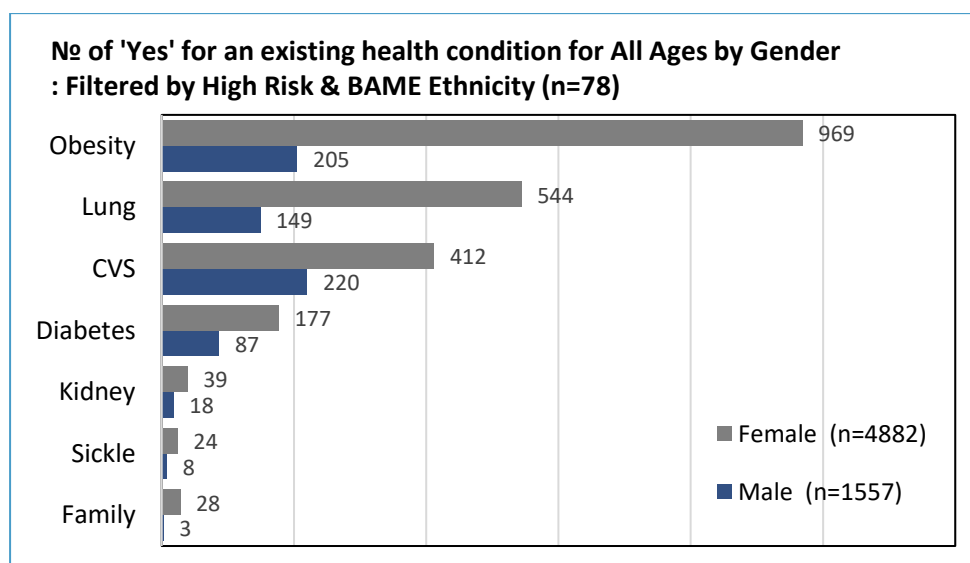
93.8% of these respondents (2369 out of 2525) felt that the All Wales Covid-19 Risk Assessment Tool correctly identified their risk and was in concordance with their own risk perception, thereby giving the staff the confidence to believe in the tool and the mitigating actions it signposted.

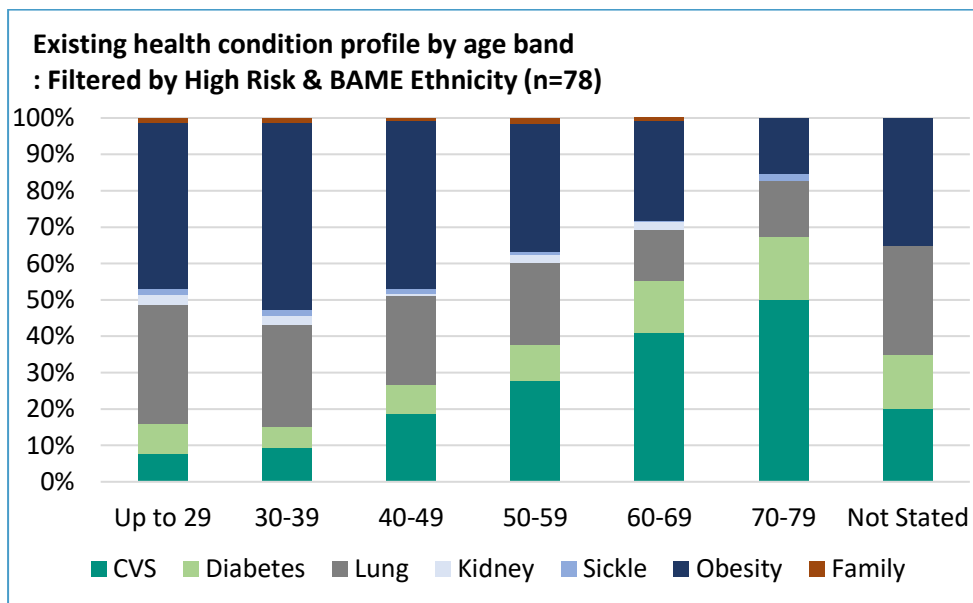
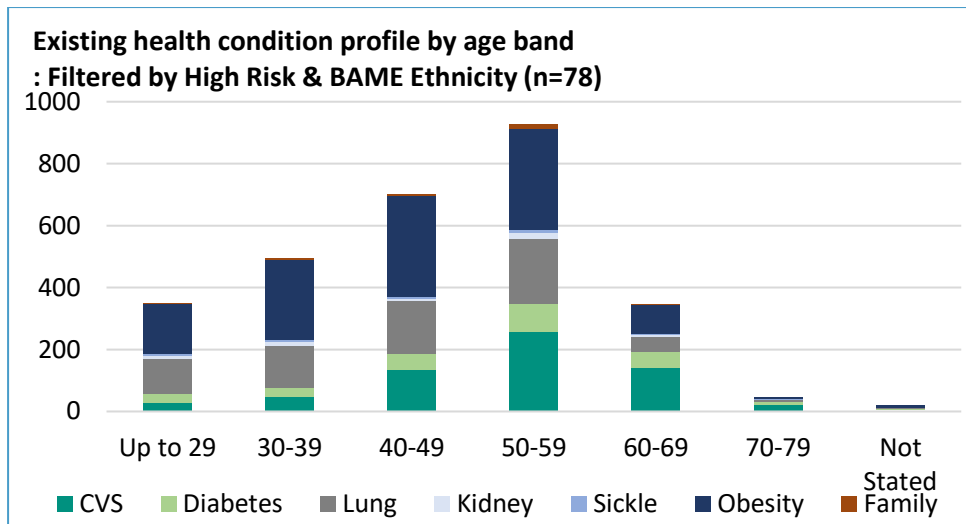
Identified risk factors in the staff

