

# **Mental Health Effects of the COVID-19 Pandemic in Scotland: A Think Piece**

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## **Purpose**

The purpose of this paper is twofold. First, it reports key messages about the known and predicted effects of the COVID-19 pandemic on the mental health of the population in Scotland. Secondly, it provides commentary on how this might affect the mental health landscape in Scotland. The information presented may inform policy and practice developments now, and throughout the system recovery phase.

This paper is informed by background evidence, but it is not based on a systematic review process and does not assess the quality of evidence included. It is acknowledged that the evidence base is still developing and the quality is variable. The opinions presented are based on the expert opinion of the author. It is not an exhaustive overview or a critical appraisal or endorsement of the quality of research included.

## **Key Messages**

1. Pre-COVID, rising public awareness and demand for mental health treatment was outstripping supply.
2. There are, and will be, different impacts on different populations mostly associated with traditional inequalities.
3. Traumatic experience in acute hospitals and care homes for patients and those involved with them, including staff, could lead to mental health morbidity, requiring additional help.

4. Early impact is higher level of distress. Later formal anxiety and depressive disorders are likely to emerge, as will greater rates of substance misuse, traumatic reactions, self-harm and suicide.
5. An 8% current worsening of the incidence of mental health disorders is estimated. This is particularly for anxiety and mood disorders and particularly in young people and females.
6. There will be challenge in meeting new need, and gearing back up services, but opportunities arise for better individualised approaches to personal wellbeing and mental health service delivery.
7. The critical influence of inequalities will require cross Government work and commitment.
8. Joint focus will be needed on both population wellbeing and on mental ill health. The evidence base is still developing but suggests there is a need for whole population approaches alongside targeted support for at risk and vulnerable groups.

## **Background: Mental health and wellbeing demand, need and response in Scotland pre-COVID**

1. Mental health varies across the life course and across the spectrum of human experience. It encompasses population wellbeing, good mental health for all, pathological illnesses, and severe and enduring mental ill health.
2. There is a large mental health workforce encompassing a range of specialities and delivery settings and managed through an integrated approach between NHS Boards and Local Authorities.
3. Mental health and inequalities are closely linked and there is a clear social gradient in mental health.
4. Many mental health problems will be preventable, and almost all are treatable.
5. Demand has been outstripping supply. There has been an increase in anxiety and depression in young women and in the 'diseases of despair' – e.g. suicide and drug related deaths.

Just like for physical health, mental health occurs across a spectrum of human experience with wellbeing and good health at one end and pathological illness at the other. Mental Health is critically affected by the environment and also by individual behaviours. Inequalities have important impact on mental ill-health. They are not evenly distributed and are closely linked to deprivation, financial and food insecurity. Health can be optimised by changes to these and this is the fundamental work of public health.

Improving life satisfaction is akin to improving physical fitness – both have positive effects on health but will not prevent certain illnesses occurring.

Effective health policy therefore needs to consider the full range of the spectrum – from optimising population level wellbeing to providing services that effectively treat mental illnesses.

The much used figure of 1 in 4 of the population at any one time having a mental disorder is commonly used. A detailed breakdown of pre-COVID prevalence and incidence of mental disorders is in Appendix 1.

Mental Health services are fully integrated, with local responsibility for them following to health and social partnerships of Health Boards and Local Authorities.

Spending on mental health is roughly 12% of total NHS health spend, although it is difficult to calculate its totality from the cost book. However the broader societal costs of mental health problems are considerable when taking into account lost productivity.

There is a large and diverse mental health workforce across health and social care and other services. Mental health services cover different populations and different subspecialties – Child and adolescent mental health (CAMH), adult, older adults and specialist mental health services including forensic, Learning Disability, liaison psychiatry / physical health and substance use.

- As of September 2019, within NHS hospital and community health services, this included 12,086.9 whole time equivalent (wte) staff with explicit mental health responsibilities. This is 8.6% of the 140,881.2 wte in NHS Scotland. This does not include primary care staff. (Sources: NHS Workforce publication; NHS Psychology Services Workforce publication; SSSC Mental Health Officers report; SSSC report 'The Adults' Services Workforce 2017; Child & Adolescent Mental Health Services (CAMHS) Workforce publication.)
- Within the social care workforce there are also 637 wte local authority mental health officers, and a headcount of 1160 care home staff for mental health services.
- There will be other staff (for example Allied Health Professionals) who also provide mental health care and support.

Mental Health services are community based. Hospitals are only used to admit people when there is diagnostic uncertainty, or due to risks that are unmanageable in the community.

