

GoWell is a collaborative partnership between the Glasgow Centre for Population Health, the University of Glasgow and the MRC Social and Public Health Sciences Unit, sponsored by Glasgow Housing Association, the Scottish Government, NHS Health Scotland and NHS Greater Glasgow & Clyde.

A large teal silhouette of a person's head and shoulders, facing right. The text is centered within the lower part of the silhouette.

**Health,  
Wellbeing  
and Deprivation  
in Glasgow  
and the GoWell  
Study Areas**

A smaller grey silhouette of a person's head and shoulders, facing right, positioned to the right of the teal silhouette.

January 2009

*GoWell is a planned ten-year research and learning programme that aims to investigate the impact of investment in housing, regeneration and neighbourhood renewal on the health and wellbeing of individuals, families and communities. It commenced in February 2006 and has a number of different research components. This paper is part of a series of Briefing Papers which the GoWell team has developed in order to summarise key findings and policy and practice recommendations from the research. Further information on the GoWell Programme and the full series of Briefing Papers is available from the GoWell website at: [www.gowellonline.com](http://www.gowellonline.com)*



## KEY FINDINGS

Note: this briefing paper summarises two separate, but complementary, reports from the ecological monitoring component of the GoWell project. Both are available in full from the GoWell website at: [www.gowellonline.com](http://www.gowellonline.com)

- Two reports have been produced aimed at assessing the health and wellbeing status of each of the GoWell study areas prior to regeneration, and – importantly – showing how these profiles relate to the general patterns and trends of health and health-related factors seen across Glasgow.
- Analyses of the city by a Glasgow-specific ‘income deprivation’ index showed striking variations in a range of health and wellbeing-related indicators, alongside persistent and – with few exceptions – widening inequalities between the least and most deprived groups over time.
- The same ‘income deprivation’ index was applied to each GoWell study area, enabling us to place the GoWell areas within the overall spectrum of deprivation (and associated health status) seen across the city. This confirmed that the study areas are all among the most deprived areas in Scotland, but also that differing levels of deprivation are evident across the areas themselves.
- Profiles of the study areas (alongside areas of Glasgow Housing Association (GHA) and other social housing) showed the disproportionate ‘burden’ of ill health borne by certain parts of the city. For example, while areas in the city which include social housing account for just over 50% of Glasgow’s population, they account for almost 75% and 80% of the city’s total number of alcohol-related deaths and lung cancer deaths respectively.
- The GoWell areas are generally associated with a range of poor health factors compared to the rest of the city. For example, higher rates of mortality and hospitalisation for various causes, higher levels of suicide, and higher rates of maternal smoking.
- However, the profiles also showed the positive influence of some of the study areas’ asylum seeker and refugee populations on aspects of maternal and child health.
- Taken together, the reports provide valuable baseline information for the long-term monitoring of change in the GoWell areas, as well as linking that information to the overall patterns of health, wellbeing and deprivation in the city as a whole. With the gap between the city’s least and most deprived populations widening in a number of health-related areas, this suggests that for many indicators, ‘success’ for the city may be simply to prevent the gap widening further in the first instance.



## INTRODUCTION

GoWell is a research and learning programme that aims to investigate the impact of investment in housing, regeneration and neighbourhood renewal on the health and wellbeing of individuals, families and communities in Glasgow over the next ten years. The programme was set up in 2006 in response to the unprecedented changes occurring in the profile and management of Glasgow's social rented housing stock. The potential benefits to public health and wellbeing that may result from these housing and community benefits are well recognised. GoWell seeks to address the relative lack of prospective evaluations of the health impacts of neighbourhood change. Within this, the remit of the ecological team is to assist the overall project to understand developments in the 14 study areas by placing them in the context of wider trends and changes across the city of Glasgow.

With that in mind, there was a need to assess the health and wellbeing status of each of the GoWell study areas prior to regeneration, and also to show how these profiles relate to the general patterns and trends in health and its determinants seen elsewhere in the city.



## AIMS

There were three broad aims:

1. To better understand patterns and trends in health and wellbeing-related factors across the city of Glasgow, in particular in relation to different socioeconomic groupings.
2. Within the above, to clarify where the GoWell areas sit in the overall socio-economic spectrum of the city.
3. To profile the health status of the GoWell areas, and more generally that of areas of social housing in the city.

