



Surrey Covid-19 Community Impact Assessment

Geographical Impact Assessment
October 2020

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Executive Summary

The Geographical Impact Assessment explores the way in which local places in Surrey have been impacted by Covid-19 and aims to identify specific areas that have been disproportionately impacted.

The analysis identifies highly impacted places in terms of Health, Economy and Vulnerable Groups. Overall the analysis identifies that the impact of Covid-19 on local areas in Surrey is varied and nuanced and places that are impacted in one way are not necessarily impacted in the others. Similarly, the analysis shows that there does not appear to be a significant relationship between deprivation and the different dimensions of impact, which suggests that those areas that have been impacted are not necessarily the most deprived.

It is recommended that partners across Surrey consider the nuance of the impacts and adapt their response to the pandemic and recovery in local areas to reflect these findings.

Introduction

This report summarises the findings of the Geographical Impact Assessment. The aim of the analysis is to identify specific places within Surrey that have been disproportionately impacted by Covid-19 as of October 2020.

We have analysed three different types of impact from Covid-19:

- Health impacts
- Economic impacts
- Vulnerable groups

We have shown how these impacts vary across Surrey and how they relate to each other. To gain a deeper understanding of these impacts we have also undertaken primary research in some of the areas highlighted by this analysis. See <https://www.surreyi.gov.uk/surrey-insights/>.

The methodology for the analysis is based on the work by the Institute for Fiscal Studies to understand the geographical impact of Covid-19 across England: <https://www.ifs.org.uk/publications/14888>

Key Findings

The analysis has identified the following key findings:

- There is no single type of impact that can summarise which areas have been most affected during the pandemic. Often areas that are more impacted along one dimension are less impacted along other dimensions.
- There does not appear to be a relationship between those places that have been impacted in terms of health and those places that have been impacted economically.
- There is some relationship between places with a high prevalence of vulnerable groups with places that have been impacted in terms of health and economy.
- Most of the areas that show high combined impacts are found in the North, South East and South West of the county, with the highest numbers in Spelthorne, Mole Valley and Waverley.
- Typical measures of deprivation do not necessarily correlate to the areas that have been most impacted, especially in terms of health impacts, though further analysis is required to explore this.

The implication is that recovery efforts should be guided by a nuanced understanding of the local impacts on any given place and we should not assume that the areas of highest deprivation are the right places to focus on.

Dimensions of Impact

We have analysed three dimensions of impact from Covid-19. For each dimension, we have collected data at the Middle Layer Super Output Area (MSOA) level and constructed a Surrey wide index which combines several indicators to produce an overall dimension score.

Health impacts – this dimension looks at where there have been direct health impacts as a result of Covid-19, including where there have been cases, deaths directly attributed to the virus and outbreaks within care homes.

Economic impacts – this dimension looks at where there have been direct economic impacts as a result of lockdown, including where there have been increases in unemployment and where people have been furloughed.

Vulnerable groups – this dimension considers where there is likely to have been disproportionate impact on people based on the prevalence of groups with pre-existing vulnerabilities, including people with disabilities, people with mental health conditions, older people who live alone, over 80s and carers. It also considers people who have been impacted by lockdown in another way, for example people who have been shielding and friends and families who have been bereaved from non-Covid related deaths.

Indicators Used in the Analysis

This section summarises the indicators used within each dimension. The index creates a weighted average of the different indicators to create an overall score for each dimension.