- There were 3,922 available mental health, addiction and learning disability beds in Scotland at the [2019 Mental Health and Learning Disability Inpatient Census](#), a 4% decrease on available beds at the 2018 Inpatient Census. The number of available beds has been consistently decreasing each Inpatient Census, with a 13% decrease compared to 2014.
- As of 31 March 2017 there were 60 care homes for adults with mental health problems, providing 1,035 places. There were 949 residents, an occupancy of 92%. There were 171 care homes for adults with learning disabilities providing 1,712 places. There were 1,542 residents, an occupancy of 90% (data from [Care Home Census for Adults in Scotland](#)).

Community mental health teams (CMHTs) are the fundamental delivery unit in the NHS, they contain full multidisciplinary teams and are separately subspecialised for children and adolescents, adults, older people, learning disability and addictions. In

recent years additional super-specialist CMHTs have appeared for eating disorders, perinatal mental health, and early intervention for psychosis conditions in some places.

Treatment has an evidence base as strong as for physical medicine. Medicines and psychological therapies work, are generally safe and inexpensive. Social support and environmental optimisation is effective. Specialist services work alongside primary care, local authorities and third sector voluntary organisations.

Pre-COVID, the Scottish Government recognised the following:

- Successful population messaging about mental health and fighting discrimination was associated with a steady rise in public expectation of help for mental health problems.
- Encouraging awareness of mental health had led to many people confusing normal emotional states with mental disorder e.g. unhappiness being confused with depression. This has led to increasing calls for mental health support services.
- Although rates of severe and enduring mental illness were not rising, levels of some moderate and mild mental disorders were increasing. It was uncertain whether this was because of more people coming forward for help (unmet need) or whether there was a true rise.
- The best evidence of true increasing mental disorder was in the increase in reporting of depression and anxiety symptoms measured in young people, especially adolescent females.
- After a steady decline in suicides these had risen in the last year with the biggest rise in under 25s.
- Drug deaths have also risen, with middle aged male opiate users as a particular high-risk group.
- Despite investment and improvement work, sustained over many years, access to specialist child and adolescent mental health services and separately psychological therapies were not improving with national targets attainment failure.

- 16% of the population is estimated as having common mental health problems ([using IAPT prevalence rates](#)) with a conservative, convenience estimate of 10% prevalence for anxiety and depression.
- The numbers of adults seen in psychological services in Scotland is roughly 63,000. Using these different prevalence estimates, the met need varies from 1 in 7 to 1 in 10 people with around 1.29% of the adult population (4,840,000 adults registered with GP practices) being seen in psychological services.

## Sources of information on COVID-19 mental health effects

COVID-19 relevant mental health literature is being harvested and considered in various places including:

- A COVID-19 mental health research advisory group has been established by Scottish Government since 27.04.20. Its chair is Professor Andrew Gumley, interim director of the NHS Research Scotland Mental Health Network funded by the Chief Scientist Office (CSO). Scottish Government analysts are publishing regular updates on surveys and research of relevance on [the advisory group webpage](#).
- There are a large number of studies in both Scotland and UK that will provide data on the short and medium term mental health impacts. There is ongoing work by the Scottish Government and Public Health Scotland (PHS) to interpret this evidence, and map data to outcomes and identify gaps. A [Rapid review of the impact of COVID-19 on mental health](#) was published in June 2020.
- A new [COVID-19 and Mental Health Studies register](#) was launched on 19.05.20, led by the [National Institute for Health Research \(NIHR\) Mental Health Translational Research Collaboration \(MH-TRC\)](#).
- [Public Health Scotland have published an overview of COVID-19 impact surveys](#)
- The United Nations published a policy brief on 13.05.20: [COVID-19 and the need for action on mental health](#).

- COVID-19 Resources are compiled by the [International Association for Suicide Prevention \(IASP\)](#)
- UKCDR and GloPID-R have developed a [live database of funded research projects on COVID-19](#) that will help funders and researchers identify gaps and opportunities and inform future research investments or coordination needs.

## COVID-19 mental health effects on demand, need and response

The evidence base is still developing and the quality is variable, however it is possible to identify some emerging themes and issues.

### 1. Whole population

a) Impacts on mental health and well-being:

- The pandemic and the response to the pandemic will directly impact on people's mental health and these impacts will not be distributed evenly across the population. Older, black and minority ethnic (BAME) and socially disadvantaged people have higher mortality rates from COVID-19.
- Surveys data from the Office for National Statistics (ONS) and from [Scottish Government polls](#) continue to show the impacts of COVID-19 on well-being and anxiety levels. Nearly half of adults in the UK feel that their well-being has been affected. Anxiety levels have declined and stabilised since the start of the lockdown period but remain high.
- Financial impacts are a concern and are linked to the impacts of COVID-19 on mental health and well-being. An [Institute for Fiscal Studies briefing](#) indicates that if the economic downturn is similar to that experienced after the 2008 financial crisis the number of people of working age suffering poor mental health would rise by half a million.
- [Analysis of pre and post COVID self-reported mental health data](#) from the UK Understanding Society study indicates that mental health in the UK worsened substantially as a result of the COVID-19 pandemic – by 8.1% on average and by much more for young adults and for women, which are groups that

already had lower levels of mental health before COVID-19. Hence inequalities in mental health have been increased by the pandemic.

