Health and Wellbeing in GoWell and Social Housing Areas in Glasgow

One of two complementary, quantitative analysis based reports from the GoWell Ecological Monitoring Group

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November 2008

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.

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

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Summary

As part of the GoWell Ecological Monitoring Group's overall remit of monitoring the housing and health-related changes that are taking place throughout Glasgow (to help better understand change in the GoWell areas of the city), one of the more specific aims of the group was to produce health and wellbeing profiles of the study areas, and similar areas in the city. I have attempted to fulfil this latter aim within this report.

Analyses presented here relate to available health data shown under the categories of: population demographics; life expectancy; mortality; hospitalisation and injury; alcohol and drugs; child and maternal health; health determinants. As such, it is hoped that the broad model of health to which we have become accustomed is represented in this report.

It is already known that the overall health and wellbeing of Glasgow City is poor in comparison to Scotland. This report shows that within the city, areas that include social housing, Glasgow Housing Association (GHA) stock, and the GoWell areas in particular, have poorer overall health than that of Glasgow as a whole. Key findings in the GoWell areas include low male life expectancy, very high rates of death due to lung cancer, and significantly increased morbidity and mortality related to alcohol and drug use.

Overall, the GoWell Local Regeneration Areas suffer poor health in comparison with the other GoWell area types. Rates of suicide, alcohol-related death, and hospitalisations due to assault are particularly high in these areas.

What is also notable is that among the areas with the worst health in Glasgow are the Peripheral Estates, which have been the focus for significant levels of regeneration activity in the recent past. Specifically, child and maternal health is poor, breastfeeding mothers are rare, smoking during pregnancy is commonplace, and rates of teenage pregnancy are high.

The GoWell areas are shown in this report to be in a worse state of overall health and wellbeing that Glasgow City as a whole, and in considerably poorer health than Scotland.

Contents

1. Introduction

GoWell

GoWell is a collaborative partnership between the Glasgow Centre for Population Health, the University of Glasgow and the Medical Research Council Social and Public Health Sciences Unit, sponsored by Glasgow Housing Association, the Scottish Government, NHS Health Scotland and NHS Greater Glasgow and Clyde. 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 dearth of prospective evaluations of the health impacts of neighbourhood change.

The Ecological Study – monitoring change across Glasgow

The ecological component of GoWell involves monitoring the changes relating to housing and health that are happening throughout Glasgow so that changes in the study areas can be looked at in the context of wider trends. The different elements involved in the ecological study include: looking at the historical and policy background within which community regeneration is taking place; investigating the incidence and prevalence of health outcomes and determinants in the study areas; and the development of a housing taxonomy in order to examine the links between housing types and health status across the city.

Health and Wellbeing in GoWell and Social Housing Areas

This is the first of three complimentary reports from the GoWell ecological monitoring group focussing on the health and wellbeing of residents living in specific areas or housing types in Glasgow City[1]. This report describes health outcomes and determinants for: areas of social housing, areas incorporating Glasgow Housing Association stock and each GoWell area, separately and aggregated into 'type'. Comparisons with data for Glasgow City as a whole and, where appropriate, Scotland, are also included.

[i] The other two reports focus on (1) deprivation-related analyses in GoWell areas and Glasgow; (2) a housing typology for Glasgow.

Each profile of health and wellbeing illustrated here shows a variety of outcomes and determinants that are interdependent. Given the complex nature of health, these factors are appropriately viewed together, as an overall picture.

2. Background and Methods

The Study Areas

The data presented in this report refer to the following areas:

- Scotland.
- Glasgow City – relates to the City Council boundaries. Note that references to 'Glasgow' throughout this report refer to Glasgow City.
- All social housing – full postcodes in which there are social housing stock. This makes up approximately 56% of the population of Glasgow.
- Glasgow Housing Association (GHA) stock – full postcodes in which there is GHA housing stock. This makes up almost 37% of the population of Glasgow, and almost 65% of all social housing stock.
- GoWell study areas are described in three ways described in Table I -
    1. All GoWell areas together
    2. GoWell area types
    3. Individual GoWell areas

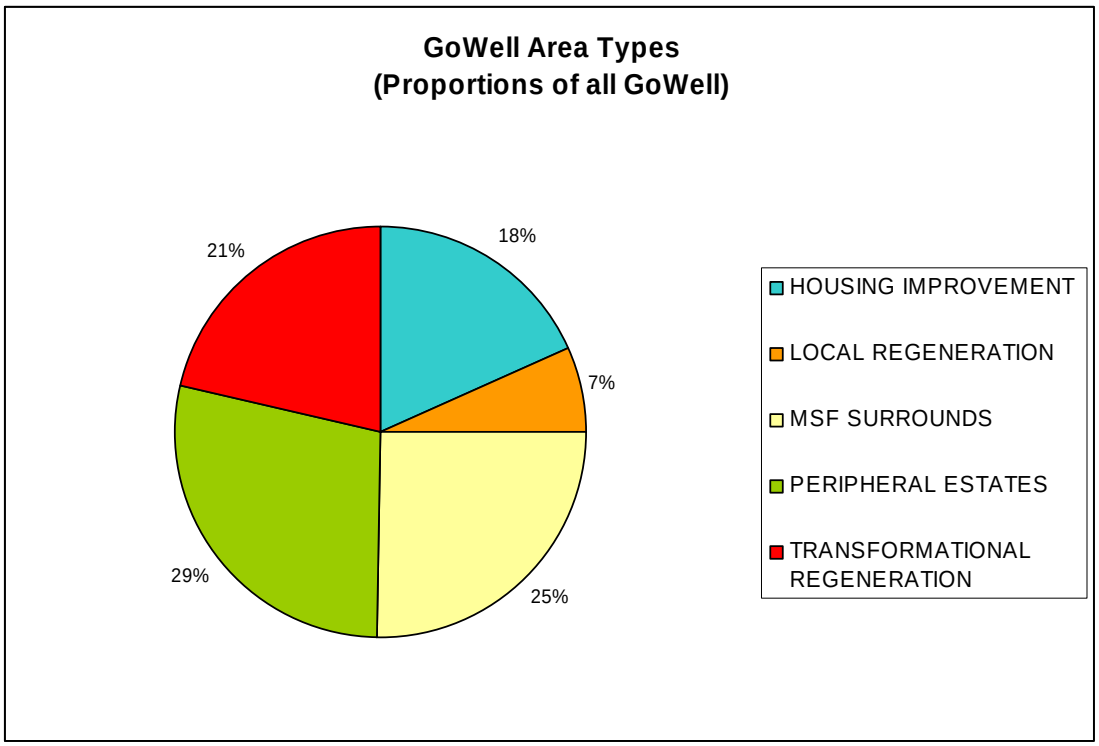
Table 1

AREA TYPES	AREA TYPE DESCRIPTIONS	AREAS
Transformational Regeneration Areas	Dominated by multi-storey flats. Major investment is planned for the next 5-10 years. Large scale demolition and rebuilding will take place in attempt to re-connect the neighbourhoods with surrounding areas. Total population 11,275.	Red Road Core Area (pop 3370)
		Shawbridge (pop 2367)
		Sighthill (pop 5538)
Local Regeneration Areas	Smaller pockets of post-war housing. A range of regeneration planning and restructuring on a smaller scale than transformational areas is proposed. Total population 3,533.	Gorbals Riverside (pop 713)
		Scotstoun Core Area (pop 1907)

AREA TYPES	AREA TYPE DESCRIPTIONS	AREAS
		St Andrews Drive (pop 913)
Housing Improvement Areas	Consists of a mixture of housing types – tenements, four-in-blocks, semi-detached houses and multi-storey flats. Significant internal and external housing improvements are required in these areas. Total population 9,647.	Carntyne (pop 2642)
		Govan (pop 1061)
		Riddrie (pop 4647)
		Townhead (pop 1297)
Peripheral Estates	Large-scale housing estates on the city boundary where incremental changes are taking place. Both areas have received regeneration investment in the past. Total population 14,836.	Castlemilk (pop 5284)
		Drumchapel (pop 9552)
Multi-Storey Flat (MSF) Surrounds	Neighbourhoods surrounding the multi-storey flats in Red Road and Scotstoun. They are included to help the study to measure whether area regeneration can affect neighbouring communities. Total population 13,296.	Red Road Surrounding Area (pop 9170)
		Scotstoun Surrounding Area (pop 4126)

The GoWell areas together make up around 9% of the Glasgow population. The proportional population of each GoWell area type is shown in Figure 2.1. The GoWell areas are highlighted on a map of Glasgow in Figure 2.2. More information on the GoWell areas can be found at www.gowellonline.com

Figure 2.1



The Study Population

The population in each area or postcode was determined using Community Health Index (CHI) data [1]. CHI is the only data source from which up-to-date population data for small areas such as the GoWell study areas can be made available. CHI population figures are derived from a database that relies upon residents being registered with a GP and that GP having their correct address. Figures were adjusted using weights derived from comparisons of age and sex specific populations for Glasgow between the CHI and General Register Office for Scotland (GRO(S)) mid-year population estimates. This reflects the methodology used by NHS Scotland for resource allocation purposes[2]. It should be noted, however, that as these weights were calculated at a local authority level they do not take account of variation that is likely to exist between the areas, regarding the proportion of residents being correctly registered with a GP.

The Glasgow and Scotland population data are (GRO(S)) annual estimates, available online at http://www.gro-scotland.gov.uk/.

Health Outcomes

To present a broad model of health for each area this report covers various elements of health categorised as follows: population demographics; life expectancy; mortality; hospitalisations and injuries; alcohol and drugs; child and maternal health.

Mortality analyses including alcohol-related deaths and infant mortalities, were carried out using GROS mortality data.

Hospitalisation and injury data, including alcohol and drug-related admissions, were provided by ISD Scotland on request.

Life expectancies were calculated using the weighted CHI population data and all cause mortality data, using the Chiang II methodology [3].

Child and maternal health data, including live births, were provided by ISD Scotland on request.

All crude, age-sex standardised, fertility and infant mortality rates were calculated by the Glasgow Centre for Population Health (GCPH).

Health Determinants

This report covers a limited range of existing health determinant figures.

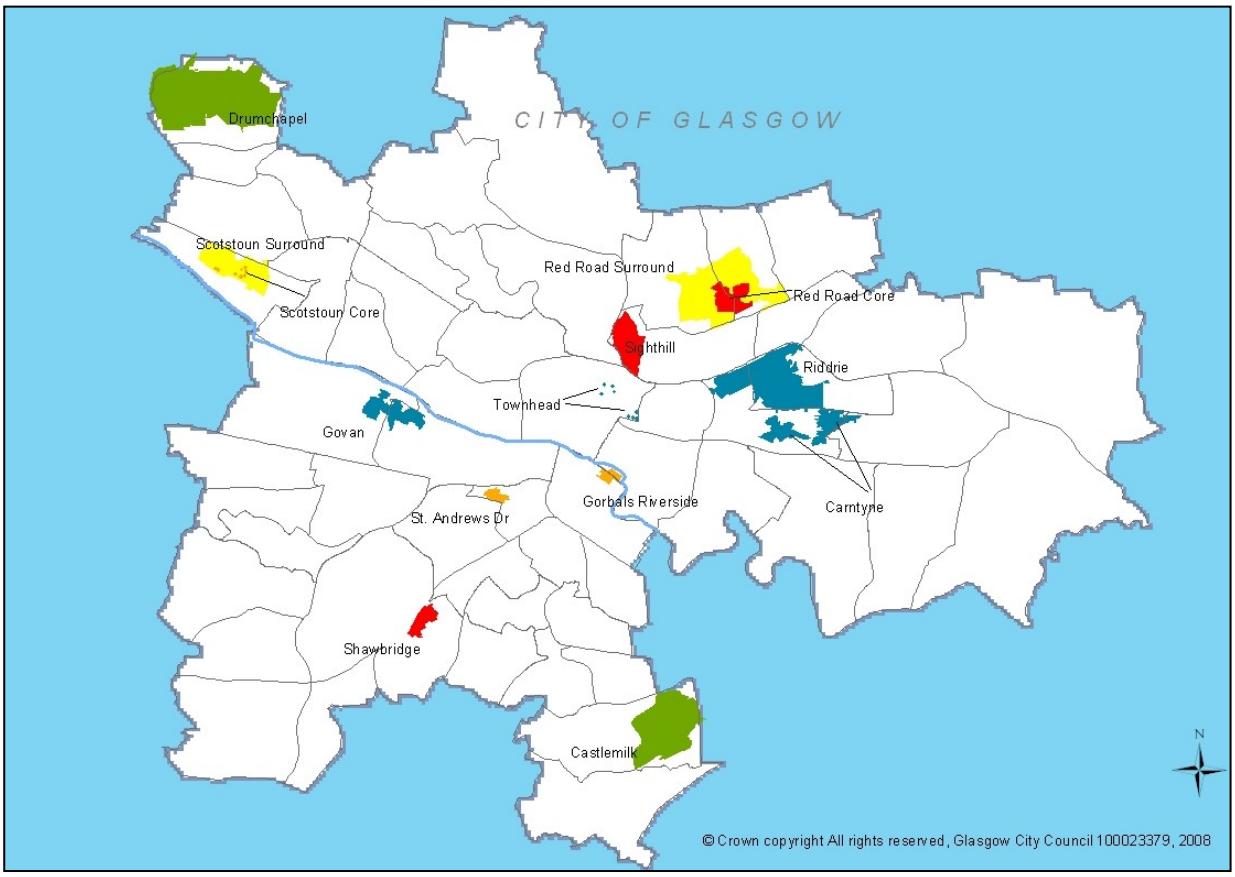
Data presented for the GoWell areas were obtained from the first wave of the GoWell survey carried out in 2006 [4]. Further relevant health determinant data may be found in relation to Community Health and Care Partnership (CHCP) areas of Glasgow in the CHCP profiles produced by GCPH [5]. The Glasgow CHCP neighbourhoods in which each GoWell area lies are shown on a map of the City in Figure 2.2. A table detailing which CHCP neighbourhood contains each GoWell area is shown in Appendix III.

Limitations/Caveats

- The accuracy of the weighted CHI population data is difficult to determine. That said, however, additional comparisons of these data and 2001 census data for relevant small areas in Glasgow showed the CHI estimates to be reasonably robust at this level.
- Social Housing or GHA areas refer to **all full postcodes** where there is **any** social housing or GHA housing present. Data do not relate to those that live in social/GHA housing exclusively[ii].
- Health outcome data analysed in this report have been somewhat limited by the availability of data at the small area level. Inevitably, some important health factors are not included.
- Despite the grouping of GoWell areas as either one aggregated population or into the five types described above, it should be noted that a great deal of heterogeneity exists across the areas and area types for many of the variables presented in the report. All groupings are included for each variable to aid meaningful interpretation.
- In most cases, trends are only available for the years 2001 to 2005.

[ii] Note that a full postcode unit (e.g. G1 2ER) contains on average about 15 addresses (delivery points). Postcodes may therefore have been included which incorporate a minority of social or GHA housing. In practice, however, given the small size of full postcodes in urban settings, it is unlikely that housing types will vary greatly at this level.

Figure 2.2


CITY OF GLASGOW
Drumchapel
Scotstoun Surround
Scotstoun Core
Red Road Surround
Red Road Core
Sighthill
Riddrie
Townhead
Govan
Gorbals Riverside
St. Andrews Dr
Carntyne
Shawbridge
Castlemilk
N
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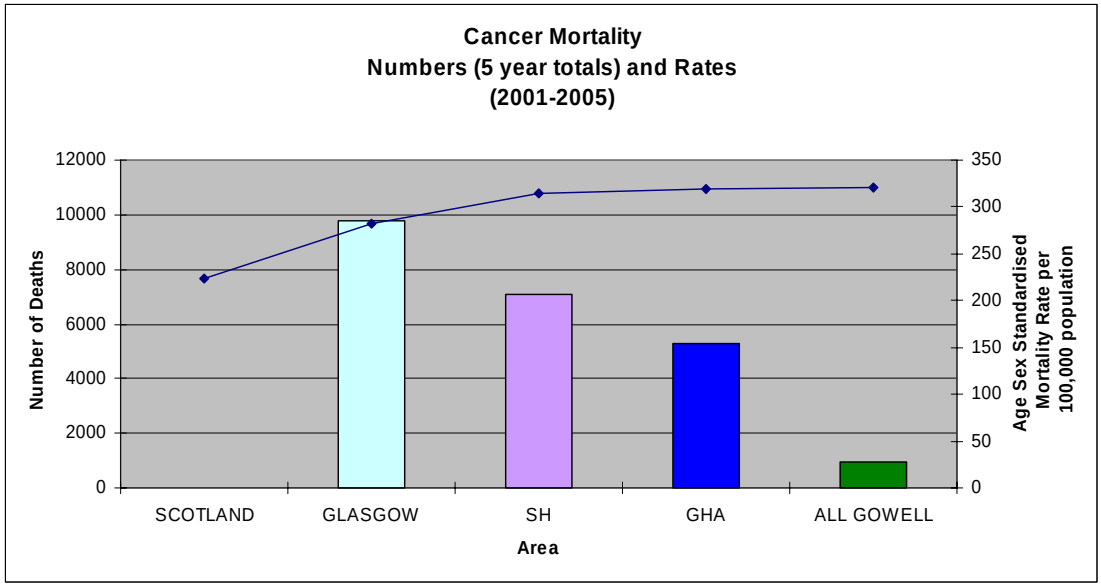
Example Figures

Many Figures shown in this report have bar and line graphs on two axes displayed together. Where this applies, the bars represent the **number** of events (e.g. deaths, hospitalisations, pregnancies) either totalled over the period or as an average annual number. The line graph shows the **rate** of the outcome, usually directly age-sex standardised per 100,000 resident population. This measure - representing what the rate for each outcome would be if the areas had the same age-sex structure as the standard European population - has been chosen to allow comparisons of rates between different areas. Standardised Mortality Rates (SMRs) cannot be used for this purpose.

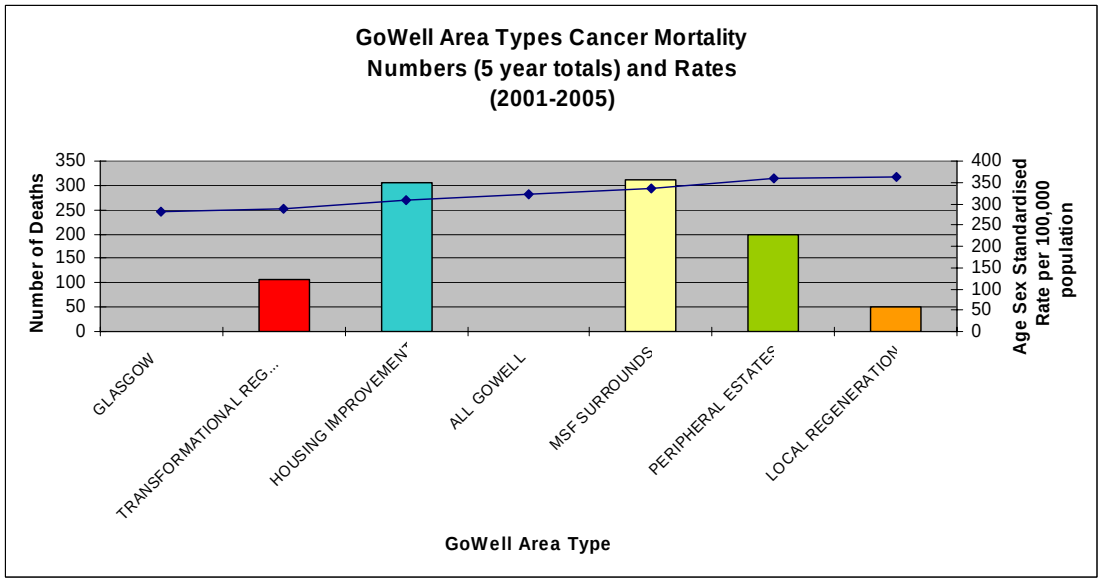
Where the rate is a percentage or another type of crude rate, the figure will specify this. The left-hand y-axis refers to the bar data (numbers); the right-hand y-axis refers to the line data (rates).

Figures in this report are displayed by three area divisions as follows:

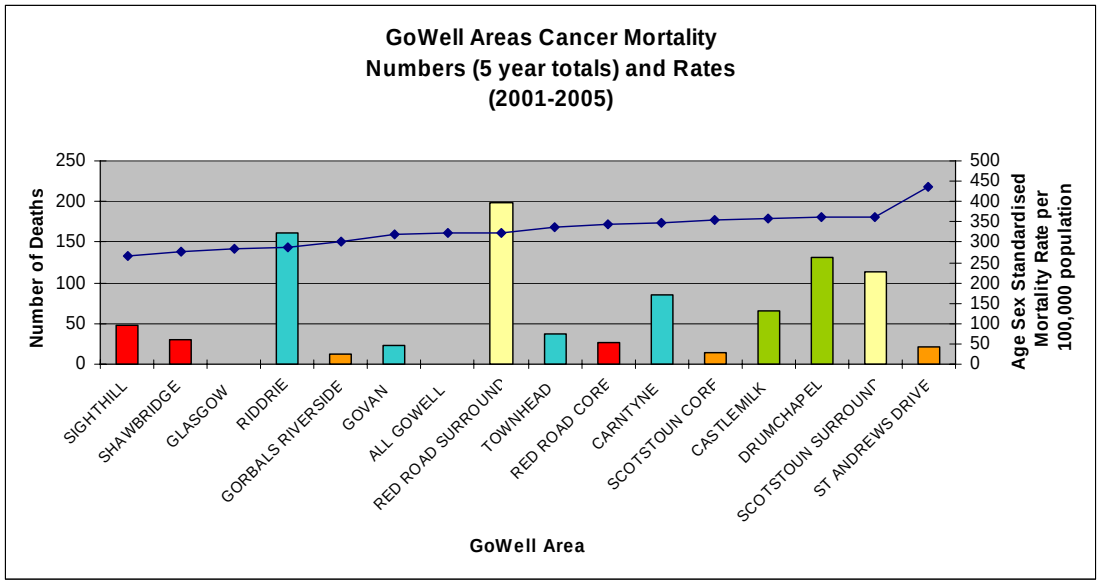
1. Large Area Divisions. Graphs show numbers and rates for Scotland, Glasgow City (Glasgow), Social Housing (SH), Glasgow Housing Association (GHA) and all the GoWell areas together (All Gowell). Often, numbers are not shown for Scotland; rates are displayed for comparison. The large areas are always displayed in the Figures in order of their population size: Scotland; Glasgow; SH; GHA; All GoWell, regardless of their respective rates of the outcome. The colour scheme shown below is employed throughout the report.



2. GoWell Area Types. Graphs show numbers and rates for each of the five GoWell area types: Transformational Regeneration areas (TR), Local Regeneration areas (LR), Housing Improvement areas (HI), Peripheral Estates (PE) and Multi-Storey Flat Surrounds (MSF Surrounds). The 'All GoWell' and Glasgow average rates are shown for comparison (numbers not shown). The area types are displayed in order of increasing rate of the outcome. The order in which the area types are shown in the Figures will therefore vary from outcome to outcome. The colour scheme shown below is employed throughout the report.



3. GoWell Areas. Graphs show numbers and rates for each of the 14 GoWell areas. The 'All GoWell' and Glasgow average rates are shown for comparison (numbers not shown). The areas are displayed in order of increasing rate of the outcome. The order in which the areas are shown in the Figures will therefore vary from outcome to outcome. The colours of each area match the colour of their area type and this scheme is employed throughout the report.



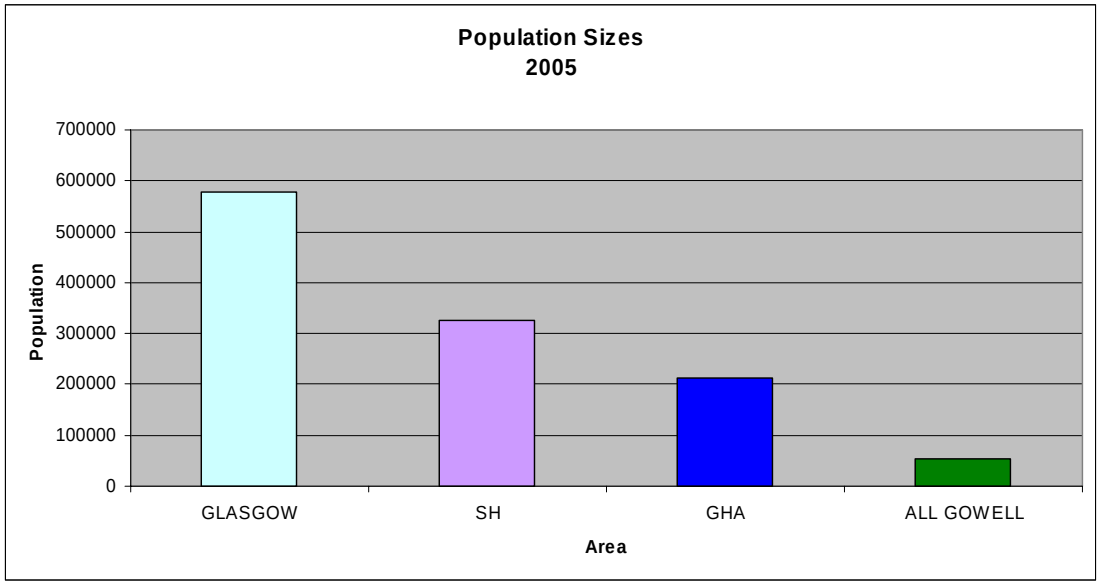
3. Population Demographics

Data presented here describe population size and structure in each area for 2005. Data are derived from the Community Health Index (CHI) weighted to adjust for likely overestimation of the population size in each age-sex group. It should be noted that figures presented for all SH and GHA refer to all postcodes that contain any social/GHA housing and will therefore apply to more people than actually live in socially rented accommodation (see Limitations of the Study).

Population Size

With a population of almost 579,000 Glasgow City is the largest council in Scotland and comprises more than 11% of the Scottish population. Within Glasgow 326,000 (56%) people live in a full postcode area that contains socially rented housing stock. The proportion of households that are socially rented was estimated at 40% at the last census [6]. In this report the description of factors relating to SH (and GHA) therefore also represent those who live in areas directly surrounding social (and GHA) housing. GHA areas make up two thirds of the SH areas and just over 37% of the Glasgow population. A total of 52,600 people live in GoWell areas, equating to 9% of the population of Glasgow. Figure 3.1 shows population size for each of these areas.

Figure 3.1



The GoWell area types vary in population size in a range from 3,530 in LR areas to 14,840 in the PE. In terms of individual areas the largest population is in Drumchapel with 9,550 people; the smallest is Gorbals Riverside with only 710. Populations in each area type and separate area are displayed in Figures 3.2 and 3.3 respectively. Trends in population size over a nine year period from 1999 to 2007 are shown in Appendix I.

Figure 3.2

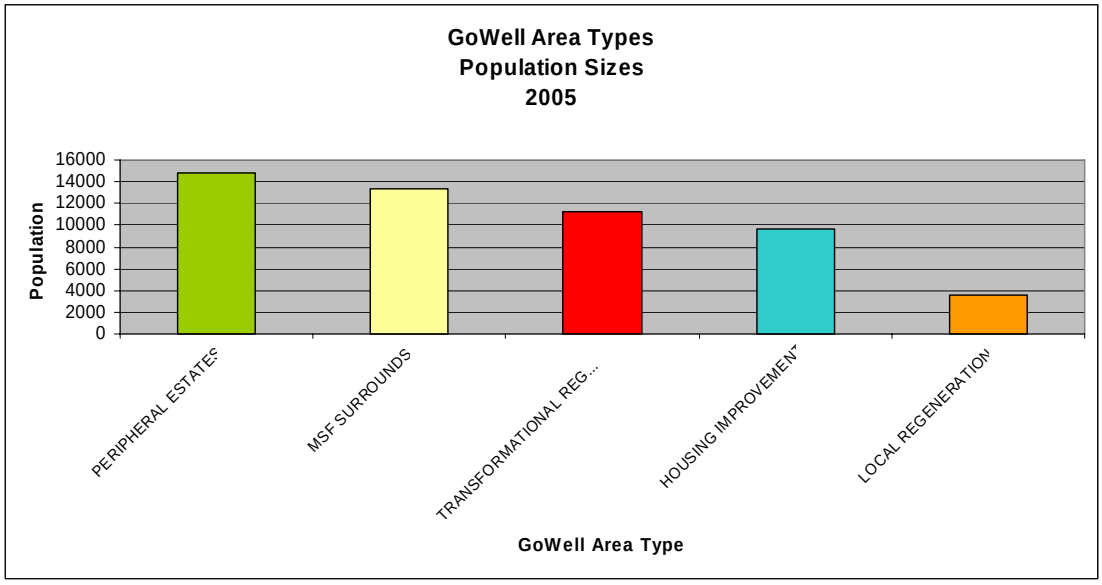
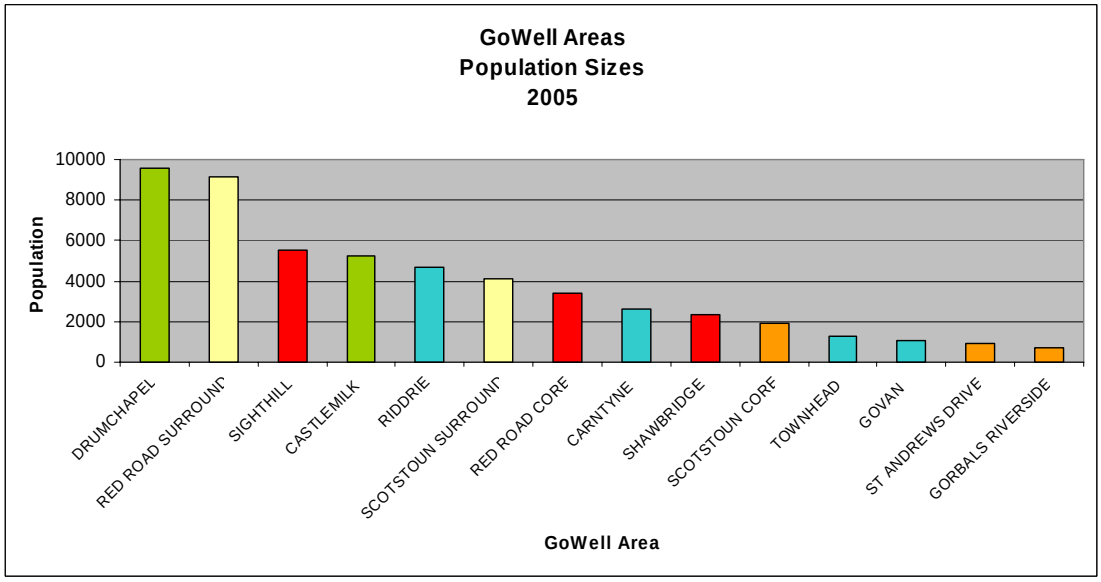


Figure 3.3



Population Structure and Dependency Ratio

The Figures shown here divide the population into four age bands: children (under 14 years); young adults (15-44 years), middle aged adults (45-64 years) and pensionable adults (65+ years). Although women receive state pension from age 60, here they are classified as pensionable age along with men, at 65 years. This corresponds with the change of the female pensionable age to 65 over the next decade [7].