The data collection from the tool identified a number of risk factors with obesity, lung disease and cardiovascular disease being the top three, followed closely by diabetes. While Obesity was the top risk factor in BAME staff, this spot was taken by cardiovascular disease in the Non BAME staff.

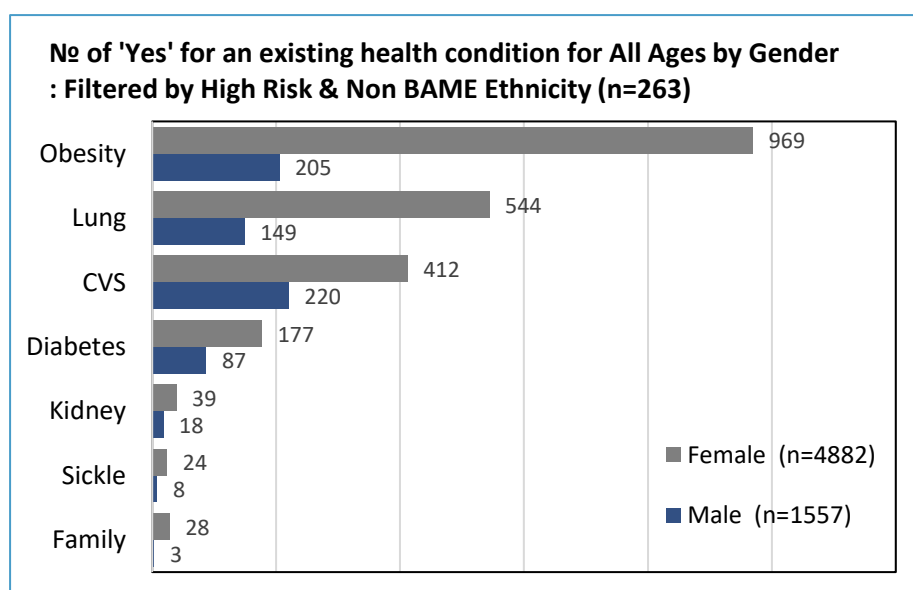
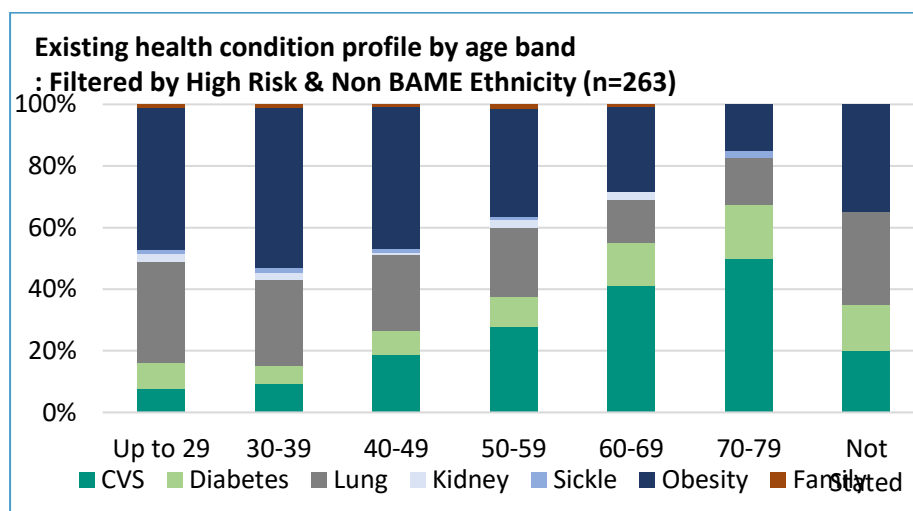
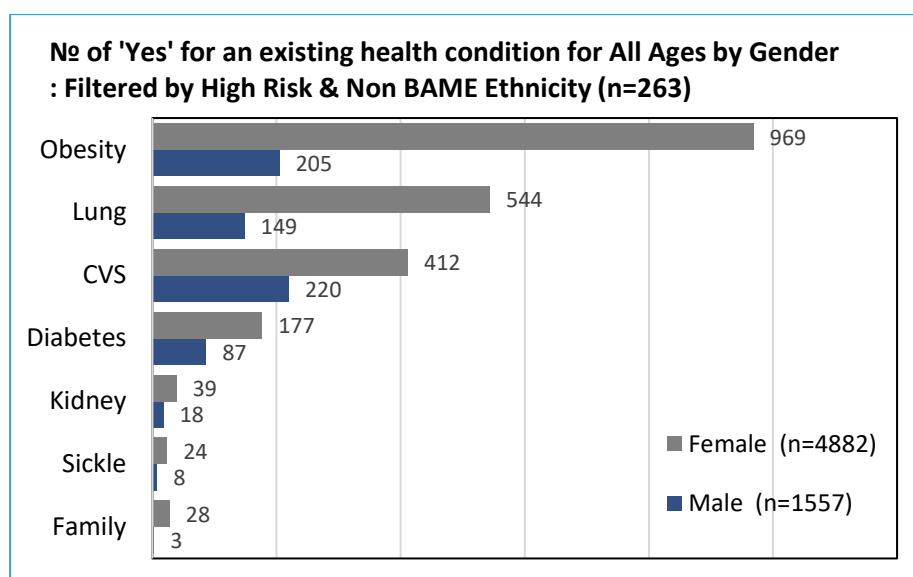
This provides a baseline to Public Health Wales to target and strategize health improvement amongst NHS Wales staff in the future.

