



The cost of the cure

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CONTENTS

Summary	2
Introduction	3
A tabulation of the costs of the cure	5
Appendix: detailed estimates of the costs.....	11
1. Balancing the costs with the perceived healthcare benefits of lockdown: the role of QALY calculations	13
2. The impact of lockdown on the economy	17
3. Impact on employment and personal debt	27
4. The impact on the government finances	29
5. The Forgotten Toll? The impact on non-Covid treatments and deaths	30
6. The social and wellbeing impact	34
7. The educational impact	39

Notes

** This Working Paper attempts to set out the costs of UK lockdowns and is subject to ongoing revision. We welcome any feedback or criticism.*

Summary

- The impact of Covid-19, and the UK Government's response to the pandemic, have both been extraordinary.
- This report attempts to quantify some of the costs that the UK has incurred because of the lockdowns. These include the costs on the Treasury, the costs on the wider economy, the health costs and the costs on well-being and education.
- Inevitably, many of our estimates rely on certain counterfactual assumptions which are by their nature unprovable. In all cases, the assumptions and estimates have been set out; and in all cases these assumptions and estimates have been cautious.
- These findings can be compared to the government's own estimates of the cost of lockdown, estimates that will be published shortly.
- However, our preliminary estimates of the costs of lockdown have been astonishing. These include:
 - Public sector net debt is expected to **increase by £473 billion in 2020-21**;
 - GDP has **fallen by 11.3% in 2020**;
 - Unemployment is expected to increase by **between 450,000 and 2.45 million** above pre-pandemic levels;
 - The estimates of the cost per year of life saved (QALY) range from nearly three times more than what the NHS is usually prepared to **pay to over 80 times more**;
 - **20,000 loss of lives** could be lost from delayed treatment for cancer and other diseases;
 - **16,900 additional domestic violence cases** were recorded between March and June 2020;
 - Significant increases in depression (64% recording common depressive symptoms), anxiety (69% report increases) and loneliness (reports of loneliness parents of under-fives up by 1.4 million);
 - Significant increases in substance abuse including high-risk drinking among adults up by 3.7 million, 20% increase in opiate addictions, 39% increase in number of relapses among addicts;
 - A 25% to 30% reduction in learning among primary and secondary pupils, respectively.
- It is wrong to assume that UK governments have faced and are facing a simple binary choice between 'doing nothing' and having a full lockdown. Other countries have taken significantly different approaches with significantly different results; and the UK governments have themselves continue to change the nature of the lockdowns over time.
- There are some costs of lockdown which are of course unquantifiable and which are therefore not covered in this report: the impact on freedom, on the quality of life, on happiness, on the differential impact of lockdown on the poor and the young. These too should be considered in official analyses.
- The report makes a simple observation: that the UK governments should publish their forecasts of the financial, economic and wider impact of the measures they have and are taking. These forecasts can then be assessed and scrutinised by Parliament, by future inquiries and by the wider public.

Introduction

Any attempt to quantify the costs of the measures that the UK and other governments have taken in response to the pandemic will lead to accusations from some quarters that we are being, in Aneurin Bevan's words, a 'desiccated calculating machine'. Others will say that, by comparing the number of the lives saved by government measures with the financial cost of those measures, we are putting a financial value on a life and hence being immoral – or at best, amoral. Yet others will say that by doing so we are failing to respect the great contributions made in fighting the pandemic by many of the heroes of 2020, from healthcare to supermarket workers, from refuse collectors to those researching the new vaccines.

Some of these charges have some truth. But in our defence we should point out that in normal circumstances, it is the UK government which routinely quantifies the value of a life saved, whether it is licensing a new drug treatment or assessing whether it is worth making an investment in altering a particular road to improve its safety (eight government departments currently use the sum of £1.8 million for the 'Value of a Prevented Fatality', albeit that this number is often criticised as being too low).

And if you were to step back, it is clear that the measuring the cost-effectiveness of government is essential. Resources are broadly speaking finite: if, for example, the costs of the measures taken by UK government to save lives turn out to be disproportionate then it may have inadvertently reduced the NHS's ability to save more lives in the future.

The government has recently announced that it will publish its own cost assessment on lockdown. This is welcome but many may ask whether it should have done so earlier, given that these are the most significant measures taken by a peacetime government in centuries. If the government does this exercise when considering a road alteration, should it not also have done so when spending hundreds of billions of pounds on lockdown measures, driving many hundreds of thousands of small businesses into bankruptcy and causing deep grief and frustration among the general public? Particularly when it is the poorest households who appear to be hardest hit?

The primary advantage of a cost-benefit analysis is not so that one side or the other can indulge in 'I-told-you-so' denunciations. Rather, it is to enable our political leaders to take decisions on the basis of the best current estimates; for those decisions to be debated on an informed basis; and, in addition, to enable future governments and inquiries to understand where, in the spectrum of possible measures, the UK would have done best to concentrate its efforts. For we should learn one lesson: there will be a next time.

This analysis of the costs associated with lockdown shows that we must give a similar level of regard to other health impacts such as cancer, diabetes and heart disease, depressive symptoms, and all the ramifications that flow from a locked down economy. Does the lockdown cure risk becoming worse than the disease? Ongoing concerns have been repeatedly expressed about specific restrictions, including: on worship, care home visits, outside sport, the curfew timings, closure of non-essential retail shops, gyms and personal care business, hospitality and the criteria that should apply to the 'Rule of Six'. The viability of multiple sectors of the economy are at stake. In setting out an analysis of the 'cost of the cure', it is clear that lockdowns themselves do cost lives, across a wide spectrum of conditions, and do cause severe misery particularly among those with less resilience to endure the difficulties of lockdown.

In terms of QALYs, the calculations here necessarily result in a very wide range of estimates – which is inevitable given the counterfactual nature of trying to estimate what would have happened if we had taken a different course of action. But our initial estimates show that lockdown costs at least three times the threshold that the government usually adopts when considering medical treatments – and that the costs may be 80 times as great.

Most difficult to measure, but no less important for that, is the depth of misery to which many individuals have sunk because of lockdown. The 39% increase in the number of recovering addicts who have relapsed during lockdown and the 20% increase in opiate addiction reaches far beyond those involved. In line with research that two thirds fewer parents than normal have been considering divorce,¹ we find also reported *decreases* in divorces (over 5,000 less under the initial March lockdown). Yet sadly there is an increase of 16,911 more domestic abuse related offences. And there is much – at the moment anecdotal – evidence that drug gangs for example have recruited many non-schooled children who are bored, need the cash and are attracted by the false glamour of the illicit.

These handful of examples illustrate an important point which the data do not reveal: that the impact of the pandemic has affected the poor and the young disproportionately. The middle-aged and the middle-class may have the resources to treat lockdown as a form of extended ‘gardening leave’ (sometimes literally so). But a workless large family, cooped up in a small flat in a neighbourhood affected by social problems, will have no such good fortune. Their prospects, lives and resources tend to be so much more fragile.

‘Follow the science’ was the government’s mantra at the beginning of lockdown. Perhaps ‘follow the evidence’ would be a more appropriate formula now. The Government’s late but welcome decision to publish a detailed cost-benefit analysis will allow Parliament, future inquiries, specialists and the wider public to debate what is working best in the fight against the dreadful disease that is Covid19.

A tabulation of the costs of the cure

The cost of the cure	Higher estimate	Lower estimate
1. The need to balance costs with the perceived healthcare benefits of lockdown²		
Number of deaths saved by lockdown	<u>24,400</u>	<u>460,000</u>
Number of QALYS saved by lockdown	<u>176,000</u>	<u>3,300,000</u>
Cost of lockdown to HM Treasury	<u>£440 billion</u>	<u>£280 billion</u>
Cost per QALY saved	<u>£2.5 million</u>	<u>£96,000</u>
How much greater than NICE threshold	<u>83</u>	<u>3.2</u>
2. The impact of lockdown on the economy		
Impact on general economy	<u>GDP contracted 19.8%</u> (April to June 2020) ³	<u>GDP contracted 9.7%</u> (until September) ⁴
Impact on manufacturers (based on an initial lockdown lasting 15 weeks and a second lockdown lasting 4 weeks)	----	<u>£71.7bn</u> (GVA loss) ⁵
Impact on construction (based on an initial lockdown lasting 15 weeks and a second lockdown lasting 4 weeks)	----	<u>£40bn</u> (GVA loss) ⁶
Impact on the retail sector (based on an initial lockdown lasting 15 weeks and a second lockdown lasting 4 weeks)	<u>£35 billion</u> ⁷	<u>£33.8 billion</u> ⁸
Impact on small businesses (based on business survey released on 28 May)	----	<u>£69 billion</u> ⁹

The cost of the cure	Higher estimate	Lower estimate
Impact on airline affected international travel (forecasts in loss of revenue for 2020)	£42.7bn ¹⁰	£20.7bn ¹¹
Impact on airports	£4bn ¹² (based on industry forecasts).	£1.5bn ¹³ (based on an initial lockdown lasting 15 weeks and a second lockdown lasting 4 weeks).
Hospitality: Hotels and restaurants	£29.6bn (industry reported loss in revenue during the second quarter of 2020).	£27.2bn (based on estimates of an initial lockdown lasting 15 weeks and a second lockdown lasting 4 weeks).
Hospitality: pubs (decreased GVA) (based on research published in September recording impact of initial lockdown).	£7.4bn ¹⁴	£3bn ¹⁵
Rail transport	£21bn ¹⁶ (based on an initial lockdown lasting 15 weeks and a second lockdown lasting 4 weeks)	£6.8bn ¹⁷ (based on finance provided by DfT, incl. to TfL)
Car production (based on November industry evidence and forecasts for both lockdowns but preceding second lockdown).	----	£22.5bn ¹⁸
Arts and entertainment	£29bn (GVA) ¹⁹ (projected industry forecast for 2020)	£15.1bn (GVA) ²⁰ (based on an initial lockdown lasting 15 weeks and a second lockdown lasting 4 weeks)

The cost of the cure	Higher estimate	Lower estimate
3. Impact on unemployment (for Q2 2021) and personal debt	2.45 million extra unemployed ²¹ (calculations based on OBR higher projected estimate for Q2 2021)	450,000 extra unemployed ²² (calculations based on OBR higher projected estimate for Q2 2021)
Private sector	2.45 million extra unemployed (calculations based on OBR higher projected estimate for Q2 2021)	-51,000 extra unemployment (based on ONS unemployment record, March to June 2020)
Public sector	----	+39,000 ²³ increased employment (based on ONS unemployment record, March to June 2020)
Severe problem debt	----	600,000 more ; 100% increase in severe problem debt (based on September research data) ²⁴
4. The impact on the government finances		
Increase in public sector net borrowing (March to November 2020 rise in OBR estimates)	£385.2 billion (based on a rise to 22% of GDP)	£284.4 billion (based on a rise to 17% of GDP)
Increase in public sector receipts (April to November 2020)	----	-£57 billion (6.8% on 2019) ²⁵
Spending – on virus-related support measures (March to November 2020), plus subsidies including CJRS (£53.7 billion) and SEISS (£19.6 billion)	----	£280 billion ²⁶
Additional devolved contribution (during 2020 to deal with pandemic)	----	£18.6 billion ²⁷