Health dimension

- Cases per 10,000 population
- Number of care home outbreaks
- Covid-19 deaths per 10,000 population

Economic dimension

- % point change in claimant count between March 2020 and September 2020
- Estimated % of workforce furloughed

Vulnerable Groups dimension

- Non Covid-19 deaths per 10,000 population (proxy for bereaved families and friends)
- Shielded people per 10,000 population
- Proportion of people receiving disability benefits
- Prevalence of mental ill health
- Proportion of population who are over 80 years old
- Pensioners who live alone
- Carers who provide 50 hours of unpaid care per week

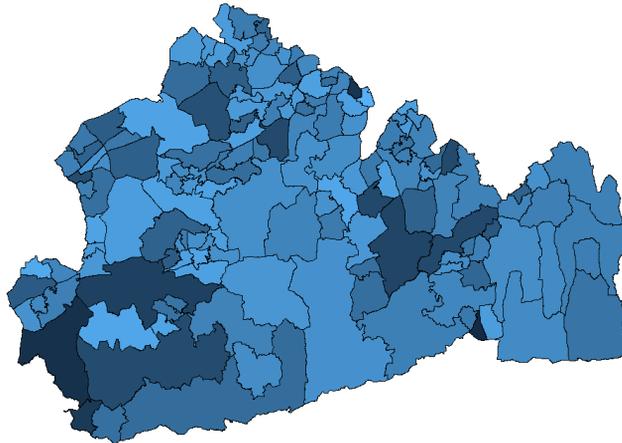
A full list of data sources and definitions is provided in the Appendix.

Health Impacts

Health impact considers the number of Covid-19 cases, number of deaths attributable to Covid-19 and the number of care home outbreaks in each MSOA.

The map shows that the health impacts have been greater in some communities including parts of Waverley, Mole Valley and Reigate & Banstead. This is likely due to the high number of over 80s and care homes in these areas.

Map of Surrey showing the distribution of the Health Impact Score across MSOAs (a darker shade of blue indicates a higher score, meaning the area is more impacted)



The top 5 most impacted MSOAs in the health dimension are:

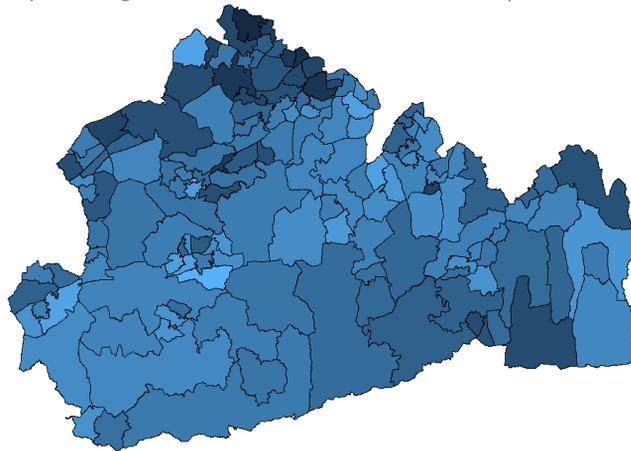
- Horley Central (Reigate & Banstead)
- Hindhead, Beacon Hill & Frensham (Waverley)
- Thames Ditton (Elmbridge)
- Haslemere West (Waverley)
- Shalford & Wanborough (Guildford)

Economic Impacts

Economic impact considers the percentage point change in claimant count between March 2020 and September 2020, and the estimated % of the workforce furloughed in each MSOA.

The map shows that the economic impacts are spread across the county. However, there appear to be hotspots in the North of the county, and parts of the South East. This may be due to the proximity of these areas to Heathrow and Gatwick, and the high number of people working in the aviation sector.

Map of Surrey showing the distribution of the Economic Impact Score across MSOAs (a darker shade indicates a higher impact)



The top 5 most impacted MSOAs in the economic dimension are:

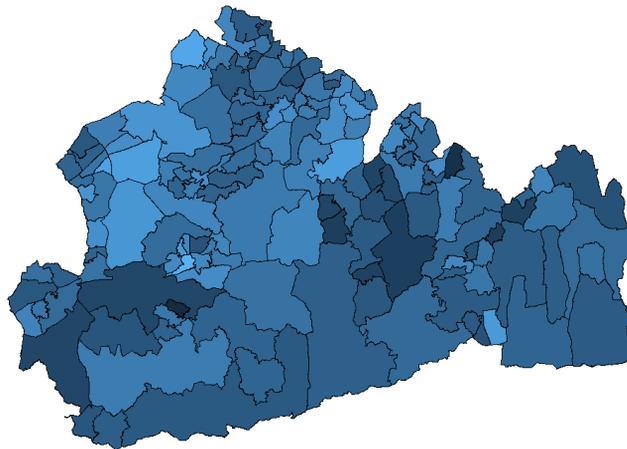
- Stanwell North & Stanwell Moor (Spelthorne)
- Sunbury Common (Spelthorne)
- Walton North & Molesey Heath (Elmbridge)
- Thorpe (Runnymede)
- Ashford Common (Spelthorne)