The age structure of each area was analysed separately for males and females. As would be expected for a burgeoning city, the proportion of working age people in Glasgow is large compared with the Scottish average. However, this 'city effect' is diminished in SH, and particularly in GHA and GoWell areas.

Of note, the GoWell areas taken together have a larger proportion of children than in Glasgow (see Figures 3.4 and 3.5). Twenty-two per cent of the GoWell male population are children compared to around 17% in Glasgow, SH and GHA. Of the female GoWell population, 19% are children whereas in Glasgow, SH and GHA the proportion is only 15%. In 2006 'Let Glasgow Flourish' reported that the areas within the West of Scotland with the highest proportion of children tend to be the most deprived [8]. In addition, these data support other evidence that GoWell areas are among the most deprived in Glasgow [9].

Figure 3.4

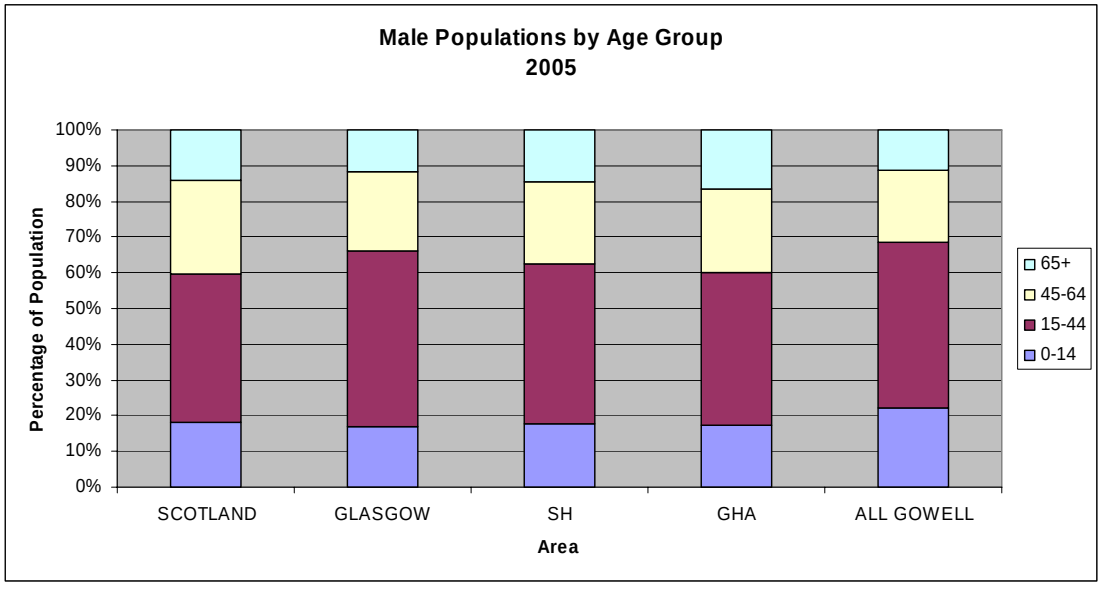
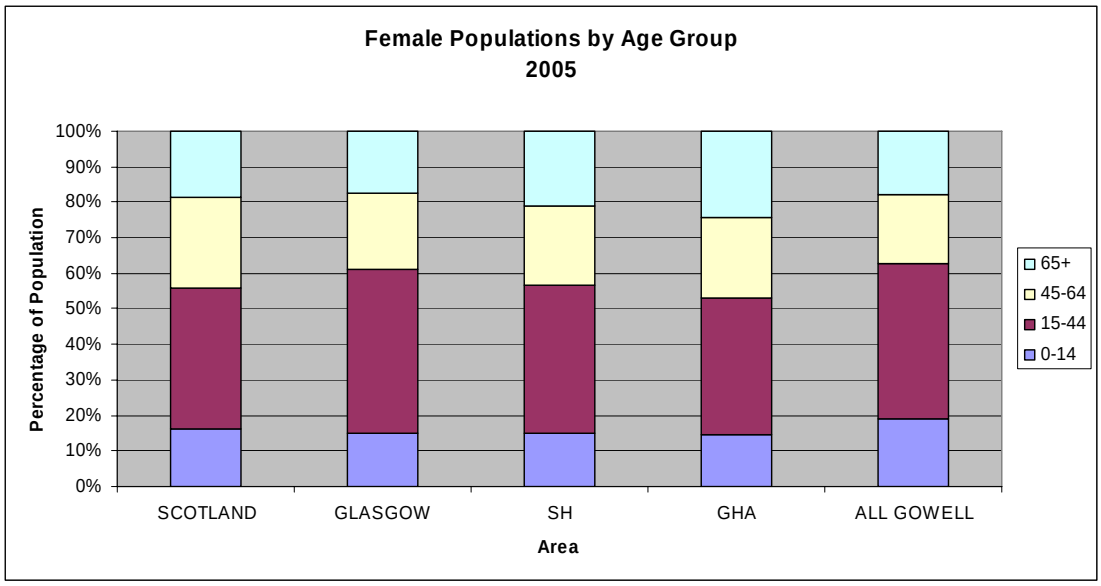


Figure 3.5



The dependency ratio is defined by Last as "the proportion of children and old people in a population in comparison to all others i.e., the proportion of economically inactive to economically active" [10]. As such, the dependency ratio of Glasgow is 0.44, meaning that for every 44 economically inactive persons there are 66 active ones. SH, GHA and GoWell areas all have less desirable dependency ratios between 0.52 and 0.58. See Appendix I for dependency ratio graphs.

NB. The dependency ratio measure does not take into account the proportion of working age persons who are economically inactive due to lack of employment opportunities, incapacity or long-term ill health.

Within the GoWell area types, the TR and LR areas have the highest proportion of children in both male and female populations. These areas are receiving the highest level of housing redevelopment intervention and may therefore be regarded as among the most deprived (accommodation-wise). HI areas notably have the highest proportion of pensionable male and female populations (24% and 34%, respectively). Correspondingly, HI areas have the highest dependency ratio (0.69). PE, TR, and LR areas have the lowest dependency ratios in a range between 0.47 and 0.52.

Figure 3.6

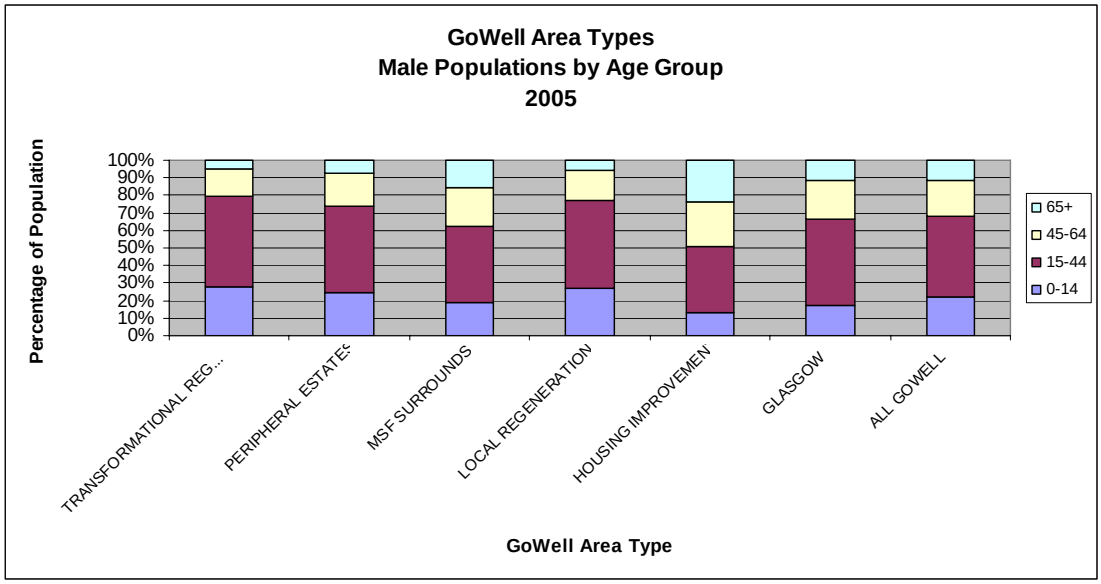
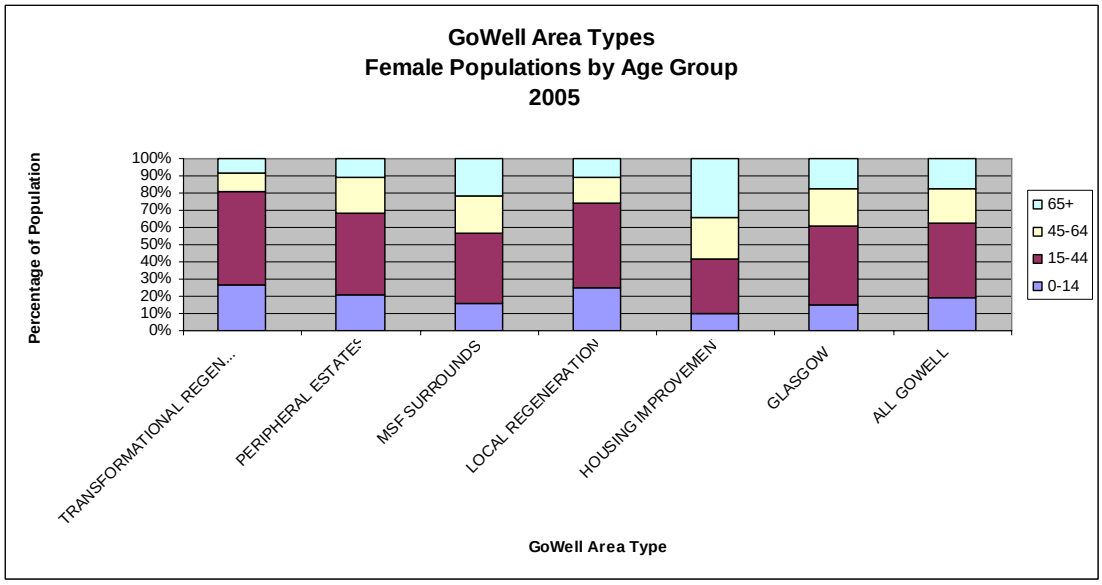


Figure 3.7



There is a large degree of variability in population age structure between each GoWell area, shown in Figures 3.8 and 3.9. Townhead, Riddrie, and Carntyne have the smallest proportions of children and the highest proportions of pensionable persons. Consequently, dependency ratios are highest in these areas (range 0.6 – 0.78). In contrast, Red Road Core and Castlemilk have similar dependency ratios to Glasgow (0.44 – 0.45), mostly due to the relatively small proportion of pensionable persons in these areas.

Figure 3.8

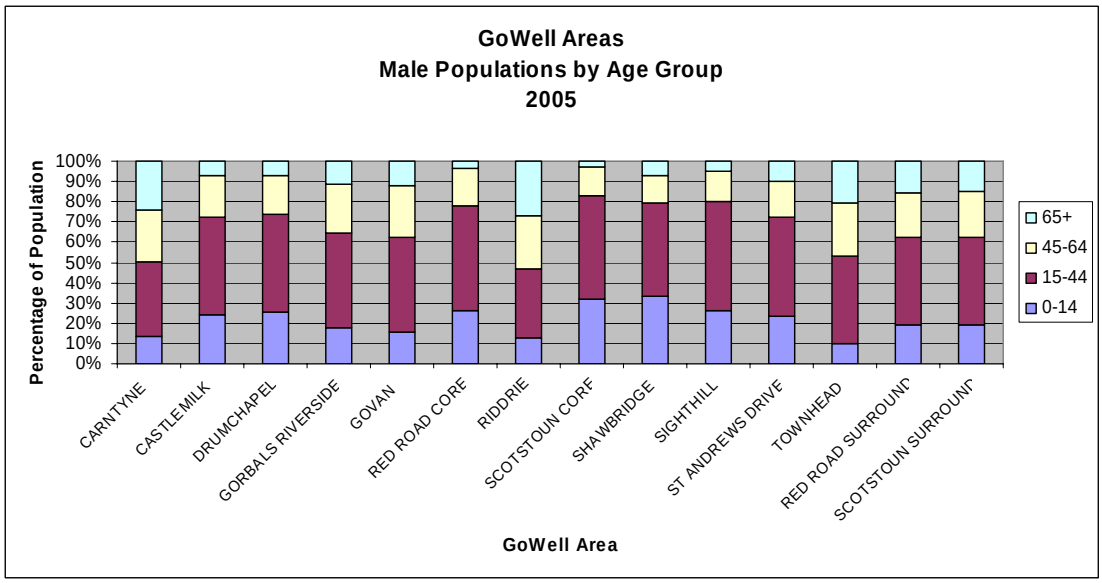
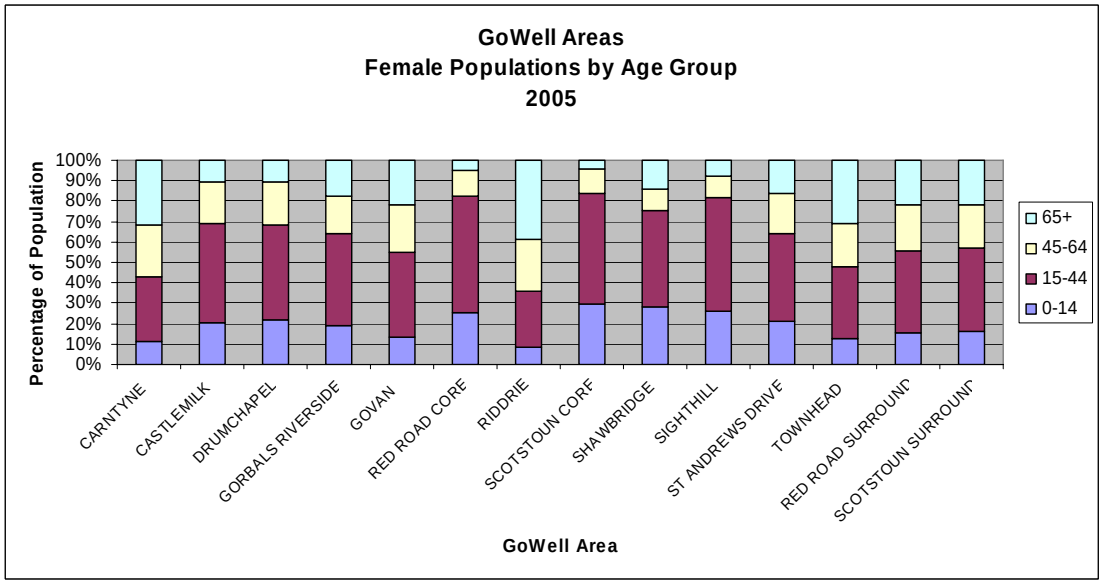


Figure 3.9

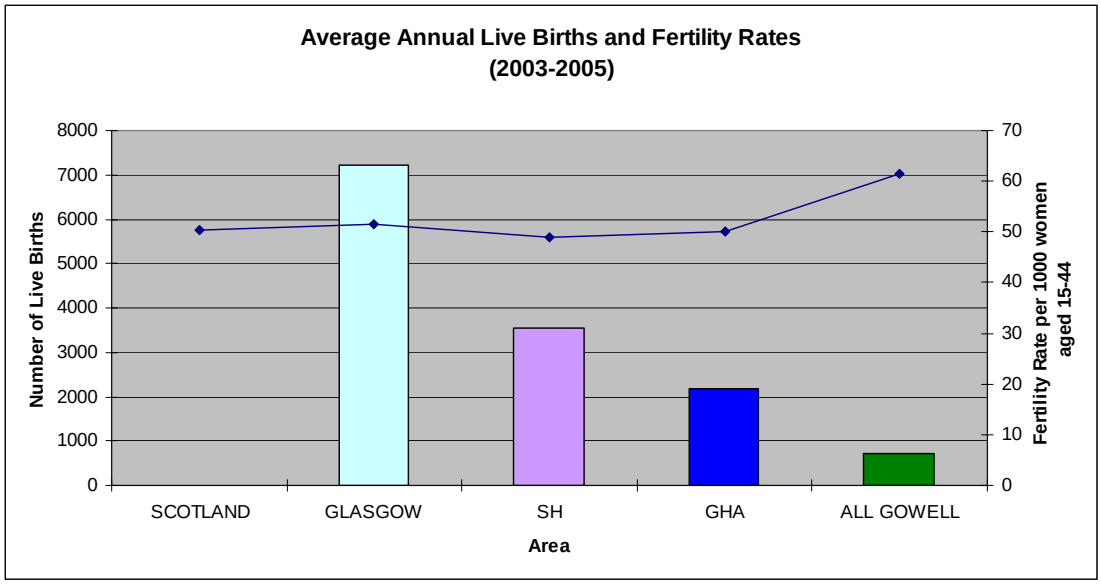


Births

Birth data presented here refer to all live births during the three year period from 2003 to 2005, and trends from 1999-2005. The fertility rate (or general fertility rate) of a population is defined as the number of live births per 1,000 women of child-bearing age (15-44 years) [10].

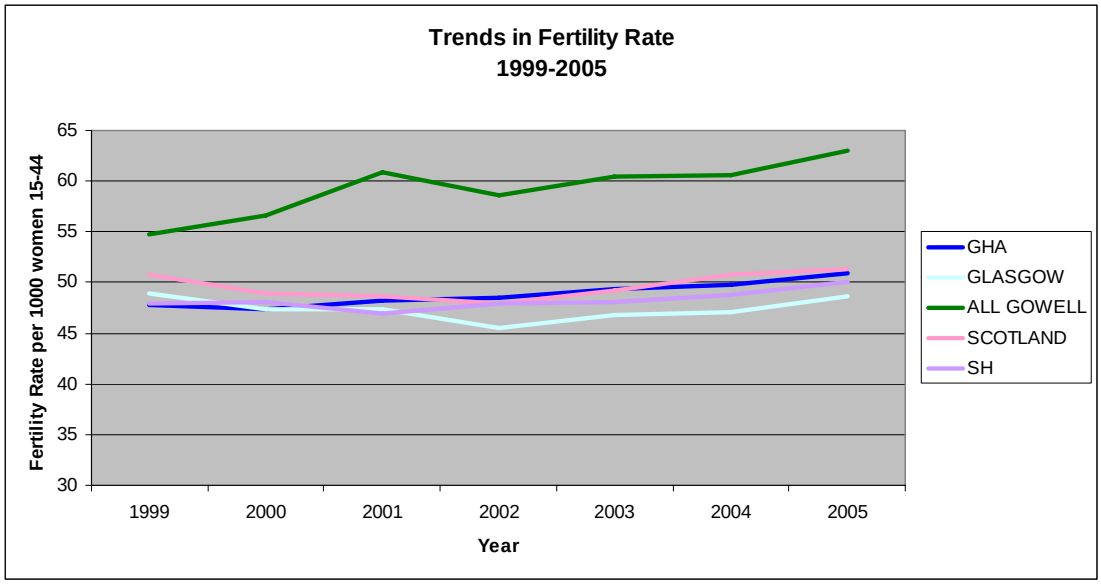
Glasgow, SH, and GHA have similar fertility rates to the whole of Scotland over the period (range 50-51 live births per 1,000 women aged 15-44). However, the fertility rate for GoWell areas taken together is markedly higher at 61 live births per 1,000 women aged 15-44 (see Figure 3.10).

Figure 3.10



The trends in fertility rates from 1999 to 2005 for each area are generally parallel, although the GoWell areas trend appears to be upwardly diverging from the rest (see Figure 3.11). Despite recent concern over the decreasing number of couples having children, the fertility rate has taken an upturn in the period 2002 to 2005. This trend is consistent with findings reported by GRO(S) in the 2006 'Annual Review of Demographic Trends' [11]. Further data regarding child and maternal health factors are displayed in Chapter 9.

Figure 3.11



GoWell area types have markedly different fertility rates, although all are higher than Glasgow (see Figure 3.12). The most striking observation is in TR areas where the fertility rate is 75 live births per 1,000 women aged 15-44, accounting for an average of 209 live births per year (out of 727 in GoWell areas as a whole). In general, each of the area types follows the trend of increasing fertility rates between 1999 and 2005, perhaps with the exception of MSF Surrounds areas. See Appendix I for the area type trend graph.

Figure 3.12

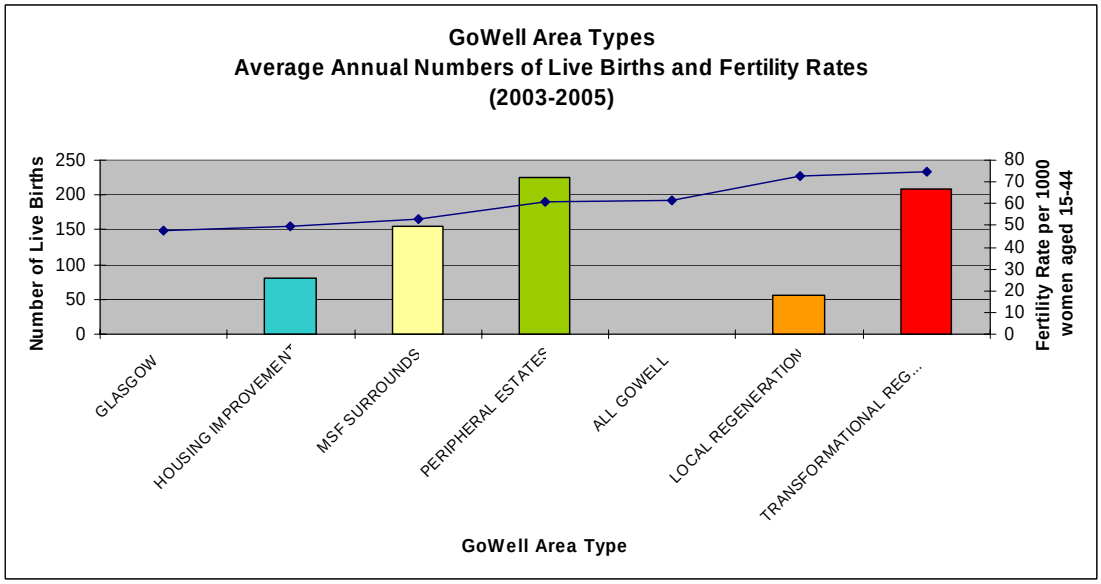
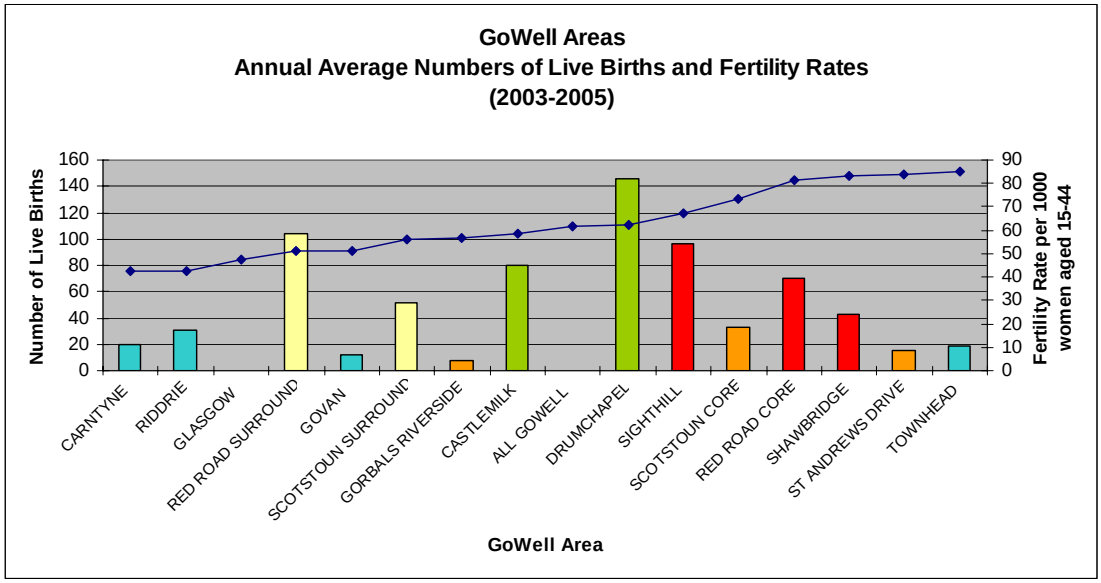


Figure 3.13 highlights the diversity within each area type, especially in the HI areas. Despite Townhead having the highest fertility rate of the GoWell areas (85 live births per 1,000 women aged 15-44), it is part of the HI area type, which has the lowest fertility rate overall. Trends in births are difficult to interpret for each area over a seven year period due to small numbers; the graph is included in Appendix I.

Figure 3.13



Comparisons with CHCP profiles figures using birth rates (the number of births per 1,000 total population) rather than fertility rates are included in Appendix I.

Deaths

All cause mortality data for the five year period from 2001 to 2005 are presented here for each area. The graphs show the total number of deaths over five years and the directly age-sex standardised rates per 100,000 resident population. Trends in the rates are shown from 2001 to 2005.

Compared to Scotland as a whole, Glasgow has a high mortality rate (794 and 1,021 deaths per 100,000 population, respectively). Within this context, the mortality rate for SH, GHA, and GoWell areas in particular are very high, although the trends over the five year period from 2001 to 2005 are generally parallel with those of Glasgow and Scotland (see Figures 3.14 and 3.15).