The cost of the cure	Higher estimate	Lower estimate
5. The impact on non-Covid treatments and deaths		
Cancer (additional deaths)	17,915 ²⁸ (projected for a year in which all people currently living with cancer are considered).	3,291 ²⁹ (estimated as result of delays in diagnosis on outcomes up to 5 years after diagnosis).
Stroke (additional deaths)	----	825 ³⁰ (based on an analysis of 28,969 acute cardiovascular deaths after 2 March)
Heart/cardiovascular (additional deaths)	----	1,834 ³¹ (based on an analysis of 28,969 acute cardiovascular deaths after 2 March)
Diabetes (additional deaths)	----	161.6% above five year average ³² (measuring deaths up to week ending 24 April)
Childhood vaccinations	MMR: 20% less child vaccinations ³³ in the first three weeks of the initial March lockdown	Hexavalent: 3.8% less child vaccinations MMR: 2.8% less child vaccinations ³⁴ than in same September period in 2019

The cost of the cure	Higher estimate	Lower estimate
6. The social and wellbeing impact		
Domestic abuse	16,911 more domestic abuse related offences ³⁵ (between March and June 2020)	1,731 ³⁶ more domestic violence remedy order applications (between April and June 2020)
Anxiety	69% report increase in anxiety levels ³⁷ (recorded in April)	Symptoms decreased over the first six weeks of lockdown ³⁸
Depressive symptoms	64% recorded common signs of depression ³⁹	Declined slowly in lockdown, albeit above average levels. ⁴⁰ Some report as stable but adversely affected. ⁴¹
High-risk category, drinking	----	3.7 million more adults ⁴²
Opiate addiction	----	20% more cases ⁴³
Addiction concerns	39% (recovering addict relapse) ⁴⁴	20% (increase in 512 new opiate addiction cases) ⁴⁵
Loneliness	1.4 million parents of the under fives reported increased loneliness during pandemic	26.6% ⁴⁶ registered higher on loneliness scale (measured between March 23 to April 24).
7. The educational impact		
Newborns and infant development	20% increase in babies suffering non-accidental harm ⁴⁷	No reported negative impact on maternity services. ⁴⁸
Primary education	25% reduction in learning ⁴⁹	Incomplete evidence. Schools returned in second lockdown

The cost of the cure	Higher estimate	Lower estimate
Secondary education	30% reduction in learning ⁵⁰	Incomplete evidence. Schools returned in second lockdown
Tertiary education	30% reporting mental health condition ⁵¹	Unknown, lack of data

Appendix: detailed estimates of the costs

1. Balancing the costs with the perceived healthcare benefits of lockdown: the role of QALY calculations	13
1.1. The number of lives saved	13
1.2. The average age of those who died	13
1.3. The average life expectancy of an 83 year old.....	13
1.4. Calculation of saved QALYs	14
1.5. Value of each QALY	14
1.6. Cost of the lockdown	14
1.7. Cost per QALY saved	15
1.8. The simplified nature of these calculations	15
2. The impact of lockdown on the economy	17
2.1. Mitigation of impacts through UK national welfare response.....	17
2.2. Impact on general UK economy: a fifth of GDP	17
2.3. Impact on UK manufacturers: £71.7bn loss.....	18
2.4. Impact on construction: £40bn loss.....	20
2.5. Impact on the retail sector: £33.8bn-35bn loss	20
2.6. Impact on UK small businesses: £69bn loss.....	20
2.7. Impact on airline-enabled international travel and tourism: £20.7billion loss	21
2.8. Impact on airports: £1.5–4bn	23
2.9. Impact on hospitality – Hotels & restaurants: £27.2 – 29.6bn loss	23
2.10. Impact on hospitality – pubs: £3–7.4bn loss	24
2.11. Rail transport: £6.8 – 21bn losses.....	24
2.12. Impact on car production: £22.5bn losses.....	25
2.13. Impact on arts and entertainment sector.....	25
3. Impact on employment and personal debt	27
3.1. UK unemployment	27
3.2. Public and private sector employment.....	27
3.3. Impact on personal debt.....	28
4. The impact on the government finances: net debt rising by £473 billion.....	29
4.1. Public sector net borrowing (PSNB):.....	29
4.2. Public sector net debt (PSND):.....	29
4.3. Public sector receipts	29
4.4. Spending	29

4.5. Devolved funding	29
5. The Forgotten Toll? The impact on non-Covid treatments and deaths	30
5.1. Impact on excess deaths of cancer patients	30
5.2. Impact on excess deaths of heart and stroke patients	31
5.3. Impact on excess deaths of diabetes (Type 1 and 2) patients	32
5.4. Impact on childhood vaccinations	32
6. The social and wellbeing impact	34
6.1. Impact on divorce	34
6.2. Impact on Domestic abuse	34
6.3. Impact on levels of anxiety and depression.....	35
6.4. Impact on addiction recovery	37
6.5. Impact on adults drinking at high risk and opiate addiction	37
6.6. Loneliness.....	38
7. The educational impact	39
7.1. Newborns and infant health	39
7.2. Primary education.....	39
7.3. Secondary education	39
7.4. Tertiary education.....	40

1. Balancing the costs with the perceived healthcare benefits of lockdown: the role of QALY calculations

In considering the ways in which to balance costs with the perceived healthcare benefits of lockdown, some consideration is needed of QALY (Quality Adjusted Life Years) calculations. Five factors are needed for calculating the comparative cost of the QALYs lost in the lockdown periods:

1. The number of deaths saved as a result of the lockdowns
2. The average age of those who died
3. The average life expectancy of those who died
4. The monetary value currently assigned to each QALY by NICE
5. The cost to the Treasury of the lockdown measures

QALYs (Quality Adjusted Life Years) are used by the NHS and other health systems to calculate the value of any particular medical intervention in terms of the good quality life years it is likely to save. Although often thought of as heartless, by doing so they recognise that resources are finite and value-for-money is needed in healthcare provision as in any other area of government. Indeed, it can be argued that the economic cost of lockdown, while saving a number of lives, may have reduced the NHS's ability to save far more lives in the future.

Note that, as detailed below, the calculations here are simplified. However, any more sophisticated approaches would be likely to increase the estimated cost of lockdown. In addition, it is important to remember that these calculations are based on a false dichotomy: the low estimate of cost per QALY saved – arising from a far higher death rate – is based on the improbable notion that neither the government nor individuals would take any mitigating action whatsoever; whereas the high estimate of cost – and far lower death rate – is based on a complete lockdown. The experience of other countries is that both government and individuals exhibited a far wider range of responses.

1.1. The number of lives saved

Low estimate of cost: Professor Neil Ferguson's modelling in March 2020 implied that, if the NHS and individuals both continued with no mitigating change in behaviour, then the potential excess deaths would be 510,000 by September 2020.⁵² This modelling has been criticised for exaggerating the potential impact of the pandemic.⁵³ However, with 50,000 deaths to 11 November, this would suggest that the lockdown has saved 460,000 lives.

High estimate of cost: Professors Rickard Nyman and Paul Ormerod, both of University College London, compared the trajectory of deaths on a daily basis in Sweden and England and Wales (which constitute 90 per cent of the UK population) from 11 March to 7 August 2020. They 'estimate that to 7 August, lockdown saved 17,700 lives in England and Wales, or just under 20,000 extrapolating to a UK level.' With an additional 22% of deaths between 8 August and 11 November,⁵⁴ then an update of this lower estimate would suggest that the number of UK deaths saved by lockdown would be 24,400.

1.2. The average age of those who died

The ONS reports that the mean average age of death due to Coronavirus is 83 (81 for males, 85 for females).⁵⁵

1.3. The average life expectancy of an 83 year old

The average life expectancy for a healthy 81 year old is 7.7 years, and for a healthy 85 year old female is 6.8 years, giving a mean average of 7.2 years.⁵⁶

An introduction to QALYs

Quality-adjusted life-years (QALYs) are used by the NHS and the National Institute for Health and Clinical Excellence (NICE) to compare the expected average life expectancy and quality of life of patients following a clinical treatment with the cost of that treatment.

According to NICE, a QALY is:⁵⁷

‘...a measure of the state of health of a person or group in which the benefits, in terms of length of life, are adjusted to reflect the quality of life. One quality-adjusted life year (QALY) is equal to 1 year of life in perfect health.

QALYs are calculated by estimating the years of life remaining for a patient following a particular treatment or intervention and weighting each year with a quality-of-life score (on a 0 to 1 scale). It is often measured in terms of the person’s ability to carry out the activities of daily life, and freedom from pain and mental disturbance.’

NICE reportedly currently assigns a value of £30,000 for each QALY. To give a greatly over-simplified example of how this works, this means that if a treatment for a 20 year old is estimated to cost £1 million but is expected to result in a full recovery and an average life expectancy, that treatment will proceed (on the basis that the expected value of the 60 or so QALYs for that patient will far outweigh the £1 million cost). But the same treatment would probably not be provided to an 80 year old.

As they put a monetary value on the benefits of saving a life or improving health of a patient, QALYs are sometimes understandably considered to be a particularly cold-blooded calculation. However, they clearly are of value not least in negotiations between NICE and pharmaceutical companies over whether to licence and purchase a particular treatment, and over the price of that treatment.

QALYs, and their implications, are an undeservedly obscure subject, as a Google search will quickly reveal. However, they or a close equivalent are used in many countries with advanced healthcare systems. While the value of a QALY varies from country to country, and within countries, one recent study⁵⁸ reviewed the published evidence from 18 international studies and found the average value of a QALY tends to be close to the UK figure of £30,000.

1.4. Calculation of saved QALYs

Low estimate of cost: If lockdown saved 460,000 lives, with each life having an average life expectancy of 7.2 years, this would result in a total of 3.3 million QALYs saved.

High estimate of cost: If lockdown saved 24,400 lives, with each life having an average life expectancy of 7.2 years, this would result in a total of 176,000 QALYs saved.

1.5. Value of each QALY

NICE has a threshold that it will not pay more than £30,000 for each QALY that a particular treatment would save.⁵⁹

1.6. Cost of the lockdown

Low estimate of cost: The November *Spending Review 2020* that the government has spent over £280 billion on pandemic measures from March to November 2020.⁶⁰

High estimate of cost: The OBR's higher forecast of the increase in the Public sector net debt will be £440 billion in 2020/21.

1.7. Cost per QALY saved

Low estimate of cost: If lockdown saved 3.3 million QALYs, and if the cost of lockdown to HMT was £317 billion, then the cost to HMT per QALY saved was £96,000. That is over three times the maximum threshold that NICE is prepared to spend per QALY.

High estimate of cost: If lockdown saved 176,000 QALYs, and if the cost of lockdown to HMT was £347 billion, then the cost to HMT per QALY saved was £1.97 million. That is over 80 times the maximum threshold that NICE is prepared to spend per QALY.