Identified Risk Factors in BAME staff (High Risk)



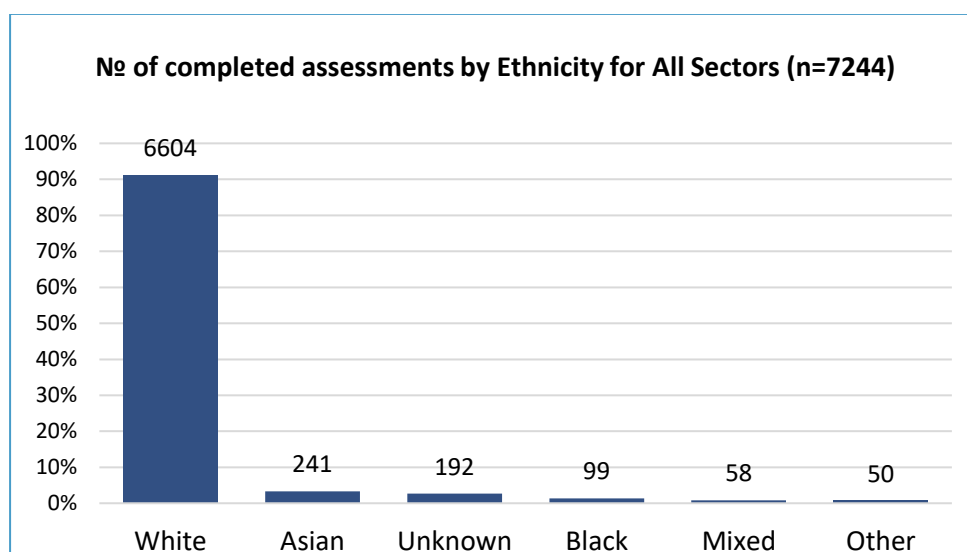


Identified risk factors Non BAME staff (High Risk)



Ethnicity Data

Despite over 74000 respondents completing the risk assessment form, ethnicity data was only marked in 7244 forms.



While the comorbidities have been broken down according to ethnicity, it has not been possible to risk profile BAME Vs Non BAME staff due to the small number of respondents recording their ethnicity. This remains an area for further data collection and research.

Conclusions

1. The Risk Assessment group was able to prepare a evidence based, pragmatic, self-administered and easy to use tool within 3 weeks of its constitution, a tool which has stood the test of time and despite newly emerging evidence, has remained largely unchanged since its launch in May 2020.
2. Over 93% of respondents have expressed their confidence in the tool correctly identifying their level of risk from Covid-19.
3. Ethnicity data needs to be more robustly collected to identify future health promotion needs of the employees.
4. The risk assessment exercise and the tool provides a framework for any future public health emergency and can be rapidly altered at pace.
5. The comorbidity data will provide Public Health Wales data & information to target health improvement measures for improving the health of the NHS and public sector staff. The tool itself serves as a proxy of the health of the individual and will provide an impetus to the public to tackle their health positively.

Acknowledgements

The risk assessment group wishes to acknowledge the proactive role of the Welsh Government led by the First Minister Prof Mark Drakeford MS, the then Health Minister Vaughan Gething MS and the then Dy Minister Jane Hutt in setting up the BAME advisory group and the risk assessment subgroup and expresses its thanks to them.

We would like to express our thanks to Judge Ray Singh and Dr Heather Payne, Chairs of the BAME advisory group for their constant support, and advise, both technical and otherwise. The BAME advisory group provided constant oversight and their helpful suggestions and challenges shaped the evolution of the tool in no small measure.

I as the Chair of the risk assessment group would like to thank Helen Arthur my Co-Chair, Gemma Louise Nye and Tesneem Ahmad for burning the midnight oil, smoothing ruffled feathers, liaising with external stakeholders, communicating and tackling challenging and fraught discussions and facilitating the work of this group. Without their help, this would not have been possible. Many other secretariat members toiled for long hours and are the real heroes of this co-production.