Figure 3.14

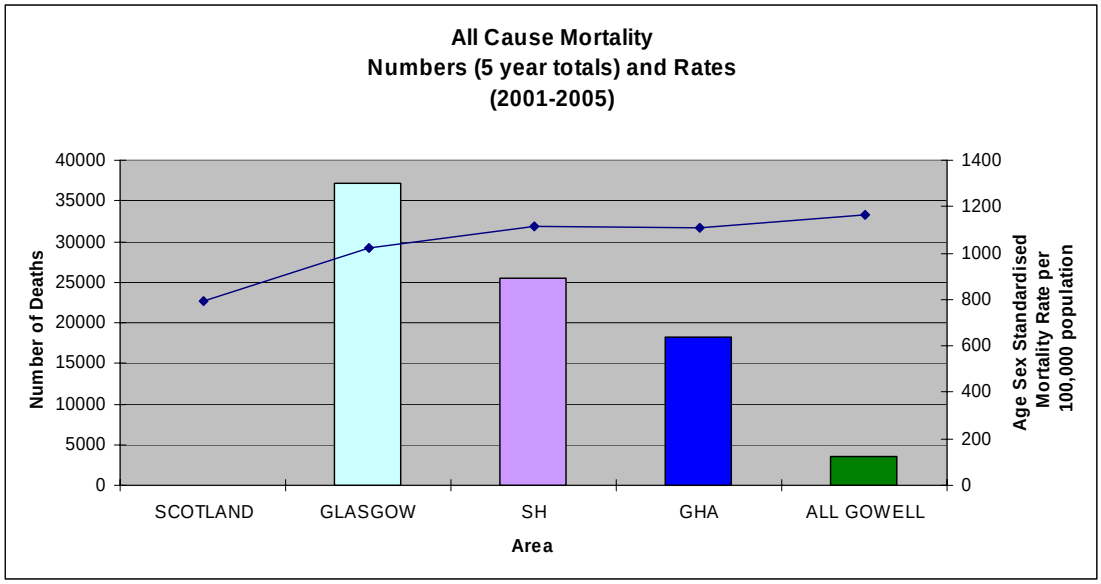
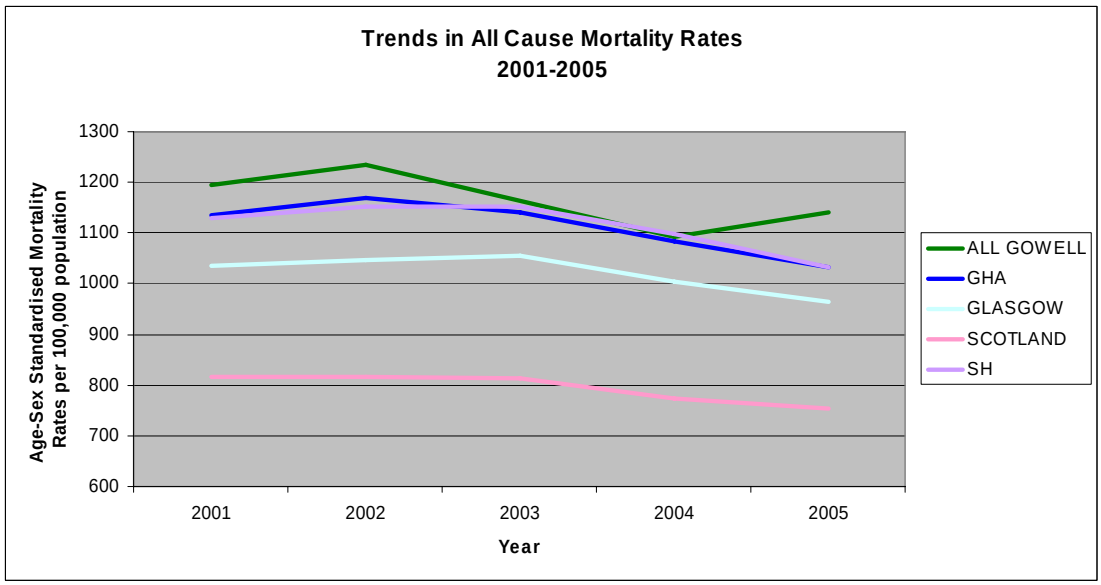
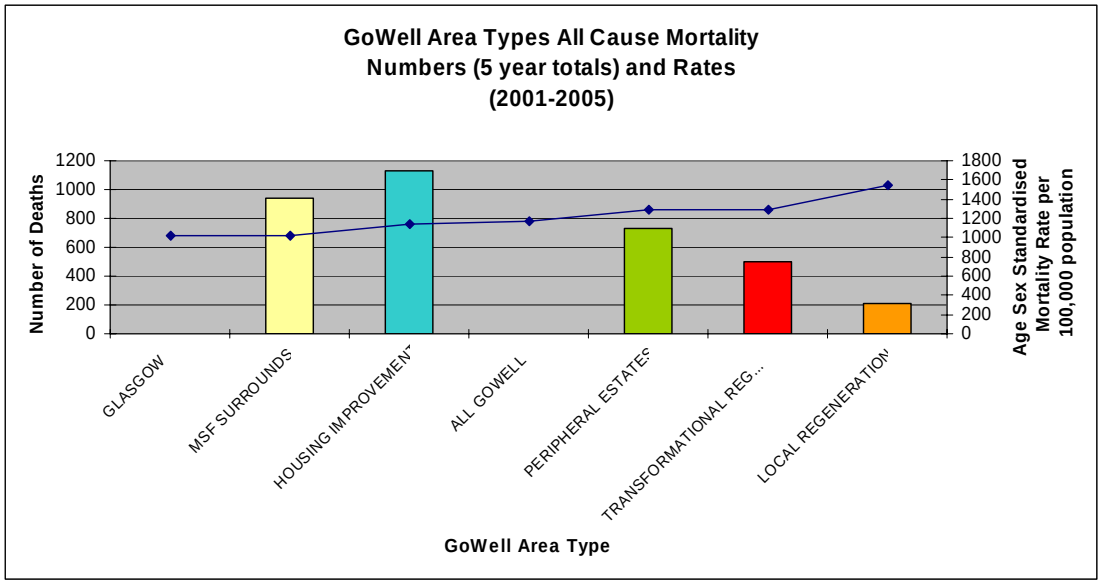


Figure 3.15



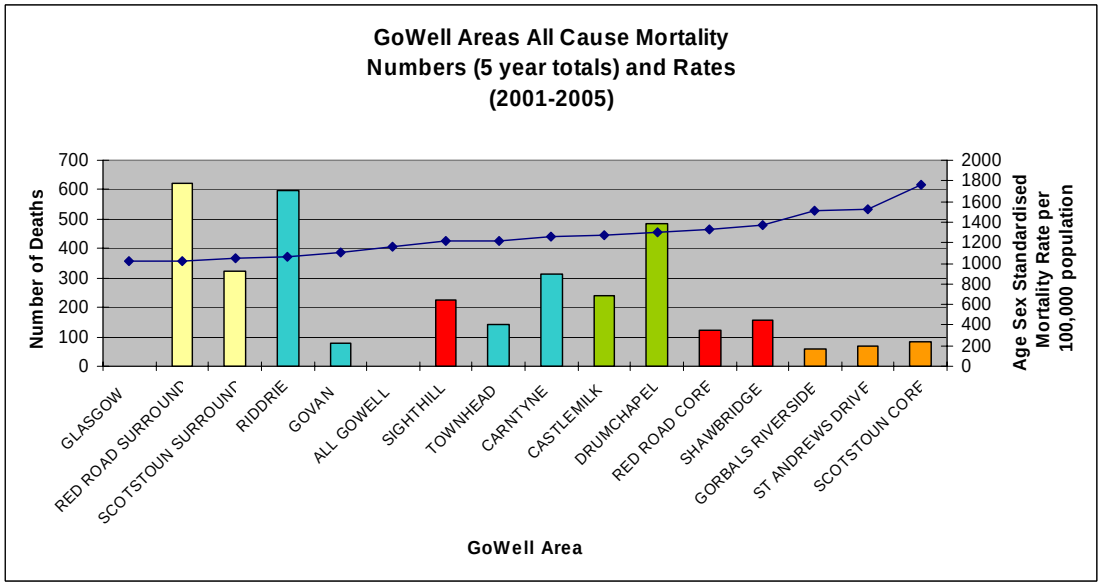
The overall GoWell areas' age-sex standardised mortality rate is 1,164 deaths per 100,000 population. However, among area types this figure ranges from 1,025 (MSF Surrounds) to 1,545 (LR) deaths per 100,000 population (see Figure 3.16). The two areas requiring most housing and community redevelopment work (TR and LR areas) are, perhaps predictably, at the worst end of the scale.

Figure 3.16



Each GoWell area corresponds well with its larger area type for all cause mortality, with the exception of Sighthill (see Figure 3.17).

Figure 3.17



Infant Mortality

Infant deaths are defined here as deaths in the first year of life. Due to very small numbers of deaths (even when totalled over five years), data are presented for the larger areas only. Rates are calculated by using the number of live births in the period as the denominator. The data are shown for the five year period from 2001 to 2005.

Over the period the average Scottish infant mortality rate was five per 1,000 live births and the rate in Glasgow was only marginally higher (see Figure 3.18). However, with rates between six and seven per 1,000 live births, SH, GHA and GoWell areas have a greater relative burden of infant deaths. Trends over time show large fluctuations due to very small annual numbers of infant deaths (see Figure 3.19).

Figure 3.18

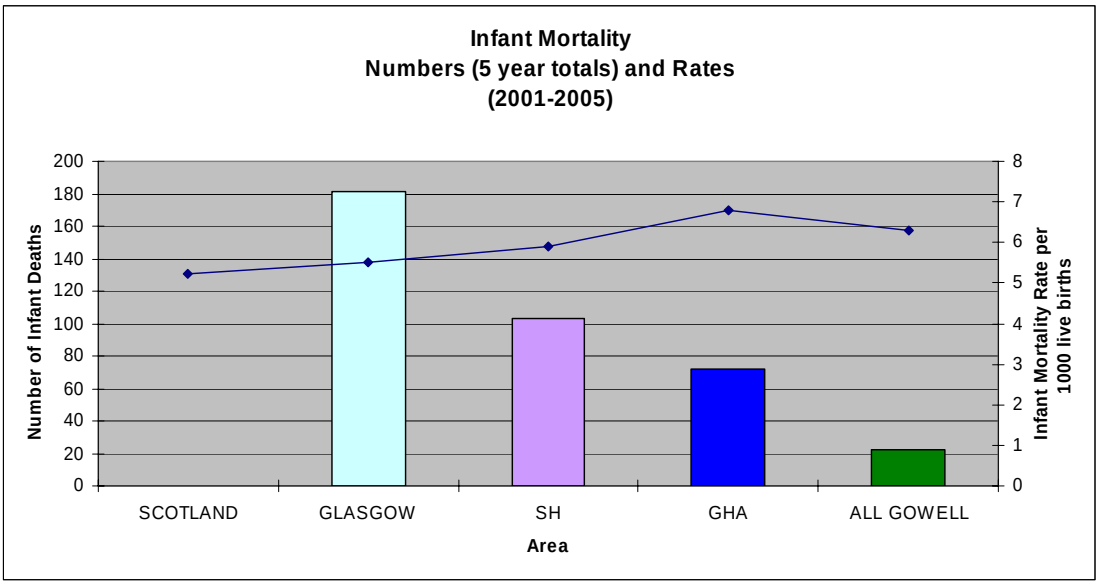
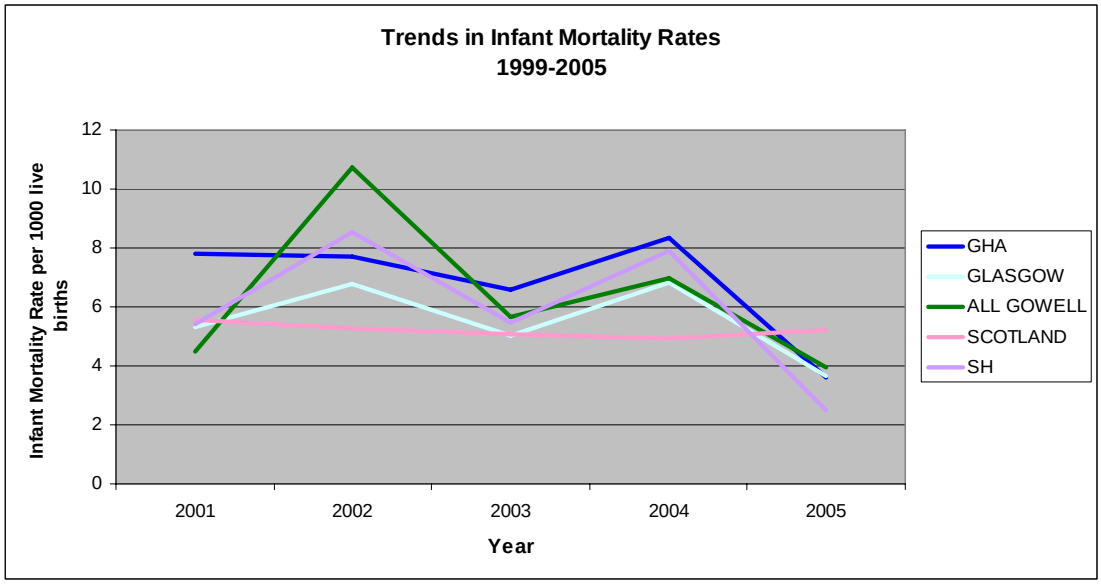


Figure 3.19

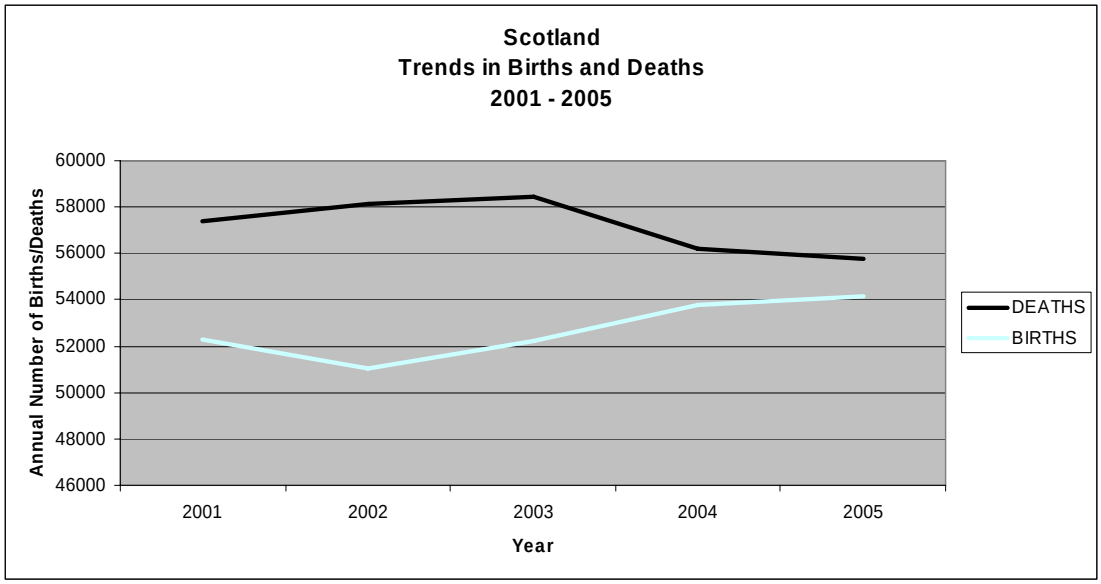


Trends in Births and Deaths

Long term changes in the annual numbers of births and deaths can alter the population size and structure of an area. Figures 3.20 to 3.24 show the trends in the numbers of live births and deaths for each area from 2001 to 2005.

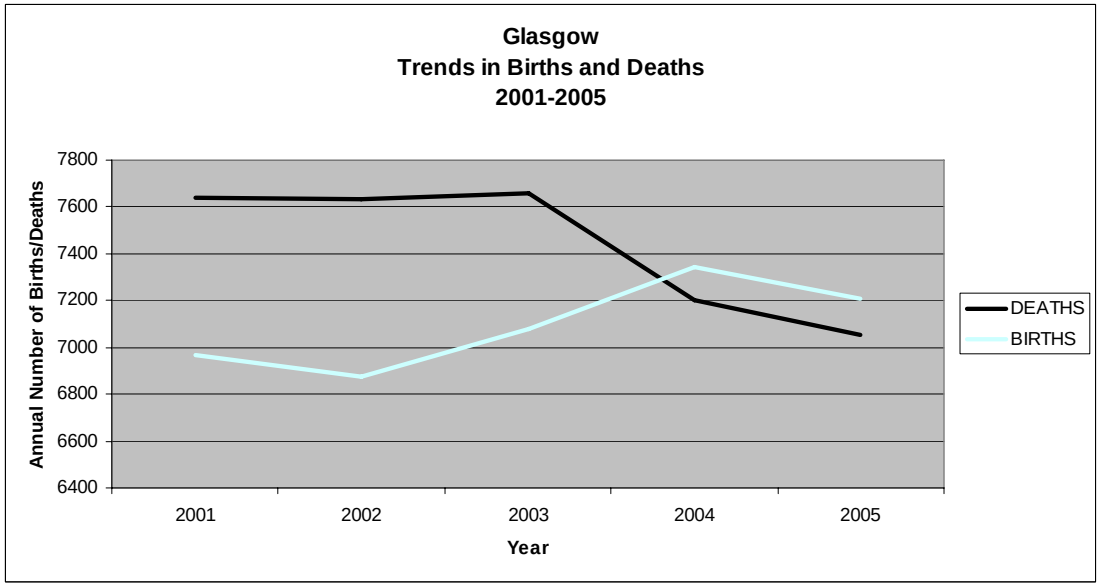
In Scotland there have not been more annual births than deaths since 1994 [11]. However, as Figure 3.20 shows, the gap is closing and recently the GRO(S) Annual Review reported that in 2006 there were in fact more births than deaths [11]. This is due not only to decreasing death rates but also increasing fertility rates.

Figure 3.20



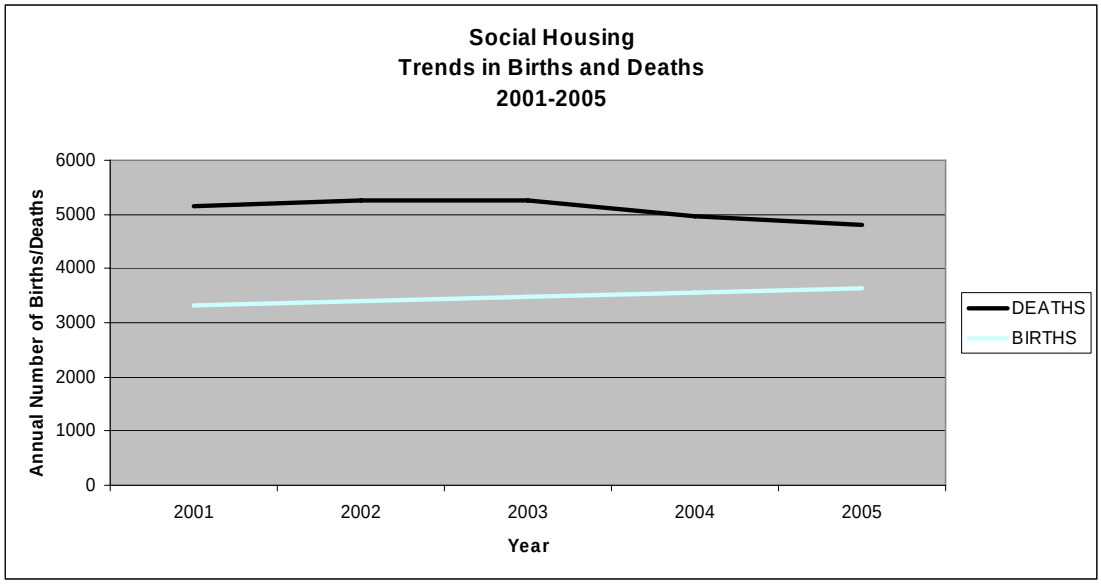
In Glasgow there have been more annual births than deaths since 2004 (see Figure 3.21).

Figure 3.21



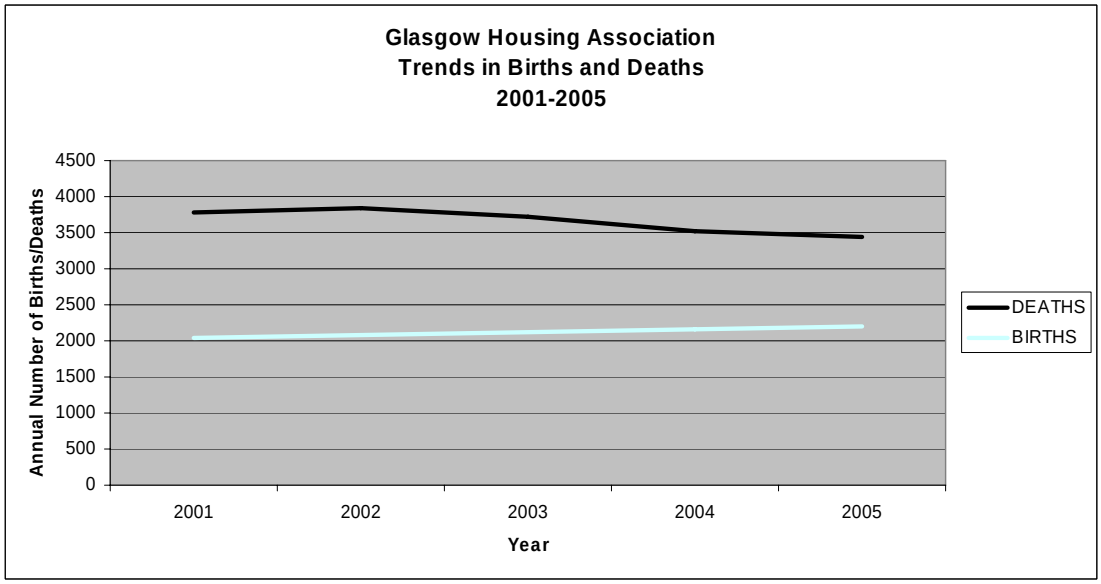
The trends in SH are different to those of Glasgow, with consistently higher annual deaths than births, despite a steadily increasing fertility rate (see Figure 3.22).

Figure 3.22



A similar trend is apparent in GHA areas (see Figure 3.23), with the lines converging slowly.

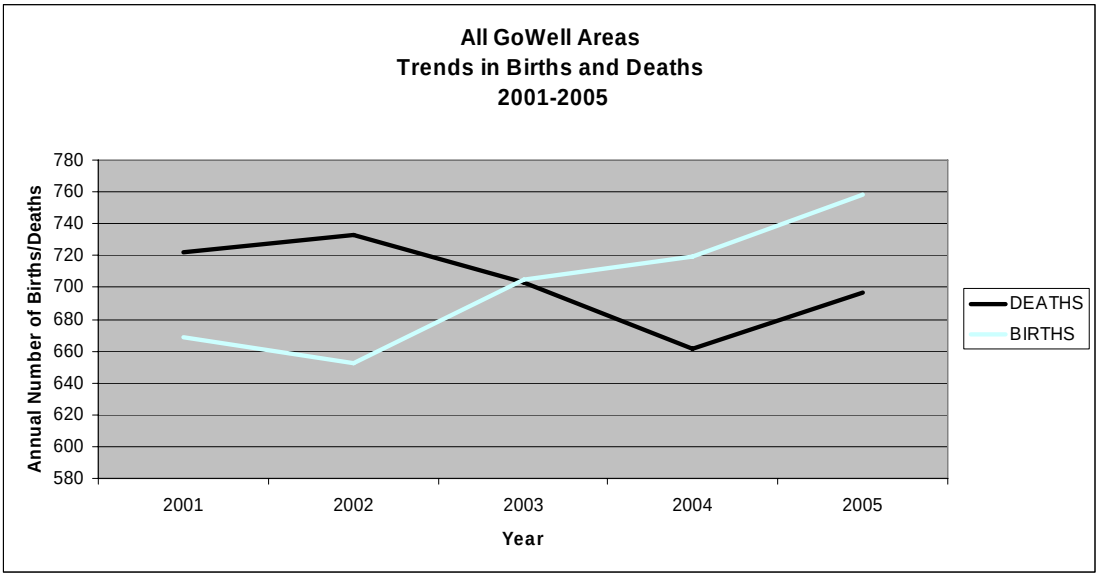
Figure 3.23



In GoWell areas there has been a dramatic cross-over in the annual numbers of births and deaths (see Figure 3.24). From 2002 the number of births increased sharply and in 2003 there were more births than deaths, also due to decreasing numbers of deaths. The influx of asylum seekers to several of the GoWell areas, notably the Red Road

Core area, Shawbridge, Scotstoun and Sighthill, may have boosted the number of births [4].

Figure 3.24



Comments and Summary

- The population of all GoWell areas comprises 9% of the total Glasgow population.

- The GoWell areas (and area types) vary in population size from 700 to 10,000.

- As seen in other deprived areas, the GoWell population has a relatively large proportion of children. However, each area has a reasonably distinct population structure.

- Fertility rates in GoWell areas are rising at a faster rate than any other area looked at in this report. The Transformational Regeneration areas make up a large proportion of the total number of births in GoWell areas.

- All cause mortality rates in the Local Regeneration areas are substantially higher than other GoWell areas. All GoWell areas have a higher mortality rate than the Glasgow average.

- Annually, the number of births exceeds the number of deaths in GoWell areas.

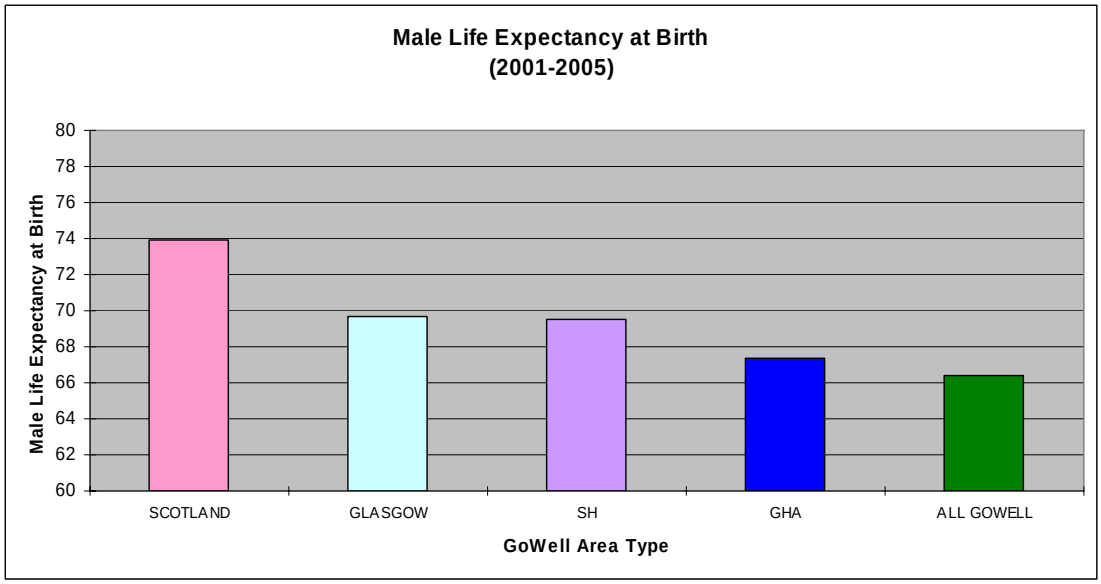
4. Life Expectancy

Life expectancy estimates the average number of years a person will survive from birth according to current mortality rates. It is, therefore, a useful proxy indicator of the overall health of a population. The life expectancy figures for each area presented here are derived from total mortality and population data from the five year period from 2001 to 2005 for males and females separately. Trends in life expectancy are shown from 2001 to 2005. Figures for each GoWell area are not shown due to the unreliability of small numbers when calculating life expectancy.

NB. Please note the different y-axis scales when comparing male and female life expectancy graphs.

As shown in Figure 4.1 male life expectancy at birth in Glasgow is just under 70 years – four years less than the figure for Scotland as a whole. Male life expectancy in the GoWell areas is 66 years – four years less than Glasgow and eight years less than Scotland. 60% of 15 year old boys will survive to 65 in GoWell areas compared to almost 70% in Glasgow and 80% in Scotland. Figures showing data for the percentage of 15 year old boys and girls surviving to 65 are shown in Appendix I. The differences in female life expectancy, although present, are not as obvious (see Figure 4.2).

Figure 4.1



The gap between male and female life expectancy in Scotland is approximately four years. In Glasgow the gap is seven years. In GoWell areas men can expect to live for 10 years less than women.

Figure 4.2

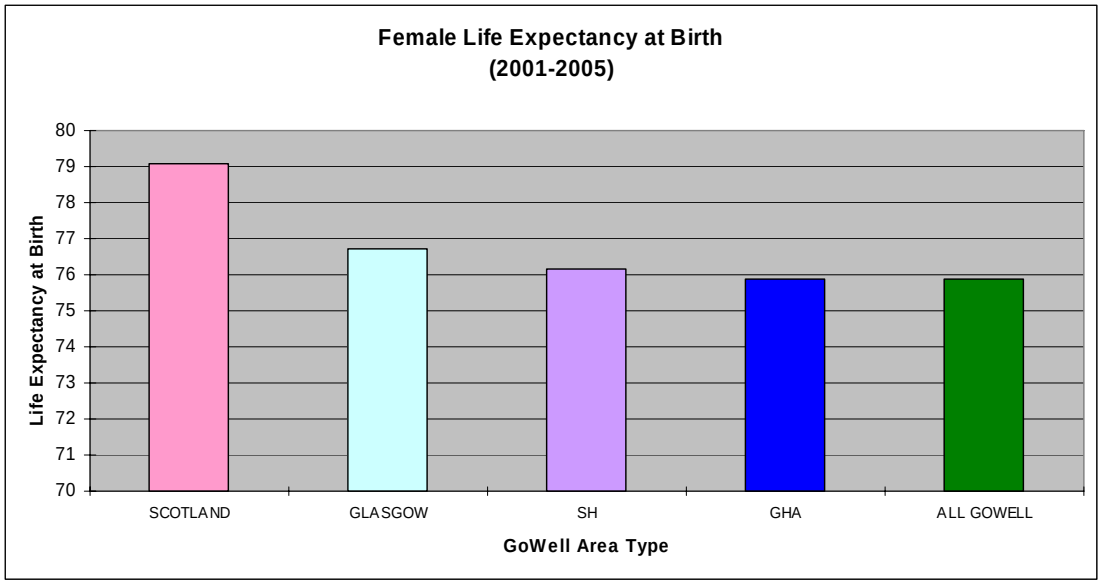


Figure 4.3 and 4.4 show the trends in male and female life expectancy from 2001 to 2005, respectively. Male life expectancy in all areas is seen to be increasing. There appears to be a convergence of the trend lines, with Glasgow beginning to show signs of catching up with Scotland, with SH and GHA following suit. Figure 4.4 shows that life expectancy among female residents of the GoWell areas fell between 2004 and 2005. However, this decrease is not statistically significant and year by year changes in life expectancy should be interpreted with caution[iii].

[iii] Note that life expectancy estimates are usually presented as aggregated measures over a number of years (as is the case in Figures 4.1 and 4.2, for example). Trends in single-year estimates are prone to fluctuation among smaller populations should, therefore, be interpreted with caution.