- Studies that make comparisons to pre-COVID indicators of mental health and well-being are limited and need to be interpreted with caution, but give an indication of the initial impacts and decline in levels of wellbeing. These include increasing anxiety and depression and reducing life satisfaction:
  - [‘The Wellbeing Costs of COVID-19 in the UK; An Independent Research Report by Simetrica-Jacobs and the London School of Economics and Political Science’ \(2020\)](#)
  - [Sønderskov, Kim Mannemar et al. “The depressive state of Denmark during the COVID-19 pandemic.” Acta neuropsychiatrica vol. 32,4 \(2020\): 226-228](#)
- A [rapid review](#) of how infectious disease outbreaks requiring community or population-level quarantine and / or social isolation affect the prevalence of mental health conditions within the general population and healthcare workers indicates that an increase in the prevalence of mental health conditions is likely during, and immediately after, the COVID-19 outbreak. However, amongst the general population, this increase subsided after quarantine measures are lifted. Healthcare workers are at greater risk of adverse mental health outcomes, particularly those who are frontline staff, who in “high-risk” units, or have been re-deployed to “high-risk” units from other departments. Several other groups also appear at risk:
  - those with chronic physical and mental health conditions
  - children and parents
  - those who have lost a family member
  - those with lower levels of education
  - those who perceive themselves to be at risk
  - those who live in outbreak hot spots
- Screening should be used, initially targeted at groups thought to be at greater risk, to determine the tier of support required.
- Most recommendations point towards the use of online, or remote, services and resources (such as hotlines, apps, accurate and up-to-date information) to support at-risk groups and the general population.



- More social cohesion could reduce suicide rates and self-harm, however increased unemployment and poverty and increased loss of connectedness and avoidance in help seeking or giving would increase it ([The Lancet](#)). A systematic review is due to be published on the impact of infectious disease-related public health emergencies on suicide, suicidal behaviour, and suicidal thoughts.
- There may be greater numbers of people struggling with complex and/or prolonged grief who require interventions and support.
- Increased substance misuse is likely to persist from the legacy of increased consumption during restriction ([The Lancet](#)).
- The Scottish Government have funded a Scottish Mental Health Tracker study by Glasgow University (Prof Rory O'Connor). This is a counterpart to a UK study and will track mental health in a study population for a year.
- The Mental Health Foundation has published a briefing on the [COVID-19 Pandemic, Financial Inequality and Mental Health](#) and are tracking a sample of UK adults (2000 in Scotland) through YouGov.

(b) Attitudes and behaviours:

- The general public may automatically adopt behaviours which are protective of their mental health. For example, seeking peer, family and community support.
- COVID-related stigma is emerging – for those who have contracted the virus and for healthcare workers.
- [A study in England](#) suggests that emerging conspiracy beliefs will adversely impact lockdown measures and government guidance.

c) Inequalities:

- People with existing mental health difficulties and risk factors for poor mental health are likely to be affected disproportionately.
- Analysis of a large (though not representative) longitudinal sample by [UCL](#) suggest that there were clear inequalities in adverse experiences during the COVID-19 pandemic in the early weeks of lockdown in the UK.

- A UK briefing from the [Centre for Mental Health](#) provides analysis of the potential mental health impact across populations not just those affected directly by corona virus but also on subgroups including people in financial adversity, low income, and people with existing mental health difficulties and long term physical health conditions.
- A [Glasgow Centre for Population Health review](#) a range of those communities and subgroups groups who are potentially vulnerable to disproportionate direct and indirect adverse impacts of COVID-19 including but not limited to): disadvantaged communities; people with disabilities; black and minority ethnic groups; homeless people; those affected by violence; older people; children and young people; frontline health and care staff. In some cases these are groups with higher rates of pre-existing mental health conditions.
- [Work by the Mental Health Foundation](#) highlight the links between financial impacts and mental health:
  - One fifth (20%) of people surveyed who identified as unemployed have had suicidal thoughts and feelings in the last two weeks this is compared to 9% of people in employment.
  - Twice as many unemployed people (26%) surveyed say they are not coping well with the stress of the pandemic compared to people in employment (12. %).
  - Over one in 10 (11%) unemployed people surveyed say nothing has helped them cope with the stress of the pandemic.
- The evidence base is still developing but suggests there is a need for whole population approaches alongside targeted support for at risk and vulnerable groups.