The first of these involved analyses of a range of health-related indicators by more specific, narrowly defined, deprivation groupings than had previously been used in analyses of this type for the city. In addressing the second aim, we sought to quantify the extent of deprivation in the study areas, and so confirm where the areas fitted within these narrow deprivation groupings. The results of both sets of analyses are outlined in full within the first report, *Health and Wellbeing in Glasgow and the GoWell Areas – deprivation based analyses*. Findings relating to the third aim are reported within the second report, *Health and Wellbeing in GoWell and Social Housing Areas in Glasgow*. Both reports are summarised within this briefing paper.



## METHODOLOGY

For the first aim, a range of health and wellbeing-related indicators were analysed by Glasgow City-specific deprivation categories. These were defined as deciles of 'income deprivation', a measure derived from the 2006 Scottish Index of Multiple Deprivation (SIMD)<sup>1</sup> and which describes the total population of an area who are either in receipt of, or dependent on someone in receipt of, a number of income-related benefits. It is therefore a proxy for those living in relative poverty. We divided the city into ten equally-sized groups (deciles), ranked according to the proportion of the population in each classed as 'income deprived', and carried out analyses for each.

Indicators were chosen to present a broad view of health and health-related factors in the city, and included: life expectancy; population and population change; lone parent households; alcohol and drug-related deaths; incapacity benefit and severe disability allowance claimants; children in workless and low-income families; school-based educational attainment; serious violent crime; overcrowding; and infant mortality.

For the second aim – quantifying the extent of deprivation in the study areas – the areas were defined by sets of very small geographical units<sup>2</sup>, for which income deprivation data identical to the above were then obtained from the Department of Work and Pensions (DWP). Population denominator data for the same sets of areas were obtained from the GP registration-based Community Health Index (CHI), but were adjusted to exclude the asylum seeker population, since that group is ineligible for the DWP benefits used to derive the measure of income deprivation<sup>3</sup>.

For the profiling of the GoWell areas, each area was defined by a set of full unit postcodes, for which aggregated health and health-related data were obtained. The definition of the areas by full unit postcode was the most accurate method possible; however, it also limited the range of information that is routinely available for such defined areas. Therefore, the analyses focussed principally on health outcomes (e.g. life expectancy, cause-specific mortality, hospitalisations for different causes), plus population factors (e.g. birth and fertility rates, population size and structure) and indicators of child and maternal health (e.g. teenage pregnancy, breastfeeding, maternal smoking). Population denominator data for each area were again based on the CHI.

Analyses were also undertaken separately for the five broad 'area types' used within the GoWell project, namely: *transformational regeneration areas* (i.e. where major investment, including large scale demolition and rebuilding, is planned - Red Road, Sighthill, Shawbridge); *local regeneration areas* (where smaller scale regeneration planning and restructuring is proposed - Gorbals Riverside, St. Andrew's Drive, Scotstoun multi-storey flats); *housing improvement areas* (Govan, Carntyne, Riddrie, Townhead), *multi-storey flat surrounds* (the areas surrounding the multi-stories in Red Road and Scotstoun); and the *peripheral estates* (Castlemilk and Drumchapel).

In addition, identical analyses were carried out for all areas of social housing in the city, and for areas incorporating GHA properties. Both the latter were defined by full unit postcodes in which any property was classed as social housing and/or GHA housing.

Full details of all methodological aspects of the research are included in both reports.

<sup>1</sup> See <http://www.scotland.gov.uk/Topics/Statistics/SIMD>

<sup>2</sup> Census output areas - these were the smallest geographical units for which aggregated deprivation data could be supplied by the Department of Work & Pensions.

<sup>3</sup> Note that the CHI data was additionally adjusted to control for known levels of 'inflation'. Further details are included in both the main reports.