Figure 4.3

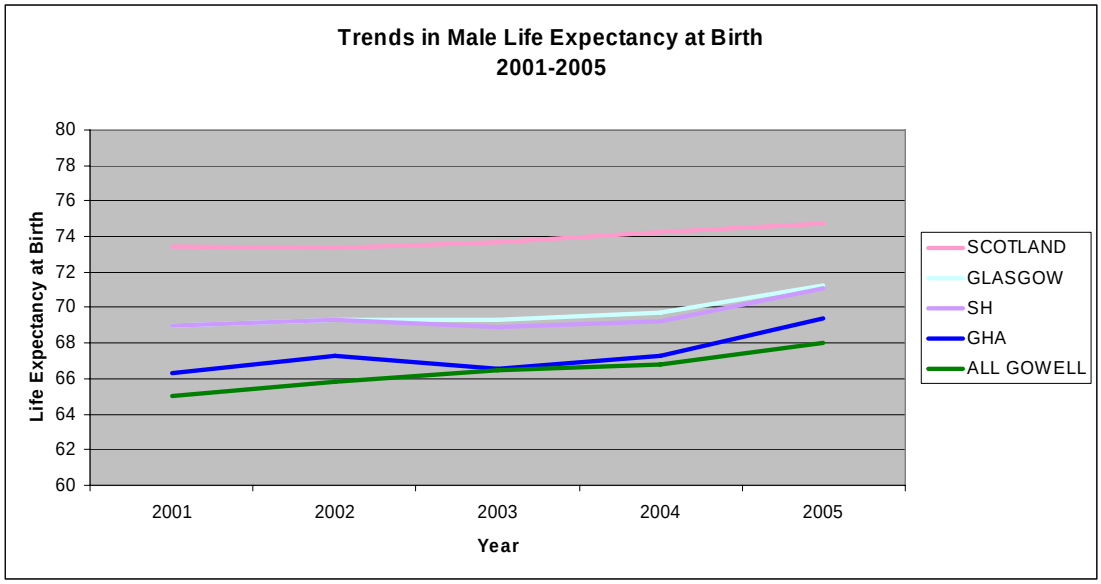
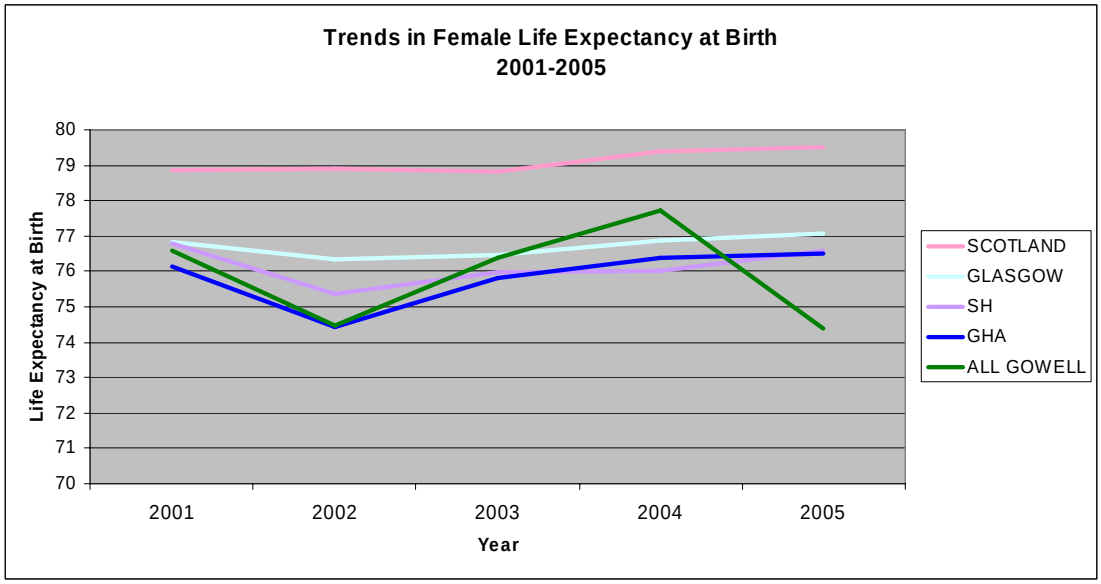
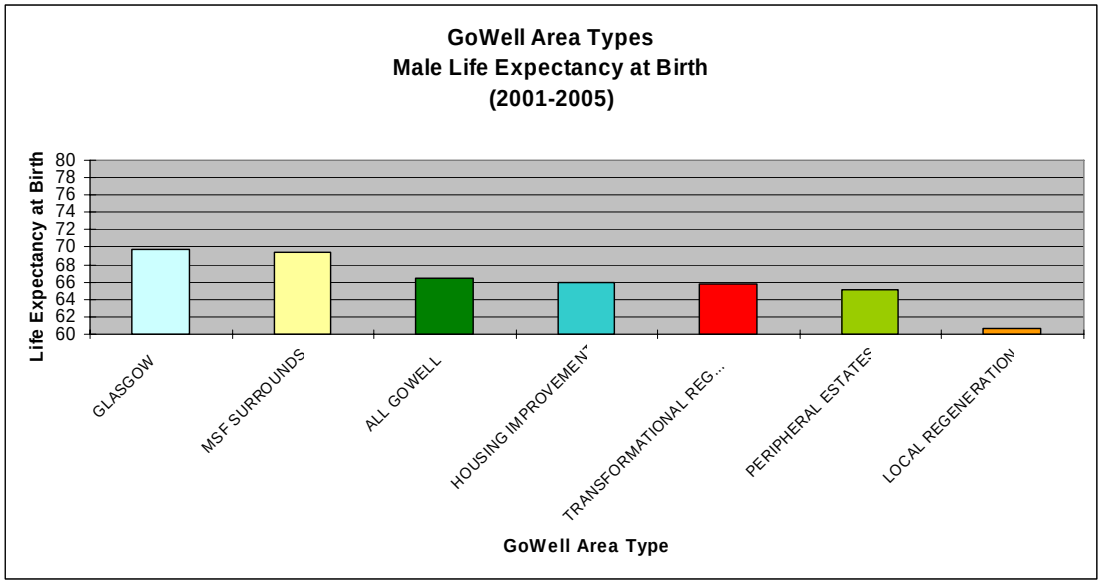


Figure 4.4



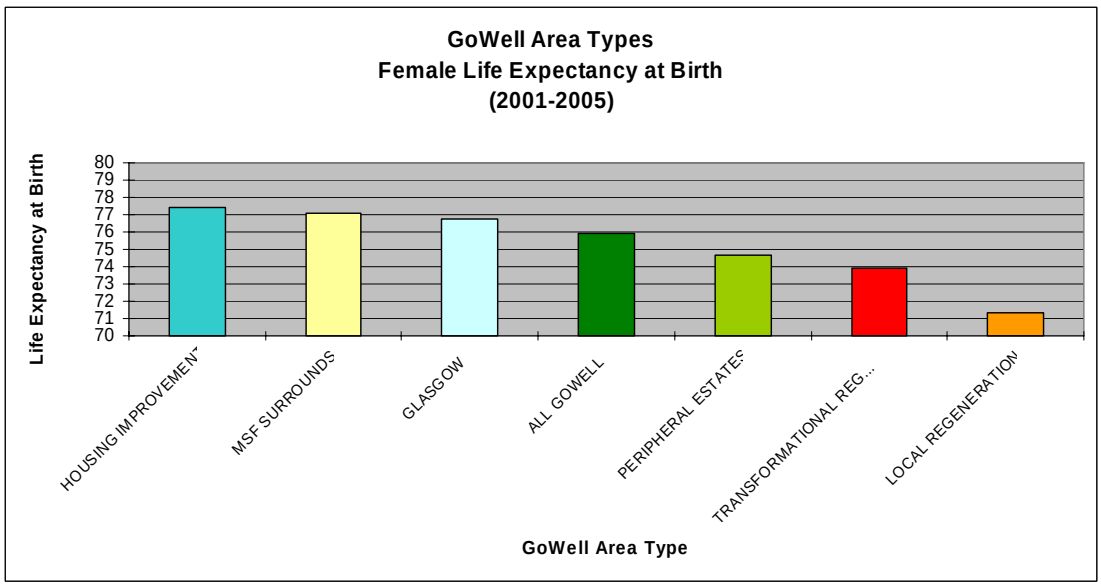
Within the GoWell area types there is a gap of more than eight years between the highest male life expectancy (MSF Surrounds, 69 years) and the lowest (LR, 61 years). Male life expectancy at birth in the other three area types is between 65 and 66 years (see Figure 4.5). See Appendix I for the percentages of 15 year old boys and girls surviving to 65 in each area type.

Figure 4.5



Surprisingly, female life expectancy in HI and MSF Surrounds areas, at around 77 years, is similar to that of Glasgow as a whole (see Figure 4.6). Unfortunately, the LR areas again compare poorly with an average female life expectancy of just 71 years.

Figure 4.6



Comments and Summary

- Life expectancy can be used as a general measure of the health of a population. As such, GoWell areas are in a worse state of health compared to Glasgow, and particularly Scotland.

- This is also reflected in the fact that, based on current mortality trends, only around 60% of 15 year-old boys resident in GoWell areas are likely to survive to retirement age.

- The gap between life expectancy for men and women is particularly striking in GoWell areas, where women outlive men by ten years on average.

- Local Regeneration areas have the lowest male and female life expectancies of any area type. The difference between male life expectancy in Local Regeneration and Multi-Storey Flat Surrounds areas is more than eight years.

- The Peripheral Estates, where much of the regeneration work has focussed in the past, do not compare well with the other area types. Males on average live to 65, females to 75.

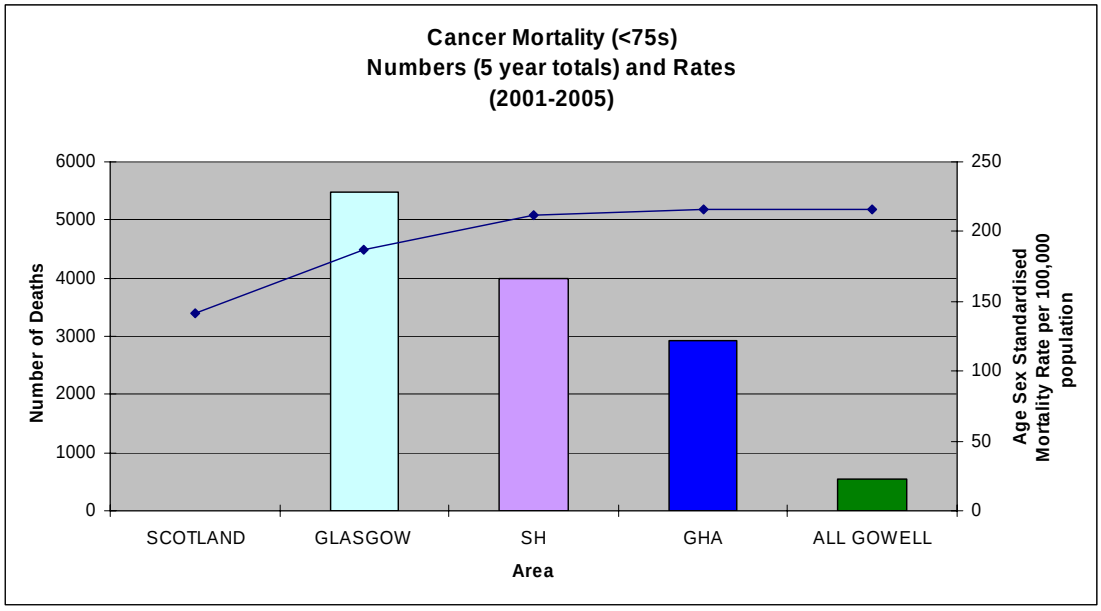
5. Mortality

All Cancers Mortality

The cancer mortality statistics presented in this section are for under 75s only. This is to correspond to the national targets[12]. Cancer mortality data for *all ages* are displayed in Appendix I. Figures below display the total numbers of cancer deaths and the directly age-sex standardised mortality rates for each area for the five-year period from 2001 to 2005.

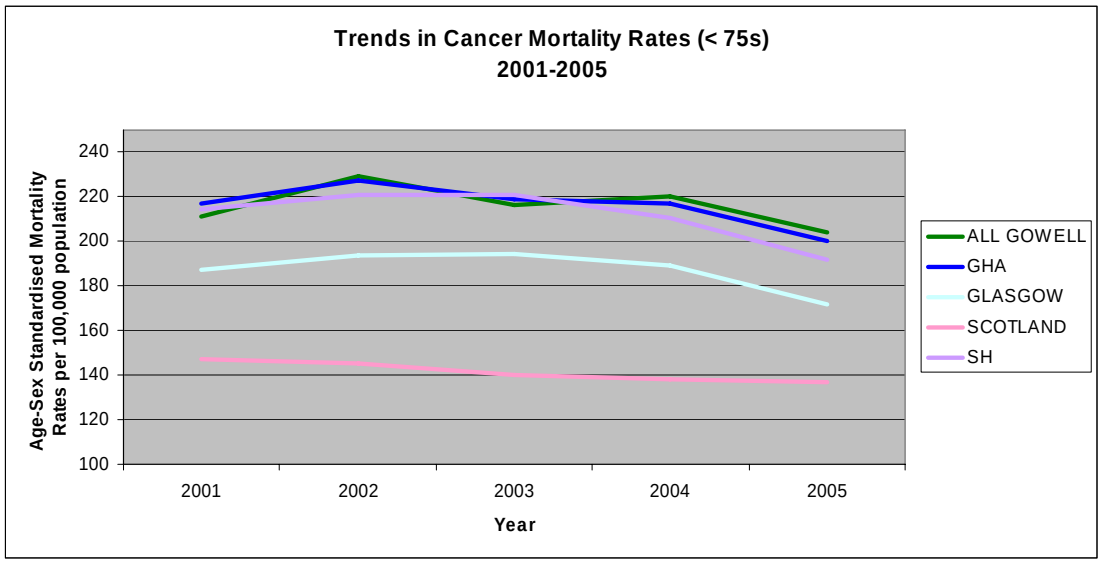
In Scotland the rate of cancer mortality is 142 per 100,000 population. At 187 per 100,000 population, the rate for Glasgow is almost one third higher. SH, GHA and GoWell areas have rates between 211 and 216 deaths per 100,000 population - 15% higher than Glasgow and more than 50% higher than the Scottish average (see Figure 5.1).

Figure 5.1



Cancer mortality over the five year period from 2001 to 2005 has been decreasing in all areas (see Figure 5.2). This is consistent with findings from 'Let Glasgow Flourish' and GRO(S) 'Annual Review of Demographic Trends' [8] [11]. The gap between Scotland and Glasgow appears to be closing. Rates in SH, GHA and GoWell areas are roughly parallel (although higher) to Glasgow over the period.

Figure 5.2



GoWell area types have cancer mortality rates in a range from 179 (TR) to 244 (PE) deaths per 100,000 population, although a large degree of diversity within the area types is also apparent (see Figure 5.4). Despite this, it is obvious that most GoWell areas have higher age-sex standardised mortality rates for cancer in those under 75 than Glasgow as a whole.

Figure 5.3

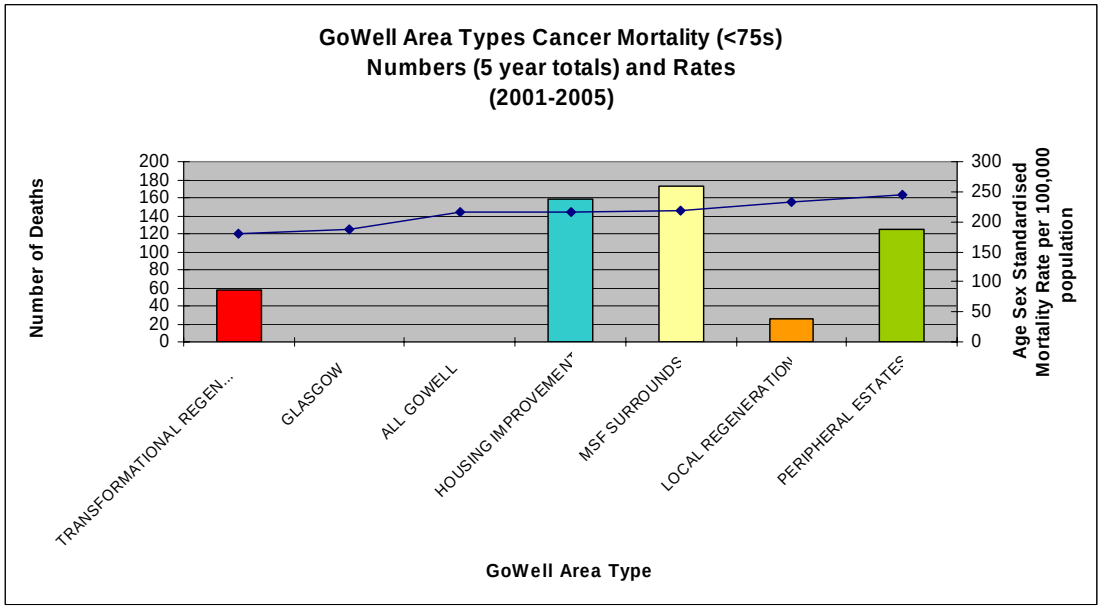
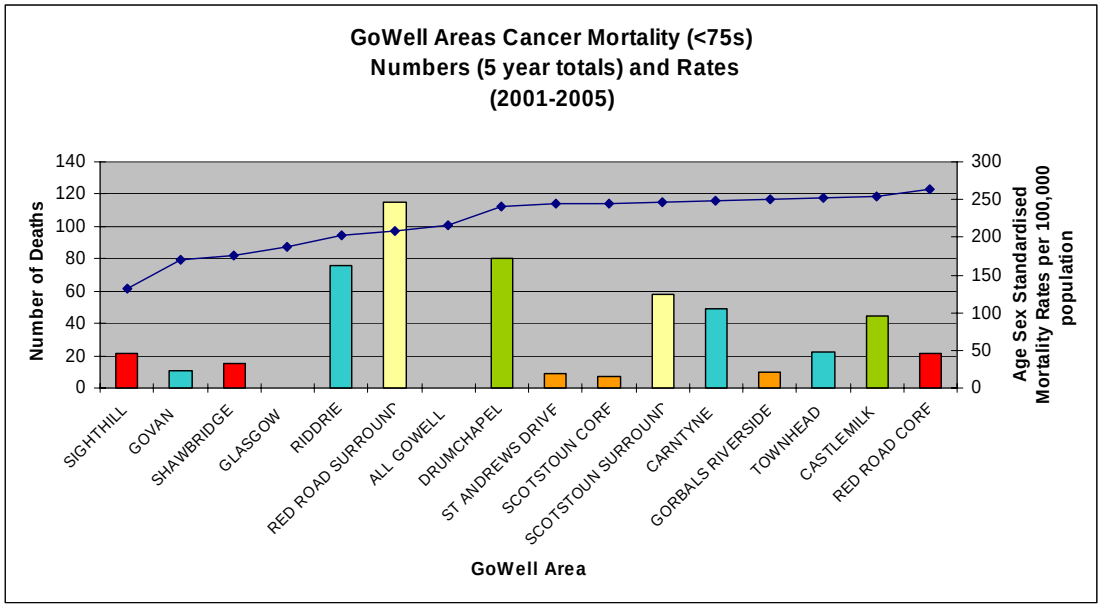


Figure 5.4

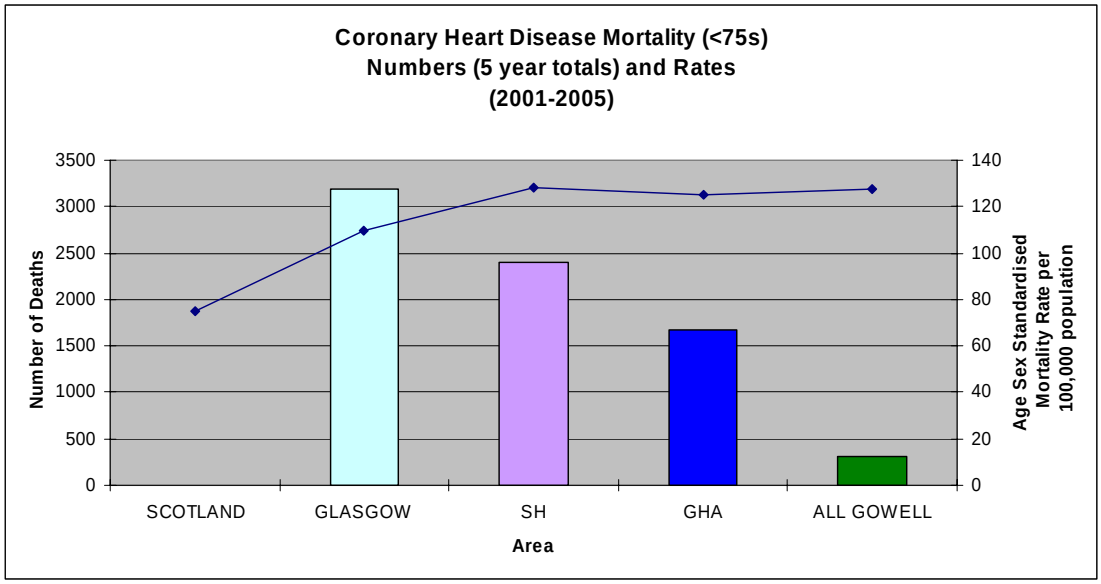


Coronary Heart Disease Mortality

National targets for coronary heart disease (CHD) relate to the under 75s only [12] and this is the age group covered in the following text. Data referring to all age CHD mortality numbers and rates are included in Appendix I. CHD mortality is expressed in Figures below as total numbers of deaths and directly age-sex standardised rates per 100,000 resident population for each area over the five year period from 2001 to 2005.

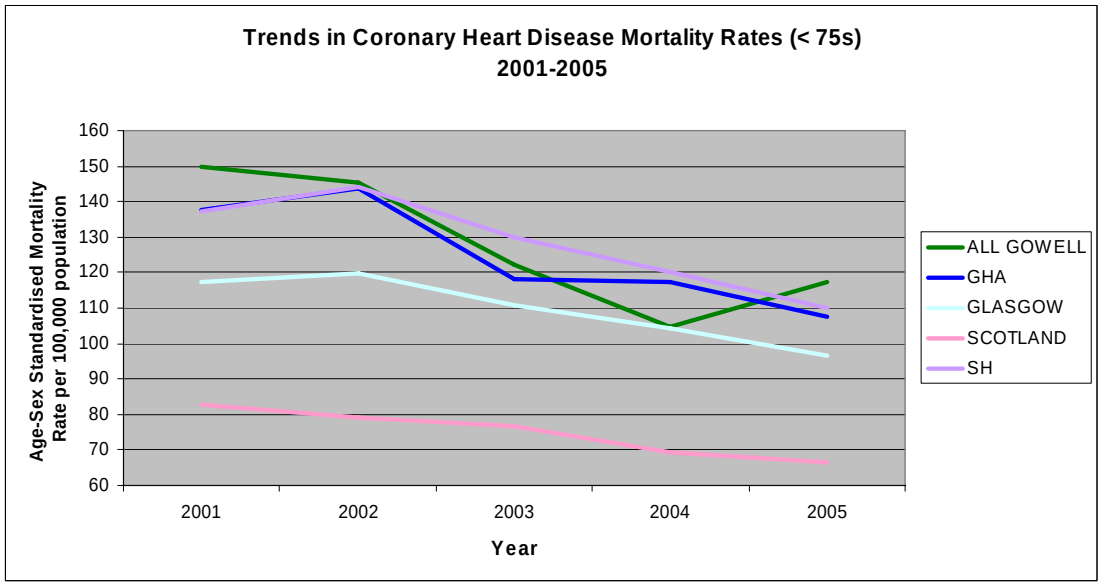
Compared to the Scottish age-sex standardised mortality rate (75 deaths per 100,000 population), the rate for Glasgow is almost 50% higher at 110 deaths per 100,000 population (see Figure 5.5). Rates in SH, GHA and GoWell areas range from 125 to 128 deaths per 100,000 population, around 15% higher than Glasgow and more than two thirds higher than the Scottish average.

Figure 5.5



As shown in Figure 5.6 CHD mortality rates for the under 75s decreased in every area from 2001 to 2005. Trend lines for Glasgow and the areas within Glasgow appear to be converging on the Scotland trend line although a gap is still clearly evident in 2005.

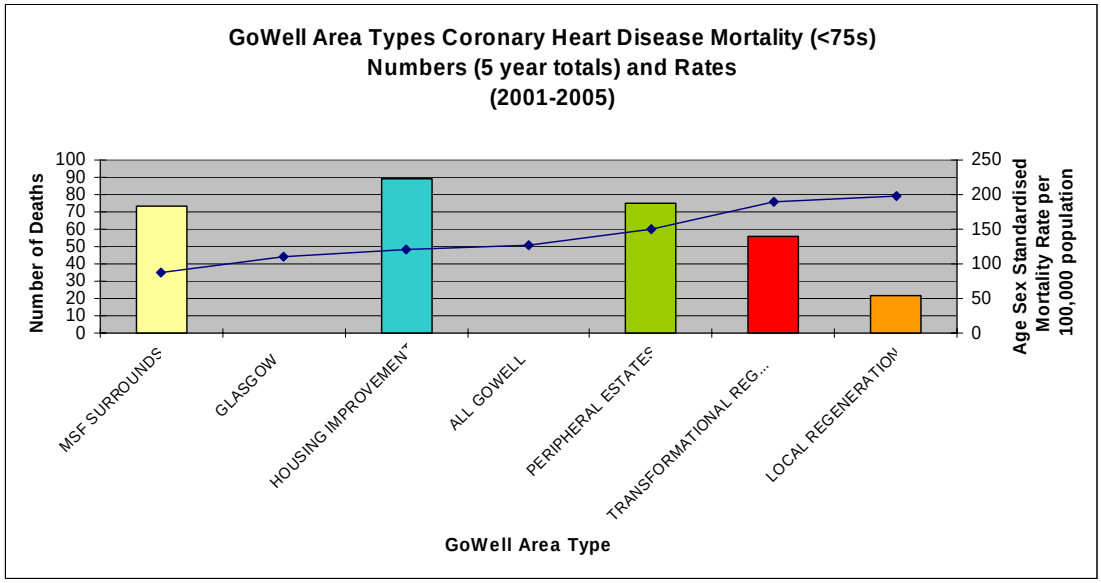
Figure 5.6



Variation among the GoWell area types is considerable, as seen in Figure 5.7. At one end of the range MSF Surrounds areas have an age-sex standardised rate of 87 deaths per 100,000 population while LR areas have the highest rate – more than double MSF

Surrounds – at 199 deaths per 100,000 population. Despite this, because LR areas constitute only a very small population, the average annual number of deaths from CHD is approximately four, representing a very small proportion (<1%) of Glasgow's total annual CHD mortality in under 75s (639 deaths). Data for each GoWell area are displayed in Appendix I.

Figure 5.7



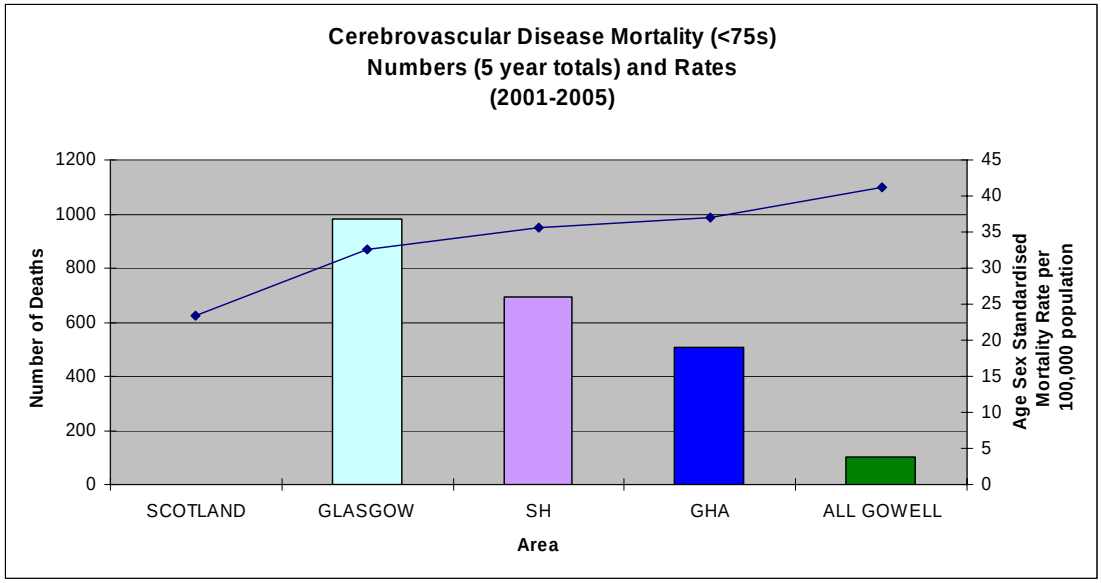
Cerebrovascular Disease Mortality

Cerebrovascular disease (CVD) is an umbrella term that includes strokes, transient ischaemic attacks (TIAs) and other cerebral haemorrhages and infarctions.

National targets for CVD apply to mortality in the under 75s only [11]. In what follows, directly age-sex standardised mortality rates are displayed alongside the total number of deaths for the five year period from 2001 to 2005. Figures referring to all ages data are shown in Appendix I.