## **2. People subjected to special restriction – quarantine and shielding**

- A [Lancet article](#) shows quarantine associated with increased distress, formal trauma symptoms and in some, persistence for years. Recommendations are that:
  - Information is key, people who are quarantined need to understand the situation, effective and rapid communication is essential,

- Supplies (both general and medical) need to be provided,
- The quarantine period should be short and the duration should not be changed unless in extreme circumstances.
- Most of the adverse effects come from the imposition of a restriction of liberty; voluntary quarantine is associated with less distress and fewer long-term complications.
- Public health officials should emphasise the altruistic choice of self-isolating.
- There is potential for increased alcohol abuse and harmful use – 3 years after the SARS outbreak, alcohol abuse or dependency symptoms were positively associated with having been quarantined in health-care workers. (Wu P Liu X Fang Y et al. Alcohol abuse/dependence symptoms among hospital employees exposed to a SARS outbreak. Alcohol. 2008; 43: 706-712)
- The Scottish Government has funded Behavioural scientists from the University of Aberdeen (Prof Diane Dixon) are carrying out a six-month investigation into lockdown behaviours. It will examine whether people are adhering to guidelines, the impact the rules are having on mental and physical health, and what triggers changes.

### 3. Children and young people

- Surveys indicate that younger people tend to report more worry and anxiety.
- In a survey by YoungMinds 83% of young people with pre-existing mental illness said the pandemic had made their conditions worse, often attributed to school closure with loss of routine and access to usual supports ([The Lancet](#)).
- Stress, social isolation and violence in the family are likely to affect brain health and psycho-social development. Harmful effects of this pandemic will not be distributed equally. They are expected to be most damaging for children in the poorest countries, and in the poorest neighbourhoods, and for those in already disadvantaged or vulnerable situations ([UN Sustainable Development Group](#))

#### 4. Older people

- There is some data where older people are reporting lower impacts on their wellbeing: according to an [ONS report](#) from 5 June 2020 “The proportion of those aged 70 years and over who reported their well-being had been affected (36%) continued to be lower than the general population but for those with an underlying health condition it was similar at 47%”
- Research is called for in relation to the effects of COVID-19 on the mental health of the elderly ([Vahia, Ipsit V., et al. "COVID-19, mental health and aging: A need for new knowledge to bridge science and service." \*The American Journal of Geriatric Psychiatry\* \(2020\), pp. 695-697](#))
- Genetic gene variants (apoE) are associated with both Alzheimer’s dementia and with increased risk of death from COVID-19. People with dementia are typically elderly, often with physical comorbidity and therefore at substantially higher risk of serious illness and death from COVID-19. ([Chia-Ling Kuo, et al., APOE e4 Genotype Predicts Severe COVID-19 in the UK Biobank Community Cohort, \*The Journals of Gerontology: Series A\*, , glaa131](#))
- Increased suicide in the elderly may occur associated with hopelessness and feeling trapped and associated with being in a shielded category. SARS research found increase in elderly suicide. (PS Yip, YT Cheung, PH Chau, et al. The impact of epidemic outbreak: the case of severe acute respiratory syndrome (SARS) and suicide among older adults in Hong Kong Crisis, 31 (2010), pp. 86-92)  
However, current UK data does not yet indicate any rise ([Gunnell, David, et al. "Suicide risk and prevention during the COVID-19 pandemic." \*The Lancet Psychiatry\* 7.6 \(2020\): 468-471](#))

#### 5. People with neurodevelopmental problems – Learning Disabilities and autism

- Although a [variety of guidance notes](#) have been written there is a dearth of research.

- Disruption in structure, routine and usual supports associated with restrictions has been reported as increasing distress.
- People with learning disability are reported in England as having a higher death rate.
- Social distancing may come easier to people with autism but can cause problems for carers.
- Concern exists about the greater use of do not attempt resuscitation notices.