1.8. The simplified nature of these calculations

It is of course impossible to *know* the counterfactual. This is particularly the case when trying to estimate how many lives, and therefore QALYs, have been saved by lockdown not least as there are so many variables and time-frames to consider. All that can be achieved are estimates of their plausible ranges. Hence these calculations. Some of the factors which might increase or decrease the cost of the lockdown, and which are not included in these calculations are listed here.

Those factors which would be likely to *reduce* the average cost of each QALY saved by lockdown would include cost-savings arising from:

- Fewer serious traffic accidents, particularly during the first lockdown;
- Future potential health benefits of lockdown including possibly healthier diets, increased exercise and additional sleep;⁶¹
- Other benefits from the lockdown such as the improved air quality in large cities
- Lower expenditure by both the NHS and other government departments as a result of the older age profile of those dying. This would include the reduced costs of pensioners' disproportionately high usage of NHS, end-of-life care, lower pension payments and so on;
- The low financial threshold which NICE intentionally places on QALYs. QALYs are primarily used in negotiations with pharmaceutical companies over new drug treatments; as most of the costs of any new drug is in its development, then a pharmaceutical company can be expected to favour high-volume, low-price sales; and,
- That no account is taken of the negative effects of the NHS being overwhelmed if no mitigating efforts had been made by either government or individuals (but see below as well).

On the other hand, the following factors would all *increase* the average cost of each QALY saved by lockdown:

- A QALY is graded to reflect the quality of life a patient is expected to have following an operation; an 80 year old with a pre-existing condition may have a life expectancy of five years but the estimate of the QALY he or she would expect may be only 0.4 per year, meaning that this patient had two expected QALYs. Because of the elderly nature of those dying from Covid-19, and the high proportion of those with pre-existing conditions, this would result in substantially fewer QALYs being saved;

- Fewer deaths than expected in the absence of any lockdowns. The forecast of 510,000 deaths made by Professor Neil Ferguson and colleagues was based on the assumption that neither the government nor individuals would take any action whatsoever to mitigate the impact of the pandemic. The authors, however, stated that this was 'unlikely' in their report;⁶² and the example of Sweden shows that both the government and individuals did take a range of measures to limit the impact of the pandemic;
- Given many of those who have died from Covid were elderly or had pre-existing conditions, these calculations probably use an over-estimate for the average number of years that Covid fatalities would otherwise have lived;
- No account is taken of the impact of lockdown on the late diagnosis and treatment of other diseases such as cancer and heart disease, of the reduction in numbers seeking emergency care; and of the other damages outlined in this report

Above all, these calculations make no assessment of the long-term impact on the economy and its ability to fund NHS. Again, these costs must be considered by official estimates of the costs of the lockdown.

2. The impact of lockdown on the economy

2.1. Mitigation of impacts through UK national welfare response

To date, the Government have attempted to mitigate some of the worst impacts on the UK economy and society through the implementation of several welfare support schemes. Those schemes include the grants for the £19.6 billion costings of the Self-Employment Income Support Scheme (SEISS) and £53.7 billion costs of the Coronavirus Job Retention Scheme (CJRS),⁶³ among other support schemes, including the 'Eat out to help out' scheme, business rates relief and support loans.

The CJRS scheme, for example, has meant that since the initial lockdown, if employers could not maintain their current workforce because operations have been affected by the lockdown, they could furlough employees and apply for a grant to cover the majority of their wages. The CJRS (also known as the furlough scheme) will remain open until 31 March 2021. For claim periods running to January 2021, employees will receive 80% of their usual salary for hours not worked, up to a maximum of £2,500 per month. The £2,500 cap is proportional to the hours not worked.

This funding level has changed over time to reflect changing circumstances but the scheme remains in place because of the intervening second lockdown. There were several iterations and revisions of the scheme throughout July, August, September and October. However, rather than consider the separate impacts of different grants and schemes here, those economic impacts have been considered under the broader costs to UK government finances – namely, through Departmental spending, grants to local authorities, which includes the above subsidies for CJRS and SEISS, which have jointly totalled £73.3 billion.

2.2. Impact on general UK economy: a fifth of GDP

UK GDP is estimated to have contracted by 19.8% for the period of April to June. This was the largest quarterly contraction in the UK economy since quarterly records began in 1955.⁶⁴ The economy experienced a major shock with the start of the first lockdown in March. GDP fell dramatically, with record broad-based falls in output for production, services and construction.⁶⁵ Business opinion demonstrated a wide-ranging negative impact on output during April. The lockdown strategy had led to a significant fall in consumer demand and business and factory closures, as well as supply chain disruptions.

At the outset of the initial lockdown, GDP was recorded as falling over 20% in the month of April.⁶⁶ The fall was three times greater than the fall experienced during the 2008 economic downturn. To appreciate the relative historical impact, the ONS recorded that during the global financial crisis – from the peak in February 2008 to the lowest point of March 2009 – GDP contracted 6.9%.⁶⁷

The very large decline in GDP in April 2020 was a direct impact of the stoppage of business activities. This was reflected in the 16.4% of businesses who reported zero turnover in April 2020. Business impact surveys recorded five industries where 75% or more of the businesses said they had temporarily closed or paused trading, which included:

- sports activities and amusement and recreation activities;
- accommodation;
- food and beverage service activities;
- libraries, archives, museums and other cultural activities;
- creative, arts and entertainment activities.⁶⁸

The production industries suffered strong decline in output of 20.3% during April. Again, the ONS recorded this was the largest monthly fall since records for production output began in January 1968.⁶⁹ The construction industry experienced a strong decline in output of 40.1% during April 2020. This was the largest fall since monthly records began in January 2010. The pandemic had a major negative impact on construction output during that month.⁷⁰

After the initial lockdown, there was an unprecedented effect on multiple industries by April.⁷¹ In air transport there was a decline following a full month of lockdown restrictions. The fall in warehousing industries was offset by increases in online shopping. Postal and courier services were impacted by less business usage as staff were working from home – and yet businesses in this industry dealing with personal deliveries and working with online orders saw an increase. In accommodation there was some activity involving supplying rooms to the vulnerable and key workers, but this did not stop this industry falling substantially. Food and beverage services had been one of the largest falling services industries due to restaurants and pubs being closed for the duration of lockdown. Businesses worked to adapt to social distancing measures by supplying take-away food but for many, the main business operation ceasing had a large negative impact in this industry. The cinema and TV industry had been badly hit. Arts venues were significantly impacted due to their requirement to close along with the cancellation of events. The lockdown also meant the closure of regular trades such as hairdressers and beauty salons.

The full extent of the impact of the November lockdown is not yet fully known but preceding that second lockdown, GDP for September rose by 1.1% but remained 8.2% below February 2020 levels.⁷² Again, that had been the fifth consecutive month of growth after the March lockdown, but the rate of recovery slowed each month since the largest rise of 9.1% in June 2020. The picture mixed: across services, the monthly growth was driven by professional services, education and health but sectors such as accommodation and food and beverage service activities declined. Within manufacturing, it is notable that there was widespread growth, but this offset against a fall in the pharmaceutical industry. Also, aircraft production and motor vehicle manufacturing also saw their respective September output levels at 26.2% and 21.1% below those of February 2020.

Multiple economic forecasts often show UK GDP contracting by more than approximately 10 per cent in 2020. The ONS finds that the level of GDP up until September is estimated to stand at **9.7% below** where it was at the end of 2019.⁷³ However, both the Chancellor's Spending Review in November 2020 and the Office for Budget Responsibility's (OBR's) forecast expects GDP to shrink by 11.3% in 2020 – the largest annual fall since the Great Frost of 1709.⁷⁴ Along with ONS records, those forecasts form the basis of estimates since the highest estimated impact of lockdown would reflect the **ONS record of a 19.8% contraction up until June;**⁷⁵ the current ONS estimate of the economy shrinking **around 9.7%** since the pandemic⁷⁶ reflects where the UK economy currently stands.

Higher estimate: GDP contracted 19.8% (ONS, reflecting April-June 2020 results)

Lower estimate: GDP contracted 9.7% for 2020 (ONS, up to September)

2.3. Impact on UK manufacturers: £71.7bn loss

The UK manufacturing sector was severely impacted by the Covid-19 pandemic. The UK manufacturing Purchasing Managers' Index (PMI) fell to 32.6, the lowest value since records began almost 30 years ago.⁷⁷ By the end of June 2020, some 70% of manufacturers recorded a fall in their orders and sales. Manufacturing output fell to an all-time low. Some firms reduced production while

others shifted to producing other required goods in the Covid-19 crisis such as medicines, sanitisers, ventilators, PPE and other equipment.

The lockdown affected the manufacturing sector in several ways. The consequence was almost zero demand for many products while in some instances, increasing demand for others. The motor vehicles industry had expected the biggest decline (-34%) in GVA. The environment it faced included a collapse in buyer demand, parts shortages, supply-chain bottlenecks and Covid-19 containment measures resulting in mass factory shutdowns.⁷⁸ After the first lockdown, that subsector expected a significant bounceback in 2021, assuming demand conditions returned to normal and all other factors remained constant. This scenario did not happen.

The UK manufacturing sector had been severely impacted by an economic shock that would scar the industries for years to come. Recovery within the sector could vary, with some industries facing a longer wind-up time required to restart production, and an interdependency within the sector for generating new orders down supply chains.⁷⁹

In the initial month following the first lockdown (April 2020), given the significant negative effect on the production industries, particularly manufacturing, negative effects were to be found in normal trading and factory operating conditions, supply chains (in the UK and overseas) and consumer demand.⁸⁰ It all resulted in record falls for many manufacturing subsectors. 11 of the 13 manufacturing sub-sectors recorded the largest falls since records began in 1968. The Index of Production fell -20.4%, total manufacturing fell -24.3%, textiles and leather products fell -49.6%, wood and paper products and printing fell -27.7%, Coke and refined petroleum products fell -24.7%, rubber and plastics products, and other non-metallic mineral products fell -40.0%, basic metals and metal products fell -27.4%, electrical equipment fell -25.8%, machinery and equipment fell -36.2%, transport equipment fell -50.2%, all of which were the weakest on record ever. The significant decline within manufacturing was the largest monthly fall since records began in January 1968, led by widespread weakness, with 12 of the 13 sub-sectors displaying negative growth.⁸¹

As a general indicator for the different industries, the top five monthly percentage falls at industry level were for:⁸²

- Motor vehicles, trailers and semi trailers: -90.3
- Furniture: -69.7
- Leather and related products: -59.2
- Wearing apparel: -52.3
- Wood and wood products except furniture: -51

In some industry reporting, it might be borne in mind that the first government advice on social distancing was published on 12 March 2020 before a formal 'lockdown' was announced on 23 March 2020. These inevitably led to a fall in consumer demand and business and factory closures, which further complicated the existing supply chain issues that had already begun to appear.