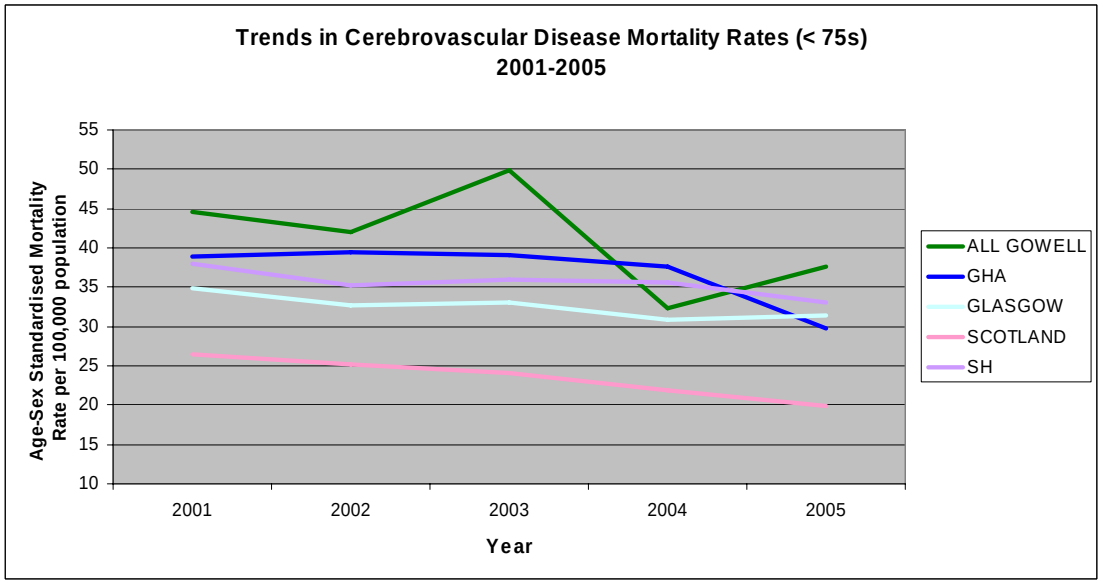
The directly age-sex standardised CVD mortality rate (<75s) in Glasgow is 33 deaths per 100,000 population - more than 40% higher than the Scottish rate (23 deaths per 100,000 population). Rates for SH, GHA and GoWell areas are high compared to the Glasgow average: 36, 37 and 41 deaths per 100,000 population, respectively (see Figure 5.8).

Figure 5.8



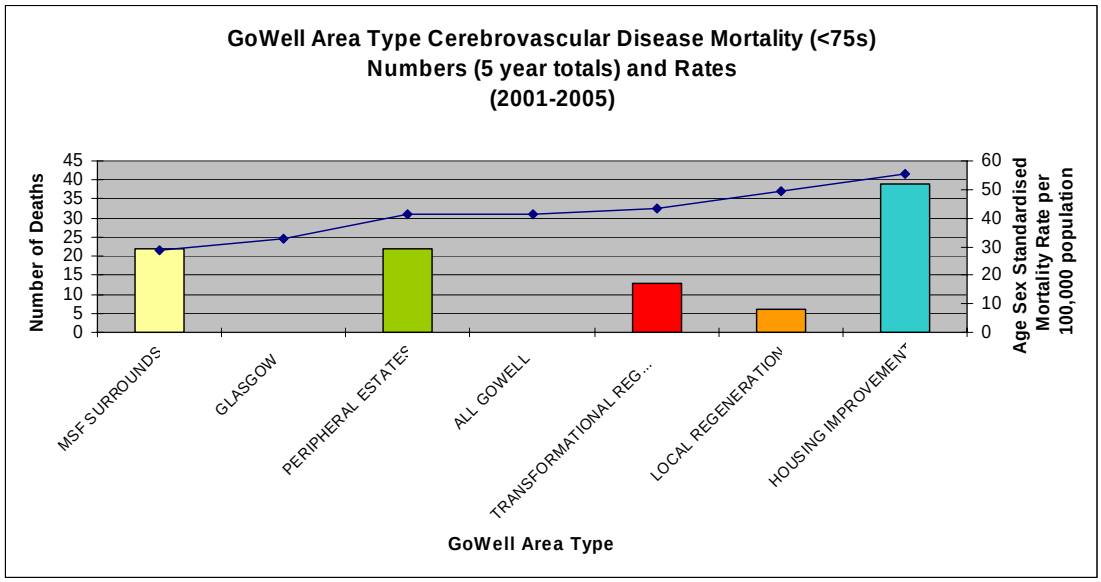
From 2001 to 2005 mortality rates from CVD in the under 75s have decreased in all areas (see Figure 5.9). However, Scotland has seen a faster decrease than Glasgow and the trends are diverging. This widening gap has been reported for previous years up until 2001 in 'Let Glasgow Flourish' [8]. Somewhat surprisingly, CVD mortality rates in SH and GHA areas have decreased from 2004, and in 2005 the rate in GHA areas was slightly lower than that of Glasgow.

Figure 5.9



CVD deaths by GoWell area type are shown in Figure 5.10. As with CHD mortality, MSF Surrounds have the lowest rate (29 deaths per 100,000 population). The other area types have rates in the range 41 to 55 deaths per 100,000 population. The largest burden regarding numbers of deaths can be attributed to the HI areas (approximately 4% of the total annual Glasgow deaths due to CVD in the under 75s). Figures displaying data for each GoWell area separately can be found in Appendix I.

Figure 5.10

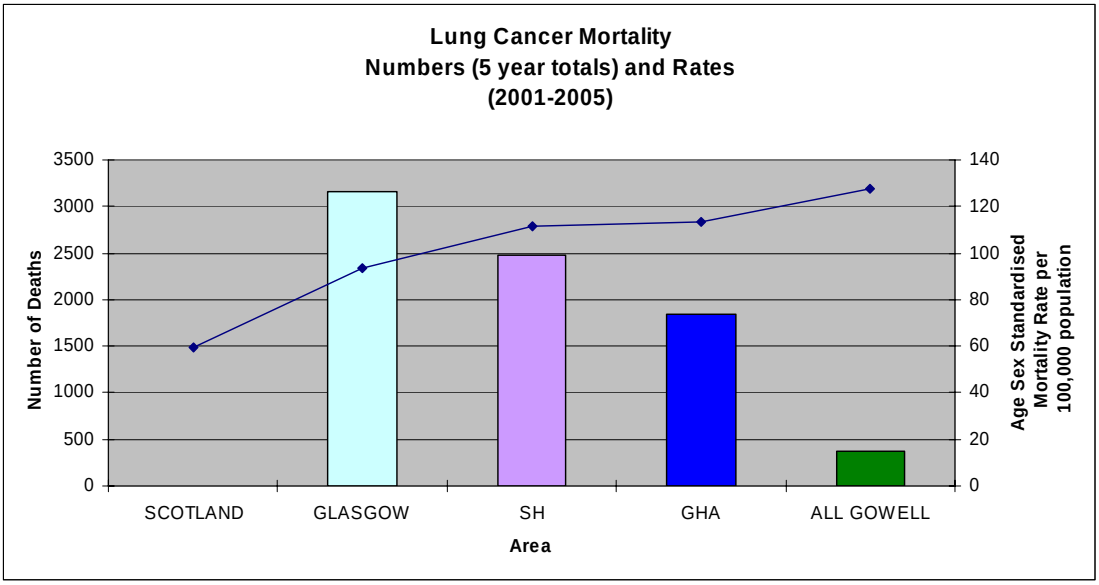


Lung Cancer Mortality

Lung cancer mortality (all ages) over the five year period from 2001 to 2005 is displayed in the Figures below as the total number of deaths and the directly age-sex standardised rate per 100,000 resident population. Trends in the annual rates are shown from 2001 to 2005.

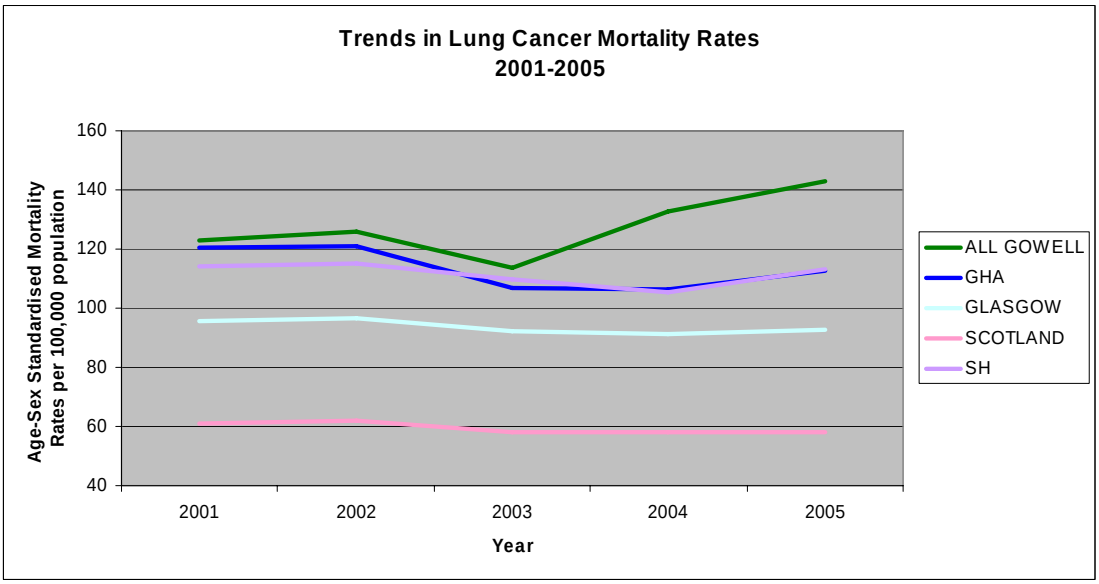
The differences in the directly age-sex standardised mortality rates due to lung cancer between the areas are immediately obvious in Figure 5.11. In comparison to the average Scottish mortality rate (59 deaths per 100,000 population), Glasgow has an excessive rate of 94 deaths per 100,000 population. Glasgow, SH and GHA areas have rates of 111 and 113 deaths per 100,000 population, respectively. However, the worst mortality rate for lung cancer is in GoWell areas: 127 deaths per 100,000 population (more than a third higher than Glasgow and 115% higher than Scotland).

Figure 5.11



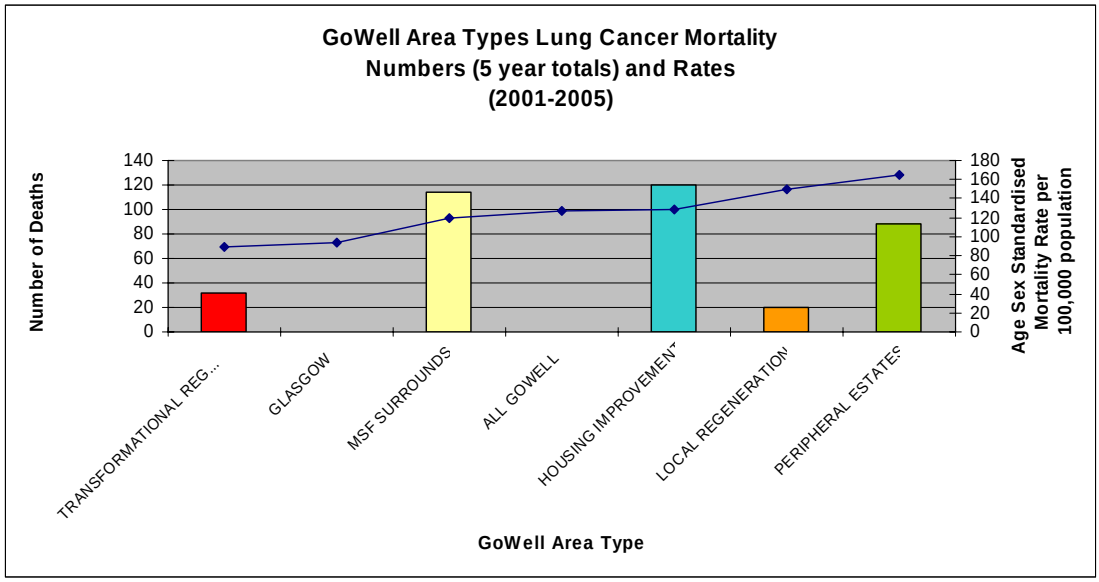
Against the background of overall falling lung cancer mortality rates in Scotland and, to a lesser extent, Glasgow, the rising trend seen in SH, GHA and in particular GoWell areas is worrying. Where some causes of death have seen trends in these areas tend towards the Scottish average, lung cancer mortality rates appear to be diverging, as seen in Figure 5.12.

Figure 5.12



With the exception of TR areas, the lung cancer mortality rates in the GoWell area types range between 120 and 166 deaths per 100,000 population. Figure 5.13 shows the numbers of deaths and mortality rates for each area type. Data for each area is included in Appendix I.

Figure 5.13

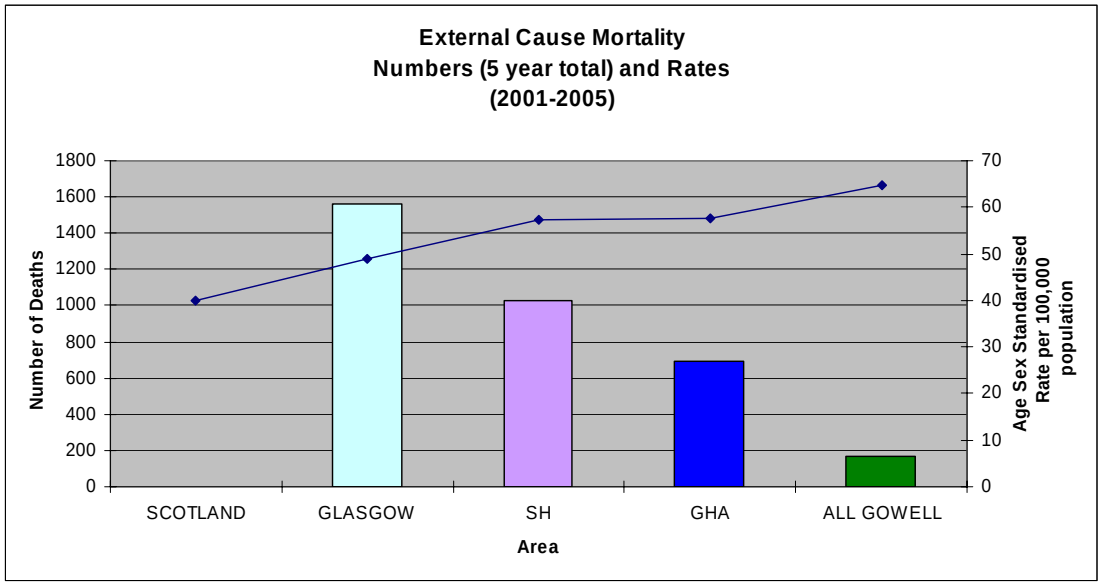


External Cause Mortality

Deaths due to external causes refer to accidents (including transport accidents), falls, poisonings, intentional self harm, assault, and suicide (including undetermined intent). The total number of deaths over the five year period from 2001 to 2005 and the corresponding directly age-sex standardised rate per 100,000 resident population is shown for each area in the Figures below.

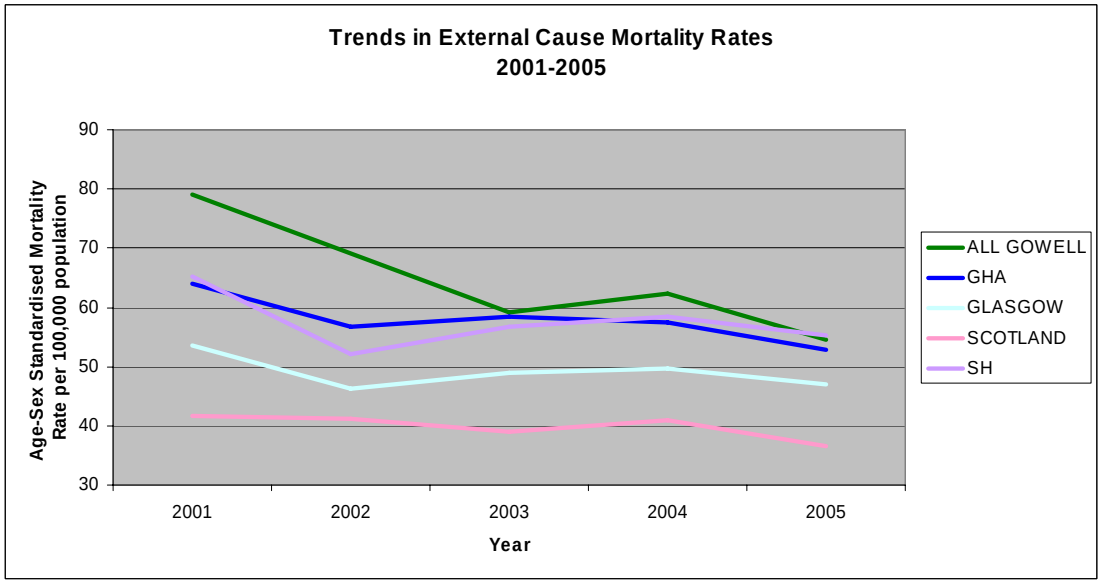
The Scottish average external cause mortality rate is approximately 40 deaths per 100,000 population. With a rate of 49 deaths per 100,000 population, Glasgow compares unfavourably. SH and GHA areas are worse off (57 and 58 deaths per 100,000 population, respectively) but GoWell areas have a substantially higher rate. With 65 deaths per 100,000 population the GoWell area mortality rate is a third higher than that of Glasgow and almost two thirds higher than the Scottish average.

Figure 5.14



Despite the bleak picture created by these statistics the trend in GoWell areas shows sharply decreasing rates from 2001 to 2005, resulting in a closing of the gap with Glasgow and Scotland. Figure 5.15 shows the trend lines for each area over the five year period.

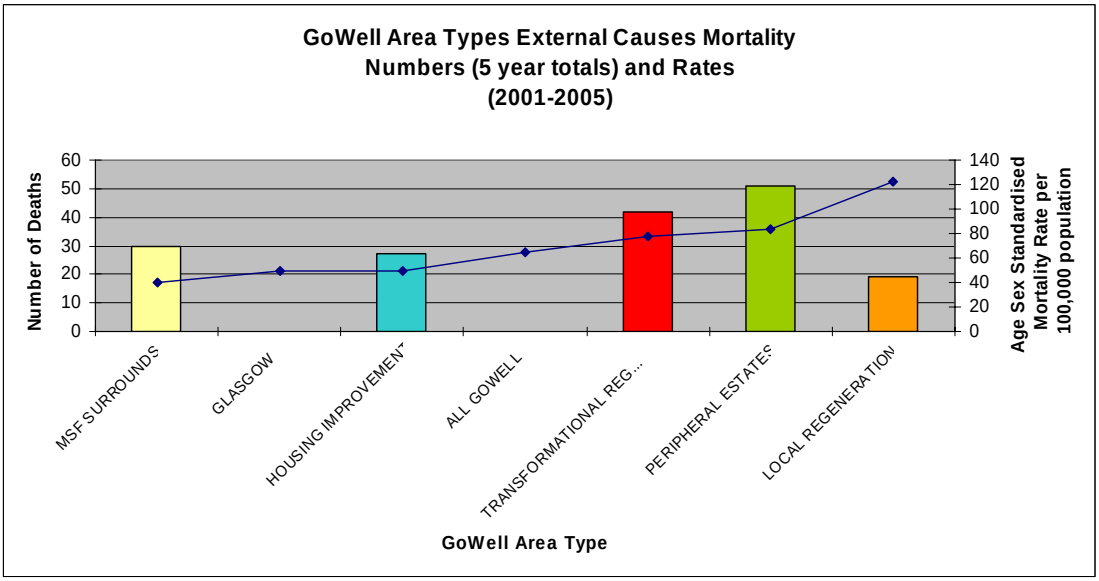
Figure 5.15



Among the GoWell area types there is considerable variation in the mortality rates due to external causes (see Figure 5.16). LR areas again feature at the worst end of the range with a rate of 123 deaths per 100,000 population (based on an average of

four deaths per year). For a graph showing external cause mortality by each GoWell area see Appendix I.

Figure 5.16

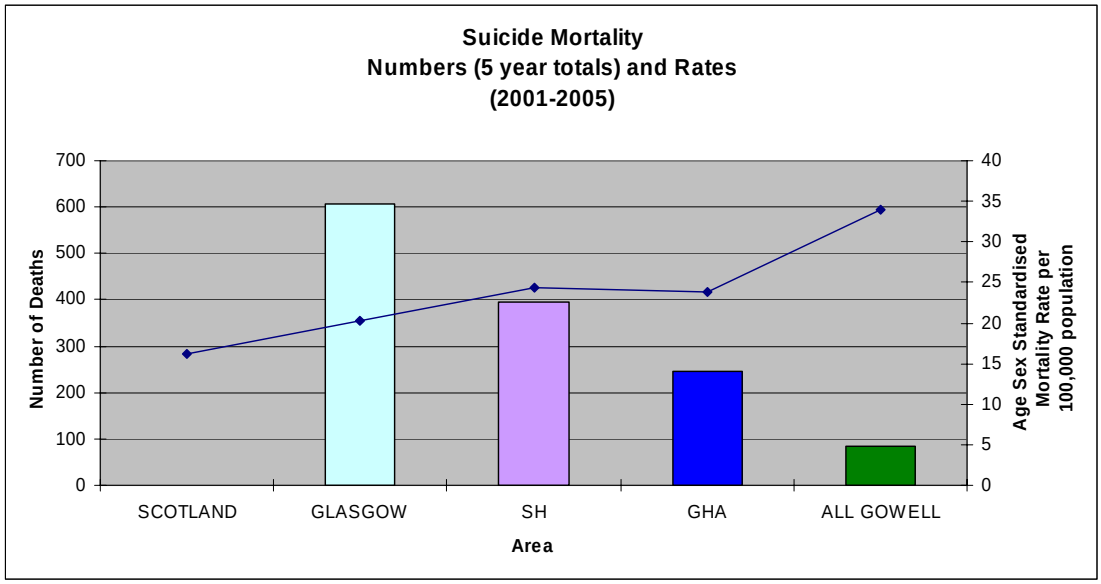


Suicide

Data on deaths due to suicide are presented for each area below as total numbers for the five year period from 2001 to 2005 and directly age-sex standardised rates per 100,000 population. NB Suicide data include deaths where intent could not be determined.

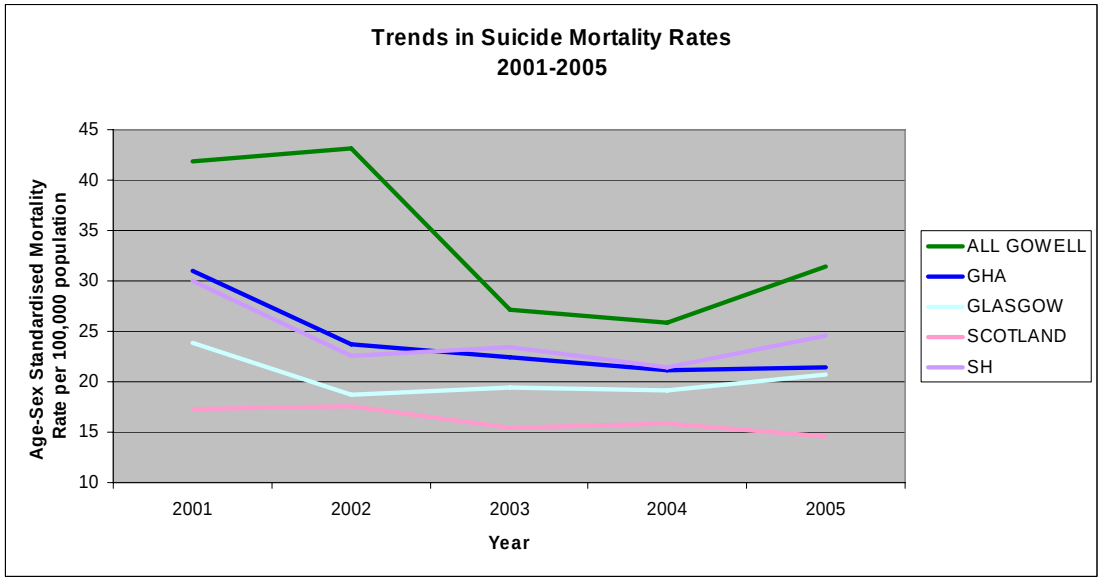
As with external cause mortality, the suicide rate in Glasgow is higher than for Scotland as a whole (20 and 16 deaths per 100,000 population, respectively). Of note is the huge difference between Scottish (and Glasgow) and GoWell area suicide rates. There are 34 deaths due to suicide per 100,000 population in GoWell areas – more than double the Scottish average.

Figure 5.17



Trends from 2001 to 2005 show an overall decrease in the suicide rates in all areas. However, from 2002 the Scottish rate has decreased steadily while a growing gap has been emerging between Scotland and Glasgow. Small numbers have created a 'jaggy' trend line for GoWell areas and interpretation may be difficult. Nevertheless, rates are definitely higher in these area compared to any other.

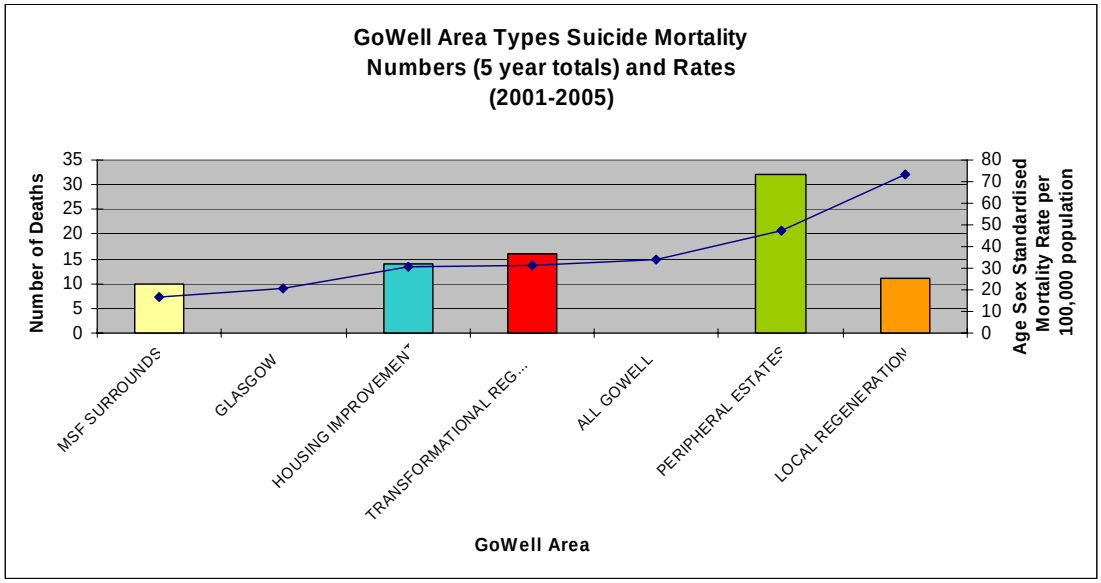
Figure 5.18



Stratified by area type the GoWell suicide pattern is similar to that of external cause mortality (not least because suicide is an 'external cause'). Figure 5.19 shows data for

each area type. Three GoWell areas in particular have very high rates of death caused by suicide. Scotstoun Core area, Townhead and Gorbals Riverside have a mean rate of 100 suicides per 100,000 population. This is in stark contrast with the mean rate of eight suicides per 100,000 population in Carntyne, Shawbridge and Scotstoun Surrounds. Data for each GoWell area separately are included in Appendix I.

Figure 5.19



Summary and Comments

- Mortality rates in the under 75s for cancer, coronary heart disease (CHD) and cerebrovascular (CVD) in SH, GHA and GoWell areas are approximately 15% higher than the average rates in Glasgw – and all at least 50% higher than the Scottish rates.

- Deaths in the under 75s due to cancer, CHD and CVD in all areas shown have decreased over the period from 2001 to 2005.

- The Local Regeneration area type has a relatively high rate of mortality due to cancer, CHD and CVD in under 75s compared to the other types.

- Surprisingly, the area type with the highest CVD mortality rate (<75s) is the Housing Improvement type. Considering each area separately, the Housing Improvement areas of Riddrie and Townhead have high rates but Govan actually has a CVD mortality rate lower than Glasgow.

- Lung cancer mortality rates in GoWell areas are strikingly higher than Glasgow, and particularly Scotland. Moreover, trends over time show a divergence of death rates between Scotland and SH, GHA and GoWell areas.

- The most obvious indicator of the inequalities that exist between Glasgow (and Scotland) and the GoWell areas is the rate of mortality due to suicide. Three GoWell areas in particular have high suicide rates. Gorbals Riverside, Townhead and Scotstoun Core areas recorded a total of 17 suicides from 2001 to 2005. At an average of three (3.4) suicides per year (out of a total population of 3,900) almost one out of 1,000 people committed suicide each year in these areas. The equivalent figure for Scotland was one in 6,000.