## 6. People with chronic mental illness

- [Zhou et al](#) found that 20.9% of patients with pre-existing psychiatric disorders reported a decline in their mental health condition related to the pandemic. Disruption in routine psychiatric care led to disruption in medication supply and taking.
- The Royal College of Psychiatrists medical managers 20.05.20 reported a general increase in acuity of admissions with more use of compulsion – this may be because of the reduction in usual face to face supports usually containing people in the community. Scottish Government officials are working with Public Health Scotland and the Mental Welfare Commission to examine data about service use and compulsion to explore this.
- Given the prevalence of increased physical health co-morbidities this population have additional risks in terms of negative impacts of COVID.
- The Royal College of Psychiatrists in Scotland intends to survey psychiatric inpatients looking at effect on ward processes and arrangements of COVID and characteristics of COVID positive patients and their management.
- Increased presentation of acute psychosis is being reported. Explanations include decompensation of people with pre-existing mental illness due to continuity of care and medicine supply problems, stress and isolation, post traumatic reactions, increased substance misuse and as a neuropsychiatric effect of COVID 19. ([Brown, Ellie, et al. "The potential impact of COVID-19 on psychosis: A rapid review of contemporary epidemic and pandemic research." \*Schizophrenia research\* \(2020\)](#))

## 7. People infected with COVID-19

- [A Lancet systematic review and meta-analysis of SARS, MERS and COVID-19](#) found the following:
  - In acute inpatients - confusion 28%, depressed mood 33%, anxiety 46%, impaired memory 19%, insomnia 42%.
  - In post illness stage – low mood 11%, insomnia 12%, anxiety 12%, irritability 13%, memory impairment 19%, fatigue 19%, traumatic memories 19%. Point prevalence of Post Traumatic Stress Disorder (PTSD) 32%, depression 15%, anxiety 15%.
  - Delirium was present in 65% of intensive care unit (ICU) patients
- The Centre for Mental Health May report “[Covid-19 and the nation’s mental health](#)” notes that 20% of survivors of ICU routinely experience PTSD. It recommends that the NHS should proactively offer tailored mental health support to people who have received hospital treatment for COVID-19.
- 2 studies in China and in Vietnam found people with COVID-19 discharged from outpatient departments reported high scores for post-traumatic stress, depression and lower related quality of life.
- It is possible that a post COVID syndrome, consisting of a spectrum of medically unexplained symptoms, could emerge. Experience with Gulf War syndrome and other medically unexplained conditions like ME/Chronic Fatigue Syndrome will be important to consider. ([BBC \(2020\) ‘Coronavirus: Calls for awareness of long-term effects’ 18 June 2020](#))
- A wide range of physical effects is reported. ([The BMJ Opinion \(2020\) ‘Covid-19: a complex multisystem clinical syndrome’ 1 May 2020](#))
- Post viral fatigue is a recognised complication of some viruses e.g. Epstein Barr Virus. It is likely that it will be a feature for post COVID-19 infection in some ([The New Scientist \(2020\) ‘Could the coronavirus trigger post-viral fatigue syndromes?’ 15 April 2020](#)).

## 8. Family members of people infected with COVID-19

- In addition to psychological morbidity in those surviving critical illness, families of patients can also be adversely affected with estimates that up to 30% may experience stress, anxiety, depression or complicated grief. Risk factors for family members to develop such outcomes include:
  - poor communication,
  - having a decision-making role,
  - lower educational attainment,
  - and the severity of the relative's condition such as being close to death or dying.

The most common problems experienced by family members include sleep deprivation, anxiety, depression, complicated grief, and PTSD.” ([Rawal et al. 2017](#))

- The Centre for Mental Health May report “[Covid-19 and the nation's mental health](#)” recommends that the NHS should proactively offer tailored mental health support to people affected by bereavement.

## 9. Health and Social Care workers

### a) Evidence from previous pandemics

- Rapid reviews of the impact of previous pandemics indicate the risk of negative psychological effects for the health and social care workforce.
- The evidence is stronger on impacts than on effective prevention and intervention. However, clear information, tackling stigma, screening and targeted support, and additional support for healthcare workers (including proactive support for mental health and practical support) are all thought to be beneficial.
- [Mental Health of Clinical Staff Working in High-Risk Epidemic and Pandemic Health Emergencies: A Rapid Review of the Evidence and Meta-Analysis](#)  
Levels of self-reported depression, anxiety and post-traumatic stress disorder (PTSD) related symptoms were high, and somewhat higher in clinical staff working in high exposure roles.
  - Risk factors were: being a nurse, seeing colleagues infected, experiencing quarantine, non-voluntary role assignment, and

experiencing stigma, as associated with particularly poor mental health outcomes.

- Protective factors included team and institutional support, use and faith in infection prevention measures, and a sense of professional duty and altruistic acceptance of risk.
- Formal psychological support services were valued by frontline staff, although those with the highest burden of mental health difficulties were the least likely to request or receive support

- [Greenberg et al - Managing Mental Health Challenges Faced By Healthcare Workers During Covid-19 Pandemic](#)

Healthcare staff are at increased risk of moral injury and mental health problems when dealing with challenges of the COVID-19 pandemic.

