

How well are people coping with stress related to the COVID-19 pandemic?

# COVID-19 and diseases of despair

Will the COVID-19 pandemic cause 'diseases of despair' to rise and will this affect long term trends in mortality and morbidity?

## Introduction

In 2015, when two economists from Princeton, Anne Case and Angus Deaton, revealed their analysis of US mortality trends in the period between 1983-2013<sup>1</sup>, the results came as something of a shock. While the historical improving trend continued overall, for certain groups - particularly white middle-aged Americans without university education - the reverse was true. They showed that, for the first time in a century, mortality rates were rising. Case and Deaton attributed the increase to rises in 'diseases of despair' deaths and ill-health caused by drug poisoning and particularly opioid-related abuse, alongside rises in alcoholic liver disease and suicide. Case and Deaton grouped these causes together, theorising that they represented or reflected a physical manifestation of psychic or 'spiritual' pain caused by "... cumulative distress and failure of life to turn out as expected ...".1

### All-cause mortality in ages 45-54

A comparison of key high-income countries

Derived from Case & Deaton 2017, Mortality & Morbidity in the 21st Century  $^{\rm 1}$ 



Commentators at the time wondered if this was a uniquely American phenomenon or, given the interlinked nature of today's world, a foreshadowing of a trend that would be seen in other countries. Indeed, in the UK it was reported in 2019 that life expectancy for 65-year-olds had indeed fallen by 0.5% year-on-year in the period since 2011 and the UK's Institute and Faculty of Actuaries observed this decrease as being a "new trend rather than a blip".<sup>2</sup>

 $^2$  Pike; Life expectancy in England and Wales has fallen by six months BMJ 2019;364:11123



<sup>&</sup>lt;sup>1</sup> Case, Deaton; Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century, Sept 2015

And then 2020 arrived, and with it a global pandemic on a scale not seen since 1918 with lockdowns, normality upended, society and economies disrupted with millions losing their jobs and their lives.

Understandably, there has been a focus in the world of medicine and among governments on dealing with the devastating impact of the direct acute consequence of the pandemic: how to prevent infections, minimise hospitalisations, treat the sick and prevent deaths associated with COVID-19. However, there has been less comment on the indirect impacts, the psychological effect of social isolation that has come with lockdowns, the tsunami of grief as people cope with the loss of over 2.5 million loved ones all dovetailing with financial chaos, job losses and business closures – and on whether this all fuels a rise in these so-called diseases of despair.

## **Mental health**

Let's be honest: who among us has not been affected by the last year even if this just means fleeting anxiety about the future or feeling low about missing people, or things or activities that we would be doing in normal times?

## Are rates of psychological distress, dysphoria (unhappiness) anxiety, stress and depression rising because of the pandemic?

The Mental Health Foundation (a collaboration between four UK universities) has been conducting regular surveys of 4,000 people throughout the pandemic, which showed that:

- In August 2020, 64% of people were coping well or very well with the pandemic. However, this rate of 'resilience' appears to be diminishing with time, falling to its lowest level in late November.
- Rates are notably lower in young adults with 3% as of August reported as 'not coping very well'.<sup>3</sup>

#### UK adults' stress during COVID-19

"How well do you think you are coping with stress related to the COVID-19 pandemic?" (Very well/Fairly well)<sup>3</sup>



## Specific mental illness

In a similar vein, University College London's COVID-19 Social Study<sup>4</sup> also aimed to track patterns of mental health in the pandemic and has 70,000 participants. As of September 2020, their overall conclusion was that there was a decrease in depression and anxiety scores, a pattern repeated across every subgroup. However, this stands in stark contrast with the report of the Office for National Statistics (ONS) on 'COVID-19 and depression in Adults' published in June 2020, which reported a rate of moderatesevere depression at 19.2% versus a rate of 9.7% in the 9 months prior to the pandemic onset.<sup>5</sup>

#### **Suicide**

What about the most severe indicator of psychological distress, suicide? The Mental Health Foundation survey indicated that overall 8% of respondents felt suicidal in April 2020, rising to 12% by the December 2020 lockdowns. However, such expressions of distress were markedly higher in people with pre-existing mental illhealth (30%), those who were unemployed (26%) and the young (22%).