According to UK Powerhouse report by Irwin Mitchell/CEBR, a GVA loss per day had been calculated for several sectors under lockdown. For manufacturing, it predicts a loss of £539.8m a day.⁸³ Gross Value Added (GVA) allows us to measure the contribution to the economy of each individual sector. If we took the initial lockdown from 23 March as lasting 15 weeks at that cost per day on IM estimates and the second lockdown as lasting 4 weeks at a cost of the same amount per day, then we can assume the manufacturing sector faced an overall GVA loss of approximately **£56.6bn** and **£15.1bn** in each respective lockdown, amounting to a **£71.7bn overall loss**.

Lower estimate: £71.7bn (GVA) loss.

Higher estimate: --

2.4. Impact on construction: £40bn loss

That same Irwin Mitchell/CEBR report predicts a GVA loss per day for construction: it predicted a loss of £301.5m a day.⁸⁴ If we took the initial lockdown from 23 March as lasting 15 weeks at that cost per day on IM estimates and the second lockdown as lasting 4 weeks at a cost of the same amount per day, then we can assume the construction sector faced an overall GVA loss of approximately £31.6bn and £8.4bn in each respective lockdown, amounting to a £40bn overall loss in GVA.

Lower estimate: £40bn (GVA) loss

Higher estimate: --

2.5. Impact on the retail sector: £33.8bn-35bn loss

In May 2020, the British Retail Consortium (BRC) reported findings from the Office for National Statistics (ONS) which noted that the COVID-19 lockdown has cost non-food stores approximately £1.8 billion a week due to a 54.8 per cent decline in sales.⁸⁵ In regards to the second lockdown in November/December, the BRC estimate that closed shops will lose out on a total of £2 billion a week.⁸⁶

*Higher estimate: If we took the initial lockdown from 23 March as lasting 15 weeks at a cost of £1.8bn a week on ONS/BRC estimates and the second lockdown as lasting 4 weeks at a cost of £2bn a week on ONS/BRC estimates, then we can assume the retail sector faced an overall loss of revenue of approximately £27bn and £8bn in each respective lockdown, amounting to **£35bn overall loss in revenue.***

*Lower estimate: One slightly lower estimate produced by Retail Economics – an independent economics research consultancy focused on the UK retail industry – for the second lockdown predicted that for non-essential retailers in England, a decline in sales of £6.8 billion.⁸⁷ If we can assume the retail sector still faced an overall loss of revenue of approximately £27bn in the first lockdown but a lower projected figure of £6.8bn in the second lockdown, this would amount to **£33.8bn overall loss in revenue.***

2.6. Impact on UK small businesses: £69bn loss

Small and medium-sized enterprises account for 99 per cent of all UK businesses – contributing a total of £2 trillion to the economy each year.⁸⁸ A survey by Simply Business revealed that Covid-19 could cost small businesses in the UK in excess of £69 billion – an average of £11,799 per business applied to the 5.8 million small and medium-sized businesses. In that context, 67 per cent of small businesses said they had been forced to stop trading temporarily because of lockdown, 28 per cent said they were earning less money, 21 per cent were operating but had lost work⁸⁹ and it was reported that 234,000 have closed since the lockdown began in March. One-in-five small businesses also said they believed they would not survive another lockdown and 62 per cent were unsure about the long-term prospects.⁹⁰

After Prime Minister Boris Johnson announced a second lockdown for England on 31st October 2020, the Federation of Small Businesses (FSB) said that a second support package was needed to help small businesses. The FSB recommended that there should be grants worth at least £10,000,

emergency loans, an extension of the furlough scheme, emergency measures to reduce the cost of hiring new staff, 'a 100 per cent Business Rates suspension at least for those with a rateable value below £25,000, and help for those with a rateable value up to £51,000 and beyond', as well as vouchers worth up to £3000 to help small businesses adapt to new arrangements with the EU.⁹¹

On 15th June 2020, the Federation of Small Businesses reported that, in regards to re-opening, 60 per cent of small business said that it would cost them £1000 in order to set themselves up to be able to comply with the government guidelines for working safely and 28 per cent said the set-up costs alone would cost them £1000 - £10,000.⁹²

Lower estimate: £69bn loss (in revenue).

Higher estimate: --

2.7. Impact on airline-enabled international travel and tourism: £20.7billion loss

Prior to the UK lockdown in March 2020, the aviation industry contributed £14 billion to the UK's GDP, employed 130 000 people directly and air freight exports to non-EU countries valued at a total of £95 billion in 2018.⁹³ However, lockdowns, both in the UK and elsewhere, have changed passenger behaviour due to travel restrictions and an ensuing economic crisis. This has led to a decline in demand for airline services.⁹⁴

The initial impact of the March lockdown on services industries within air transport is all the more important given that services comprise 79.6% of the modern UK economy, while production and construction comprise 13.6% and 6.1% respectively. Of the 14 services sectors, 11 experienced their largest falls since records began in January 1997.⁹⁵ The services industries were most effected by industries impacted by social distancing, for example, travel and tour operators, accommodation and food and beverage services. Of the ten largest industry recording falls in the services industries, air Transport topped the most significant at -92.8%, followed by travel agencies, tour operators and other reservation service facing falls of -89.2%.

On 31st October, Prime Minister Boris Johnson announced that the UK was to go back into a second lockdown from 5th November – which, again, meant that travel was restricted. Charles Cornish, CEO of Manchester Airports Group said that the 'decision to ban people from travelling abroad came without warning and with no discussion with the industry about the support it will receive to help it get through this period'.⁹⁶ This is of particular concern to the aviation industry as in August 2020, the air, spacecraft and related machinery industry was still 27.8 per cent weaker than it was in February 2020 – despite a small rise of 0.6 per cent.⁹⁷

The aviation industry has also been hit by job losses as a result of lockdowns in the UK and across the globe. For instance, London City Airport announced in September 2020 that it was going to make 239 of its staff redundant. The CEO of the airport, Robert Sinclair, said they 'held off looking at job losses for as long as possible, but sadly we are not immune from the devastating impact of this virus'.⁹⁸ Virgin Atlantic has also announced thousands of job losses since the beginning of 2020 in a bid to preserve cash in a time of uncertainty for the industry.⁹⁹

There is also the worry that the negative impacts on the aviation industry will last longer than any lockdown – with the International Air Transport Association predicting that pre-pandemic levels of travel may not be reached until 2024 at the earliest.¹⁰⁰ It is particularly concerning for the industry as people's behaviour has changed during lockdown – with the popularity of video calls rising, potentially meaning a reduction in demand for business travel.¹⁰¹

Whilst the lockdown in the UK can be seen to have had a negative impact on the aviation industry, Grant Shapps MP, the Secretary of State for Transport, said the government had to 'prioritise the health' of the population and therefore the temporary measure of international travel quarantine helped to protect the nation from cases being re-imported after lockdown.¹⁰²

With regards to the government response to the COVID-19 pandemic for the aviation industry, 55000 employees in the industry benefited from the furlough scheme, which pays 80 per cent of wages during lockdown. Grant Shapps MP also noted that the aviation industry had benefitted from: loans; tax deferrals; £1.8 billion from the COVID Corporate Financing; backing the ATOL protection scheme by giving holiday makers a voucher to use instead of a cash refund and setting up the Joint Biosecurity Centre which enabled 'travel corridors' to be implemented – allowing passenger numbers to rise to 3.1 million between June and July 2020.¹⁰³ The government have also said '[t]he Expert Steering Group will guide our recovery strategy which will support not only the restart of the sector, but will drive the sustainable growth of the sector, creating high quality, skilled jobs across the UK that support the levelling-up of our economy', as well as forming the Jet Zero Council to help the industry restart.¹⁰⁴

On a more localised level, in May 2020 the government also announced it would be providing temporary support to 'two airlinks from Belfast and Londonderry to London, and associated airport services at City of Derry Airport and Belfast City Airport' through a £5.7 million funding package to ensure mainland Britain was connected to Belfast and Londonderry during the pandemic.¹⁰⁵

Despite the support provided to the aviation industry by the government, there have been calls for more to be done to support the industry further into the future. One particular area which the industry is calling for the government to focus on is testing. For instance, John Holland-Kaye said he believed that the government had concentrated too much on the health crisis rather than the looming unemployment crisis and wanted the government to get behind testing instead of quarantine in order to save jobs. This call had been supported by Shai Weiss (chief executive of Virgin Atlantic) who said testing is 'essential',¹⁰⁶ and Airline UK and the Airport Operators Association, who have both called for a testing regime to be brought in. Both industry bodies have also called for the government to 'bring in business rates relief for airports' and 'waive the air passenger duty tax'.¹⁰⁷

Additionally, there have also been requests for the government to look at taking a more localised approach to support the industry through regional travel corridors when some parts of the country have lower infection rates. However, Derek Provan, chief executive of AGS Airports, has said requests by the industry for testing and regional travel corridors are being ignored.¹⁰⁸

Figures from the International Air Transport Association (IATA) predict the UK aviation industry faces a loss of \$26.1billion, equating to a **£20.7billion loss (revenue)**.¹⁰⁹ In estimating the probable tourism and travel impacts enabled by airlines, according to the World Travel & Tourism Council (WTTC), £22 billion was estimated to be lost from the UK economy due to the collapse of international travel during 2020.¹¹⁰ Those estimates taken together would amount to a **£42.7 billion loss** to the UK economy.

Lower estimate: £20.7billion loss (revenue)

Higher estimate: £42.7 billion loss (in revenue)

2.8. Impact on airports: £1.5–4bn

In October, the Airport Operators Association (AOA) released the result of an assessments of members' financial position that shows that they are currently losing £83 million a week.¹¹¹

Lower estimate: On that basis alone, if we took the initial lockdown from 23 March as lasting 15 weeks at that cost per week on AOA estimates and the second lockdown as lasting 4 weeks at a cost of the same amount per day, then we can assume the airports faced an overall loss of approximately £1.2bn and £332mn in each respective lockdown, amounting to a **£1.5bn overall losses in revenue**.

Higher estimate: As a maximal interpretation, the Airport Operators Association (AOA) also calculates the combined loss between March and June at almost £2bn. It also predicts UK airports will lose a further £2bn during the last six months of 2020.¹¹² That would amount to **£4bn of losses in revenue**.