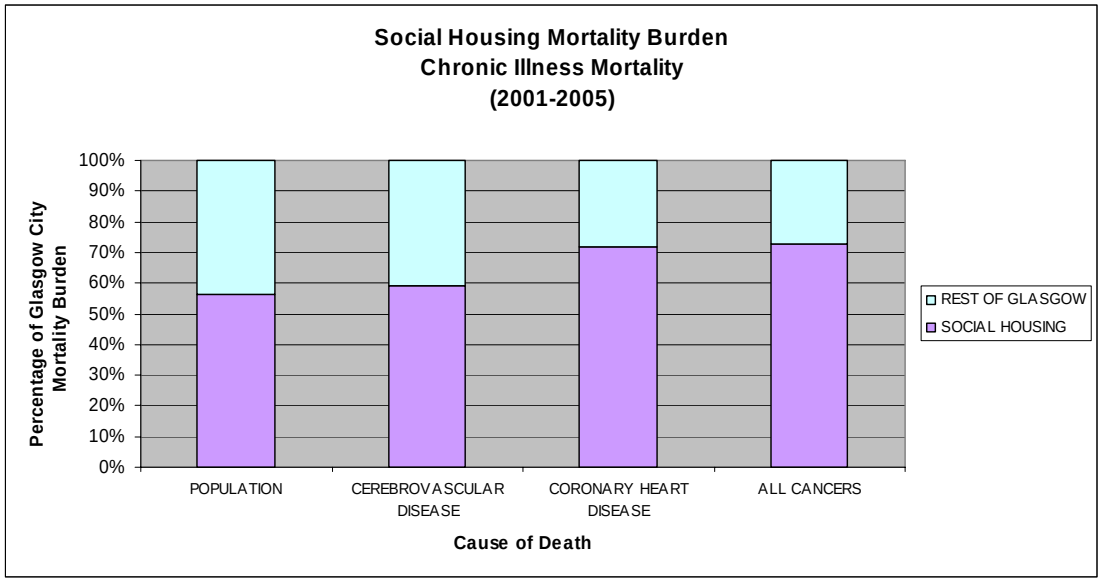
6. Glasgow Mortality Burden

Directly age-sex standardised mortality rates are useful for comparing areas with each other. What they cannot convey is the proportion of Glasgow deaths (or 'mortality burden') that are attributable to each specific area. This information is helpful in determining the kind of impact that intervention in small areas could have on the whole population of Glasgow. The Figures below show the proportion of the population of Glasgow that is resident in SH, GHA and GoWell areas alongside the proportion of the total Glasgow deaths that occur in these areas. Coronary heart disease (CHD), cerebrovascular (CVD) and cancer deaths are for all ages, not only the under 75s, as shown above. Cause of death is stratified into chronic illness and behavioural-related mortality. It is recognised that these two headings are not mutually exclusive but provide a useful distinction in which to view these data.
[NB These Figures do not take into account the age or sex structure of each areas population.]

The Mortality Burden of Social Housing Areas in Glasgow

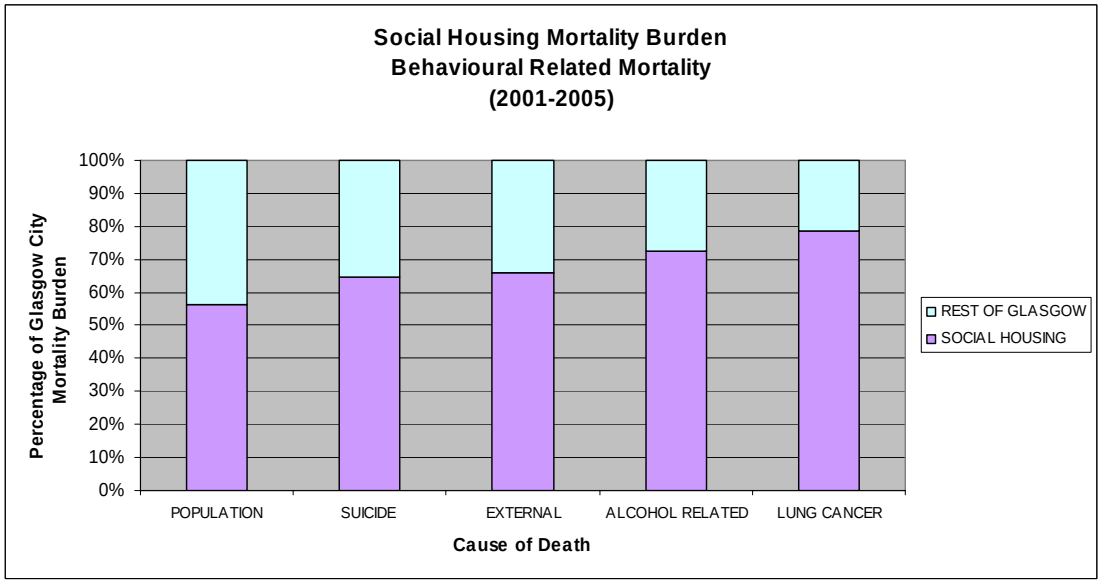
The population that lives at postcodes where there is socially rented accommodation accounts for 56% of the total Glasgow population. Figure 6.1 shows the proportion of Glasgow deaths due to CVD, CHD and all cancers in SH. Most striking are deaths in SH due to CHD and cancer – 72% and 73% of Glasgow deaths, respectively. If deaths in the over 75s were excluded from analysis, 70% of CVD deaths and 75% of CHD deaths would be attributable to SH areas.

Figure 6.1



Behavioural-related mortality in SH as a proportion of Glasgow is displayed in Figure 6.2. Lung cancer deaths in SH attribute almost 80% of the total lung cancer deaths in Glasgow. Considering the population size alone, there are 40% more deaths from lung cancer in SH than would be expected. There is also a disproportionate percentage of alcohol-related deaths occurring in SH areas. Seventy-three per cent of Glasgow's total alcohol-related mortality burden can be attributed to SH areas.

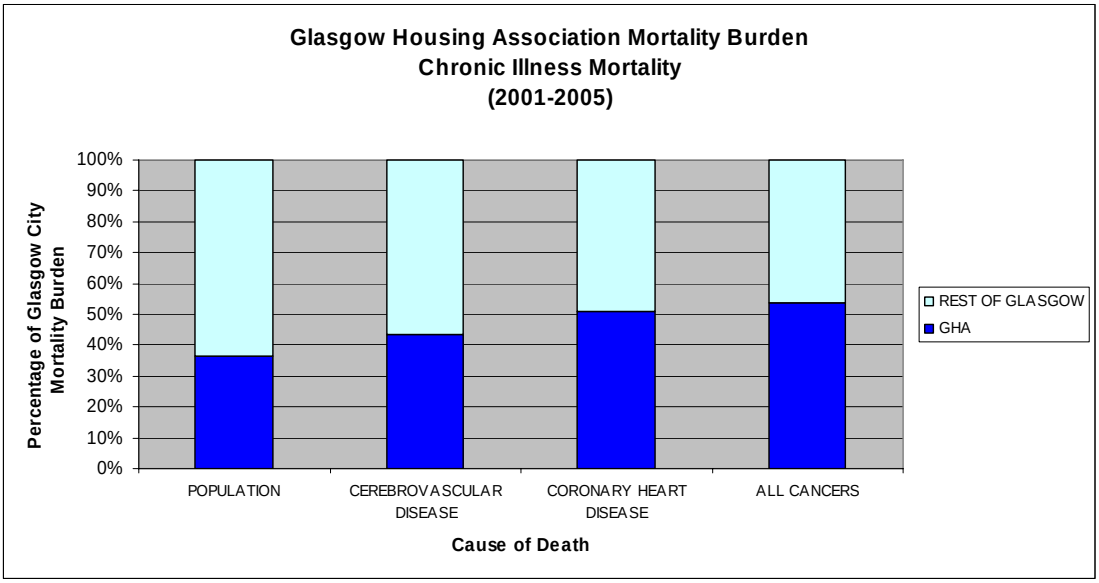
Figure 6.2



The Mortality Burden of Glasgow Housing Association in Glasgow

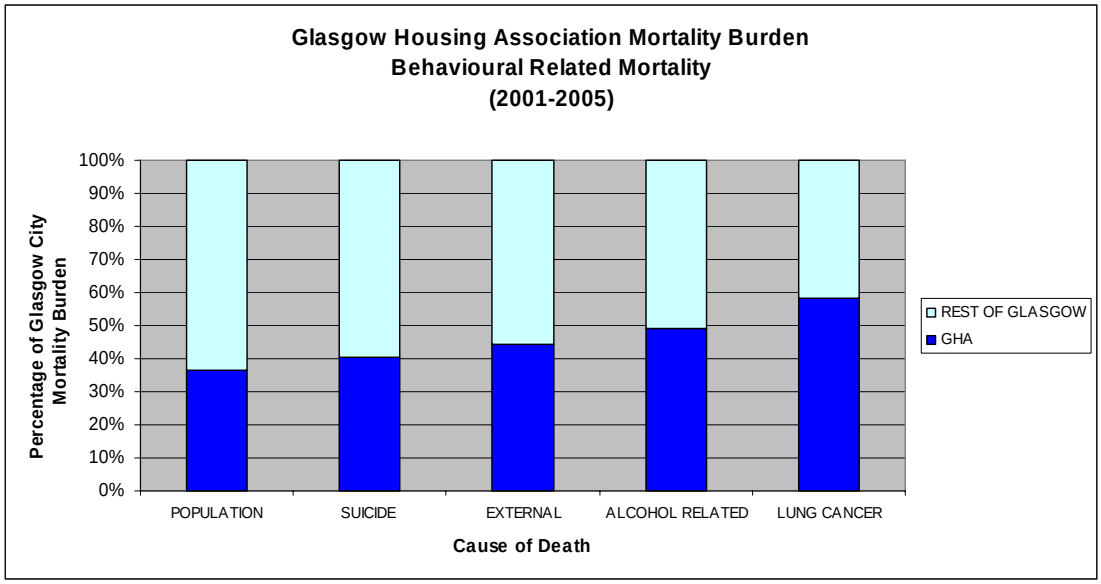
Thirty-seven per cent of the population of Glasgow are resident in postcodes where GHA housing is present. However, 43% of CVD deaths, 51% of CHD deaths and 54% of cancer deaths occur in these areas (see Figure 6.3). Excluding deaths in over 75s, 52% of mortality due to CVD in Glasgow can be attributed to GHA areas.

Figure 6.3



A similar picture of disproportionate deaths is seen for behavioural-related mortality (Figure 6.4). The proportion of lung cancer deaths in particular is very high (58%) compared to the population size (37%).

Figure 6.4



The Mortality Burden of GoWell Areas in Glasgow

Just over 9% of the population of Glasgow live in the GoWell areas. For CHD, CVD and cancer deaths (in all ages) the proportion of deaths in GoWell areas is roughly equal to the size of the population - see Figure 6.5. [NB For reasons of clarity of presentation, the y-axis scale for the GoWell area graphs is smaller (0-30%) than that of SH and GHA graphs.]

Figure 6.5

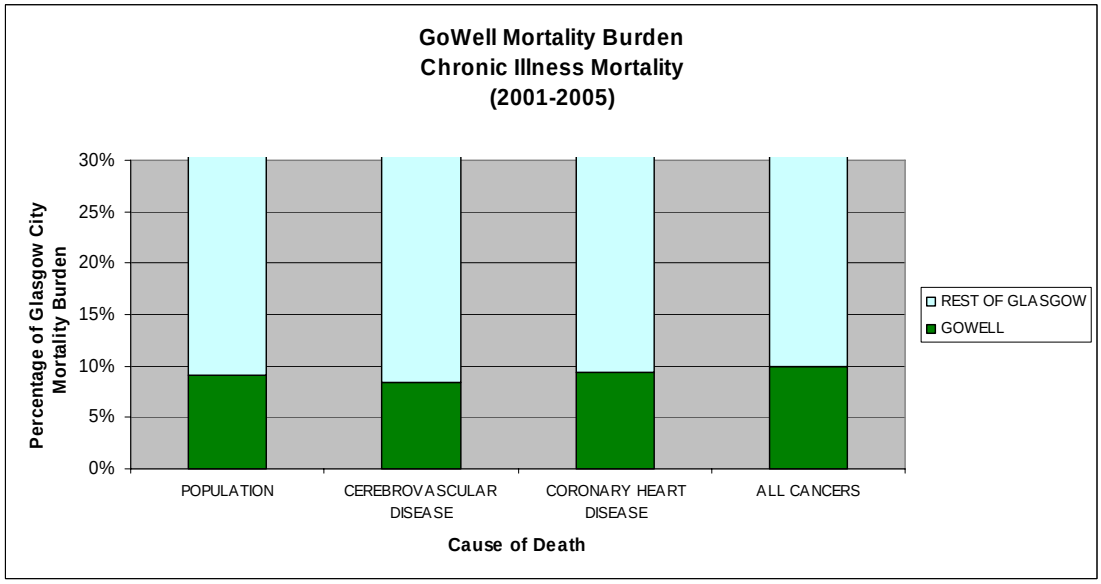
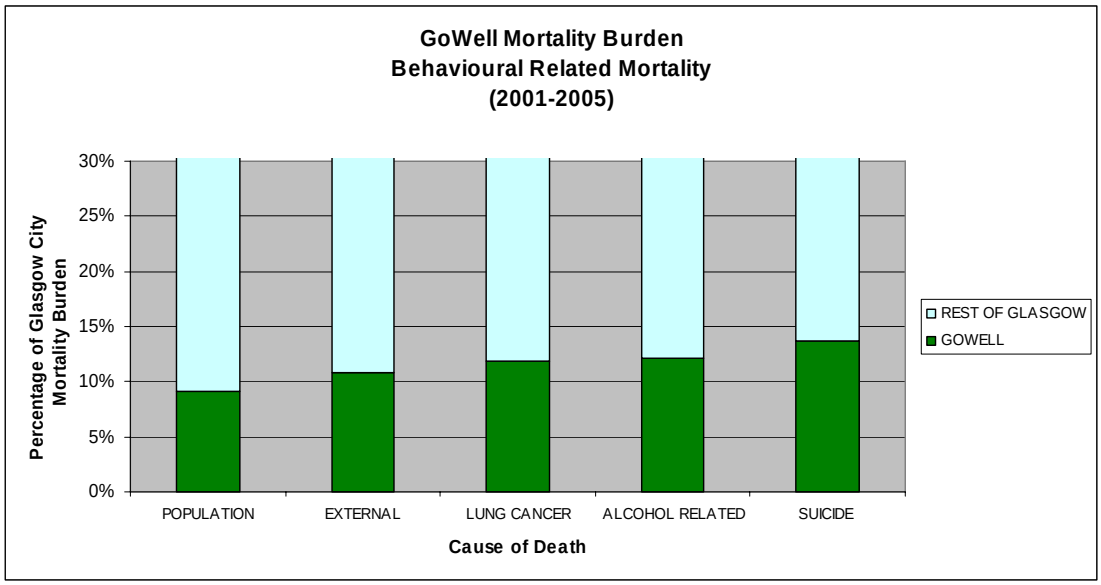


Figure 6.6 shows the proportion of behavioural-related deaths compared to the population size in GoWell areas. There is an apparent difference in the proportional burden on Glasgow of chronic illness and behavioural-related mortality on the part of these areas. Lung cancer and alcohol-related mortality in GoWell areas constitute 12% of the deaths in Glasgow as a whole – one third more than would be expected based on the population size. Moreover, 14% of the Glasgow suicide burden can be attributed to the GoWell areas. This means that there are 50% more suicides in GoWell areas than would be proportionate considering the population size.

Figure 6.6



Comments and Summary

- The mortality burden of SH, GHA and GoWell areas are - for most causes analysed - disproportionate to the population size of these areas.

- Despite making up 56% of the Glasgow population, SH areas contribute almost 73% of the deaths due to cancer, coronary heart disease (CHD) and alcohol. Nearly 80% of Glasgow lung cancer deaths occur in SH areas.

- In GoWell areas the proportional burden of Glasgow deaths due to cerebrovascular disease (CVD), CHD and all cancers roughly matches the proportional population. However, the proportions of lung cancer, alcohol-related and suicide mortalities in Glasgow that can be attributed to GoWell area residents are much higher than the population size would predict.

- Given the disproportionate burden of poor health in the GoWell areas, any improvements in health outcomes in the areas would have a larger than expected impact on overall levels of health in the city as a whole.

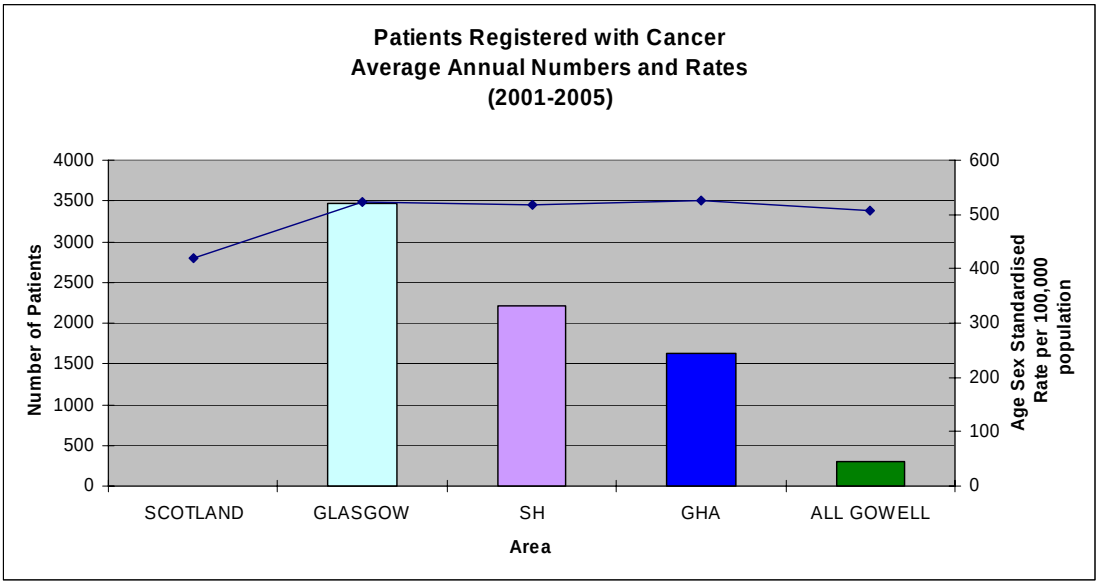
7. Hospitalisation and Injury

Patients Registered with Cancer

In Scotland, the incidence of cancer is recorded and verified by the Scottish Cancer Registry [13]. Average annual incidence of new cancer patients is shown here for the five year period from 2001 to 2005. NB Skin cancer diagnoses are not included in the analysis.

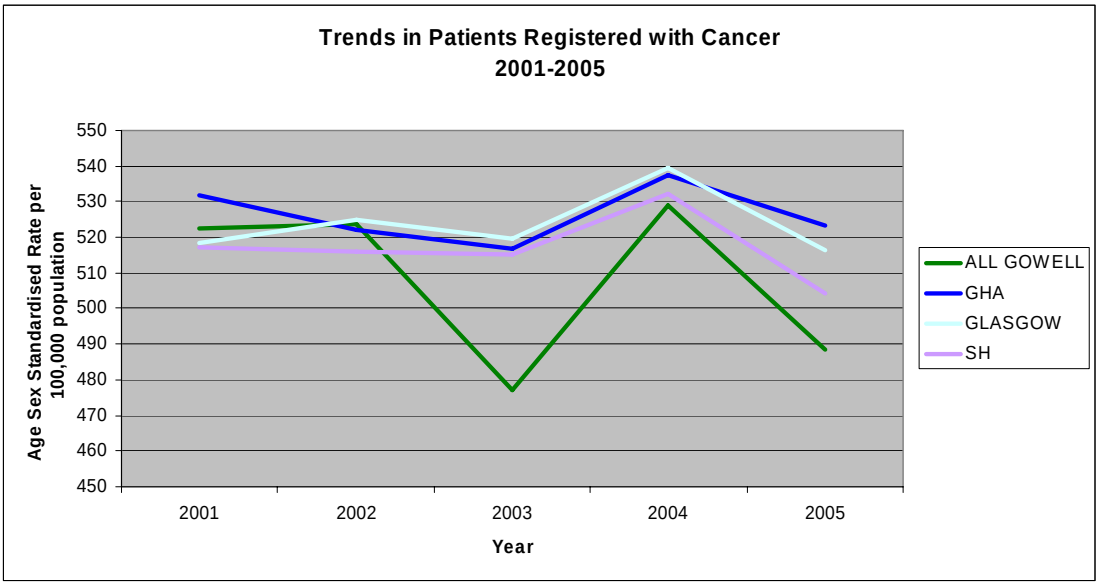
From Figure 7.1 it can be seen that while Glasgow has a higher rate of cancer registrations than Scotland for the period, there is little variation within the Glasgow areas shown. Directly age-sex standardised rates range from 508 to 526 registrations per 100,000 population (compared to the Scottish average rate of 420 registrations per 100,000 population).

Figure 7.1



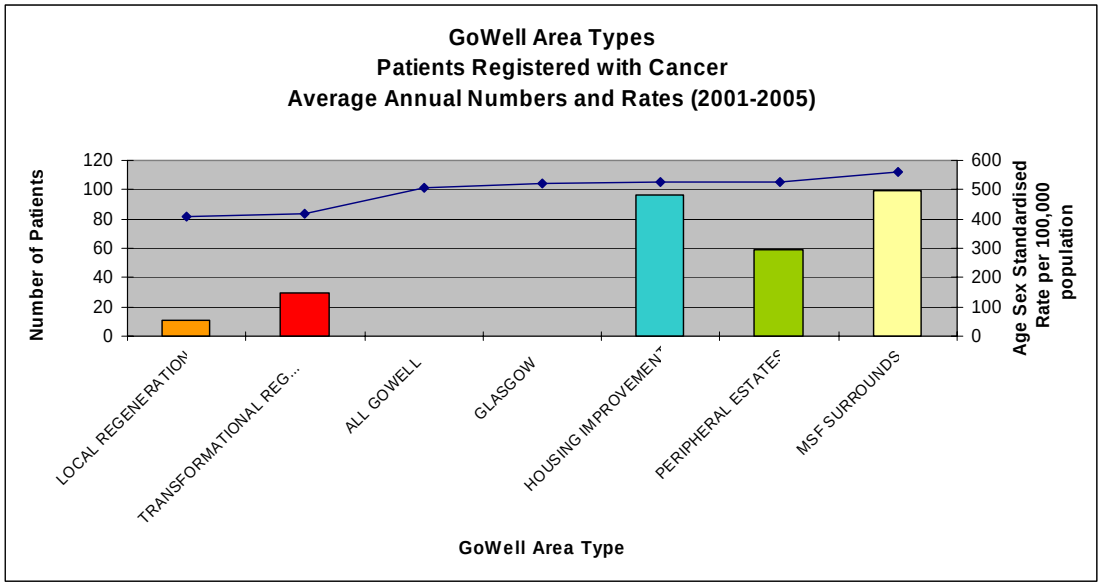
Trends in annual cancer registrations from 2001 to 2005 are shown in Figure 7.2 for Glasgow and the areas within the city. The trend lines are roughly parallel; large fluctuations in the rate for 'All GoWell' areas are likely to be due to small numbers of registrations.

Figure 7.2



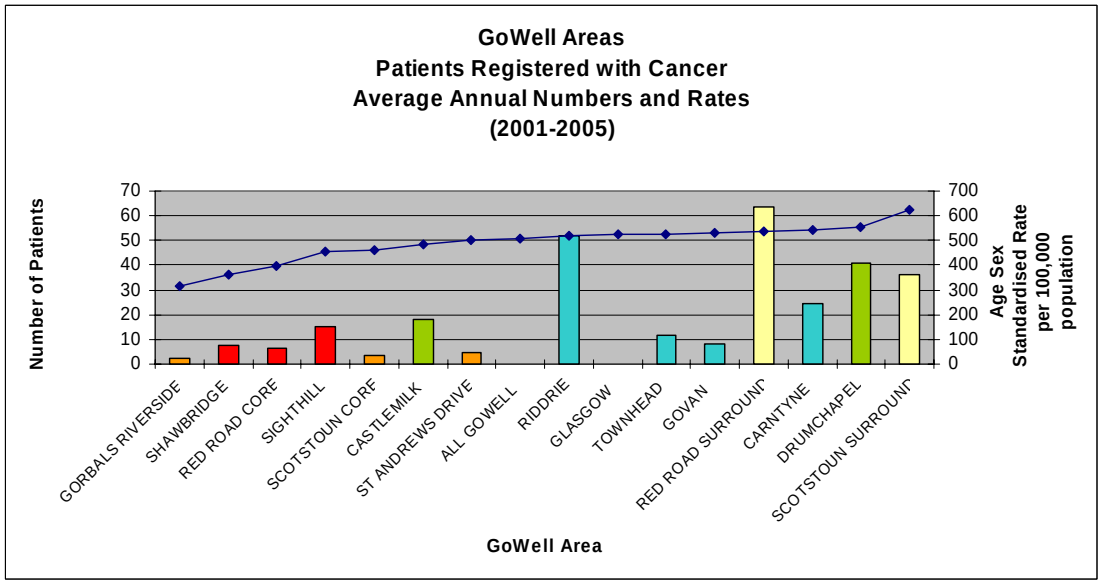
The pattern of incidence of cancer among the GoWell area types is the reverse of many other health indicators. The two areas receiving most regeneration (TR and LR) have the lowest directly age-sex standardised rates of cancer registrations. It is interesting to note, however, that although LR areas have the lowest rate of cancer registrations, they have one of the highest rates of cancer deaths in under 75s (see Figure 5.3).

Figure 7.3



Regarding cancer registrations, each GoWell area is fairly typical of its area type (see Figure 7.4).

Figure 7.4



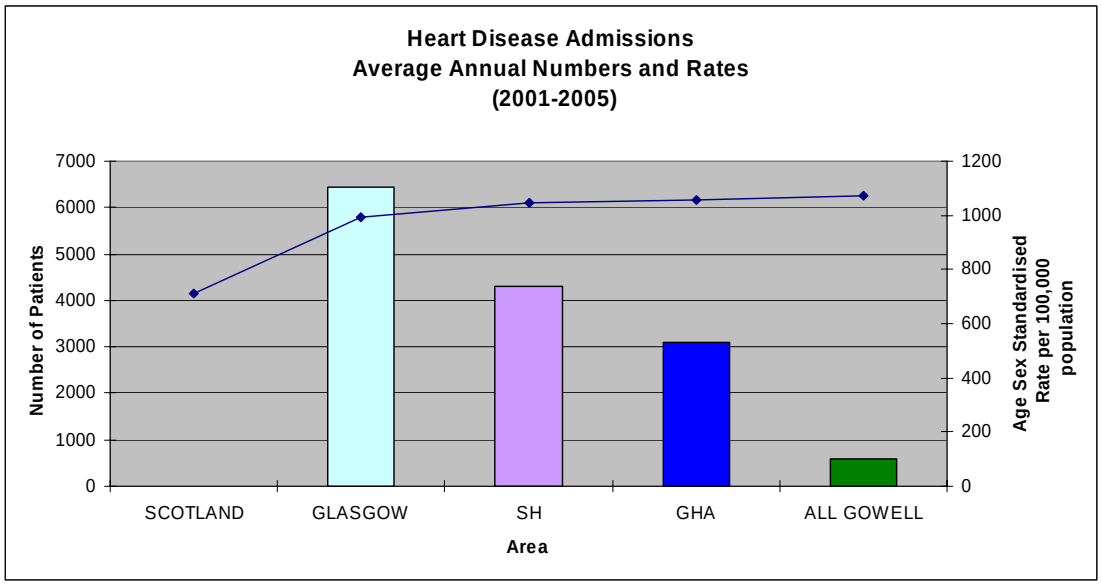
Heart Disease Admissions to Hospital

Heart disease admissions cover a wider spectrum of disease than does coronary heart disease (CHD). Among others, pulmonary heart diseases, endocarditis, arrhythmias and cardiac arrest are included under the definition of 'heart disease'. Admissions

covering the five year period 2001 to 2005 are displayed here. 'Admissions' refers to the number of patients, not including multiple admissions of the same patients.

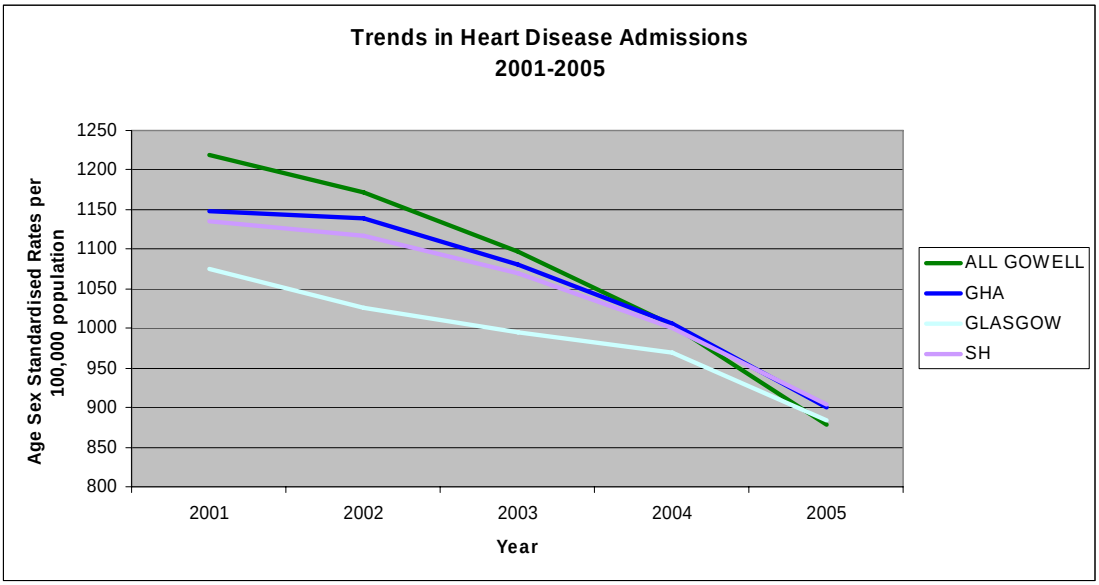
The average annual number of patients admitted to hospital with heart disease from 2001 to 2005 is shown in Figure 7.5. Compared to the Scottish average, Glasgow has a high directly age-sex standardised rate of admissions (714 and 991 patients per 100,000 population, respectively). There is a small incremental change in the rate from Glasgow to SH to GHA to GoWell areas.