Finally, the members of the risk assessment group gave up days, weeks and months and were constantly engaged in their burning desire to produce a risk assessment tool which would keep the employees safe and did so in record time of 3 weeks. The fact that it has stayed largely unchanged over the last year, despite new evidence shows that the original premise and the thought process in the production of the tool has stood the test of time and is a testament to the wisdom and sagacity of the members of this group.

Annexe 1: Risk Assessment Tool versions (Health and Social Care)

Version 1 published 28 May 2020

All Wales COVID-19 Workforce Risk Assessment Tool

All Wales COVID-19 Workforce Risk Assessment Tool

Introduction

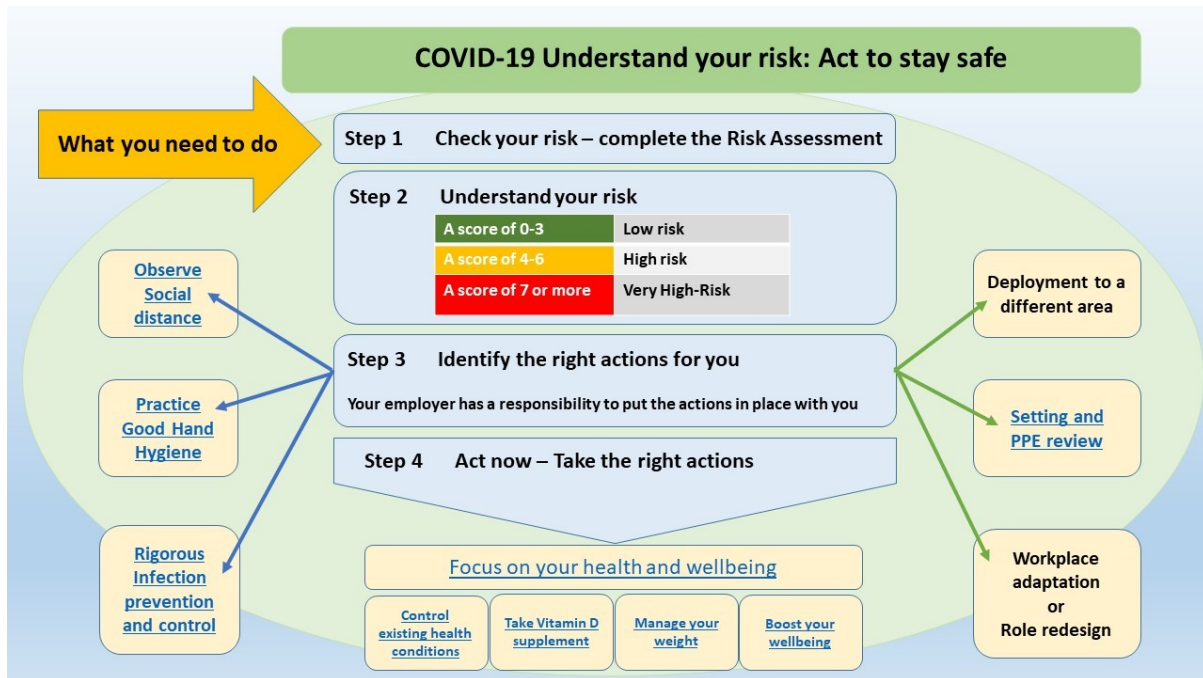
This Risk Assessment Tool has been developed to help people working in the NHS and Social Care in Wales to see if they are at higher risk of developing more serious symptoms if they come into contact with the Covid-19 virus.

We want to help you understand whether you may be at greater risk and to help you and your line manager to choose the right actions for you based on your level of risk.

Your employer has a duty of care to protect your health and safety at work and this includes understanding if you are at extra risk from COVID-19. This duty of care includes ensuring an equitable approach for all staff regardless of ethnicity or any other protected characteristics.

The next page sets out an overview of the risk assessment process. It has links to the latest guidance and information on the basic things that everyone can do to reduce their risk of COVID-19 infection, as well as the things that employers must do to support people who work for them.

Please use the resources as well as the Risk Assessment Tool to get the best results.



All Wales COVID-19 Workforce Risk Assessment Tool

Who needs to use this tool?

There are already well established arrangements and guidance for people who are in a 'Shielding Group' who should be staying at home or who are considered 'Vulnerable' according to Public Health guidance and so should already be maintaining strict social distancing. This tool does not apply to these individuals as following existing guidance already mitigates the risk they face.

Shielding groups (Very High Risk) and Vulnerable Groups (High risk)

Everyone who is considered to be extremely vulnerable to Covid-19 infection will have received a '[shielding ' letter from the Chief Medical Officer for Wales Dr Frank Atherton](#), setting out the steps you should take to protect your health. These are known as "shielding" measures and advise staying at home until a further announcement is made, so this risk assessment is not necessary.

Vulnerable groups (adults who would normally be offered a flu jab for health reasons) are at higher risk and are advised to maintain strict social distancing. Appropriate adjustments to their role, redeployment or medical suspension should already be in place for these individuals.

Pregnant women may be particularly vulnerable and must not work in direct patient-facing roles beyond 28 weeks.

Important note – if you are of a Black, Asian, Minority or Ethnic (BAME) background and under 28 weeks pregnant

New information about pregnant BAME women indicates that they are at considerably increased risk throughout their pregnancy and so should avoid face-to-face contact with COVID-19 cases. This means no front line work where there is sustained community transmission.