Lower estimate: £1.5bn losses

Higher estimate: £4bn losses

2.9. Impact on hospitality – Hotels & restaurants: £27.2 – 29.6bn loss

The industry faced the bleakest outlook since benchmarking began. According to PricewaterhouseCoopers, hotel occupancy rates in 2021 are forecast to be 55% across the UK – and it could take four years to return to pre pandemic levels.¹¹³ Although forecasts for 2021 show some relief compared to the declines of 2020, it is by no means 'business as usual' – with room occupancy rates across the UK forecast to be at the lowest level since hotel benchmarking services began. Under the first lockdown, the UK Hospitality tracker showed the hospitality sector as a whole witnessed a £30bn loss in revenue during the second quarter of 2020.¹¹⁴ Sales in April to June totalled £4.6bn, counted as **a loss of £29.6bn** when compared with £34.2bn recorded during the same period for 2019. Having suffered a 21% decline in hospitality trade in the first three months of 2020 as the industry moved into lockdown, the second quarter following the lockdown policy presented a near wipe-out of trade.¹¹⁵ Around a third of businesses believed they will never reopen some sites. Even at the point of closure, the sector suffered with no revenue and bills of up to £1 billion in rent and other overheads in the second quarter of the year. On average, hotels had to meet £60,000 each month during lockdown to cover fixed costs.¹¹⁶

According to Knight Frank, the economic impact of lockdown on the hotel industry was stark and hotels were 'disproportionately impacted'.¹¹⁷ Their immediate focus was on survival, with cash conservation and liquidity of immediate concern. There was however some measure of protection. The variety of measures put in place by the Government, through the business rates 12-month holiday for the hospitality sector, together with the ability to furlough staff (initially for up to 3-months), substantially reduced the holding costs to hoteliers since they were all working according to a closed hotel operation.

Hotels endured a period of lockdown and the 'enforced total sector paralysis' but early industry analysis from Knight Frank anticipated the sector would potentially rebound strongly once the economy revived and travel restrictions were lifted. It is also key to recall that recovery, for the domestic UK market depended on driving domestic demand. Normally, domestic overnight visits account for approximately 76% of all visits in the UK – yet represent only 58% of total annual room nights. With the virus outbreak across Continental Europe and the USA – capitalising on a share of the 47 million annual outbound visits made in 2018 by UK residents holidaying abroad – the potential for increased room nights in the hotel industry was a significant opportunity. There was

considerable potential for hotels to benefit from sources of demand not previously at its disposal before the pandemic.

The Irwin Mitchell/CEBR report (cited previously) predicts a GVA loss per day under lockdown across several sectors, including for accommodation and food services. It predicted a loss of £204.9m a day.¹¹⁸ That Gross Value Added (GVA) allows us to measure the contribution to the economy of each individual sector. If we took the initial lockdown from 23 March as lasting 15 weeks at that cost per day on the above basis and the second lockdown as lasting 4 weeks at a cost of the same amount per day, then we can assume the accommodation and food sector faced an overall GVA loss of approximately £21.5bn and £5.7bn in each respective lockdown, amounting to a **£27.2bn overall loss**.

Lower estimate: £27.2bn loss (following the Irwin Mitchell/CEBR report tabulated data)

Higher estimate: £29.6bn loss (following the UK Hospitality tracker data)

2.10. Impact on hospitality – pubs: £3–7.4bn loss

Before coronavirus, the beer and pub sector made a significant contribution to the UK economy. Oxford Economics estimated the sector sustained 884,860 jobs, £12.1 billion of wages and £23.4 billion of GVA across the UK economy from direct, indirect and induced effects.

Earlier research before the second lockdown, released by the British Beer & Pub Association (BBPA) along with Oxford Economics, titled 'UK Beer and Pub Sector: Coronavirus Scenarios Report' looked at how COVID-19 could impact the pubs and brewing businesses.¹¹⁹ According to the report, the most likely scenario is that over 290,000 jobs (around one-third of sector's employees) would be made redundant. If this were the case, then the total economic output of the UK's beer and pub sector would **fall by £7.4 billion** (31 per cent). In a different 'lower impact' scenario where 78% of pubs break even, GVA is still nearly **£3 billion lower** than pre-coronavirus levels.

On the eve of the second lockdown, the BBPA urged the Government to provide more longer-term support to its sector to save an estimated 12,000 pubs from permanent closure as they entered a second lockdown. They also asked for the Government to review the effectiveness and necessity of restrictions post lockdown.

Lower estimate: £3bn loss

Higher estimate: £7.4bn loss

2.11. Rail transport: £6.8 – 21bn losses

The abovementioned Irwin Mitchell/CEBR report predicts a GVA loss per day under lockdown across the whole transport sector: it forecasts a loss of £158.7m a day.¹²⁰ By measuring the contribution to the economy of that individual sector, if we took the initial lockdown from 23 March as lasting 15 weeks at that cost per day on those estimates and the second lockdown as lasting 4 weeks at a cost of the same amount per day, then we can assume the general transport sector faced an overall GVA loss of approximately £16.6bn and £4.4bn in each respective lockdown, amounting to a **£21bn overall loss**.

If, however, we look to current commitments made by the government to rail transport, the cost could appear a lot less. On 15 June, transport minister Chris Heaton-Harris MP said that since the start of the pandemic, the government had approved **£3.5 billion** of additional expenditure to support the rail industry so that vital services could continue to operate.¹²¹ In the first three months

of the lockdown, the Department for Transport reported that journeys had fell to below 30 million – down from 439 million during the same period in 2019 – and the Rail Delivery Group said that the number of journeys taken had dropped by 96 per cent due to coronavirus. To this figure, estimates should add up to £1.7 billion from government for TfL to make up lost fare revenue in the lockdown and a previous support package of £1.6 billion. Taken together, those approved expenditure amounts would **total £6.8bn in losses** suffered by the industry.

Lower estimate: £6.8bn loss (for government to cover immediate revenue loss)

Higher estimate: £21bn loss (GVA)

2.12. Impact on car production: £22.5bn losses

Since the initial lockdown began in March 2020, car production in the UK has drastically fallen. The Society of Motor Manufacturers and Traders (SMMT) reported that in March alone, UK car production fell by 37.6 per cent and warned that there could be a £8.2 billion cost to the industry if factories were to remain closed until mid-May – although they warned it could be worse ‘if subsequent demand is weak and the speed at which production lines are able to ramp up is constrained’.¹²² By June, the car production industry had declined by 48.2 per cent compared to June 2019 and the first 6 months of 2020 were the industry’s weakest since 1954, with 11,369 jobs having been cut from manufacturing and retail also.¹²³

That decline also continued in July and August with a 20.8 per cent fall in car production in July 2020 compared to July 2019,¹²⁴ and a decline of 44.6 per cent in August 2020 in comparison to August 2019.¹²⁵ September also saw the industry’s worst September since 1995, with a 5 per cent decline in car production compared to September 2019 ‘as companies continued to wrestle with the uncertain economic and political environment and Covid-related challenging global market conditions’. Overall, in the first 9 months of 2020, ‘UK car production has dropped -35.9% behind 2019 levels’.¹²⁶ By September, SMMT showed production for the year down -40.2% for units worth more than £9.5bn to UK car producers.¹²⁷ With the advent of the second lockdown, the industry now forecast a total year-on-year decline of around 750,000 registrations and a **£22.5 billion loss** in turnover for the UK motor sector.¹²⁸

Lower estimate: £22.5bn loss (turnover)

Higher estimate: --

2.13. Impact on arts and entertainment sector: £15.1 – 29 billion loss

The representative bodies for professional theatre across the UK – including UK Theatre and Society of London Theatre, Federation of Scottish Theatres, Creu Cymru and Theatre and Dance Northern Ireland – released a joint submission stating that the first 12 weeks of the nationwide lockdown saw the cancellation of 15,000 theatrical performances – resulting in a loss of more than £303 million. The four representative bodies also estimated that the total loss of income because of restrictions would be approximately £630 million since ‘[a]ll theatres...are heavily reliant on income from ticket sales’ and because ‘theatres and theatre companies have suffered loss of income from all associated/secondary income (including bar/restaurant/café sales, event hire fees, and theatre rental income)’. Additionally, the National Arenas Association projected ‘that the 23 UK arenas it represents will lose almost £235 million worth of ticket sales over a six-month period’. The Association of Independent Festivals also said that because the festival season is only spring and summer, they could suffer from a complete loss of income this year. The government offered £1.57

billion to the cultural sector in July 2020 but there have been concerns that this will only be a short-term help to the industry.¹²⁹

A sector-by-sector Irwin Mitchell/CEBR report predicts a GVA loss per day under lockdown across the arts, entertainment and recreation sector. It forecasts a loss of £113.9m a day.¹³⁰ Given that Gross Value Added (GVA) allows us to measure the contribution to the economy of each individual sector, if we took the initial lockdown from 23 March as lasting 15 weeks at that cost per day on Irwin Mitchell/CEBR estimates and the second lockdown as lasting 4 weeks at a cost of the same amount per day, then we can assume the arts and entertainment sector faced an overall GVA loss of approximately £11.9bn and £3.2bn in each respective lockdown, amounting to a **£15.1bn overall loss**.

A separate Oxford Economics report forecast that the Creative Industries are projecting a combined £77bn turnover loss over the course of 2020 compared to 2019 (-31%), which would translate into a GVA **shortfall of £29bn** in 2020 compared to 2019 (-26%), over half of which is in London.¹³¹

Lower estimate: £15.1bn loss (GVA)

Higher estimate: £29bn loss (GVA)

3. Impact on employment and personal debt

3.1. UK unemployment

After the initial lockdown, estimates for March to May 2020 show an estimated 1.35 million people were unemployed, 55,000 more than a year earlier but 17,000 fewer than the previous quarter.¹³² For March to May 2020, ONS estimated that the UK unemployment rate for all people was 3.9%; 0.1 percentage points higher than a year earlier but largely unchanged on the quarter. Significant parts of the labour market were retained through furlough, since the government's £53.7bn CJRS played a valuable role in staving off mass unemployment.

The Spending Review 2020 showed that between March and October, the number of employees on payroll fell by 782,000 (2.7%). Redundancies rose to 314,000 in the three months to September – the highest level on record. Meanwhile, vacancies this year fell further and more rapidly than during the 2008- 2009 recession and in October were still around 35 per cent down on the year.¹³³ The UK unemployment rate in the three months to September 2020 was estimated at 4.8%.¹³⁴ The OBR shows that UK unemployment is likely to reach **2.6 million in the middle of 2021**, or 7.5% of the working age population. The Bank of England similarly expects unemployment to peak at 7.75% in the second quarter of 2021.¹³⁵ The OBR estimates imply an upside of 5.1%, or **1.8 million people**, or a downside of 11%, or **3.8 million unemployed**.¹³⁶

If we contrast those projected increases in unemployment with approximate pre-pandemic levels (January to March 2020), in which an estimated 1.35 million people were unemployed,¹³⁷ we can see that there may be increases of **450,000 to 2.45 million unemployed**.

Lower estimate: 450,000 extra unemployed

Higher estimate: 2.45 million extra unemployed

3.2. Public and private sector employment

But how exposed is the public or private sector? By factoring in 83.3% of UK employment deriving from the private sector, we know 27.47 million¹³⁸ of the 33.75 million workforce derive from private sector roles; 5.5 million¹³⁹ from the public sector. In the shadow of the March lockdown, we know that of the 27.47 million people estimated to be working in the private sector for June, this was down 51,000 compared with March. In contrast, public sector employment had increased by 39,000 between March and June, mainly because of an increase in employment in the National Health Service in response to the pandemic.¹⁴⁰ Given the known impact of the March lockdown, it is a legitimate expectation therefore that the private sector will bear the major cost in unemployment continuing throughout 2020-2021.