Figure 7.5



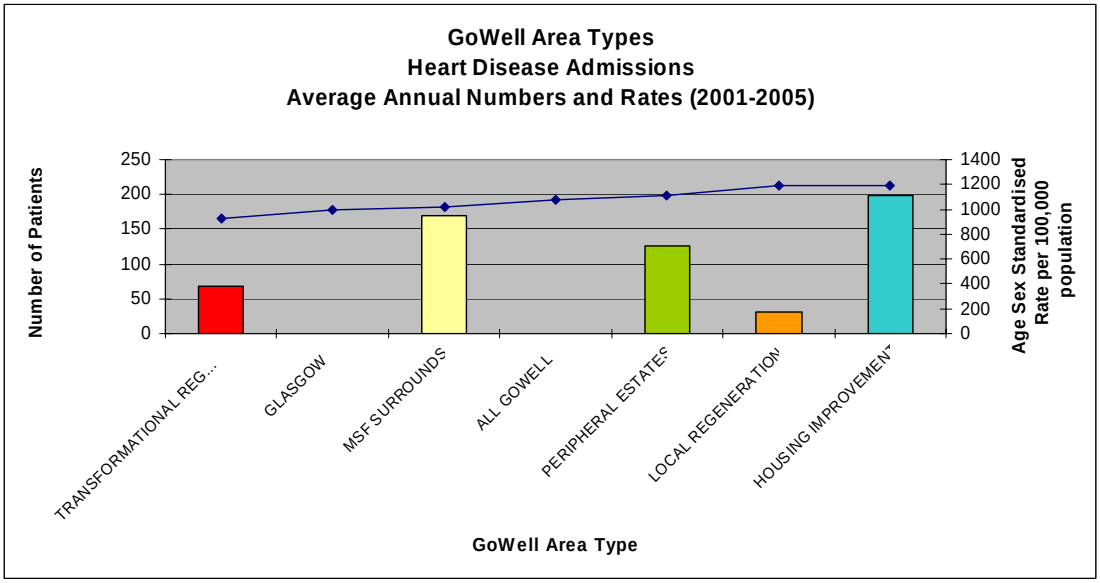
Over the five year period from 2001 to 2005 there has been a dramatic decrease year on year in heart disease admission rates in each of the areas shown, with a closing of the gap between Glasgow and SH, GHA and GoWell areas over time (see Figure 7.6).

Figure 7.6



Stratified by area type, the GoWell areas show some diversity in rates of heart disease admissions (see Figure 7.7). Although TR areas have relatively low rates of heart disease admissions, Figure 5.7 shows that the rate of CHD mortality in TR areas is higher than Glasgow, and most other GoWell area types. Considering the GoWell areas separately, all three TR areas (when compared with Glasgow) have lower rates of heart disease admission but higher rates of CHD mortality in the under 75s. Data on heart disease admissions for each GoWell area can be found in Appendix I.

Figure 7.7

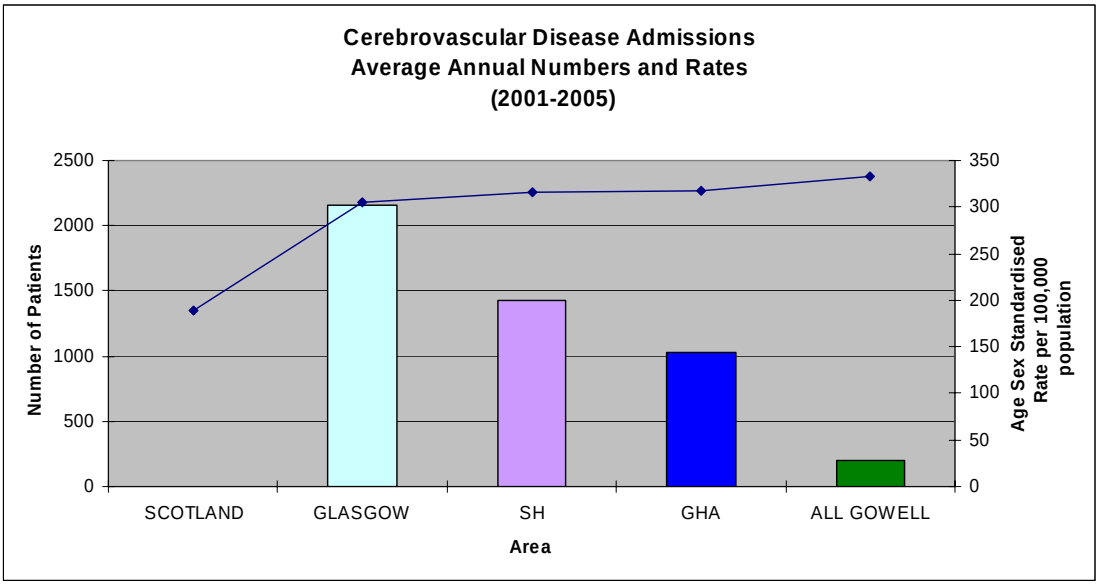


Cerebrovascular Disease Admissions to Hospital

Cerebrovascular disease (CVD) admissions include patients who have suffered strokes, transient ischaemic attacks (TIAs), and other cerebral haemorrhages and infarctions. Admissions relate to the five year period from 2001 to 2005 and refer to the number of patients, not including multiple admissions of the same patients.

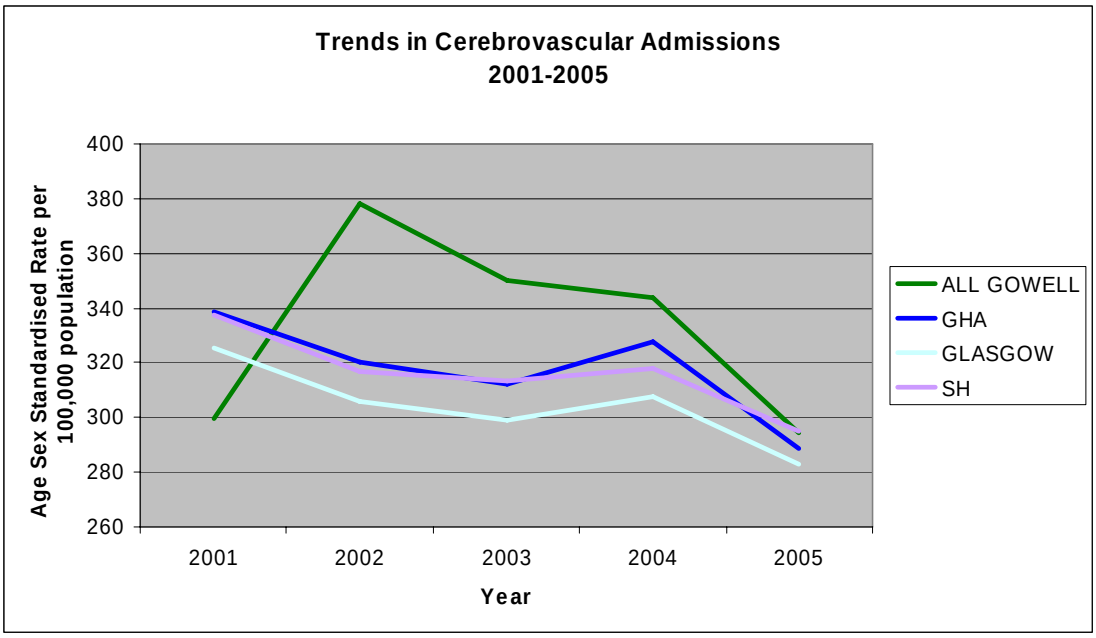
The Glasgow admission rate for CVD is more than 60% higher than the Scottish average rate (304 and 188 admissions per 100,000 population, respectively). There are only moderate differences between Glasgow rates and the SH, GHA and GoWell rates (see Figure 7.8). This is in contrast with the pattern for CVD death rates in the under 75s (see Figure 5.8). The CVD (<75s) mortality rates of SH, GHA and GoWell areas are noticeably higher than in Glasgow.

Figure 7.8



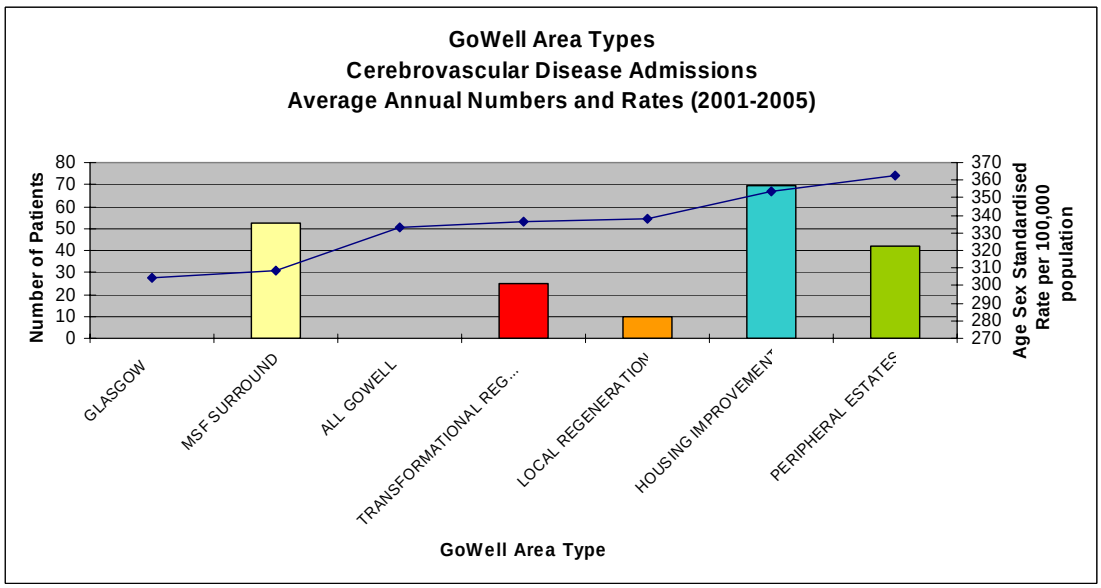
Overall downward trends in CVD admission rates for each area are shown in Figure 7.9. The large fluctuations seen in the GoWell trend may be due to small annual numbers of admissions (<200).

Figure 7.9



CVD admissions by GoWell area type are shown in Figure 7.10. Admission rates are in the relatively narrow range 308 (MSF Surrounds) to 363 (PE) per 100,000 population. The range of rates among the individual GoWell areas is much larger but the very small numbers of annual admissions make these data difficult to interpret. See Appendix I for individual area CVD admission rates.

Figure 7.10

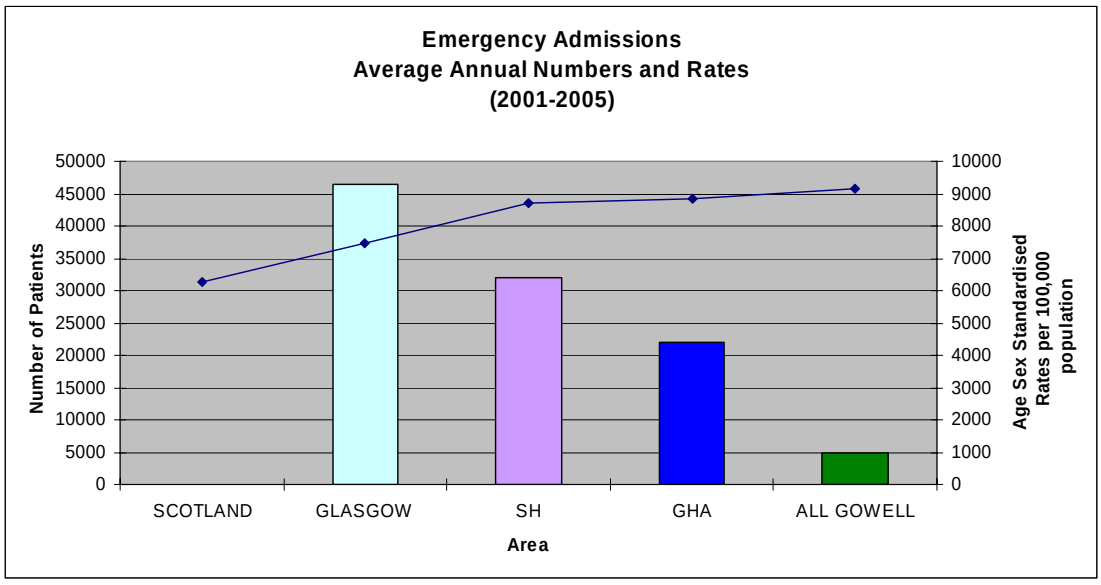


Emergency Admissions to Hospital

Emergency admissions are defined here as all medical emergency patients admitted to hospital, not including multiple admissions of the same patients. Data displayed here refer to patients admitted over the five year period from 2001 to 2005.

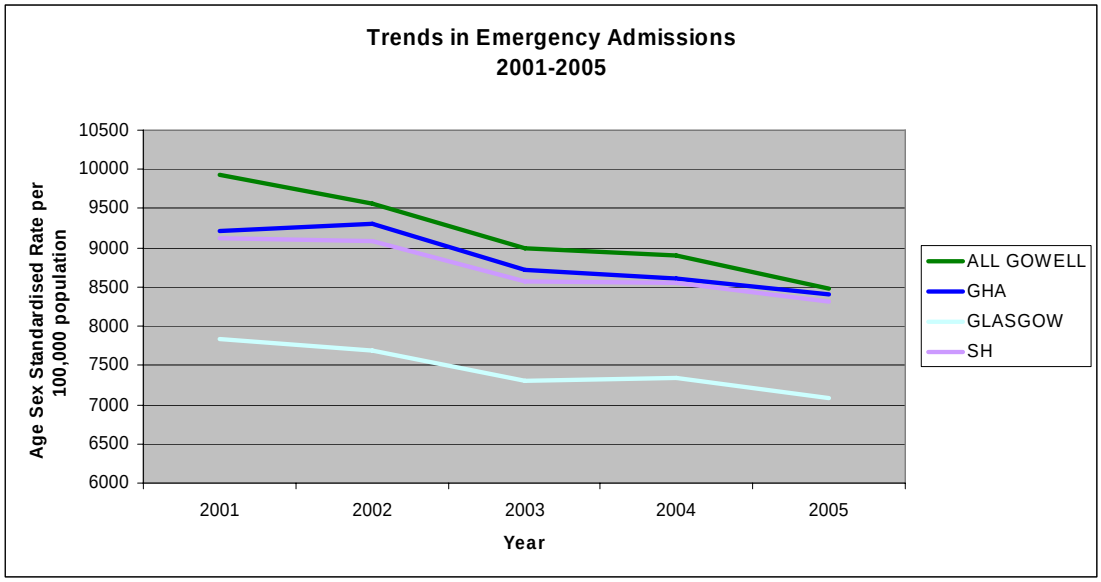
The age-sex standardised rate for emergency admissions in Glasgow is 7,448 per 100,000 population - a rate almost 20% higher than the Scottish average (6,249 per 100,000 population). SH, GHA and GoWell areas have a mean rate of 8907 admissions per 100,000 population. This represents a 20% higher rate than in Glasgow and a 40% higher rate than in Scotland.

Figure 7.11



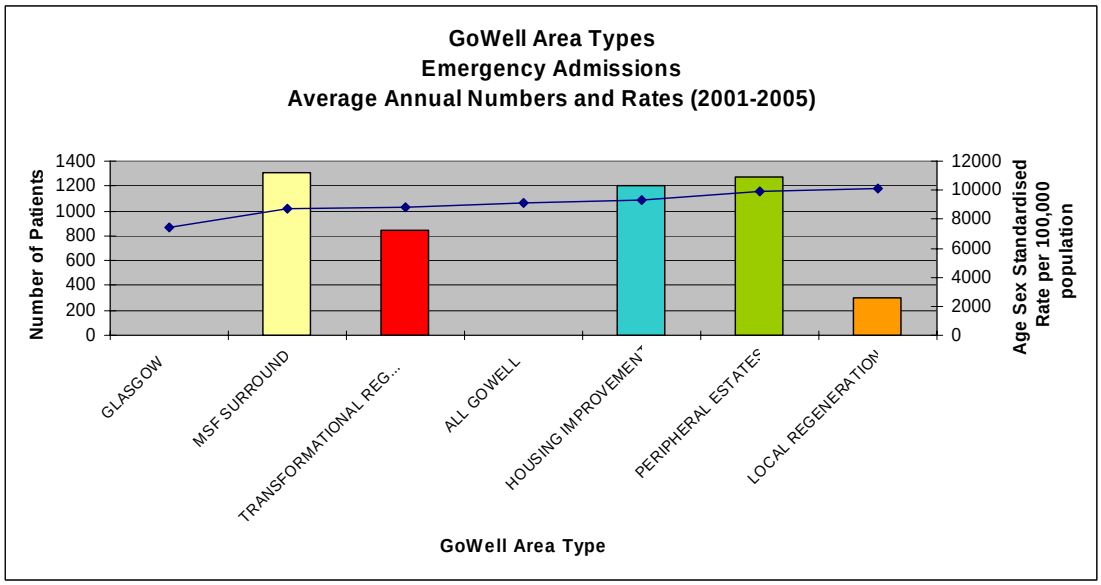
Decreasing rates over time are observed in Figure 7.12 for each area from 2001 to 2005. The largest percentage decrease over the whole period was seen in GoWell areas where admission rates dropped 17% from 2001 to 2005.

Figure 7.12



Emergency admission rates in GoWell area types vary in a range between 8,731 (MSF Surrounds) and 10,115 (LR) per 100,000 population. Within each area type there is diversity in the admission rates, with the Gorbals Riverside and Govan areas at the highest end of the spectrum (see Appendix I for individual area data).

Figure 7.13

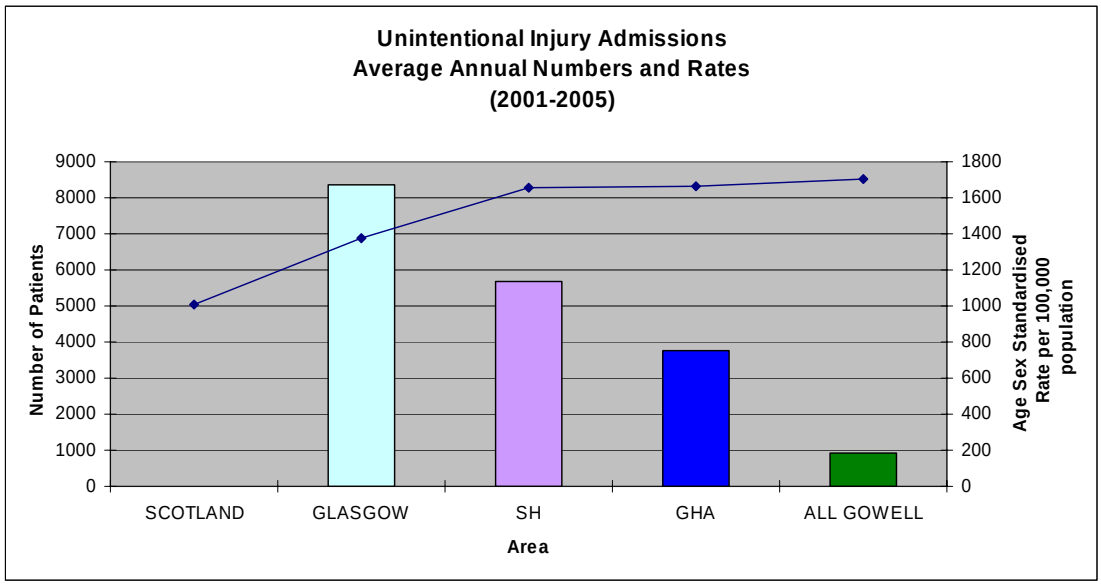


Unintentional Injury Admissions to Hospital

Unintentional injuries as defined in this report refer to accidents including road traffic and home accidents, as well as accidental poisonings. Only those patients who attend and are admitted to hospital are included in the analysis. Admissions are defined here as the number of patients, not including multiple admissions of the same patients. Data are displayed for the five year period from 2001 to 2005.

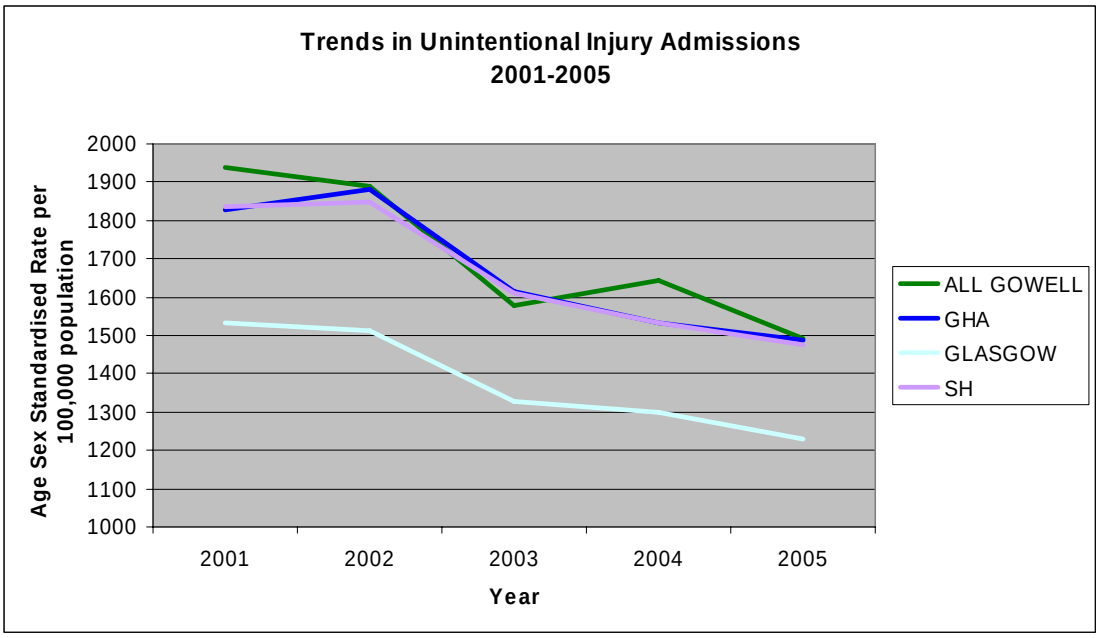
The rate of unintentional injury admissions in Glasgow over the period is 1,378 per 100,000 population. This is more than a third higher than the Scottish average rate (1,010 per 100,000 population). SH, GHA and GoWell areas have a mean rate of 1,675 – 20% higher than the Glasgow rate and almost two thirds higher than the Scottish rate. Figure 7.14 shows the average annual number of admissions alongside the rate for each area.

Figure 7.14



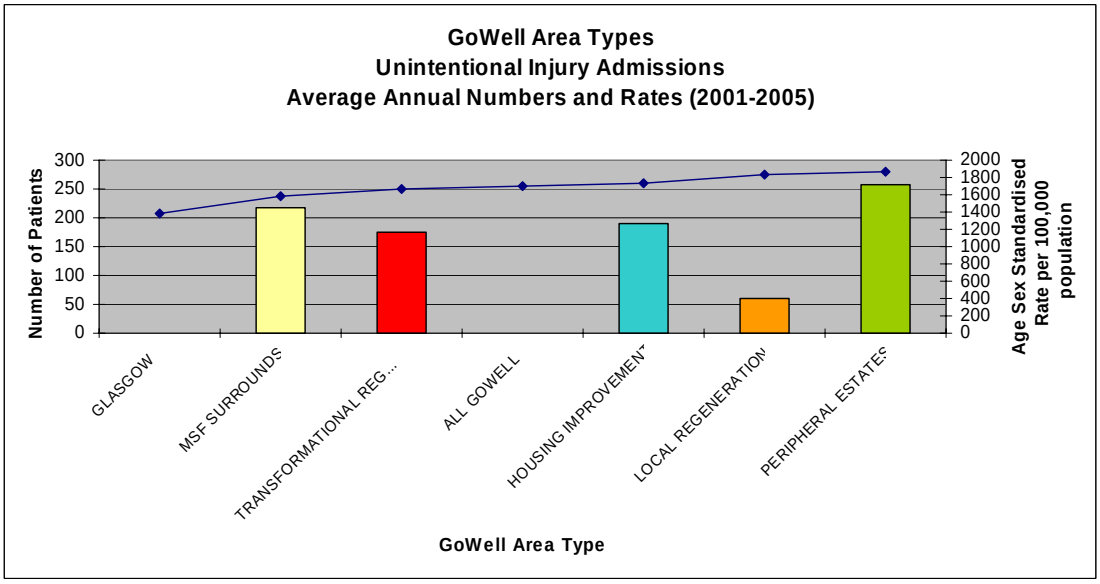
Downward trends in all areas from 2001 to 2005 shown in Figure 7.15 are generally parallel with no sign of the SH, GHA or GoWell areas closing the gap with Glasgow.

Figure 7.15



Analysis by area type shows some variation in a range from 1,591 (MSF Surrounds) to 1,874 (PE). There is a large degree of diversity across the individual areas. Of note, two areas have exceptionally high rates: Gorbals Riverside and Govan have unintentional injury admission rates of 2,778 and 2,868 per 100,000 population, respectively. Appendix I includes the data for each GoWell area.

Figure 7.16

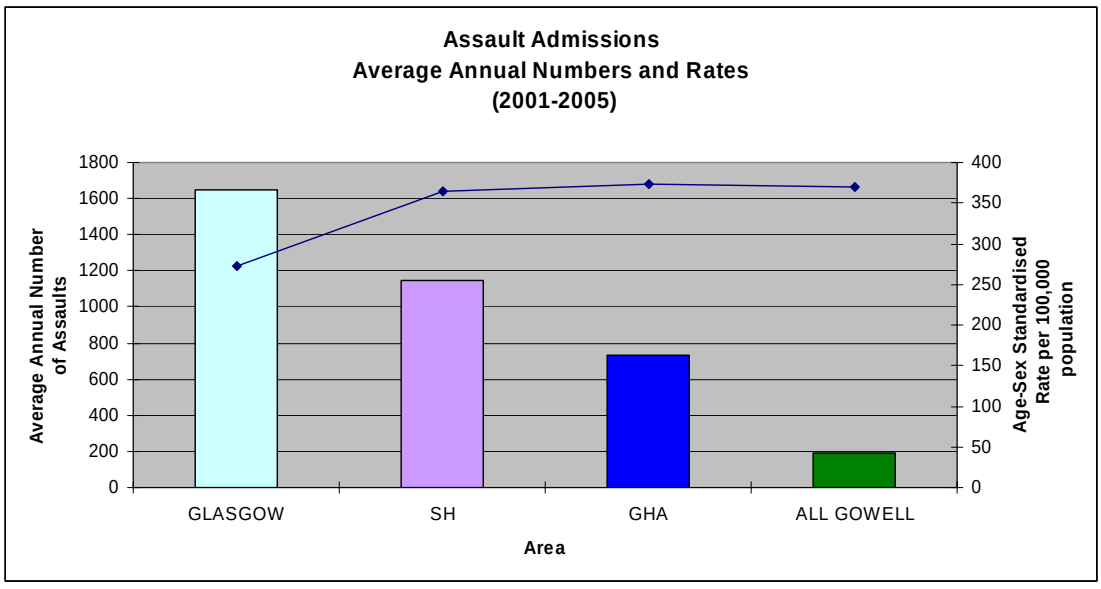


Assault Admissions to Hospital

Assault is defined as all assaults (physical, chemical and sexual) and neglect or abandonment. However, these data refer only to assault victims that attend and are admitted to hospital. The proportion of people assaulted and who subsequently seek hospital treatment may differ according to area. Data are presented for the five year period from 2001 to 2005.

Directly age-sex standardised rates for Glasgow and the social housing categories are shown alongside the average annual numbers of assaults in Figure 7.17. Comparable rates for Scotland were not available but figures showing crude rates per 1,000 population are included in Appendix I. SH, GHA and GoWell areas have similar assault admission rates. The areas' mean rate of 369 admissions per 100,000 population is more than a third higher than the average rate for Glasgow (272 admissions per 100,000 population).

Figure 7.17



Trends over time in assault admissions from 2001 to 2005 show decreasing overall rates in each area (Figure 7.18). Interpretation of these data is difficult due to key hospital ward closures during the period which may have affected admission rates.