Vulnerable Groups

This dimension considers the prevalence of population groups with pre-existing vulnerabilities and/or who are more likely to have been impacted during lockdown, including bereaved families and friends, those who have been shielding, people with disabilities, people with a mental health diagnosis, older people living alone, over 80s and carers.

The map shows that the groups are spread across the county, with slightly higher prevalence in the South, Centre and East.

Map of Surrey showing the distribution of the Vulnerable Groups Score across MSOAs (a darker shade of blue indicates a higher score, meaning the area is more vulnerable)



The top 5 most impacted MSOAs in the vulnerable groups dimension are:

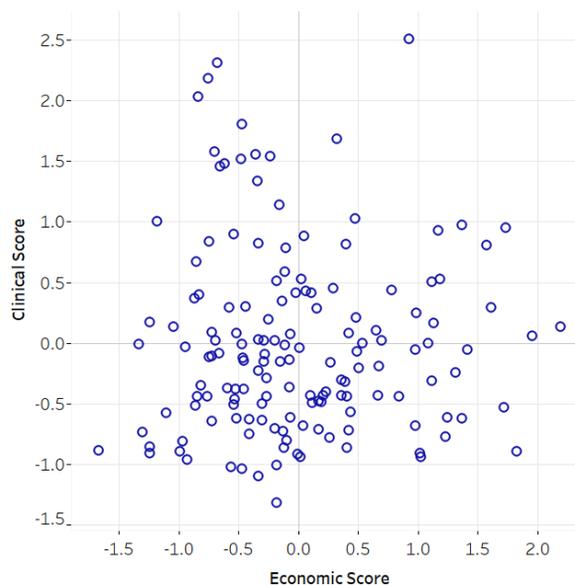
- Farncombe (Waverley)
- Banstead (Reigate & Banstead)
- Merstham (Reigate & Banstead)
- Bookham South (Mole Valley)
- Box Hill & Brockham (Mole Valley)

Relationship Between Dimensions

To fully understand the impact of the Covid-19 crisis in Surrey we need to consider how the three dimensions relate to one another. If the areas that are most impacted in one way are also most impacted in others, it would make sense to focus our recovery efforts on these places.

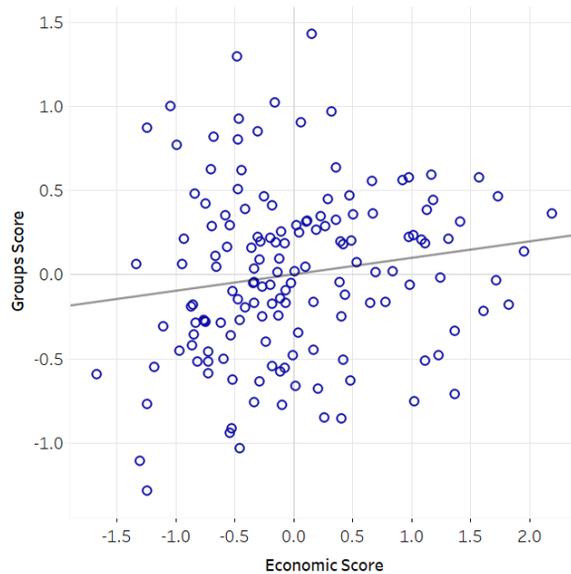
Scatter plots can be used to plot the data and understand the relationships between the dimensions.