Private sector

Lower estimate: 51,000 unemployed

Higher estimate: 2.45 million unemployed

Public sector

Lower estimate: 39,000 extra employed

Higher estimate: --

3.3. Impact on personal debt

The debt charity, StepChange estimates that 5.6 million people have fallen into arrears or borrowed money as a result of the pandemic.¹⁴¹ In addition, it found that the number of people in severe problem debt has almost doubled since the beginning of the outbreak to 1.2 million people. The amount of arrears and borrowing among is now £10.3 billion.

Worse, financial difficulty is crystalising into harm: 17% of those whose financial situation has been negatively impacted by coronavirus have experienced one or more forms of hardship since March, including going without meals and rationing basic utilities (this compares to 4% among those not affected). Not surprisingly, it is the financially vulnerable groups who have disproportionately experienced difficulty, including young adults no longer in education or able to access family support and families with dependent children—particularly single parents—who have been squeezed by falls in income alongside additional costs linked to care for children during the pandemic.

Similarly, Citizens Advice estimates that 6 million UK adults have fallen behind on at least one household bill during the pandemic,¹⁴² stating that:

‘for many of these people, Coronavirus debt will take them years to repay. As well as the number of people affected, the size of this debt matters. If people aren’t able to repay arrears built up due to coronavirus, they and their service providers may face a long period of time where they are financially insecure.’

On the other hand, Bank of England data show that a record amount of debt was repaid in the initial months of the pandemic.¹⁴³ This can be attributed to the fact that, during this period, discretionary spending on items such as hospitality or travel was limited.

This indicates that there is a clear division by income level: for it is higher income households who were on balance able to save, while lower income households were badly hit, being much more likely to run down savings and turn to high-interest credit during lockdown while higher income households could use their reduced spending to pay down their debt: a net balance of 15% of those earning over £55,000 a year reported higher savings whereas 12% more people earning under £20,000 had run down their savings or increased their level of personal debt.

Similarly, the Resolution Foundation has found evidence that serious financial stress is building in some poorer households.¹⁴⁴ Half (54 per cent) of adults from families in the lowest income quintile have borrowed in recent months to cover everyday costs such as housing and food. Similarly, almost one-in-three (29 per cent) adults that has had a persistently low income through the pandemic say they cannot afford basic items such as fresh fruit and vegetables every day, or to turn on the heating when required.

Lower estimate: increase of 600,000 in severe problem debt

Higher estimate: ----

4. The impact on the government finances: net debt rising by £473 billion

The impact of the lockdown on the government finances can be summarised in the following terms:

4.1. Public sector net borrowing (PSNB):

Up to November, the pandemic has driven public sector net borrowing to levels not seen since the two world wars. In the OBR's central forecast, the deficit hits 19 per cent of GDP (£394 billion), its highest level since 1944-45. Even in the upside scenario it hits 17 per cent (£353 billion), while in the downside it reaches 22 per cent (£440 billion).¹⁴⁵ The central forecast £394 billion figure is seven times (£339.2 billion) higher than the £54.8 billion the OBR expected back in March, before the effect of any virus-related policy measures had been accounted for, or any but the most minor virus-related effects on the economy factored in.¹⁴⁶ The **upside scenario** would mean a difference of **£284.4 billion** since last March and a **downside scenario** would mean a difference of **£385.2 billion** since last March.

4.2. Public sector net debt (PSND):

By November, the OBR shows public sector net debt (PSND) **rising by £473 billion** in 2020-21, taking it above 100 per cent of GDP for the first time since 1960-61.¹⁴⁷ Public sector net debt for the financial year reached **over £2.2 trillion** by November.¹⁴⁸

4.3. Public sector receipts

In the OBR central forecast in November, receipts **fall by £57 billion** in 2020-21, driven largely by the sharp fall in GDP.¹⁴⁹

4.4. Spending

Throughout this crisis, the government has increased spending across the UK to support businesses, and public services. The government confirmed in the November *Spending Review 2020* that it has spent **over £280 billion** to do so this year (March to November 2020).¹⁵⁰

4.5. Devolved funding

HM Treasury made unprecedented and upfront commitments to the devolved administrations, guaranteeing they would receive at least **£16 billion** in additional funding on top of their Budget 2020 funding: Scottish Government – £8.2 billion, Welsh Government – £5.0 billion, Northern Ireland Executive – £2.8 billion.¹⁵¹ The Spending Review additionally provided the devolved administrations with **£2.6 billion** of Covid-19 funding through the Barnett formula in 2021-22 on top of their core funding.¹⁵² This amounts to **£18.6 billion** additional funding.

5. The Forgotten Toll? The impact on non-Covid treatments and deaths

It remains novel in the lockdown situation that excess deaths in private homes in England and Wales were mostly deaths not involving Covid-19. In England, for example, the number of deaths in private homes registered between 28 December 2019 and 11 September 2020 was 25,472 deaths more than the five-year average for the same period. ONS analysis found that excess deaths in private homes in England and Wales were mostly deaths not involving Covid-19. In England and Wales, deaths in private homes and care homes for the leading causes of death were above the five-year average while deaths in hospitals and hospices were below the five-year average. For example, deaths in private homes for males from Ischaemic heart diseases (IHD) increased by 25.9% in England and 22.7% in Wales compared with the five-year average, while deaths in hospitals decreased by 22.4% and 29.3% respectively.¹⁵³ But what did we learn about individual conditions and diseases?

5.1. Impact on excess deaths of cancer patients

Early research in April estimated an increase in at least 20% more deaths over the next 12 months in people who have been newly diagnosed with cancer.¹⁵⁴ The study involving with a collaboration between UCL and 'DATA-CAN: the Health Data Research Hub for Cancer' was one of the first to focus on the impact of the emergency on mortality rates in people with cancer and uses data from the health records of over 3.8 million patients.

The study estimated that pre-COVID-19, about 31,354 newly diagnosed cancer patients would die within a year in England. During Covid, there could be at least **6,270 additional deaths** in newly diagnosed cancer patients alone. This number could rise to an estimated **17,915 additional deaths** in a year if all people currently living with cancer are considered. The overall impact of the pandemic on deaths in cancer patients could be substantial.¹⁵⁵

Analysing recent weekly data from major cancer centres in the UK, the researchers also found a 76% average decrease in urgent referrals from GPs for people with suspected cancers. They also found a 60% average decrease in chemotherapy appointments for cancer patients compared to pre-COVID levels. That is, urgent referral rates and patient attendances for chemotherapy delivery had dropped significantly. In reference to the other medical conditions discussed in this report, it is of significance that the UCL/DATA-CAN also found that nearly eight out of ten of the additional deaths in people with cancer are estimated to occur in people with one or more other long-term conditions.

In one further *Lancet Oncology* study,¹⁵⁶ researchers estimated the impact of delays in diagnosis on cancer survival outcomes in four major tumour types up to 5 years after diagnosis:

- For colorectal cancer, they estimated 1445 (1392–1591) to 1563 (1534–1592) additional deaths, a 15.3–16.6% increase;
- For breast cancer, they estimated between 281 (95% CI 266–295) and 344 (329–358) additional deaths.
- For lung cancer, 1235 (1220–1254) to 1372 (1343–1401) additional deaths, a 4.8–5.3% increase;
- For oesophageal cancer, 330 (324–335) to 342 (336–348) additional deaths, 5.8–6.0% increase

For these four tumour types, these data correspond with **3,291–3,621 additional deaths** across the scenarios within 5 years.

It might be borne in mind that government estimates of the number of excess deaths¹⁵⁷ over a five-year period following a six-month reduced level of activity in the main pathways that lead to cancer diagnosis did not conform to these other medically expert projections. Setting aside screening, where the anticipated level of excess deaths is very low, they estimate the following range of excess deaths from reduced GP referrals and emergency presentations from modelling 70,000 out of a total 115,000 patients. They found excess deaths over a five-year period expected from a six-month reduction in cancer diagnosis amount to 2,010 at the upper estimate and 820 at the lower estimate.¹⁵⁸ Setting aside that government forecast, the lower and higher estimates for the impact of UK lockdown on cancer deaths might be better expressed as:

Lower estimate: 3,291 additional deaths

Higher estimate: 17,915 additional deaths

5.2. Impact on excess deaths of heart and stroke patients

A Stroke Association survey of almost 2,000 stroke survivors and their carers across the UK found that the Covid-19 pandemic had affected all aspects of stroke treatment and care.¹⁵⁹ National stroke initiatives across the UK were paused or slowed. 30% of those who had a stroke during the pandemic delayed seeking emergency medical attention due to Covid-19. In England, Wales and Northern Ireland the number of stroke admissions fell by around 13% in April, with fewer people experiencing milder stroke presenting at hospital. In England and Wales, stroke deaths in private homes were 52% higher than usual during the Covid-19 surge. While 76% of stroke survivors who had a stroke this year felt satisfied with the care they received in hospital, in April, the overall risk of stroke patients dying in hospital increased by 12%, with Covid-positive stroke patients especially at risk (41% – SSNAP 2020).

As with any other healthcare reports, the Department of Health and Social Care (DHSC) report in July observed that people were staying away from hospitals, remaining at home with diseases that need to be treated because of concerns about catching the virus and overcrowding in hospitals. They reported that earlier in the pandemic, doctors in Italy reported patients with myocardial infarction (heart attack) or heart failure arriving later at hospital. It suggests that patients want to avoid going to hospital due to overcrowding with patients with the virus and therefore by arriving later when their clinical conditions are worse.¹⁶⁰

In one central study looking at the causes of acute cardiovascular death during the pandemic, it was found that after 2 March, there were 28,969 acute cardiovascular deaths of which 5.1% related to Covid-19.¹⁶¹ Importantly, the excess acute cardiovascular mortality was 2,085 (+8%). The pandemic has resulted in an inflation in acute cardiovascular deaths, nearly half of which occurred in the community and most did not relate to a COVID infection, indicating there were delays to seeking help or potentially the result of undiagnosed Covid-19. The findings show at least **825 excess deaths** for stroke – with **1834 excess deaths** for other cardiovascular diseases¹⁶² which include heart failure, cardiac arrest, ventricular tachycardia (VT) and/or ventricular fibrillation (VF), cardiogenic shock, pulmonary embolism, deep venous thrombosis, aortic disease (aortic aneurysm rupture and aortic dissection) and infective endocarditis.