Healthcare managers need to proactively take steps to protect the mental wellbeing of staff Managers must be frank about the situations staff are likely to face. Staff can be supported by reinforcing teams and providing regular contact to discuss decisions and check on wellbeing. Once the crisis begins to recede, staff must be actively monitored, supported, and, where necessary, provided with evidence based treatment.

- [Walton et al – Mental Health Care for Medical Staff and Affiliated Health Care](#)

details the effects on staff and addresses some of the organisational, team and individual considerations for supporting staff (pragmatically) during this pandemic. ~9.6% of staff involved with resuscitation are estimated as having Post Traumatic Stress Disorder – so paper estimates that 10% of very front line COVID-19 workers staff will have this in future. Although the paper emphasises that in general for all the workforce the most effective response is not specialist psychological trauma treatment, which is only eventually needed for some people

b) Emerging UK evidence:

- A [Royal College of Psychiatrists survey](#) of its members published 21.05.20 found that 48.6% of 1,369 members from across the UK confirmed their wellbeing had either 'suffered' (43.0%) or 'significantly suffered' (5.6%) as a



result of COVID-19 and the lockdown. 13.1% responded that their wellbeing had 'improved' (11.3%) or 'significantly improved' (1.8%).

- A [recent survey of British Medical Association](#) of its membership in which more than 6,000 doctors responded, the British Medical Association found that 44% described experiencing depression, anxiety, stress, burnout or other mental health conditions '*relating to or made worse by their work*'.
- A survey of the broader health workforce by the Institute for Public Policy Research found that half of respondents felt their mental health had declined over eight weeks and over a fifth May 2020 were more likely to leave the sector as a result of COVID-19 (Thomas and Quilter-Pinner, 2020).

### c) Emerging International Evidence

- [Lai et al – Factors Associated With Mental Health Outcomes Among Health care Workers Exposed To Coronavirus Disease 2019](#)
  - Information collected from 1257/ 1830 health care workers in 34 hospitals 29.1.20 – 3.2.20 in multiple regions of China. Symptoms of depression were found in 50%, anxiety in 45%, insomnia in 34%, distress in 72%.
  - Severe depression physician 4.9% v nurses 7.1%; severe anxiety men 3.4% v women 5.8%; severe insomnia 1.7% front line worker v second line worker 0.4%, severe distress Wuhan workers 12.6% compared to workers outside Wuhan but in Hubei region 7.2%
  - Nurses, frontline health care workers, and those from Wuhan reported more severe degrees of all measurements especially those directly engaged in diagnosing, treating or providing nursing care to patients with known or suspected COVID-19.
- Being female and having an intermediate (middle grade) technical title were associated with experiencing more severe symptoms
- Qiongni Chen and colleagues reported that staff members “refused any psychological help and stated that they did not have any problems”.<sup>4</sup> the language of refusal is noteworthy; telling people how they think or should think is only likely to create or exacerbate mental health difficulties. (Chen Q, Liang M, Li Y, et al. Mental health care for medical staff in China during the COVID-

19 outbreak. *Lancet Psychiatry* 2020; 7: PE15-PE16. Important implications for problematising mental health in this population)

- [Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis](#)

Compared with lower risk control groups, staff in contact with affected patients had greater levels of both acute or post-traumatic stress and psychological distress.

- Risk factors for psychological distress included being younger, more junior, parents of dependent children, and in quarantine, having an infected family member, lack of practical support, and stigma.
- Clear communication, access to adequate personal protection, adequate rest, and both practical and psychological support were associated with reduced morbidity. These interventions were similar despite the wide range of settings and types of outbreaks covered in the review, and thus could be applicable to the current COVID-19 outbreak.

- [Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 Coronavirus disease outbreak: A cross sectional study Brain, Behaviour and Immunity.](#)

Among 994 medical and nursing staff working in Wuhan:

- 36.9% had subthreshold mental health disturbances (mean PHQ-9: 2.4),
- 34.4% had mild disturbances (mean PHQ-9: 5.4),
- 22.4% had moderate disturbances (mean PHQ-9: 9.0),
- And 6.2% had severe disturbance (mean PHQ-9: 15.1) in the immediate wake of the viral epidemic.

The noted burden fell particularly heavily on young women. Of all participants:

- 36.3% had accessed psychological materials (such as books on mental health),

- 50.4% had accessed psychological resources available through media (such as online push messages on mental health self-help coping methods),
- And 17.5% had participated in counselling or psychotherapy.

Although staff accessed limited mental healthcare services, distressed staff nonetheless saw these services as important resources to alleviate acute mental health disturbances and improve their physical health perceptions. These findings emphasize the importance of being prepared to support frontline workers through mental health interventions at times of widespread crisis.

## **Potential future considerations**

COVID-19 may change the Scottish mental health landscape in the following ways.