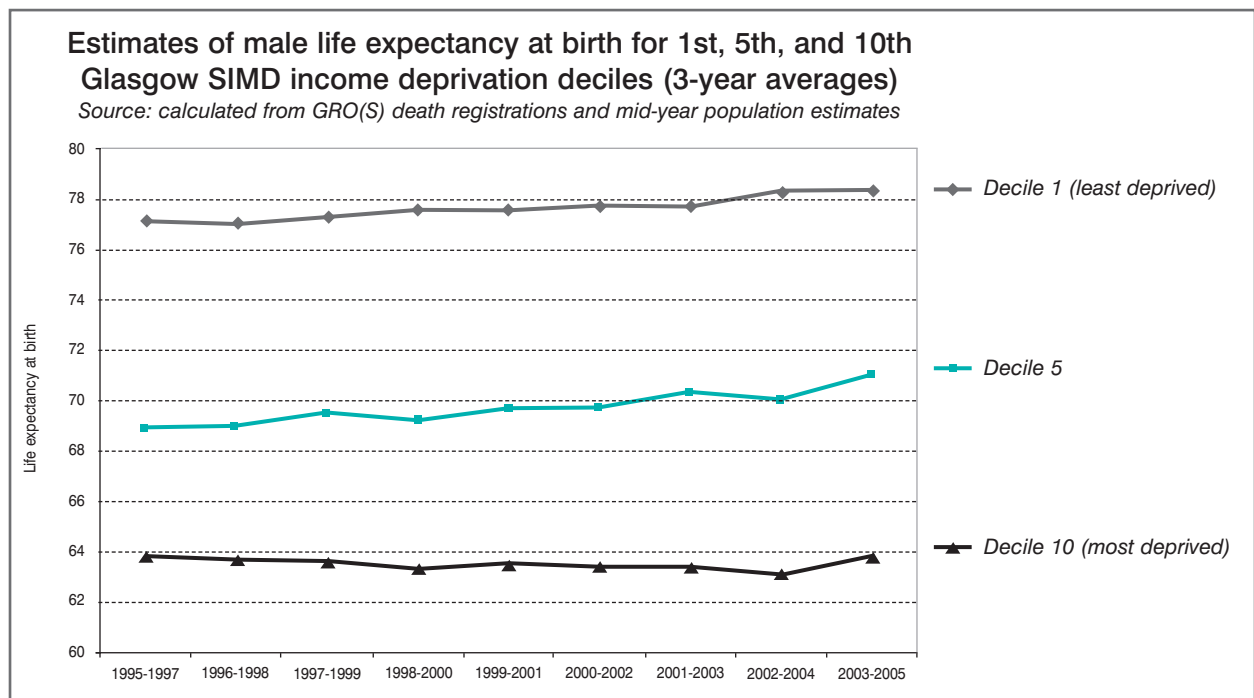


## Trends by deprivation decile

The analyses of patterns and trends of health and wellbeing indicators by Glasgow City specific income deprivation deciles showed striking variations in rates in all indicators across the different groupings, with persistent and – with few exceptions – widening inequalities between those groups over time.

For example, Figure 1 below shows recent trends in male life expectancy by income deprivation decile (deciles one, five and ten shown) over approximately ten years. This shows that there is currently a 14 year gap in male life expectancy between the least and most deprived areas of Glasgow, and also that that gap has widened over the period – from 13.2 years in 1995/97 to 14.5 years in 2003/05.

Figure 1



Similarly widening, or persistent, gaps between the least and most deprived populations of Glasgow were also shown for: alcohol-related mortality; drug-related mortality; suicide; lone parent households; adults unable to work due to disability or ill-health (on incapacity benefit or severe disability allowance); school-based educational attainment, and more. Breastfeeding, however, is one of the very few exceptions to this rule: although a huge difference in rates between the least and most deprived deciles is still obvious (59% of babies compared to 17% respectively), the gap has narrowed, with the ratio of least deprived/most deprived having been reduced from 5.2 to 3.4. This was a result of greater improvements in the most deprived compared to the least deprived deciles, and is likely to have been influenced to a degree by higher rates of breastfeeding among the asylum seeker and refugee populations resident in some of the deprived areas. This is discussed further later.