Estimate (Stroke): 825 excess deaths

Estimate (Heart): 1834 excess deaths

5.3. Impact on excess deaths of diabetes (Type 1 and 2) patients

Deaths due to diabetes increased up to the week ending 24 April and occurred increasingly outside hospital. This early effect suggested a delay in care for these conditions had been leading to an increase in deaths.¹⁶³

The Office for National Statistics (ONS) explains that such delayed care could result from a reluctance to seek health care because of anxiety about exposure to the virus or burdening the healthcare system, or partly result from overstretching of the healthcare system. They delays in care could result in an increase in deaths from causes that can be quickly fatal without treatment if earlier symptoms are not treated. Such causes include ischaemic heart disease and other forms of circulatory disease, stroke, sepsis, meningitis, appendicitis, asthma and diabetes. These delays could also result in more deaths occurring at home and in other non-hospital locations, rather than in hospitals.¹⁶⁴

There had been an increase in deaths from deaths due to diabetes – with deaths in Week 17 (week ending 24 April 2020) **at 161.6% to the five-year average**.¹⁶⁵ When contrasting all data for non-COVID-19 deaths, although there tends to be a general increase compared to the five-year average for all of the causes investigated, deaths related to diabetes were occurring at a significantly higher rate compared to the five-year average. This could indicate that some people suffering from these conditions are not receiving care fast enough to prevent death occurring. It is also plausible that some of these deaths are because undiagnosed COVID-19 had exacerbated the pre-existing condition.

Estimate (diabetes): 161.6% deaths above average

5.4. Impact on childhood vaccinations

In November 2020, Public Health England (PHE) published a report on the impact of the virus on childhood vaccination counts. It measured vaccination counts for the first doses of the Hexavalent (in children aged 6 months) – to protect babies against diphtheria, tetanus, pertussis (whooping cough), poliomyelitis, Haemophilus influenza type B and hepatitis B – and MMR (in children aged 12-18 months), as a vaccine against measles, mumps, and rubella. Vaccination counts fell as lockdown was introduced in March 2020 in comparison to the same period in 2019. Overall, by week 43 in September of 2020, vaccination counts for those vaccines were **3.8 (Hexavalent) and 2.8 percentage points (MMR) lower** than by the same period of 2019.¹⁶⁶ Children scheduled for their second or third dose of the Hexavalent vaccine around the time that social distancing measures were introduced also saw lower numbers than the same period in 2019. Additionally, children scheduled for their first dose of the MMR vaccine at 12 months around the time that social distancing measures were introduced also had a lower coverage in September 2020 compared to September 2019.¹⁶⁷ In June 2020, the *British Medical Journal* published a separate report which noted that the number of MMR vaccines given in England **dropped by 20 per cent** in the first three weeks of the initial March lockdown.¹⁶⁸

Lower estimate (MMR): 2.8% less vaccination counts

Higher estimate (MMR): 20% less vaccines (England)

Estimate (Hexavalent): 3.8% less vaccination counts

6. The social and wellbeing impact

6.1. Impact on divorce

Citizens Advice reported that divorce guidance searches had risen since April, after a drop in visits when lockdown first began. On the first weekend in September, Citizens Advice said the number of views on its divorce webpage was 25 per cent higher than the September 2019 number – with more than 2,200 views on the first weekend in September 2020.¹⁶⁹ Between 23 March and mid-May 2020, Co-op Legal Services also saw a 42 per cent increase in divorce enquiries compared to the same period in 2019.¹⁷⁰

A UK wide poll at the start of the first COVID-19 lockdown found that: 23 per cent of couples said lockdown was placing pressure on their relationship; 12 per cent said they were having doubts about their future together; 42 per cent said they were finding their partner to be irritating and 36 per cent of couples said they were arguing more.¹⁷¹

In terms of measurable divorce petitions, **1,001 online divorce petitions** were filed by Her Majesty's Courts and Tribunals Service (HMCTS) in the week of March 23 and March 31.¹⁷² More broadly, however, and in line with research that two thirds fewer parents than normal have been considering divorce,¹⁷³ all data should be balanced with the official records indicating that there were 23,372 divorce petitions made during April to June 2020,¹⁷⁴ down 18% or **5,065 petitions** from the same quarter in 2019.

Lower estimate: -5,065 divorce petitions

Higher estimate: +1,001 online divorce petitions

6.2. Impact on Domestic abuse

An investigation by Panorama and Women's Aid found that the initial lockdown dramatically increased domestic violence against women. According to the investigation's findings, two-thirds of women in abusive relationships experienced more violence from their partner during the pandemic. It was also revealed that during the first seven weeks of lockdown there was one domestic abuse call every 30 seconds.¹⁷⁵

The Women's Aid Survivor Survey in April 2020 found:

- 67 per cent of survivors currently experiencing domestic abuse said it has worsened since the lockdown;
- 72 per cent said their abuser had more control over their life;
- 78 per cent said lockdown has made it harder for them to leave the abusive relationship;
- 80 per cent of survivors said face-to-face support from informal networks had stopped or decreased since lockdown;
- 40 per cent of survivors with child contact arrangements said that child contact arrangements had been used to further abuse and;
- 35 per cent were concerned about their children's safety during lockdown.¹⁷⁶

The organisation Counting Dead Women found that between 23rd March and 12th April 2020 there was 14 domestic abuse killings of women and 2 killings of children – the highest number for 11 years and double the hypothetical average of a 21-day period over the past 10 years.¹⁷⁷

By April, the Centre for Social Justice (CSJ) reported that calls to the National Abuse Hotline in the UK soared by 65 per cent in the preceding month of March.¹⁷⁸ Moreover, in July 2020, it was reported

that the National Domestic Abuse Helpline had received more than 40,000 calls since the start of the lockdown in March. Refuge's telephone helpline also noted a 77 per cent increase of calls in June, as well as an 800 per cent increase in the number of visits to Refuge's National Domestic Abuse Helpline website compared to pre-lockdown statistics. Additionally, '[t]he first week in July saw a 54% rise in women needing emergency accommodation when compared with the last week in June – the highest number of women needing emergency accommodation during the lockdown period'.¹⁷⁹

On the week prior to 15 April 2020, calls to Refuge's National Domestic Abuse Helpline were 49 per cent higher than the average rate prior to the pandemic. On 6th April, 'traffic to the helpline website increased by 700% compared to the previous day'. The Men's Advice Line for male victims of domestic abuse had an increase in calls of 16.6% in the week of 30 March, a 42% increase in visits to its website. The Respect phone line encountered a 26.86% increase in calls in the week of 30 March, while its website received a 125% increase in visits in the same period compared to the week before.

In the official Family Court Statistics for April to June 2020, there were 8,844 **applications** made¹⁸⁰ for a domestic violence remedy order, up 24% (from 7,113)¹⁸¹ on the same quarter in 2019 and the highest quarterly number of applications since the time series began at the start of 2009. That is an **increase of 1,731 in applications**. There were then 9,463 domestic violence **orders** made in April to June 2020, up 17% (from 8,033 orders) from the same period last year.¹⁸²

A significant dimension of this growth in domestic violence orders is the lockdown situation among other factors. As the ONS records, there are other complex driving factors which can explain this rise in orders.¹⁸³ Since 2017, police forces have been using a power to release alleged perpetrators without bail conditions, referred to as 'released under investigation'. The well-publicised Domestic Abuse Bill (which completed its Commons stages July 2020) may have also impacted levels. However, the lockdown situation has highlighted warnings about an increase in domestic violence, with victims having less opportunity to leave abusive partners.

Separate ONS records find that in the period affected by the pandemic, the police recorded 259,324 offences (excluding fraud) flagged as domestic abuse-related in the period March to June 2020. This represents a 7% increase from 242,413 in the same period in 2019 – an **increase of 16,911 offences**.¹⁸⁴ However, the ONS provide a note of caution on their records: as the number of offences reported as 'domestic abuse-related' has been increasing in recent years, it is not completely verifiable that such increases reflect the impact of the lockdown.

Higher estimate: 16,911 more domestic abuse related offences

Lower estimate: 1,731 more domestic violence remedy order applications

6.3. Impact on levels of anxiety and depression

The impact of lockdowns on mental health has been well examined and reported. The Institute for Fiscal Studies (IFS) used longitudinal microdata for the UK over the period 2009-2020 and controlled for pre-existing previous trends in mental health in order to isolate and quantify the effects of the pandemic. Mental health in the UK worsened by 8.1% on average as a result of the pandemic and by much more for young adults and for women which are groups that already had lower levels of mental health before Covid-19.¹⁸⁵ Inequalities in mental health have been increased by the pandemic. Their 'GHQ-12 score' – indicating poor mental health – showed the 'effect' of the crisis was a deterioration of 8.1% when taking into account pre-crisis trends.

Ongoing analysis of mental health measures collected prior to and during the lockdown by the UK Household Longitudinal Study shows that for young people and young adults (aged 16 to 24), mental health had deteriorated more than any other adult age group. In April 2020, nearly half of 16 to 24-year olds who had been without similar symptoms previously, reported symptoms which passed a threshold suggesting a possible 'common mental disorder'.¹⁸⁶

A separate survey of UK households published in *The Lancet Psychiatry* journal suggested mental health declined substantially after the first month of the March lockdown.¹⁸⁷ Among the 17,452 people who responded to the survey, the average level of mental distress increased in April 2020, compared to average scores before the pandemic. This increase in mental distress was higher than would be expected based on upward trends that have been observed over the past five years.

During the first lockdown, in late April, more than one quarter of study participants reported a level of mental distress that is potentially clinically significant (27.3%), compared with one in five people before the pandemic (18.9%).¹⁸⁸ However, as the researchers accept, that study is based on survey responses rather than clinical assessment.

The ONS reported higher anxiety levels under lockdown. They reported a marked increase in anxiety at the beginning of lockdown. Between 20 and 30 March, almost half (49.6%) of people reported high anxiety. Average anxiety scores were 5.2 out of 10, which was a marked increase from 3.0 in the last quarter of 2019.¹⁸⁹ As the lockdown proceeded, anxiety remained at an elevated level compared with the end of 2019, but it dropped since the start of lockdown. Average anxiety scores were 4.0 out of 10 between 30 April and 10 May and 37% were reporting high levels of anxiety. Of the higher estimates, however, the anxiety charity, Anxiety UK, revealed on 23 April that almost 69% of survey respondents reported their anxiety had increased or become severe and/or difficult to manage.¹⁹⁰

Even by the start of the second lockdown in early November, the ONS recorded that 7 in 10 (71%) adults reported that they were very or somewhat worried about the effect of the virus on their life right now.¹⁹¹ A similar percentage was reported by all age groups. Nearly 6 in 10 (57%) adults reported lack of freedom and independence as their main concern, with a similar percentage reported by all age groups. Nearly half (49%) of adults reported that their well-being was being affected – such as through boredom, loneliness, anxiety and stress – by the pandemic.¹⁹²

Some different findings during the initial lockdown from the UCL Covid-19 Social Study showed that by week 6, depression and anxiety levels continued to decline slowly, but remained above average levels. Levels remained highest in individuals with existing mental health diagnoses.¹⁹³ They showed that depression and anxiety levels have both continued to show a slight decrease since lockdown came in – most clearly for anxiety. However, the levels overall were higher than usual reported averages. Both depression and anxiety levels have been higher in younger adults, those living alone, those with lower household income, and those with an existing mental health diagnosis.