That said, the UK's ONS registered 10.3 suicides per 100,000 people between January and March (equivalent to 1,262 registered deaths) and 6.9 suicide deaths per 100,000 people between April and June, equivalent to 845 deaths. This suggests a fall, **however** ... not all suicides are

<sup>&</sup>lt;sup>3</sup> Mental Health Foundation; Coronavirus: Mental Health in the Pandemic – a long-term collaborative study

<sup>&</sup>lt;sup>4</sup> UCL COVID-19 Social Study

<sup>&</sup>lt;sup>5</sup> Office for National Statistics, Coronavirus and depression in adults, 06/20

investigated by a coroner, and it often takes around five months to hold an inquest before the death can be registered. For example, of the 845 suicides registered up to June 2020 only 45 took place in the period April – June 2020.<sup>6</sup>

This suggests that while a number of vulnerable people are experiencing terrible distress, this has not so far translated into actual suicide deaths at an increased rate.

Elsewhere around the globe the picture is also mixed. A number of case studies have suggested some suicides have occurred as a direct result of the pandemic in India, China, Saudi Arabia, Germany and Italy. <sup>7</sup> A Japanese study (Sakamoto) demonstrated an above-average peak in suicides in the autumn of 2020.<sup>8</sup> Similarly, in the US, Holland and colleagues, mapping emergency department visits for both suicides and drug overdoses, noted a statistically significant rise in both when 2019 and 2020 were compared.<sup>9</sup>

The picture overall in terms of mental health impacts is mixed both in terms of geography and socio-economics. One counteractive influence to explain this is the 'coming together' effect of a great crisis, where as a result of people feeling they are participating in a great national endeavour, rates of suicide actually diminish (for example the US post the 9/11 attacks). 10 However, this in turn could be temporary as the longer-term economic effects of lockdowns begin to be felt. Indeed, if previous recessions are considered, a time lag between the effects of economic shock and its effect on suicide rates is not without precedent. In addition, if we take the SARS 2003 epidemic as a guide, there was an increased risk of those infected with the virus subsequently developing psychiatric disorders and committing suicide.<sup>11</sup> It is just too early to say whether this will emerge with COVID-19.

## Alcohol misuse

Has alcohol misuse increased during the pandemic, and what is its likely outcome? In most jurisdictions, pubs and other licenced premises may have closed, but very few countries took the steps that South Africa did in completely banning the sale of all alcohol.

The UK's Mental Health Foundation survey found that in the spring of 2020, 30% of respondents reported drinking more to cope with stress, but this figure rose to 40% by early summer; in addition, the British Liver Trust reported a 500% rise in calls to its helpline.<sup>12</sup>

However, a study by Anderson and colleagues looking at purchase patterns of alcohol (measured by grams per alcohol) in the UK showed only a modest 0.7% increase in alcohol purchased. There were notable exceptions with middle-aged wealthier households increasing their purchases.<sup>13</sup> Similarly, an Australian survey noted that while a fifth of respondents said their consumption fell, around a quarter stated that it increased – and of those ~8% markedly so.<sup>14</sup>

Overall, then, while many of us may have drunk a little more there is little evidence so far of a widespread increase in problem drinking; however, for those already with preexisting problems the pandemic has been hugely challenging. For example, in the US, which has 15 million people already living with alcoholic liver disease, rates of hospitalisation for the condition have increased by 30-50% since March 2020.<sup>15</sup>

In England and Wales provisional figures for Q1-3 2020 also show an increase of 15% in alcohol-specific deaths compared to 2019, the highest recorded increase since 2001. It is important to point out that these deaths are in individuals with long-standing established disease and not directly attributable to the pandemic; however, it is likely social isolation and decreased intervention by primary care would have played a role in this rise.

<sup>&</sup>lt;sup>6</sup> lacobucci; Suicide rates continue to rise in England and Wales BMJ 2020; 370 :m3431

 <sup>&</sup>lt;sup>7</sup> Thakur, Jain; COVID 2019-suicides: A global psychological pandemic.
<sup>8</sup> Sakamoto et al.; Assessment of Suicide in Japan During the COVID-19 Pandemic vs Previous Years. JAMA Netw Open.