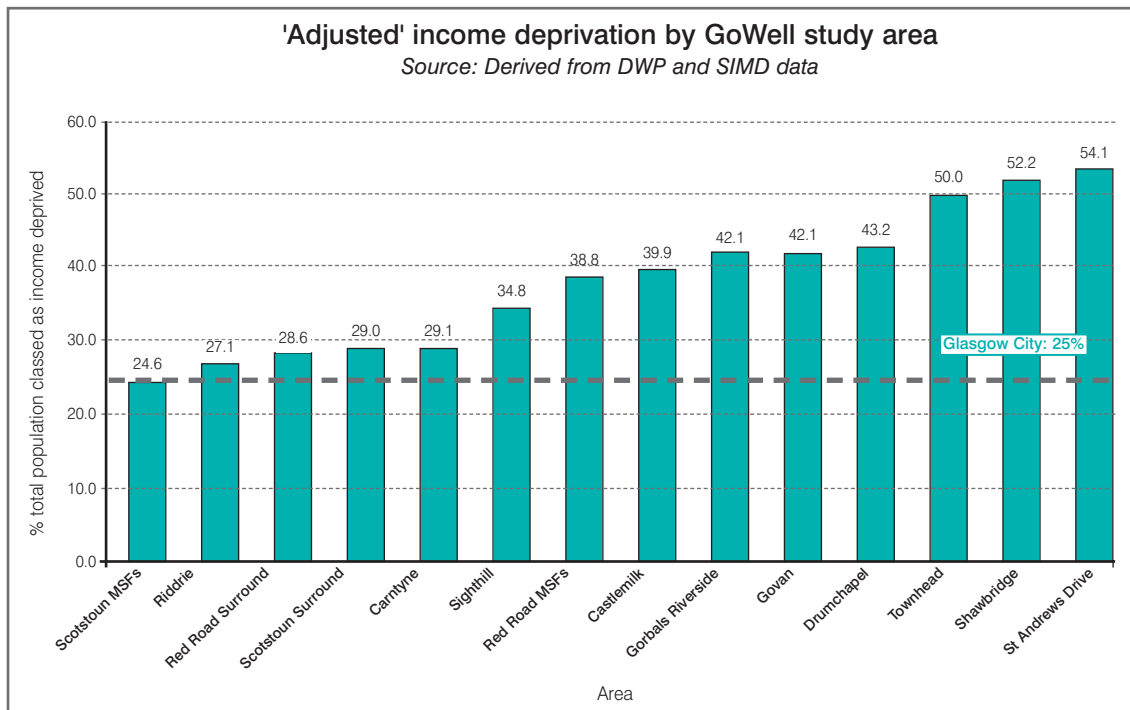


## RESULTS CONT'D

### Deprivation in the GoWell study areas

Where in this overall spectrum of Glasgow deprivation do the GoWell areas sit? Figure 2 shows the proportion of the population in each study area classed as income deprived. The figures range from in excess of 50% (St Andrews Drive: 54%; Shawbridge: 52%; Townhead: 50%) to around 25% (Scotstoun multi-stories). Comparisons with the income deprivation deciles for the city show that of the 14 GoWell study areas, eight sit within deciles 9-10. Of the remaining six, one sits in decile 8, two in decile 7, and two in decile 6. Therefore, this analysis confirms that, as a rule, the GoWell study areas are among the most deprived in Glasgow, but that there are a small number of exceptions to this.

Figure 2



That said, it should be remembered that decile 6 in a Glasgow City context is still extremely deprived relative to Scotland. Levels of income deprivation for Glasgow stand at 25% of the total population: the equivalent figure for Scotland is 14%. Furthermore, the cut-off point for the most deprived 15% of Scottish datazones (a threshold used for the SIMD by the previous Scottish Government for various purposes) is that at least 25% of the population is income deprived. On that basis one could argue that all the GoWell areas are among the most deprived in the country. Clearly, therefore – and by definition – the picture of ‘relative’ deprivation varies depending on the geographical context in which it is viewed.