All Wales COVID-19 Workforce Risk Assessment Tool – confidential once completed

How to use this Tool

The Tool asks a number of questions about you that are designed to identify whether you are at a higher risk from Covid-19. It asks some questions about your health, weight and ethnicity which may increase your risk of serious illness following an infection with Covid-19.

You may know the answers to the questions yourself, but if not you can discuss this with your line manager, workforce team, union representative, Occupational Health or advocate.

You may also want to consult your GP about the health conditions that are listed.

Please complete the questions and add up your score.

COVID-19 Understand your risk: Act to stay safe

We will continue to develop and improve the All Wales COVID-19 Workforce Risk Assessment Tool. If you have any comments or queries on the use or to improve the tool please email HSS.Covid19.WorkplaceAssessmentSubGroup@gov.wales

All Wales COVID-19 Workforce Risk Assessment Tool – confidential once completed

	Risk factor	Score
Step 1 Check your risk	Age – Covid-19 seems to have a bigger impact on people who are older	
	• If you are aged between 50-59	1
	• If you are aged between 60-69	2
	Sex at birth – Covid-19 seems to have a bigger impact on males than females	
Consider each risk factor that applies to you and total your score	• Male	1
	Ethnicity – Covid-19 seems to have a bigger impact on people from some ethnicities	
	• Do you identify as one of the BAME or Mixed race groups as set out in this link	1
	Existing Health conditions (Comorbidity) – Covid-19 seems to have a bigger impact if you already have other pre-existing health conditions. You may want to speak to your GP if you are not sure about these questions	
	• Cardiovascular disease	
	Are you on any treatment for Hypertension (high blood pressure), Atrial Fibrillation (Irregular heart rate), Heart Failure, Previous MI (had a heart attack), had a stroke, or Transient Ischemic Attack (mini stroke)	1
	• Diabetes Mellitus Type 1 or 2	1
	• Chronic lung disease (including asthma, COPD, interstitial lung disease)	1
	• Chronic kidney disease (any stage 1-5)	1
	• Sickle cell trait, Thalassaemia trait or other haemoglobinopathy	1
	Obesity – Covid-19 seems to have a bigger impact if you are overweight	
	This link will help you work out your BMI – if your BMI is more than 30 OR If your waist circumference is:	
	• South Asian Female more than 33 inches (84cm); Other BAME or white Female more than 34.5 inches (88cm) • South Asian Male more than 35 inches (89cm); Other BAME or white Male more than 40 inches (102cm)	1
	Family history – Covid-19 seems to have a family susceptibility for some people, especially twins	
	• Has a member of your immediate family (parent under 70, sibling, child) been in ITU or died with Covid-19	1
Total score		

All Wales COVID-19 Workforce Risk Assessment Tool – confidential once completed

Step 2 Understand your risk – what your score means in your workplace setting

Workplace setting	Score		
	Low Risk 0-3	High Risk 4-6	Very High Risk 7 or more
Community care	Continue with caution	Consider modified duties and PPE Review*	Work from home or non patient facing
Primary care	Continue with caution	Consider modified duties and PPE Review*	Work from home or non patient facing
Secondary care Non AGP	Continue with caution	Consider modified duties and PPE Review*	Work from home or non patient facing
Secondary care with AGP	PPE Review*	Redeploy out of Aerosol Generating Procedure areas	Work from home or non patient facing

*PPE Review – This should consider the work setting, review all Transmission Based Precautions and ensure the selection and correct use of PPE including training and fit testing.

Now arrange a time to discuss with your line manager to agree a plan and ensure you are appropriately protected. This may include a discussion with Occupational Health.

All Wales COVID-19 Workforce Risk Assessment Tool – confidential once completed

Step 3 Identify the right actions for you

Now you have completed your COVID-19 Risk Assessment score please discuss with your line manager, occupational health, workforce team, union representative or advocate to ensure you are appropriately protected.

Things I can do myself

Do the important things to maintain your safety in the workplace

- Observe good hand hygiene, with frequent use of soap and water or alcohol-containing gel.
- Maintaining a distance of 2 metres is an important aspect of the measures we must all take to minimise the risks of the spread of COVID 19. It is something we should aim to do in all aspects of our daily lives and anywhere in work where this is possible.
- Use appropriate personal protective equipment identified for your role and know how to use it properly.
- Observe isolation requirements for known or suspected COVID-19 cases.
- Ensure your infection control training is up to date.

Things my employer can help with

- Your line manager or union rep will help you use the tools and identify the right actions for you.
- Making adjustments
 - Can some or all of your duties be undertaken or completed in a different way
 - Can adjustments be made to enable you to work safely,
 - Can face-to-face contact with the public and home visits be limited or avoided
 - Ensure appropriate physical distancing within the workplace
- Will adjustments allow you to work from home
- If no adjustments can be made to mitigate your risk then temporary Medical Exclusion may be considered.

All Wales COVID-19 Workforce Risk Assessment Tool – confidential once completed

Step 4 Act now – take the right actions

Following your discussions with your line manager record the agreed plan and ensure you set a time for review.