<sup>&</sup>lt;sup>9</sup> Holland et al. Trends in US Emergency Department Visits for Mental Health, Overdose, and Violence Outcomes Before and During the COVID-19 Pandemic. 3 Feb 2021.

<sup>&</sup>lt;sup>10</sup> Reger et al.; Suicide Mortality and Coronavirus Disease 2019—A Perfect Storm? 10 Apr 2020.

<sup>&</sup>lt;sup>11</sup> Tzeng et al. What could we learn from SARS when facing the mental health issues related to the COVID-19 outbreak? A nationwide cohort study in Taiwan, 2020

<sup>&</sup>lt;sup>12</sup> BBC News, Alcoholism in the time of coronavirus, 6 Oct 2020

 <sup>&</sup>lt;sup>13</sup> Anderson et al.; Impact of COVID-19 Confinement on Alcohol Purchases in Great Britain: Controlled Interrupted Time-Series Analysis during the First Half of 2020 Compared With 2015-2018, 19 Nov 2020
<sup>14</sup> Australian Government Insitute of Health and Welfare; Alcohol, tobacco

<sup>&</sup>amp; other drugs in Australia, accessed 9 Feb 2021

 $<sup>^{\</sup>rm 15}$  Los Angeles Times, As alcohol abuse rises amid pandemic, hospitals see a wave of deadly liver disease, 8 Feb 2021

## **Drug abuse**

One of the cornerstones of the disease of despair concept was the explosion in drug-related overdoses in the US. These tripled in the period 1999-2017, with opioid-related deaths increasing sixfold. The issue arose in part due to overreliance on and over-prescribing of these powerful drugs to treat chronic pain at a rate 5 to 8 times higher than rates in Europe. <sup>16</sup> And the effects of the COVID-19 pandemic on this? Again, as with other measures discussed, it has exacerbated an already existing problem, with the US Centers for Disease Control reporting some 81,000 drug-related deaths in 2020, the highest-ever recorded figure.<sup>17</sup>

Certainly, drug-related deaths in the UK were at their highest in the period before the pandemic, with heroin and opiates causing over half of deaths. However, on the positive side, the rate of growth appeared to be flattening and the Mental Health Foundation survey showed only 2% of respondents had used illicit drugs during the pandemic, a rate that remained constant throughout the first wave. Along with a falloff in demand, this could also be related to a fall in supply – reflecting the collapse in as international travel combined with stricter border controls.<sup>18</sup>

## Conclusion

So what does all this tell us? It is reasonable to conclude that the phenomenon of 'diseases of despair' is indeed real; however, the impact and extent differs by nationality but also crucially by demographics within nations.

And the impact of COVID-19? Overall, so far societies seem to be fairly resilient as measured by rates of psychological disease and rates of alcohol or drug misuse. So far, this may not always be the case.

However, even if wider society is 'doing OK', we should be careful not to dismiss the fact that, for some, the pandemic – even if they have escaped the virus itself – has been terrible, with increased rates of alcoholic liver disease, drug use and thoughts of suicide markedly increased in parts of the community already blighted with problems of unemployment, poverty and inequality.

What of our business in Life and Health insurance? Claims directly attributable to COVID-19 have undoubtedly risen, death claims being the most obvious, but coma and intensive care claims on critical illness and of course IP for COVID-19-related work absences. However, claims from the indirect impacts of the pandemic, which would include diseases of despair are largely yet to emerge. It is possible we will see a rise in suicide claims on our mortality books as the financial impact takes hold or CI claims for heart attack for example (related to stress) or liver failure. We need therefore to be both vigilant to detect any such emerging trends while also ensuring we remain fair and sympathetic towards claimants.

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 <sup>&</sup>lt;sup>16</sup> DeWeerdt, Tracing the US opioid crisis to its roots Nature 573, S10-S12 (2019)
<sup>17</sup> CDC Newsroom, Overdose Deaths Accelerating During COVID-19, 17 Dec

<sup>&</sup>lt;sup>17</sup> CDC Newsroom, Overdose Deaths Accelerating During COVID-19, 17 Dec 2020

 $<sup>^{\</sup>rm 18}$  The Guardian, Coronavirus triggers UK shortage of illicit drugs, 12 Apr 2020

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