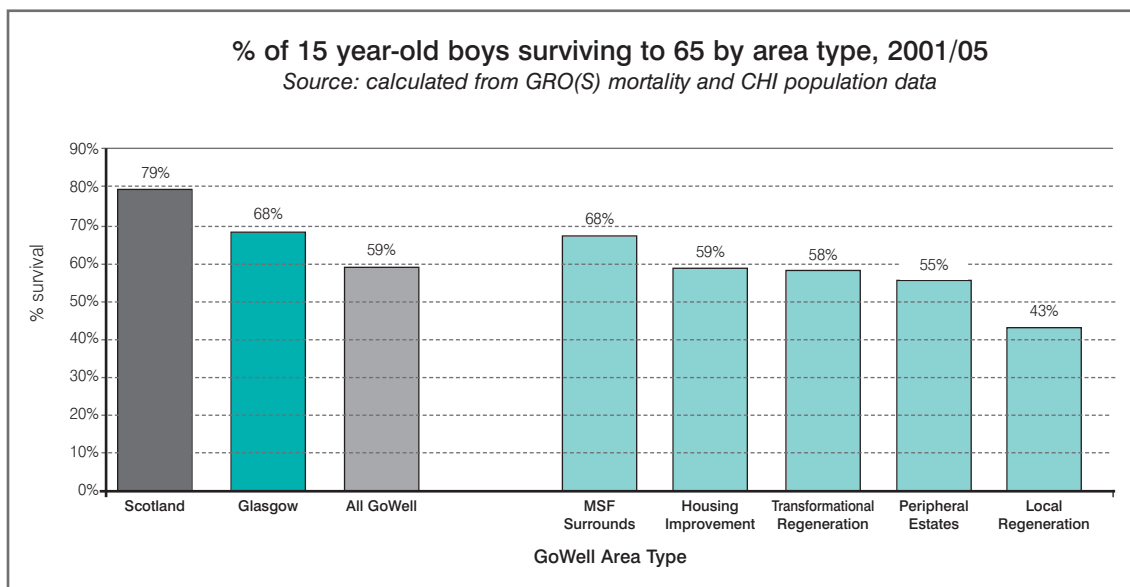


### Health-related profiles of the GoWell areas and areas of social housing

From the analyses of a wide range of health-related data, and in comparison to (i) Scotland, (ii) Glasgow, and (iii) other parts of Glasgow, the GoWell study areas generally tend to stand out in terms of having:

- Higher levels of mortality and correspondingly lower levels of life expectancy. For example, on average, male life expectancy in the GoWell areas currently stands at around 66 years – four years lower than the figure for Glasgow, and eight years lower than the national figure. Furthermore, the same life expectancy calculations show that – based on current mortality trends – less than half of the 15-year old boys in the local regeneration areas would be expected to survive to retirement age (65). This is illustrated in Figure 3 below.

Figure 3



- Higher levels of mortality from all cancers, coronary heart disease and cerebrovascular disease (although considerable variation is displayed across the different study areas).
- Higher rates of suicide. Figure 4 shows the total numbers (represented by vertical bars) and rates (represented by the line) of suicide for all GoWell areas compared to all GHA areas<sup>4</sup>, areas incorporating social housing<sup>4</sup>, Glasgow and Scotland. It is noticeable that over a five year period the suicide rate of the GoWell areas is more than twice that of Scotland, and around 65% higher than that of Glasgow. When analysed by GoWell area type, noticeably elevated rates were shown for local regeneration areas (especially Gorbals Riverside), although these are based on relatively small numbers of deaths.

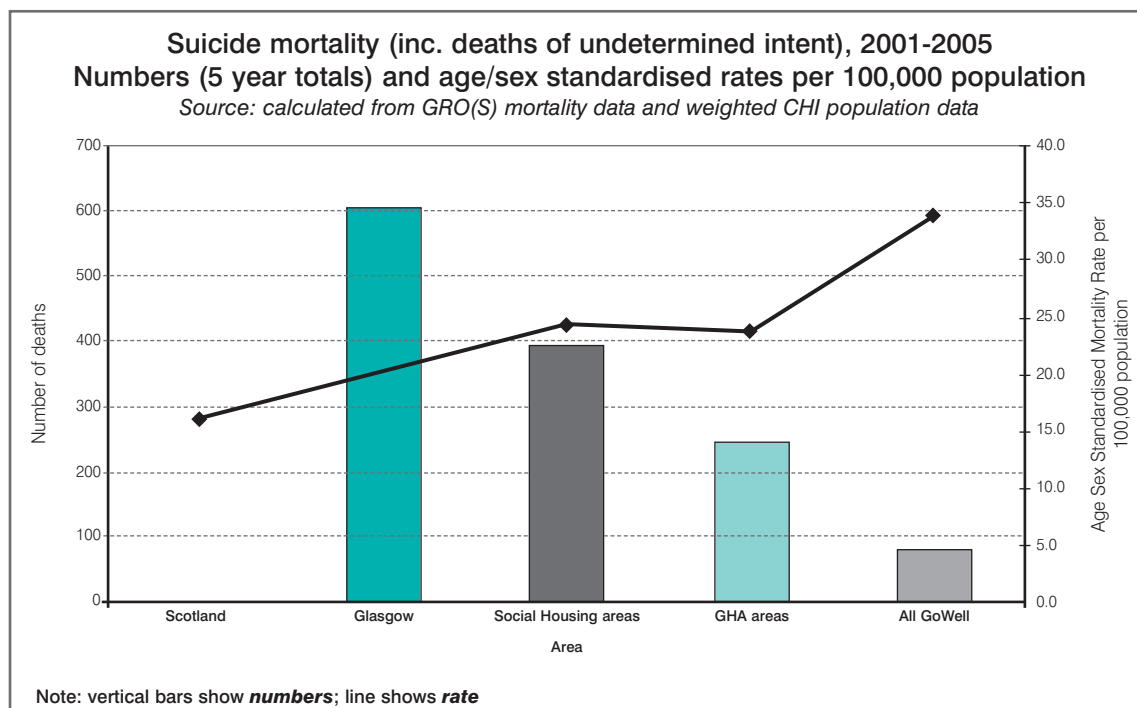
<sup>4</sup> As stated earlier (and as outlined in detail in the full report), 'GHA areas' and 'areas of social housing' are defined by full unit postcodes in which any property was classed as social housing and/or GHA housing.