What reasonable adjustments have been identified and taken to mitigate your identified risks?

.....

Date adjustments were introduced*

.....

* This should be signed and dated by both employee and line manager

Date for review

.....

This may be time based or instigated by an event that impacts on your circumstances

All Wales COVID-19 Workforce Risk Assessment Tool – confidential once completed

Welsh Government are committed to ensuring that we learn quickly so that we can best protect you from harm due to COVID-19.

Your help and support in consenting to us gathering the evidence from your risk assessment is vital to inform further analysis so that we can better understand the disproportionate impact that COVID-19 is having on some individuals. This information will be used for this sole purpose in relation to COVID-19 and to continue to improve our risk assessment. It will only ever be your anonymised information that will be shared.

Information provided in confidence will only be used for the purposes advised and consented to by yourself

COVID-19 Understand your risk: Act to stay safe

We will continue to develop and improve the All Wales COVID-19 Workforce Risk Assessment Tool. If you have any comments or queries on the use or to improve the tool please email HSS.Covid19.WorkplaceAssessmentSubGroup@gov.wales

Version 2 published 18 June 2020

Version 3 published 7 August 2020

Version 4 published 8 December 2020

Version 5 published 15 January 2021

Version 6 published 30 March 2021

All Wales COVID-19 Workforce Risk Assessment Tool

29/06/2021

All Wales COVID-19 Workforce Risk Assessment Tool

Introduction

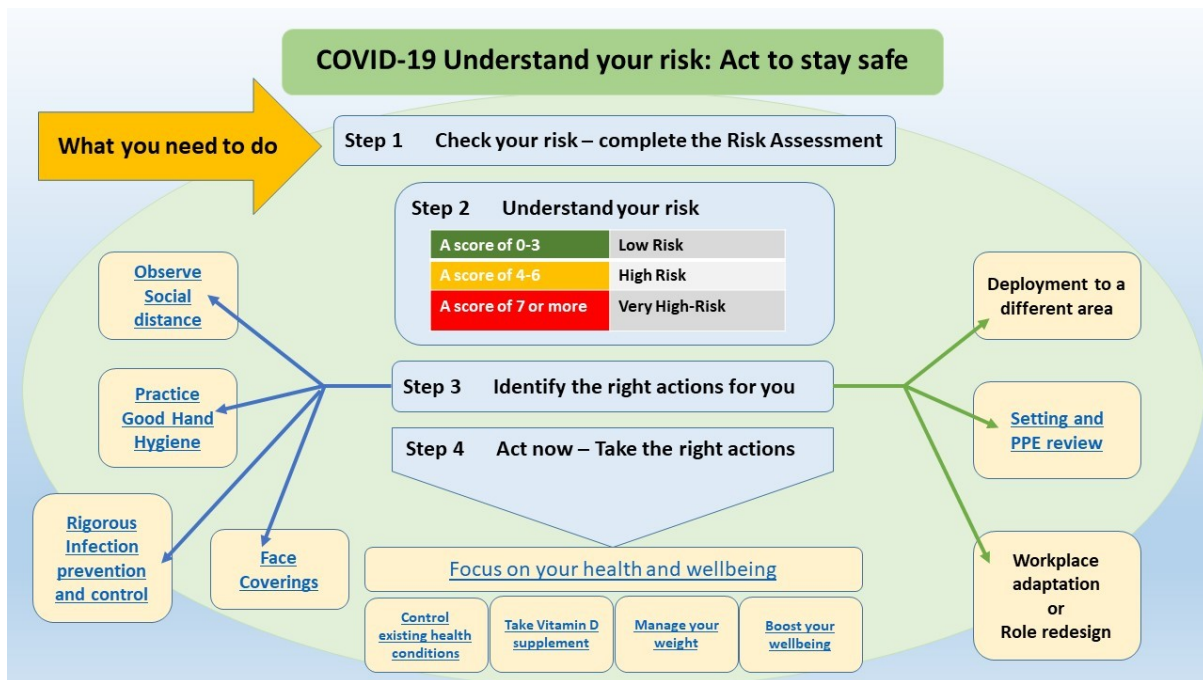
This Risk Assessment Tool has been developed to help people working in the NHS and Social Care in Wales to see if they are at higher risk of developing more serious symptoms if they come into contact with the COVID-19 virus.

We want to help you understand whether you may be at greater risk and to help you and your line manager to choose the right actions for you based on your level of risk.

Your employer has a duty of care to protect your health and safety at work and this includes understanding if you are at extra risk from COVID-19. This duty of care includes ensuring an equitable approach for all staff regardless of ethnicity or any other protected characteristics.

The next page sets out an overview of the risk assessment process. It has links to the latest guidance and information on the basic things that everyone can do to reduce their risk of COVID-19 infection, as well as the things that employers must do to support people who work for them.

Please use the resources as well as the Risk Assessment Tool to get the best results.



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Who needs to use this tool?

This Tool is for everyone working or volunteering in health and social care in Wales.