Scatter plot of health impact score and economic impact score across all MSOAs in Surrey



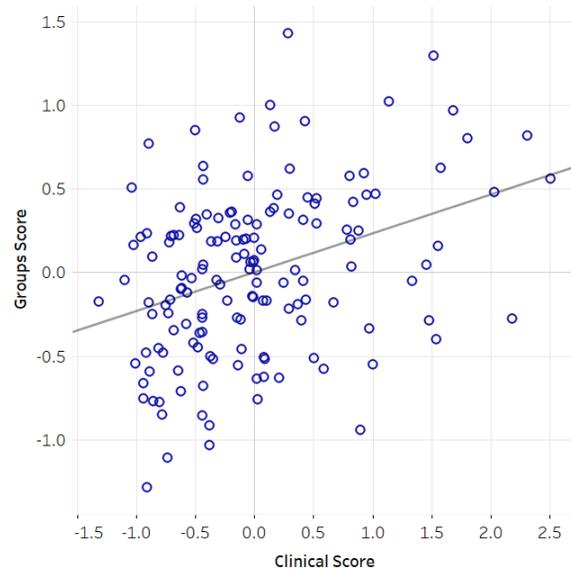
The graph for health impact and economic impact shows a random assortment of points, which suggests that there is no relationship between these scores. In other words, the MSOAs that have been impacted most in terms of health are not necessarily impacted the most in terms of economy, and vice-versa.

Scatter plot of vulnerable groups score and economic impact score across all MSOAs in Surrey



The graph for vulnerable groups and economic impact also does not show much of a relationship. There appears to be a very weak relationship between the scores but this is not significant (R-squared of 0.023, p-value of 0.063).

Scatter plot of vulnerable groups score and health impact score across all MSOAs in Surrey



The graph for vulnerable groups and health impact also shows a weak but statistically significant relationship (R-squared of 0.127, p-value < 0.0001). This is unsurprising since several of the vulnerable groups are defined by a health condition, while others are more likely to have long term health conditions, for example the over 80s.

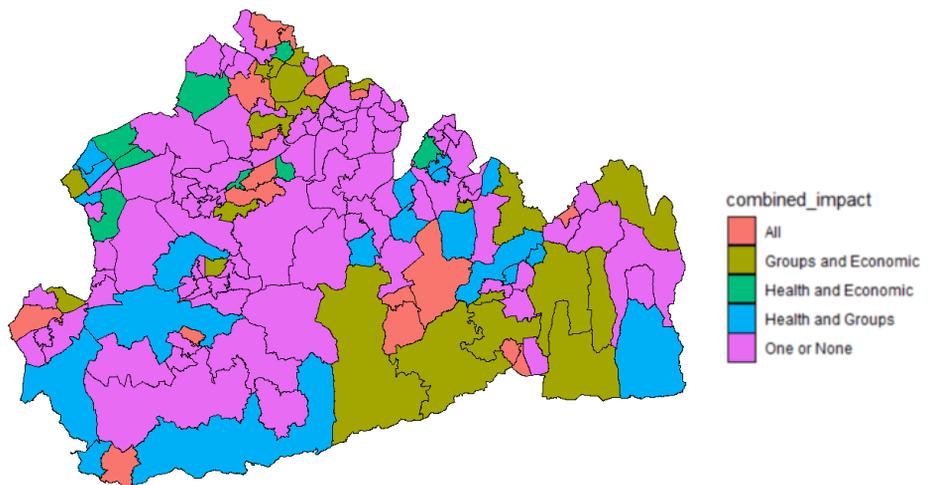
Overall the analysis shows that in general the dimensions are not highly related to one another. This indicates that different parts of Surrey have been impacted by the crisis in different ways.

Combined Impacts

Some areas have been impacted in multiple ways. To show these cases of impact across multiple dimensions, we have identified MSOAs that are ranked in the top half (more impacted than average) along each dimension. We have then categorised areas by the number of dimensions on which they are more impacted than average.