## RESULTS CONT'D

Figure 4



- Higher rates of hospitalisation for emergency, unintentional injury and assault.
- Higher rates of both hospitalisation and mortality related to drugs and alcohol. For example, seven people out of 1,000 on average are currently admitted to hospital each year with alcohol-related or attributable conditions from the Gorbals Riverside study area.
- Higher rates of maternal smoking. For example, while around a third and a quarter of women in Glasgow and Scotland respectively smoke during their pregnancy, the figure for the GoWell areas as a whole is nearer 40%, while in the peripheral estates one in two pregnant women fall into this category.

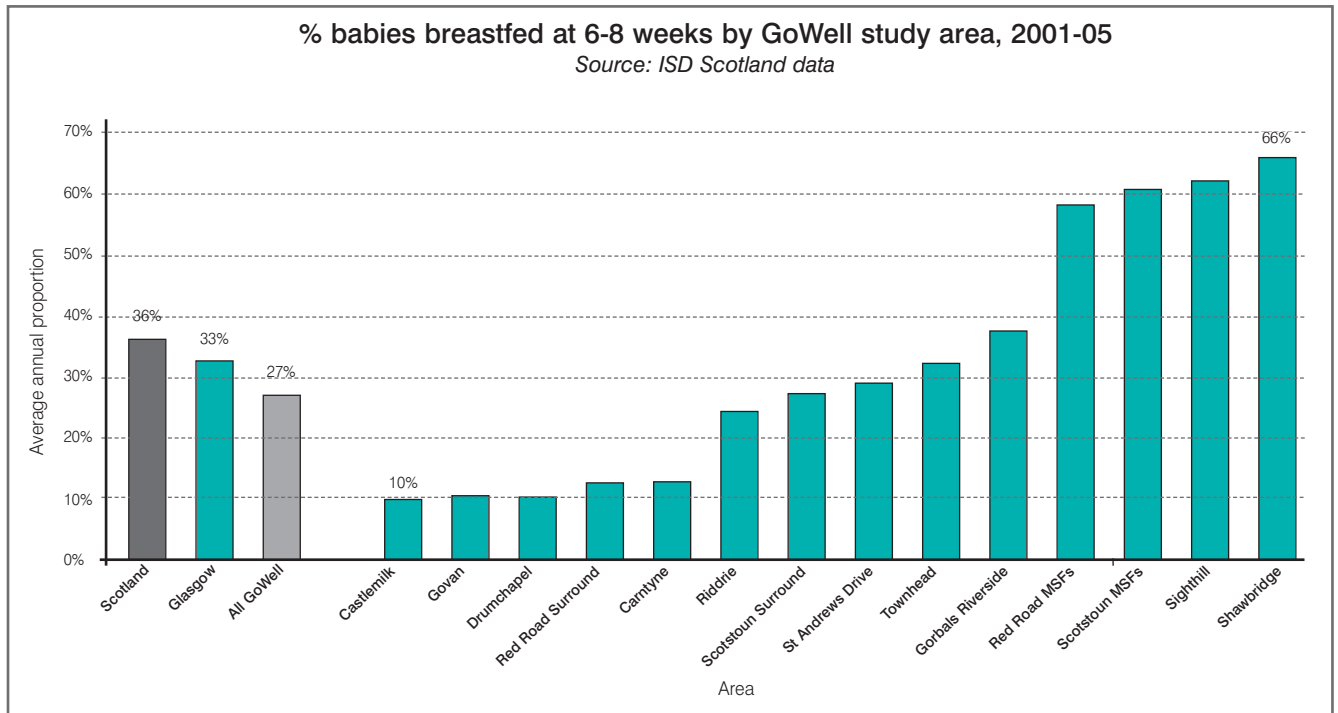
Other points of interest which emerged from the analysis include:

- GoWell areas show marked diversity in child and maternal health factors. For example, in the transformational regeneration areas 62% of babies are recorded as being breastfed, while only 10% fall into this category in the peripheral estates. As stated above, these figures are likely to be influenced by the fact that there are high numbers of the asylum seeker and refugee population living in the transformational regeneration areas (Red Road, Shawbridge, Sighthill), and this would appear to have a positive effect on the rates. All three of these areas – as well as Scotstoun multi-storey flats, which also have high numbers of asylum seekers and refugees – have much higher rates of breastfeeding than other, similarly deprived areas in the city. This is illustrated in Figure 5.





Figure 5



- In general, the study areas are characterised by having younger populations, and relatively higher birth and fertility rates than Glasgow or Scotland as a whole.
- Analysis of the relative 'burden' of ill-health borne by different areas in the city showed that the percentage of deaths in Glasgow occurring in areas of social housing, GHA housing or GoWell areas is disproportionately high considering their respective population sizes. For example, areas in the city which include social housing account for just over 50% of Glasgow's total population, yet almost 75% of alcohol-related deaths and 80% of lung cancer deaths in the city occur in these areas<sup>5</sup>. Similarly, although the GoWell study areas account for only 9% of the city's population, 14% of suicides in Glasgow occur in these areas.

<sup>5</sup> Clearly these figures should be interpreted in the understanding that aspects of population health such as alcohol harm or suicide are obviously influenced by a complex range of factors (social, behavioural, economic, environmental etc.), and that deprived areas in particular tend to be associated with higher levels of such adverse health outcomes.



## DISCUSSION

The two reports that are summarised within this briefing paper discuss in detail a number of caveats and weaknesses relating to the analyses. These include issues around the use of the GP-based CHI population data, and the exclusion of the asylum seeker population from the calculation of levels of income deprivation. The latter is clearly problematic for some of the study areas which have large numbers of asylum seekers, and in these cases the data cannot be said to accurately reflect the true character of the areas.

Such issues, however, do not detract from the overall benefits of the analyses presented in these reports. They provide important 'baseline' information for the GoWell areas in terms of their health and health-related status (including levels of deprivation). Alongside the initial survey results, these statistics will be returned to as the programme develops, and changes in the areas continue to be monitored.

Importantly, the analyses also place the health and health-related status of the GoWell areas firmly in the context of the general patterns and trends in health and wellbeing that are seen across Glasgow. Furthermore, they present a range of indicators which are representative of the many facets of health and its determinants. All these aspects of health are important, and the data show that for many the gap between the most deprived parts of Glasgow (which include the majority of the GoWell study areas) and the least deprived areas is widening. This suggests that for many indicators, 'success' for the city, and for the GoWell areas, may be simply to prevent the gap widening further in the first instance.



## REFERENCES

Sophie M. Turner. *Health and Wellbeing in GoWell and Social Housing Areas in Glasgow*. GoWell, 2008.

David Walsh. *Health and Wellbeing in Glasgow and the GoWell Areas – deprivation based analyses*. GoWell, 2008.



## ACKNOWLEDGEMENTS

A wide range of data, derived from many different sources, was used in the analyses presented in the two reports. It is simply not possible to list here all those individuals and organisations who contributed significantly to the completion this work. However, all are listed in full in the two reports.

This paper has been produced on behalf of the GoWell team. The current GoWell team is as follows:

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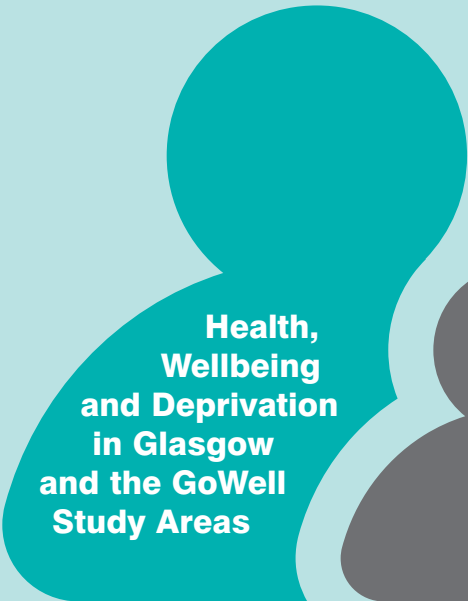
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