Vaccination: All staff should continue to follow the official and clinical advice such as social distancing, hand hygiene and face masks even if they have been vaccinated. This is because, while a full course of the vaccine will reduce your chance of becoming seriously ill with COVID-19, we do not yet know whether it will stop you from catching and passing on the virus’.

Clinically Extremely Vulnerable (previously shielding): Guidance for those who are clinically extremely vulnerable is regularly reviewed and is available [here](#). The Chief Medical Officer for Wales has now paused ‘shielding’ from 31 March. People can now stop shielding as infection rates in Wales are low and so your chances of catching COVID-19 are much lower. If you were previously shielding you will automatically score 7 on this Risk Assessment Tool indicating that you should continue to work from home if possible, however you CAN return to work if your workplace is COVID-secure. You should discuss your individual circumstances with your employer to facilitate a safe return to work. Further advice is also available in [Workplace guidance for employers and employees](#) and from [NHS Employers](#).

People at increased risk: If you are in the clinically vulnerable ‘[people at increased risk](#)’ group, the advice to this group is the same as it is to the [wider population](#). However, they should pay particular attention to the guidance on **social distancing and hand hygiene**. We recognise that the clinically vulnerable ‘people at risk’ group includes a wide spectrum of disease severity. You may wish to discuss with your Line Manager, Occupational Health or GP about your health conditions to discuss your return to work.

Pregnancy: All pregnant women (at any stage of gestation) should undertake an individual risk assessment. This is because pregnant women may be particularly vulnerable as it may place them at a greater risk of severe illness from coronavirus and should follow the latest [national guidance](#).

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How to use this Tool

The Tool asks a number of questions about you that are designed to identify whether you are at a higher risk from COVID-19. It asks some questions about your age, health, weight and ethnicity which may increase your risk of serious illness following an infection with COVID-19.

You may know the answers to the questions yourself, but if not you can discuss this with your line manager, workforce team, union representative, Occupational Health or advocate.

You may also want to consult your GP about the health conditions.

Please complete the questions and add up your score.

You should now arrange a time to discuss with your line manager. This may include a discussion with Occupational Health.

COVID-19 Understand your risk: Act to stay safe

We will continue to develop and improve the All Wales COVID-19 Workforce Risk Assessment Tool. If you have any comments or queries on the use or to improve the tool please email HSS.Covid19.WorkplaceAssessmentSubGroup@gov.wales

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Risk factor		Score
Step 1 Check your risk	Age – COVID-19 seems to have a bigger impact on people who are older.	
	• If you are aged 50-59	1
	• If you are aged 60-69	2
	• If you are aged 70-79	4
Consider each risk factor that applies to you and total your score	Sex at birth – COVID-19 seems to have a bigger impact on males than females	
	• Male	1
	Ethnicity – COVID-19 seems to have a bigger impact on people from some ethnicities	
	• Do you identify as one of the Black, Asian and Minority Ethnic or Mixed race groups as set out in this link	1
	Existing Health conditions (Comorbidity) – COVID-19 seems to have a bigger impact if you already have other pre-existing health conditions.	
	You may want to speak to your GP if you are not sure about these questions.	
	• Cardiovascular disease	
	Are you on any treatment for Hypertension (high blood pressure), Atrial Fibrillation (Irregular heart rate), Heart Failure, Previous MI (had a heart attack), had a stroke, or Transient Ischemic Attack (mini stroke)	1
	• Diabetes Mellitus Type 1 or 2	1
	• Chronic lung disease (including asthma, COPD, interstitial lung disease)	1
	• Chronic kidney disease (any stage 1-5)	1
	• Sickle cell trait, Thalassaemia trait or other haemoglobinopathy	1
	Obesity – COVID-19 seems to have a bigger impact if you are overweight	
	This link will help you work out your BMI – if your BMI is more than 30	
	OR If your waist circumference is:	
	• South Asian Female more than 33 inches (84cm); Other BAME or white Female more than 34.5 inches (88cm)	1
	• South Asian Male more than 35 inches (89cm); Other BAME or white Male more than 40 inches (102cm)	
	Family history – COVID-19 seems to have a family susceptibility for some people, especially twins	
	• Has a member of your immediate family (parent, sibling, child) been in ITU or died with COVID-19	1
Total score		

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Step 2 Understand your risk – what your score means in your workplace setting

Workplace setting	Score		
	Low Risk 0-3	High Risk 4-6	Very High Risk 7 or more
Community care	Continue to work following all recommended hygiene and social distancing measures	Continue to work following all recommended hygiene and social distancing measures and consider modified duties and/or a PPE Review* where appropriate.	You should continue to work from home if possible, however you CAN return to work if your workplace is COVID Secure. You must discuss your individual circumstances with your employer.
Primary care			
Secondary care Non AGP			
Secondary care with AGP	PPE Review*	PPE Review* and/or Modified duties	

***PPE Review** – This should consider the work setting, review all Transmission Based Precautions and ensure the selection and correct use of PPE including training and fit testing

Now arrange a time to discuss with your line manager to agree a plan and ensure you are appropriately protected. This may include a discussion with Occupational Health.