The map shows that the combined impacts are spread across the county, but areas in the North, South West and South East have most commonly been impacted across the board.

Map of Surrey showing the distribution of combined impacts across MSOAs



In total there are 18 MSOAs that fall into the top half across all three dimensions. These are in:

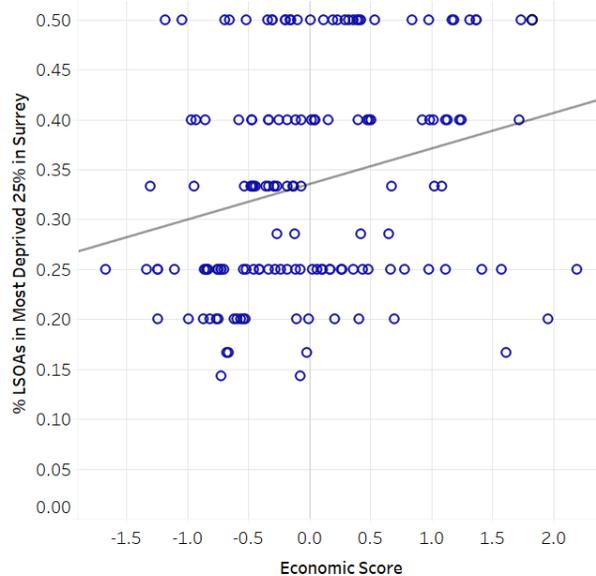
- Spelthorne – 4
- Mole Valley – 3
- Waverley – 3
- Reigate & Banstead – 2
- Runnymede – 2
- Woking – 2
- Elmbridge – 1
- Tandridge – 1

Relationship to Deprivation

A further consideration is whether the three dimensions of impact relate to deprivation. The Index of Multiple Deprivation (IMD) provides a simple way of understanding deprivation at a local level in the UK.

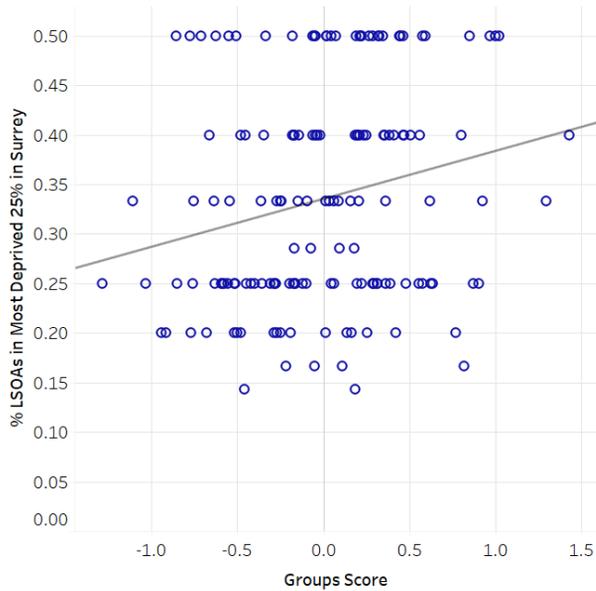
Scatter plots have been used to compare a measure based on the 2019 IMD which captures the proportion of Lower Level Super Output Areas (LSOAs) within each MSOA that are in the 25% most deprived in Surrey with each of the dimension scores.

Scatter plot of the economic impact score and the % of LSOAs in the most deprived areas across all MSOAs in Surrey