The first six weeks of the pandemic and lockdown had a major impact on the UK population's mental health and wellbeing but the measure of anxiety needs to be carefully considered.¹⁹⁴ One University of Glasgow study¹⁹⁵ surveying a national sample of 3077 adults in the UK, assessing a range of mental health factors found young people, women, individuals from more socially disadvantaged backgrounds and those with pre-existing mental health problems reported the worst mental health outcomes in the initial phase of the national lockdown. However, having found that 21% of their sample was above the cut-off for at least moderate levels of symptoms of anxiety at the start of lockdown, these symptoms decreased across the first six weeks. In measuring depressive symptoms, approximately one in four respondents (26.1%) experienced at least moderate levels of symptoms.

This can be contrasted with another study into the mental health impact which found that in the early stages of lockdown, 64% recorded common signs of depression.

Early indicators from multiple cross-sectional studies or online surveys had already shown lower levels of subjective wellbeing and higher anxiety in the UK population during the pandemic than those observed in the last quarter of 2019.¹⁹⁶ Those reduced levels were being sustained through the weeks of the lockdown and social distancing, albeit there were some small and gradual improvement in the weeks that followed.

Anxiety

Lower estimate: Symptoms decreased across the first six weeks

Higher estimate: 69% of survey respondents reported their anxiety had increased or become severe and/or difficult to manage.

Depression

Lower estimate: Declined slowly in lockdown, albeit above average levels. Some report as stable but adversely affected.

Higher estimate: 64% recorded common signs of depression

6.4. Impact on addiction recovery

When understanding the impact of lockdown on recovery, it was found in an YouGov/Action Addiction national poll that 39% of people surveyed who were in recovery from an addiction prior to lockdown have experienced a relapse or a re-occurrence of their addictive behaviour since lockdown. On a national scale this may mean more than one million people have experience some form of relapse during lockdown.¹⁹⁷

Lower estimate: ----

Higher estimate: 39% recovering addict relapse

6.5. Impact on adults drinking at high risk and opiate addiction

When understanding the impact of lockdown on alcohol consumption, one analysis recorded nearly 8.5 million adults drinking at high risk, while number of people addicted to opiates seeking help in April at highest level since 2015. The Royal College of Psychiatrists analysis of Public Health England's latest data on the indirect effects of Covid-19 found that those now drinking at higher risk was up from just 4.8 million in February.¹⁹⁸ That suggests at least **a rise of 3.7 million since lockdown** restrictions were brought into effect.

This rise in adults drinking at higher risk comes at the same time when more people were found to become addicted to opiates and seeking help from addiction services. Statistics from the National Drug Treatment Monitoring System (NDTMS) show **3,459 new adult cases in April 2020 – up 20%** from 2,947 in the same month last year – the highest numbers in April since 2015.¹⁹⁹

Drinking alcohol at higher risk

Lower estimate: 3.7 million more drinking at higher risk

Higher estimate: --

Opiate addiction

Lower estimate: 20% more cases

Higher estimate: --

6.6. Loneliness

During the initial phase of COVID-19 lockdown, rates of loneliness among people in the UK were high and were associated with a number of social and health factors. In one study, the overall prevalence of loneliness, defined as having a high score on the loneliness scale (i.e., a score of 7 or higher out of 9), was over a quarter of respondents: 26.6%.²⁰⁰ In contrast, others reported feelings of loneliness had more than doubled over the initial lockdown period.²⁰¹

Researchers found that rates of loneliness during the early stages of the UK lockdown were high. One key study indicated that measures to reduce loneliness should prioritise young people, those with mental health symptoms, and people who are socially isolated.²⁰² Also, other studies warned that loneliness levels continued to be stable since lockdown started, even amongst high-risk groups. Admittedly, the pandemic and lockdown may have a negative impact on the mental health of adolescents, but there was caution: there is still no data on the long-term impact of this crisis.²⁰³

A recent study by the Royal Foundation of the Duke and Duchess of Cambridge found that loneliness in parents and carers of the under-fives has increased during the pandemic from 38% before to 63%. Significantly it found that 'the increase in loneliness for parents is more apparent in the most deprived areas. These parents are more than twice as likely as those living in the least deprived areas to say they feel lonely often or always (13% compared with 5%). Compounding this, it seems there has been a rise in the proportion of parents who feel uncomfortable seeking help for how they are feeling from 18% before the pandemic to 34% during it.' With 5.7 million parents having one or more children under the age of five,²⁰⁴ and assuming an average of 1.5 parents per household, this would suggest that the number of parents feeling lonely during the pandemic has increased from 2.17 million to 3.59 million, an increase of 1.4 million parents.

Lower estimate: 26.6% reported high on loneliness scale

Higher estimate: 1.4 million parents of the under fives reported increased loneliness during pandemic

7. The educational impact

7.1. Newborns and infant health

There was a reported increase of 20% in cases during the pandemic in which babies suffered non-accidental harm. Chief Inspector Amanda Spielman of Ofsted showed that between April and October, 64 children suffered non-accidental harm, eight of which died as a result.²⁰⁵ She told the National Children and Adult Services (NCAS) Conference online that with the new lockdown in force, infants, who can't tell anyone when something is wrong, were at increased risk of abuse. Of the 300 'serious incident notifications' since April, almost 40 percent were about babies, an increase of 20 percent over the same period last year. Their explanation suggested it followed a toxic mix of poverty, poor housing, drug abuse, and poor mental health exacerbated by job loss, financial hardship, isolation, and families locked down together had caused a 'COVID pressure cooker.'

Another study in Ireland explored any apparent trends in maternal or neonatal outcomes during the Covid-19 pandemic by comparing the maternity outcomes before, during and after the pandemic. There was no reported evidence of a negative impact of the pandemic on maternity services, as demonstrated by maternal and neonatal outcomes.²⁰⁶

In terms of emergency care for infants, a different study the British Paediatric Surveillance Unit (BPSU)²⁰⁷ in late April found that a third of UK paediatricians report seeing 'delayed presentations' (children who would have been expected to present much earlier for diagnosis/treatment) in emergency care during lockdown. So, 241 out of 752, or 32% of those working in emergency care and paediatric admissions said they had dealt with delayed presentations.²⁰⁸ Children with diabetes were most often involved, but it also related to those with life-threatening sepsis and cancer.

Lower estimate: No reported negative impact on maternity services

Higher estimate: Reported increase of 20% in cases of babies suffering non-accidental harm

7.2. Primary education

Research found considerable differences in children's learning experiences – in terms of the amount of time spent learning, activities undertaken during this time and availability of resources to support learning. Those differences were strongly associated with family income and in some instances more so than before lockdown.²⁰⁹ Almost 60% of the parents of primary school children reported that they were finding it quite or very hard to support their children's learning at home.²¹⁰ One helpful indicator in the research pointed to a **25 per cent reduction in pre-pandemic learning for primary school children.**²¹¹

Lower estimate: --

Higher estimate: 25 per cent reduction in pre-pandemic learning

7.3. Secondary education

The period of adolescence (the stage between 10 and 24 years) tends to be characterised by heightened sensitivity to social stimuli and the increased need for peer interaction.²¹² Social distancing measures have been radically reducing adolescents' opportunities to engage in face-to-face social contact outside their household. Researchers studying literature from a variety of

domains that highlight how social deprivation in adolescence might have potential consequences, illustrate human studies show the importance of peer acceptance and peer influence in adolescence. However, they also note, for example, the decrease in adolescent face-to-face contact could potentially be less detrimental due to widespread access to social interaction through technologies such as social media.²¹³ To that extent, lockdown restrictions might have a disproportionate effect on an age group for whom peer interaction is a vital aspect of development.

Based on interviews with around 5,500 parents of school-age children, Andrew et al. (2020) found a **30 per cent reduction in pre-pandemic learning** time among **secondary school children**. Nearly half of the parents of secondary school children surveyed report that they are finding it *quite* or *very hard* to support their children's learning at home.²¹⁴

Lower estimate: --

Higher estimate: 30 per cent reduction in pre-pandemic learning

7.4. Tertiary education

The lockdown arrangements were expected to negatively impact the mental health of university students. However, there is a lack of prospective longitudinal data quantifying such changes.²¹⁵ Savage et al. (2020) conducted a longitudinal study examined the changes in mental wellbeing and movement behaviours in UK university students prior to, and during, the government-imposed lockdown due to the COVID-19 pandemic.

The key findings showed that the lockdown measures impaired mental wellbeing and physical activity. The perceived stress and sedentary behaviour both increased during the pandemic. After five weeks of government enforced 'lockdown,' the perceived stress of students increased, indicating a reduced ability to cope with the demands placed upon them.

For those working in higher education, it demonstrated empirically that student mental health has declined during the pandemic. However, some caution is needed before relating the changes in mental health directly to the lockdown control measures. There are other clear factors that may have influenced mental health over this period, including depression and anxiety often peaking around exam time in May.²¹⁶ The study showed high levels of poor mental health in students, with 30% self-reporting the existence of a mental health condition. Over the initial five weeks of the 'lockdown' students' reported lower mental wellbeing and higher perceived stress.

Lower estimate: Unknown, lack of data

Higher estimate: 30% self-reporting the existence of a mental health condition

¹ <https://marriagefoundation.org.uk/wp-content/uploads/2020/11/MF-paper-Marriages-in-lockdown-FINAL.pdf>

² Date range for calculations in this section: 11 March to 11 November. See page xx for calculations and sources.

³ Assessment based on figures derived from ONS, reflecting April-June 2020 results: <https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/quarterlynationalaccounts/apriltojune2020>

<https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpfirstquarterlyestimateuk/julytoseptember2020>

⁵ Assessment based on figures derived from a *UK Powerhouse Report* by Irwin Mitchell and the Centre for Economics & Business Research (Cebr): <https://irwinmitchell.turtl.co/story/coronavirus-and-the-uk-economy/page/4/3>

⁶ *UK Powerhouse Report*, <https://irwinmitchell.turtl.co/story/coronavirus-and-the-uk-economy/page/4/3>

⁷ Estimates based on figures derived from the British Retail Consortium (BRC) and findings from the Office for National Statistics (ONS): <https://brc.org.uk/news/corporate-affairs/lockdown-costing-non-food-stores-18bn-a-week/>; see also <https://www.bbc.co.uk/news/business-54838727>

⁸ See the Retail Economics consultancy report. A summary of their findings can be found here:

<https://fashionunited.uk/news/retail/second-lockdown-to-cost-non-essential-retailers-6-8-billion-pounds/2020110451759>

⁹ <https://www.simplybusiness.co.uk/knowledge/articles/2020/05/new-coronavirus-survey-69-billion-cost-for-small-businesses/>

¹⁰ WTTTC estimates combined with the IATA prediction: <https://wttc.org/News-Article/WTTC-says-UK-looks-set-to-lose-22-billion-from-missing-tourists-and-visitors-due-to-pandemic>

¹¹ International Air Transport Association (IATA) predict the UK aviation industry faces a loss of \$26.1billion due to the Covid-19 pandemic, which equates to £20.7billion.

¹² <https://www.independent.co.uk/travel/news-and-advice/airports-money-loss-coronavirus-flights-uk-passengers-a9631241.html>

¹³ <https://www.aoa.org.uk/uks-airports-losing-83-million-a-week-as-a-result-of-covid-19/>

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