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Step 3 Identify the right actions for you

Now you have completed your COVID-19 Risk Assessment score please discuss with your line manager, occupational health, workforce team, union representative or advocate to ensure you are appropriately protected.

Use the hierarchy of controls to mitigate risks: work from home where possible; reduce daily number of face to face contacts; stay 2m away from others; consider face coverings in enclosed workplaces or where social distancing is unreliable; ensure frequent hand and surface hygiene; stay at home and arrange testing if symptoms emerge.

Things I can do myself

Do the important things to maintain your safety in the workplace

- Observe good hand hygiene, with frequent use of soap and water or alcohol-containing gel.
- Maintaining a [distance of 2 metres](#) is an important aspect of the measures we must all take to minimise the risks of the spread of COVID-19. It is something we should aim to do in all aspects of our daily lives, in informal workplace activity as well as patient contact.
- Use appropriate personal protective equipment identified for your role and know how to use it properly.
- Observe isolation requirements for known or suspected COVID-19 cases.
- Ensure your infection control training is up to date.

Things my employer can help with

- Your line manager or union rep will help you use the tools and identify the right actions for you.
- Making adjustments
 - Can some or all of your duties be undertaken or completed in a different way
 - Can adjustments be made to enable you to work safely,
 - Can face-to-face contact with the public and home visits be limited or avoided
 - Ensure appropriate physical distancing within the workplace
- Will adjustments enable you to work from home
- If no adjustments can be made to mitigate your risk, then temporary Medical Exclusion may be considered.

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Step 4 Act now – take the right actions

Following your discussions with your line manager record the agreed plan and ensure you set a time for review.

What reasonable adjustments have been identified and taken to mitigate your identified risks?

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Date adjustments were introduced*

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* This should be signed and dated by both employee and line manager

Date for review

.....

This may be time based or instigated by an event that impacts on your circumstances

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Welsh Government are committed to ensuring that we learn quickly so that we can best protect you from harm due to COVID-19.

Your help and support in consenting to us gathering the evidence from your risk assessment is vital to inform further analysis so that we can better understand the disproportionate impact that COVID-19 is having on some individuals. This information will be used for this sole purpose in relation to COVID-19 and to continue to improve our risk assessment. It will only ever be your anonymised information that will be shared.

Information provided in confidence will only be used for the purposes advised and consented to by yourself

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Annexe 2 Members of the risk assessment group

Name	Organisation
Prof Keshav Singhal, MBE FLSW MS(orth) FRCS M.Ch(orth) Consultant Orthopaedic Surgeon CTMUHB	BAPIO(Wales)
Daniel Thomas Clinical Scientist (Epidemiology)	Public Health Communicable Disease Surveillance Centre
Ronan Lyons Clinical Professor of Public Health	Swansea University
Dr Marysia Hamilton-Kirkwood Assistant Medical Director Public Health	Aneurin Bevan University Health Board
Ceri Harris Equality lead	Velindre University NHS Trust
Dr Kofi Obubie Consultant endocrinologist	Aneurin Bevan University Health Board
Professor Meena Upadhyaya Consultant in genetics	Cardiff University
Prof Iqbal Singh Consultant Physician	Chair Centre of Excellence for Safety in Older People
Jack Parry Jones Consultant in Intensive Care	University Hospital Wales
Dr Has Shah BEM General Practitioner	Secretary BAPIO Wales
Dr Andrew Feyi-Waboso	
Helen Arthur Director of Corporate Business & Workforce	Welsh Government
Dr Heather Payne Senior Medical Officer for Maternal & Child Health	Welsh Government
Uzo Iwobi OBE, Specialist Policy Adviser on Equalities	Welsh Government
Gemma Nye HSS – Workforce & OD	Welsh Government
Geraldine Buckley HSS – Workforce & OD	Welsh Government
Helen Freese HSS – Senior Governance and Equality Manager	Welsh Government

Annexe 3 Guest speakers

Date	Organisation	Subject	Guest name
2021/03	Welsh Government	QCOVID	Katy Hossack Dr Mark Walker
2021/03	Welsh Government	Implementation of the Covid-19 Vaccination Strategy	Dr Gill Richardson Dr Richard Roberts
2021/02	Public Health Wales	Covid-19 variants and PPE	Gail Lusardi
2021/01	Welsh Government	Guidance for the Clinically Extremely Vulnerable	Katy Hossack
2020/11		Vitamin D	Dr Kofi Obuobie
2020/11	Down's Syndrome Association	Down's Syndrome and CEV	Julian Hallett
2020/09	Public Health Wales	COVID-19 IP&C Guidance Update	Dr Eleri Davies
2020/07	Trainee doctor	Evaluation of the implementation of the Tool	Dr Natasha Harley
2020/07	University Hospital of Wales Friends of Cardiff Sickle Cell & Thalassaemia	Sickle cell trait, thalassaemia trait or other haemoglobinopathy	Dr Jonathan Kell Paulette Palmer
2020/06	Swansea Bay UHB	HCW Data Sharing with SAIL Re-analysis of working age population	Prof Ronan Lyons
2020/05	ABUHB	Overview of Aneurin Bevan Risk Assessment Tool	Marysia Hamilton-Kirkwood