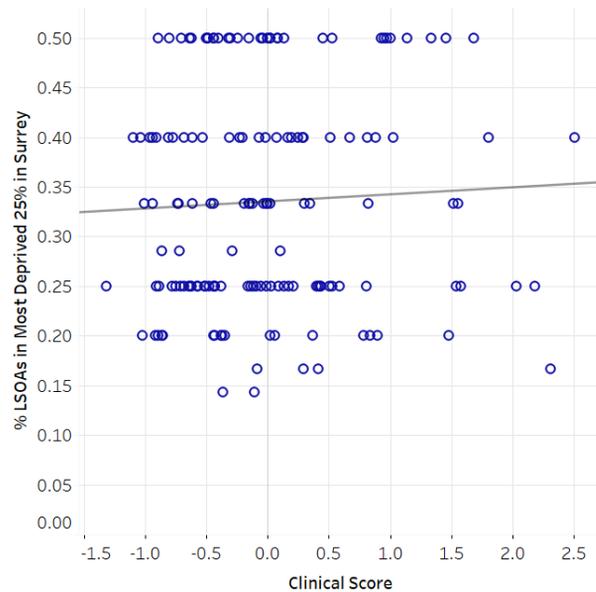
The graph shows that there is a weak relationship between the economic dimension score and the IMD measure of deprivation. This indicates that the areas that have been most impacted economically are not necessarily the most deprived.

Scatter plot of the vulnerable groups score and the % of LSOAs in the most deprived areas across all MSOAs in Surrey



The graph shows that there is a weak relationship between the vulnerable groups score and the IMD measure of deprivation. This indicates that the areas that have higher numbers of vulnerable groups are not necessarily the most deprived.

Scatter plot of the health impact score and the % of LSOAs in the most deprived areas across all MSOAs in Surrey



The graph suggests that there is no relationship between the two variables, implying that those areas which are more susceptible to Covid-19 on health grounds are not generally the most deprived areas. This is different to what Public Health England have found at a national level.

It should be noted that these findings are limited to the specific indicators that are used to construct the indices. Moreover, analysis at the MSOA level might obscure very real relationships at lower levels.

Further analysis is required to understand what has driven health impacts in Surrey and to explore the strengths of areas that have been less impacted than others, which will validate and refine these findings and help us to understand differences between Surrey and the national context.

Conclusion

The analysis shows that the impacts of Covid-19 have been experienced in different ways across local areas in Surrey. The greatest health impacts have been seen in areas across Waverley, Mole Valley and Reigate & Banstead where there are higher numbers of over 80s and care homes.

On the other hand, the economic impacts appear to be greatest in the North of the county in areas such as Spelthorne and Elmbridge. This may be due to the predominance of certain industries in these areas, for example the aviation industry around Heathrow.

Vulnerable groups are more spread across the county, though there appears to be a higher prevalence in the Centre and East of the county, for example in Mole Valley and Reigate & Banstead.

There are 18 MSOAs that have been more than averagely impacted across the board, with MSOAs in Spelthorne, Mole Valley and Waverley making up over half of these.

Interestingly, there does not appear to be a significant relationship between deprivation and the different dimensions of impact. This suggests that those areas that have been impacted are not necessarily the most deprived.

Overall the analysis identifies that the impact of Covid-19 on local areas in Surrey is varied and nuanced, and it is recommended that the response of public and local organisations to the pandemic and recovery reflects this.

Furthermore, it is important to remember that the analysis is limited to the data is available at this level and may hide further complexities and nuance at lower levels and for individual households. This analysis should be considered in conjunction with our ethnographic research which explores the experience of individuals living in areas across Surrey in more detail. See: <https://www.surreyi.gov.uk/surrey-insights/>.

Appendix – Data Sources

Indicator	Source
Cases per 10,000 population	Public Health England
Number of care home outbreaks	Public Health England
Covid-19 deaths per 10,000 population	Surrey Registry Office
% point change in claimant count between March 2020 and September 2020	Department for Work and Pensions
Estimated % of workforce furloughed	Office for National Statistics BICS Survey & Office for National Statistics Employment by Industry
Non Covid-19 deaths per 10,000 population (proxy for bereaved families and friends)	Surrey Registry Office
Shielded people per 10,000 population	NHS Shielded Patient List for Surrey
Proportion of people receiving disability benefits	Department for Work and Pensions
Prevalence of mental ill health	House of Commons Library
Proportion of population who are over 80 years old	Office for National Statistics
Pensioners who live alone	2011 Census
Carers who provide 50 hours of unpaid care per week	2011 Census