### **Changes to population attitudes and behaviours**

- There will be variable impact on the mental health of communities and individuals, determined mainly by existing inequalities. Some will be more impacted than others, especially those living in deprivation, those who will lose their job and those with social adversity. Inequalities assessment is needed to ensure we are targeting those with the greatest needs.
- COVID-related stigma will occur – for those who have contracted the virus and for health and social care workers.
- Increased population awareness of the contribution that good mental health has to all our lives and how we can promote this individually and collectively with the importance of relationships.
- Better appreciation of difference between unhappiness/negative emotions and mental illness leading to a shift of use of services from specialist clinical services to more community based third sector involvement.
- Increased acceptance in investment in the public health promotion of good mental health and wellbeing, rather than illness services.

## **Changes to mental disorder incidence**

- COVID-19 will magnify the effect of traditional inequalities on people with mental health problems. Response will need coordination across Government policy.
- Increased anxiety and depression requiring assessment and treatment. This will be challenged by the existing backlog of referrals for psychological treatment, and capacity in CMHTs.
- More social cohesion could reduce suicide rates and self-harm, however increased unemployment, poverty, loss of connectedness and avoidance in help seeking or giving could increase it. On balance self-harm and suicide rates are likely to rise.
- Increased substance misuse and associated problems.
- Increase trauma related mental health disorder. A general increase in trauma informed approaches will be needed across mental health services to respond to the spectrum of traumatic reactions to lock down, quarantine, domestic violence, loss, bereavement and sickness. People who have been inpatients in hospitals and care homes with COVID-19, and those involved with them are of particular relevance.
- Increase in post COVID-19 infection neuropsychiatric problems such as chronic fatigue. This will require investment in liaison psychiatry and health psychology to acute settings and primary care.

## **Potential changes to mental health and wellbeing services**

- Continuation of psychiatric emergency assessments and non-clinical distress assessments happening safely outwith emergency departments.
- Better multiagency response to distress wherever and however it presents.
- Increased digital technology use – continuation of assessments and follow up appointments. Delivery of behavioural change interventions – sleep, depression, anxiety, paranoia, hallucinations etc that could involve mobile apps and virtual reality technology. There are big implications for new ways of providing and accessing services.
- Improved access to CAMHS and to psychological therapies will only be possible with either rapid and significant increase in capacity or deflection of

more people to community support. The greater use and spread of digital interventions may help meet unmet need and make service contact more efficient. The situation will be challenged by addressing the backlog of referrals and the pre-COVID increase in anxiety and depression in young people with corresponding increasing referral rate.

- Stress, social isolation and violence in a family affects brain development and health. The most damage being done in poorest neighbourhoods for those in early disadvantage or vulnerable situations. This connects to work around adverse childhood experiences (ACEs). Mitigation and response to the toxic stress associated with ACEs will be needed.
- Optimisation of potential efficiencies – e.g. amalgamation of mental health and addiction services, development of digital mental health teams.
- Specific enhanced targeting of certain populations e.g. active psychological follow up assessment of people who were inpatients or were involved with inpatients to screen for the development of trauma related mental disorder.
- The physical health impact of COVID-19 on people will create greater focus on both the mental health and physical health needs of individuals. This could improve practise within both mental health and learning disability services including uptake of health screening with a view to reducing their 15 to 20 year life expectancy gap. It will involve better liaison psychiatry and health psychology in acute settings.

### **Changes to systems and processes**

- The evidence base is still developing but suggests there is a need for whole population approaches alongside targeted support for at risk and vulnerable groups.
- Health and social care workforce wellbeing promotion and support will need to further develop and embed, involving national and local organisation and responses. The workplace could be increasingly seen as important in promoting good health and preventing/ reducing ill-health.
- An increased personalised approach to care and treatment build around a person - including anticipatory care planning, better transitions between services and better information sharing.

- Experience of bed blocking, mental health legislative temporary changes feeding into [Scott review of legislation](#) – hopefully leading to a simpler future processes.
- New digital opportunities for individuals to track and manage their own health e.g. direct access to e case records, information sharing, and self-management apps.
- Better flow of complex patients out of hospital to alternative care should they need it providing increased capacity to meet the potential increase in acuity.
- Good quality, longitudinal research will be needed from a wide range of researchers. The largest gap in the literature is our understanding of the impact of COVID-19 on the mental health of disadvantaged populations.
- Understanding of the effect of COVID-19 will also require good tracking of mental health population and service data.

## Appendix 1: Prevalence estimates in Scotland (pre-COVID)

Item	Measurement tool	Source	Prevalence/incidence and trend
Wellbeing	WEMBWS	<a href="#">Scottish Health Survey (SHeS)2019</a>	Overall, mental wellbeing scores among adults have remained relatively stable over the last decade. In 2018, the WEMWBS mean score (measuring mental wellbeing) for adults was 49.4, not significantly different to 2017 but the lowest since the time series began in 2008.
Common mental disorders – anxiety and depression	GHQ-12 CIS-R	<a href="#">SHeS 2019</a> (GHQ-12) <a href="#">SHeS 2017</a> (CIS-R)	<p>In 2018, 19% of adults exhibited signs of a possible psychiatric disorder (GHQ-12 score of four or more) the highest in the time series.</p> <p>The percentage of adults with a GHQ-12 score of four or more significantly decreased with age from 24% among those aged 16-24, to 13% among those aged 75 and above.</p> <p>The highest proportions of a GHQ-12 score of four or more were found among women aged 16-24 and 55-64; the highest proportion of men with a GHQ-12 score of four or more was found among those aged 45-54.</p> <p>In 2016/2017, 11% of adults reported two or more symptoms of depression (indicating moderate to high severity)</p>

Item	Measurement tool	Source	Prevalence/incidence and trend
Learning disability	Census 2011	<a href="#">Scottish Learning Disabilities Observatory</a>	26,349 people (0.5%) Scotland have learning disabilities 5,234 aged 0-15 yrs 18,660 aged 16-64 yrs 2,455 aged 65+ yrs
Autism	Census 2011	<a href="#">Scottish learning Disabilities Observatory</a>	In the whole population, 0.6% of people are known to have autism. The prevalence of autism in the 0-15 age group is 1.9%  17,348 aged 0-15 yrs 13,666 aged 16-64 yrs 698 aged 65+ yrs
ADHD	Prescribing data	<a href="#">PHS</a>	ISD prescribing data published in October 2019 notes that the rate of use of drugs for ADHD has increased in Scotland over the past ten years: from 5.5 Defined Daily Doses per 1,000 population per day in 2009/10 to 12.5 in 2018/19  In Scotland around 15 thousand patients were dispensed at least one drug for treatment for ADHD in 2018/19. This is an increase of 12% compared to 2017/18 and an increase of 122% since 2009/10. In 2018/19, 76% of patients who received drug treatment for ADHD were male while 23% were female. This is consistent with previous years
Self-harm ever		Scottish Health Survey	In 2016/2017, over a fifth (21%) of young people aged 16-24 reported that they had ever self-harmed. This was



Item	Measurement tool	Source	Prevalence/incidence and trend
			significantly higher than for than older people (decreasing to less than 0.5% among those aged 75 and over).
Suicidal thoughts		Scottish Health Survey	The proportion of adults that self-reported to have ever attempted suicide in 2016/2017 (6%) was the same as in 2014/2015 and significantly higher than the proportion reported in 2008/2009 (4%).
Severe and enduring mental illness – schizophrenia, severe depression and bipolar disorder		<a href="#">NHS Scotland Information Services Division (ISD) (2019) 'Medicines used in Mental Health: Years 2009/10 to 2018/19'</a>	In Scotland around 101,000 patients received at least one dispensed item for treatment of psychoses and related disorders in 2018/19. This is an increase of 2.5% compared to 2017/18 and an increase of 39.9% since 2009/10.
Substance misuse		<a href="#">NHS Scotland Information Services Division (ISD) (2019) Estimating the Prevalence of Problem Drug Use in Scotland in 2015/16</a>	There were an estimated 57,300 (95% CI = 55,800 – 58,900). Individuals aged 15-64 years old with problem drug use (routine/prolonged use of illicit opiates and/or benzodiazepines) in Scotland during 2015/16*. Expressed as a percentage of the population, the rate of problem drug use in 2015/16 was 1.62% (95% CI = 1.58% – 1.67%).  * NHS Scotland Information Services Division (ISD) (2019) Estimating the Prevalence of Problem Drug Use in Scotland in 2015/16, Available at: <a href="https://www.isdscotland.org/Health-">https://www.isdscotland.org/Health-</a>

Item	Measurement tool	Source	Prevalence/incidence and trend
			<a href="#">Topics/Drugs-and-Alcohol-Misuse/Publications/2019-03-05/2019-03-05-Drug-Prevalence-2015-16-Report.pdf</a>
Drug deaths		<a href="#">National Records of Scotland (2019) Drug-related deaths in Scotland in 2018.</a>	There were 1,187 drug related deaths in 2018, 27% increase on 2017.
Suicides		<a href="#">National Registers of Scotland</a>	There were 784 probable suicides registered in Scotland in 2018, 104 (15 per cent) more than in the previous year.
Dementia		Scot PHO	In 2015, it was estimated that there were approximately 90,000 people in Scotland with dementia.