Figure 7.18

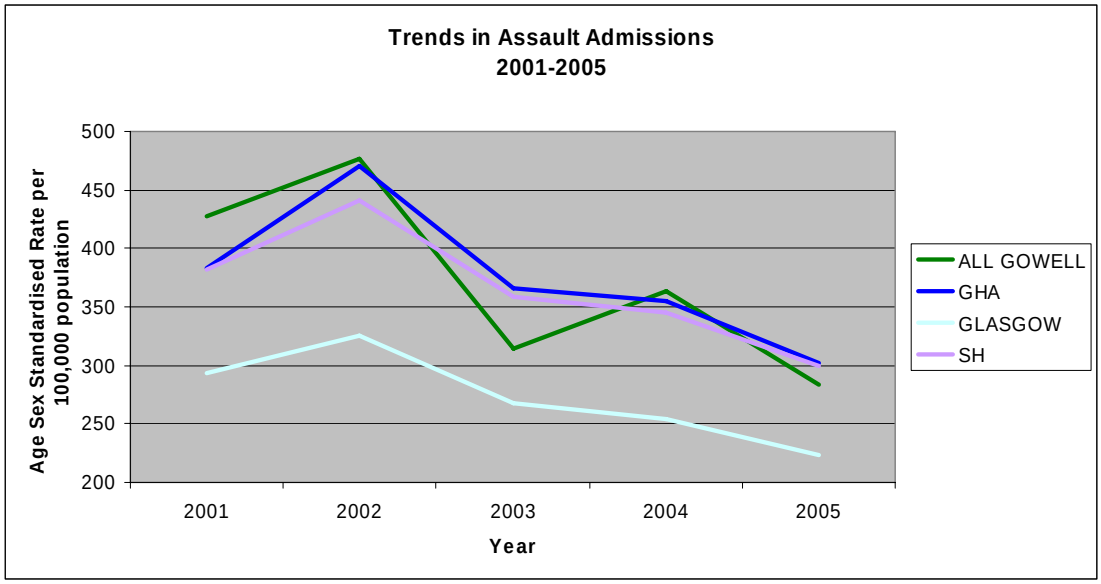
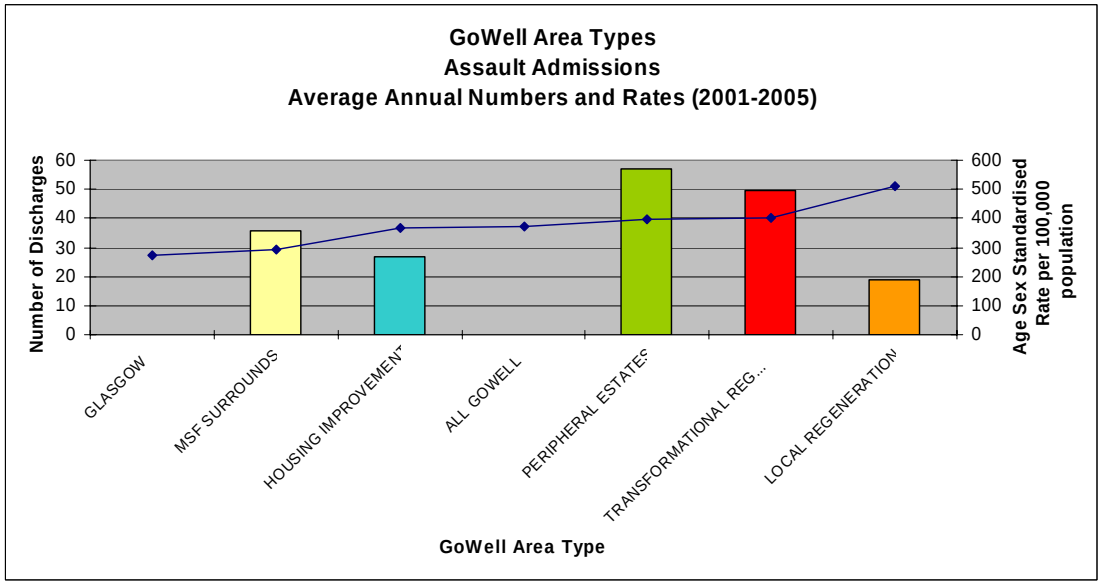


Figure 7.19 shows the rates of assault admissions for each GoWell area type. At one end of the scale, LR areas have a rate of 509 admissions per 100,000 population – 75% higher than MSF Surrounds areas (where the rate is still higher than Glasgow as a whole). Regarding individual GoWell areas, assault admission rates are highest by far in the Gorbals Riverside area (see Appendix I for area data).

Figure 7.19



Comments and Summary

- In contrast with mortality rates for all cancers, there is little difference in the rate of patients *registering* with cancer in Glasgow and the SH, GHA and GoWell areas. Some variation within the individual GoWell areas exists.

- Interestingly, the GoWell area type with the lowest rate of patients registering with cancer is the Local Regeneration type. This area type has one of the highest rates of all cancer mortality in the under 75s.

- The rates of heart disease admissions and cerebrovascular disease admissions are decreasing in all areas covered in this report. Furthermore, the gaps between rates in Glasgow and the SH, GHA and GoWell areas have been closing for both admission types.

- Although the rate of emergency admissions in GoWell areas was higher than Glasgow, SH or GHA for the period, the biggest percentage decrease in admissions was seen in GoWell areas.

- Admissions to hospital due to assault occur at a much greater rate in SH, GHA and GoWell areas than in Glasgow as a whole. In particular, Gorbals Riverside area has, on average, seven assault admissions annually (in a population of 700 people).

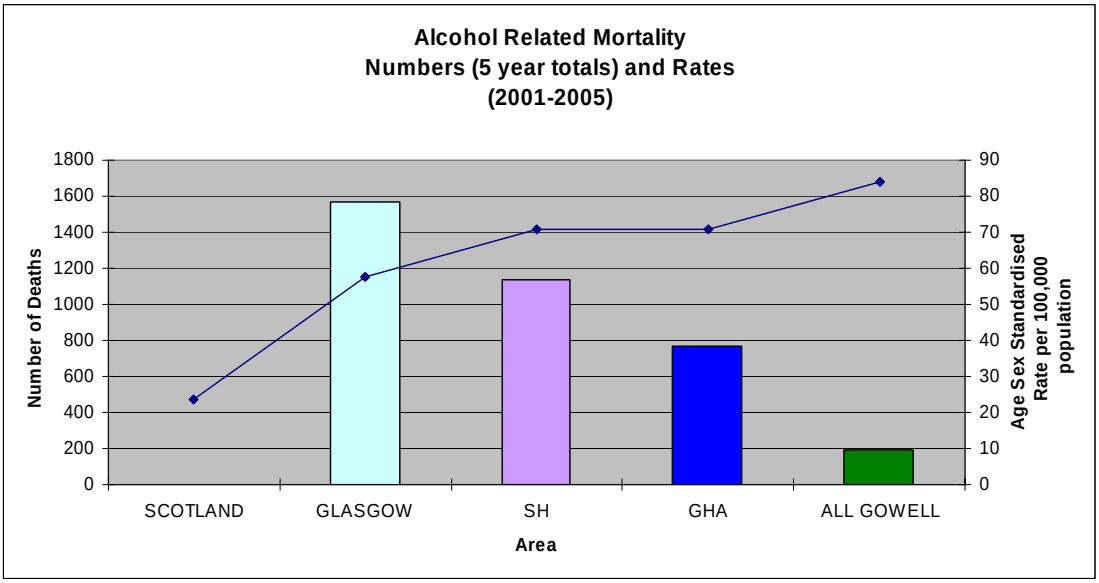
8. Alcohol and Drugs

Alcohol-Related Mortality

Deaths primarily due to alcohol-related causes are included in this analysis. Data relate to the five year period from 2001 to 2005; numbers are expressed as five year totals.

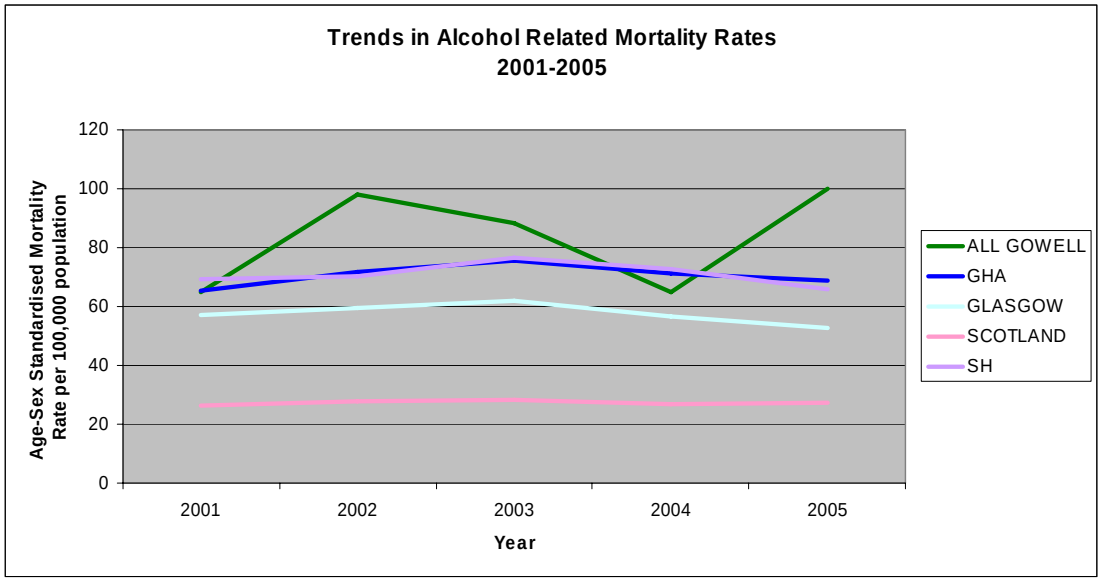
Glasgow has an alcohol-related mortality rate more than two and a half times higher than the Scottish average (58 and 23 deaths per 100,000 population, respectively). The rate in SH and GHA areas is 71 per 100,000 population, 22% higher than Glasgow overall and more than three times the Scottish rate. Worst off are the GoWell areas with a rate of 84 alcohol-related deaths per 100,000 population (265% higher than the Scottish rate).

Figure 8.1



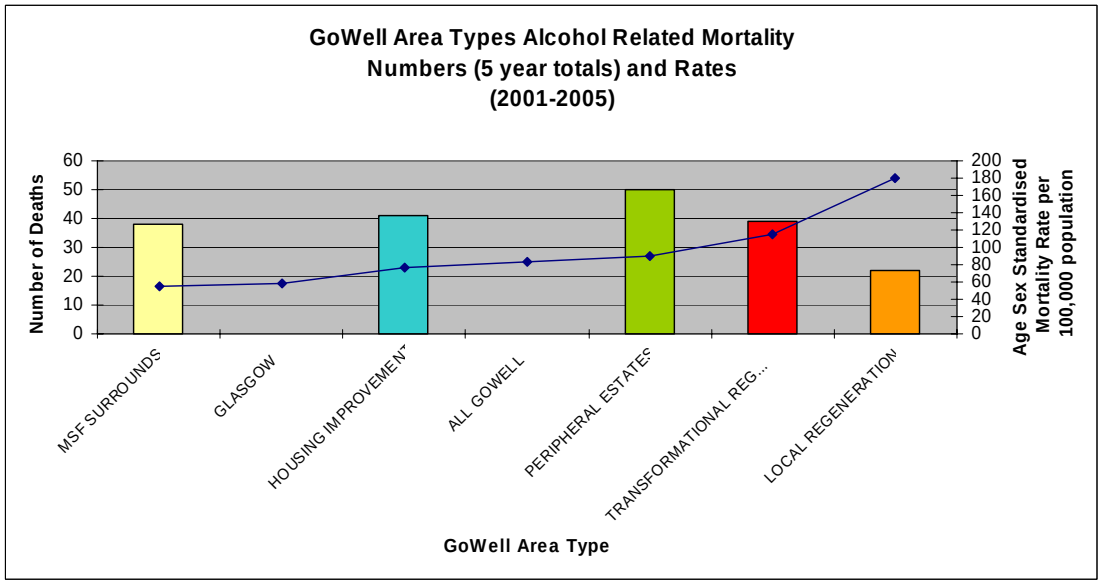
Trends in all areas shown in Figure 8.2 are roughly flat, and parallel with each other, with the exception of GoWell areas where small numbers may account for annual fluctuations in the rate.

Figure 8.2



Alcohol-related mortality rates among GoWell area types range from 54 (MSF Surrounds) to 181 (LR) deaths per 100,000 population. The rate in LR areas over the period is almost eight times that of the Scottish average rate, although this only represents an average of four or five excess deaths per year. Data are displayed for each GoWell area separately in Appendix I.

Figure 8.3

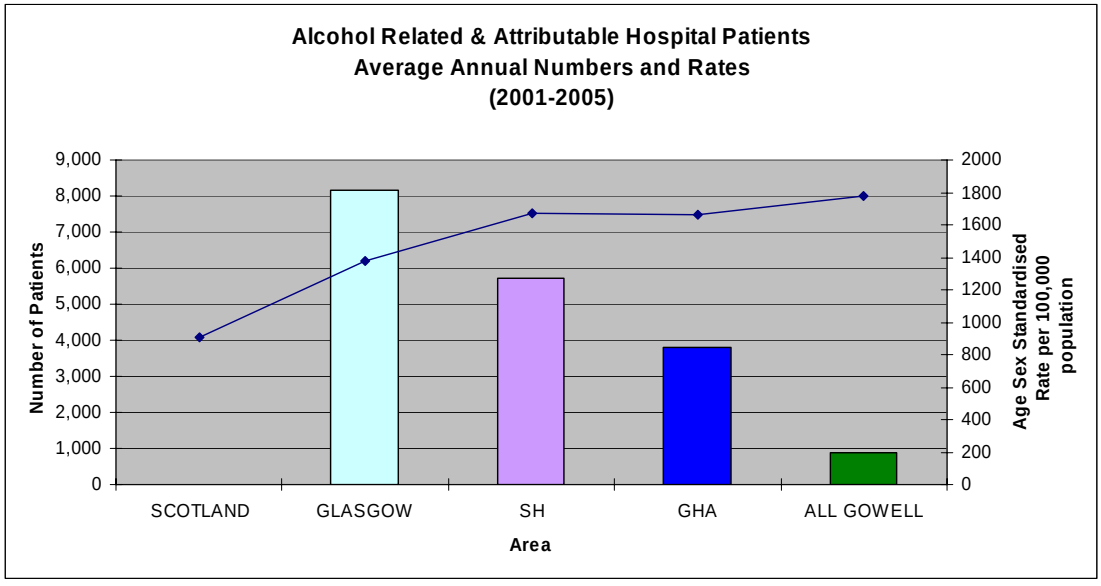


Alcohol-Related and Attributable Hospital Admissions

Numbers and rates of admission for patients admitted to hospital with conditions or injuries related or attributable to alcohol use are displayed below. Admissions do not include multiple admissions of the same patients and relate to the five year period from 2001 to 2005.

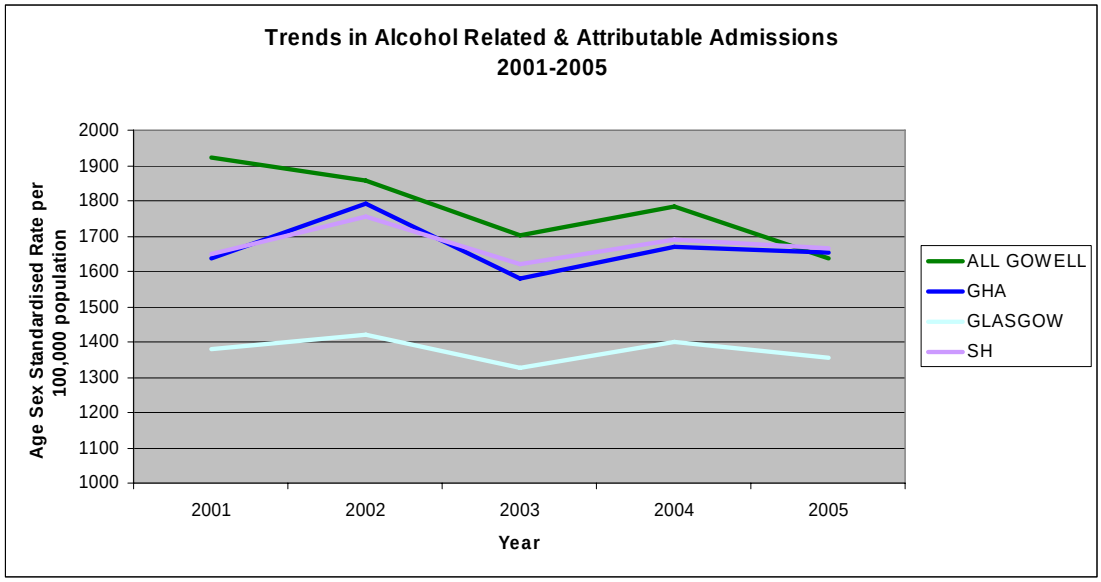
Figure 8.4 shows the relative difference in the directly age-sex standardised rates of alcohol-related admissions in each area. There are 1,375 admissions per 100,000 population in Glasgow. This rate is more than 50% higher than the Scottish average rate (911 admissions per 100,000 population). The mean rate for SH and GHA areas is 1,670 admissions per 100,000 population – 20% higher than Glasgow and more than 80% higher than Scotland. However, with a rate of 1,774 admissions per 100,000 population, GoWell areas fare worst again: alcohol-related and attributable admissions in GoWell areas occur at twice the rate of the Scottish average.

Figure 8.4



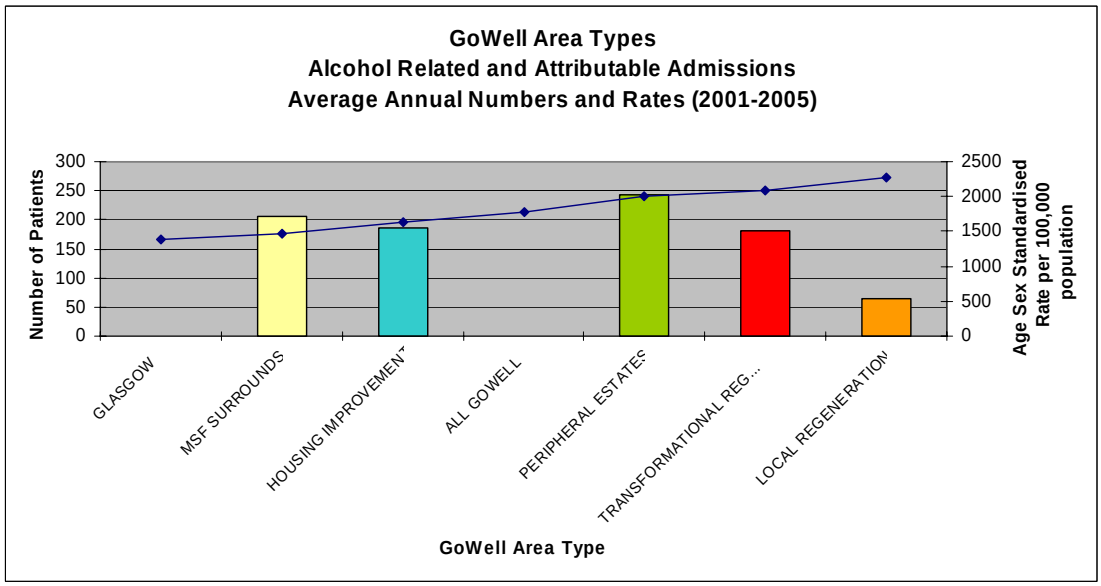
Trends in alcohol admissions from 2001 to 2005 are shown in Figure 8.5. Despite relatively large annual numbers of patients in each area there are fluctuations in the rates year to year. Overall, however, the admission rate in each area has remained stable from 2001 to 2005. This is a similar pattern to that of alcohol-related deaths seen in Figure 8.2 above.

Figure 8.5



Age-sex standardised rates in the GoWell area types range from 1,475 (MSF Surrounds) to 2,279 (LR) admissions per 100,000 population (see Figure 8.6). Stratified further into the individual areas there is a large amount of variation within each area type. See Appendix I for individual area data.

Figure 8.6

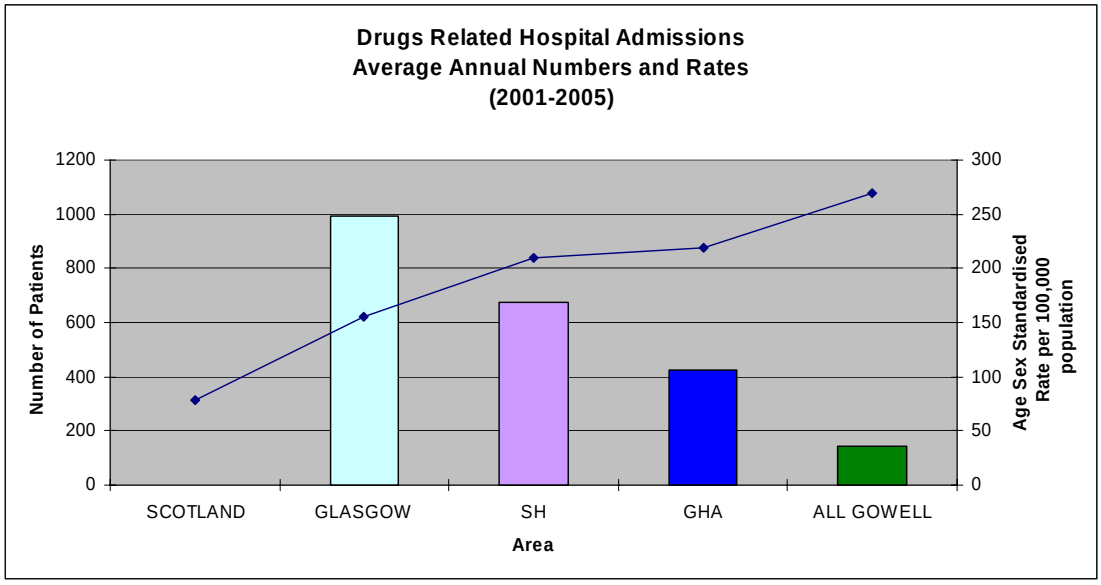


Drug-Related Hospital Admissions

Drug-related admissions are defined here as patients admitted to hospital following any mental or behavioural disorder as a consequence of drug-taking (including caffeine and tobacco). Data do not include multiple admissions of the same patient and refer to admissions during the five year period from 2001 to 2005.

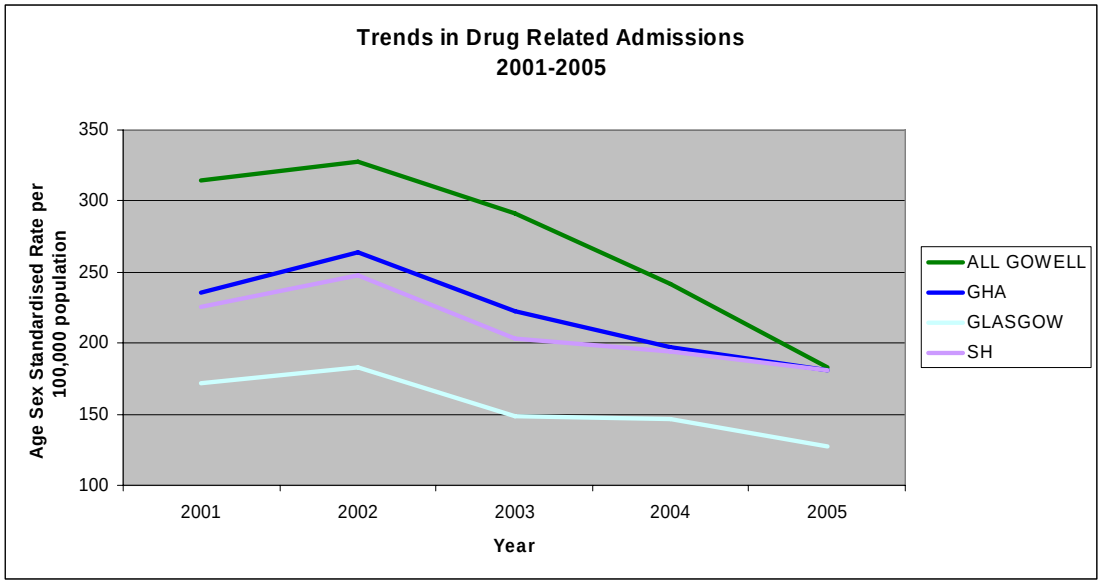
The rate of drug-related hospital admissions in Glasgow is almost twice that of Scotland (155 and 78 per 100,000 population, respectively). SH and GHA areas have rates of 210 and 219 per 100,000 population, respectively – almost 40% greater than Glasgow and 175% higher than the Scottish average. GoWell areas taken together have a rate of 270 admissions per 100,000 population, substantially higher than any other rate shown in Figure 8.7.

Figure 8.7



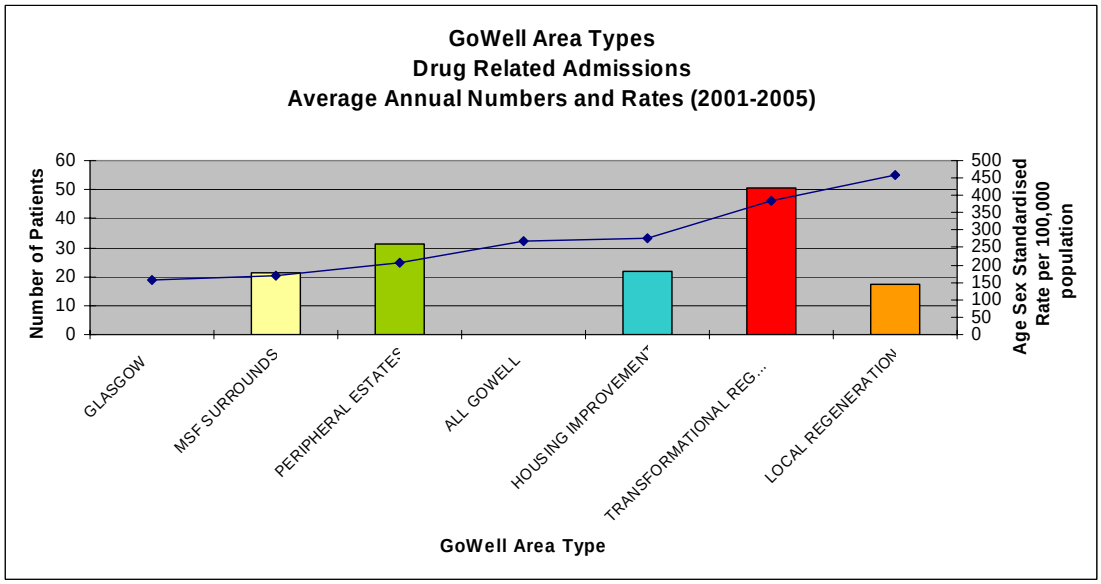
Drug-related admissions in all areas show an overall downward trend from 2001 to 2005 (see Figure 8.8). Furthermore, the gap between the GoWell areas and the other socially rented housing areas appears to have closed.

Figure 8.8



The GoWell area types show a large degree of diversity in the rates of drug-related admissions (see Figure 9.9). All rates are above the Glasgow average. The highest rates are seen in the TR and LR areas (386 and 457 admissions per 100,000 population, respectively). Variation within the area types is also apparent (see Appendix I for individual area data).

Figure 8.9



Comments and Summary

- Rates of alcohol-related deaths and hospital admissions due to alcohol or drugs are substantially higher in Glasgow than in Scotland. Rates in SH and GHA areas are higher than in Glasgow but GoWell areas have by far the worst rates of alcohol or drug- related ill health.

- Of the GoWell area types, the Local Regeneration type has the highest rate of alcohol-related mortality, alcohol-related and attributable hospital admissions and drug-related hospital admissions.

- For each alcohol and drugs indicator analysed, the Gorbals Riverside area has the highest (or among the highest) mortality/hospitalisation rate.

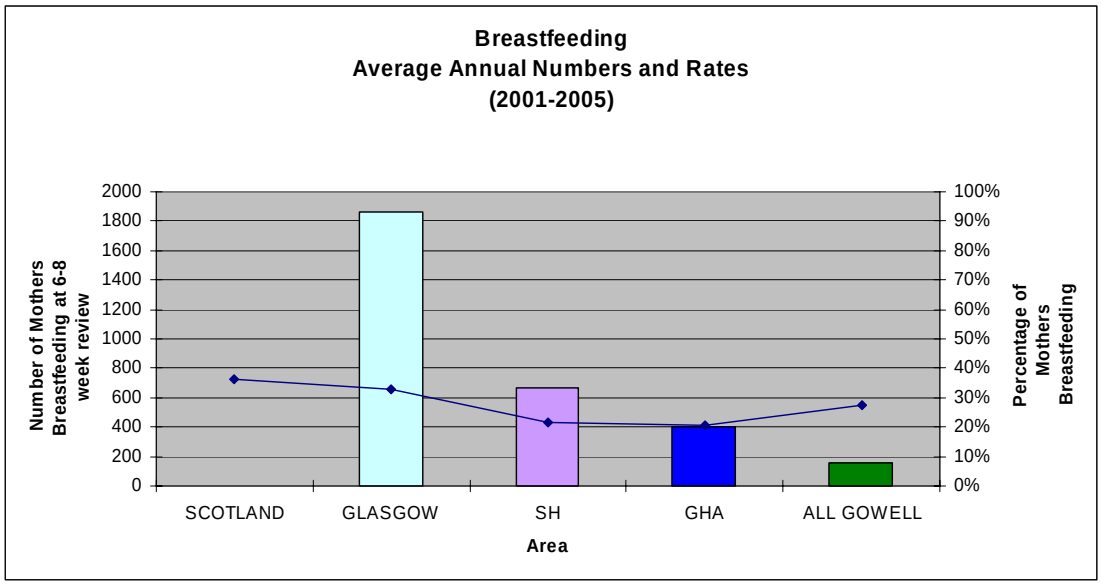
9. Child and Maternal Health

Breastfeeding

The proportion of mothers breastfeeding is subject to national targets [12]. By 2010, the Scottish Government would like to see a third of mothers *exclusively* breastfeeding their babies at six to eight weeks. In this report, breastfeeding is defined as any breastfeeding, whether exclusive or mixed with formula, and is recorded at review between six to eight weeks after birth. The denominator used for calculating rates is the total number of reviews. Data refers to the five year period from 2001 to 2005.

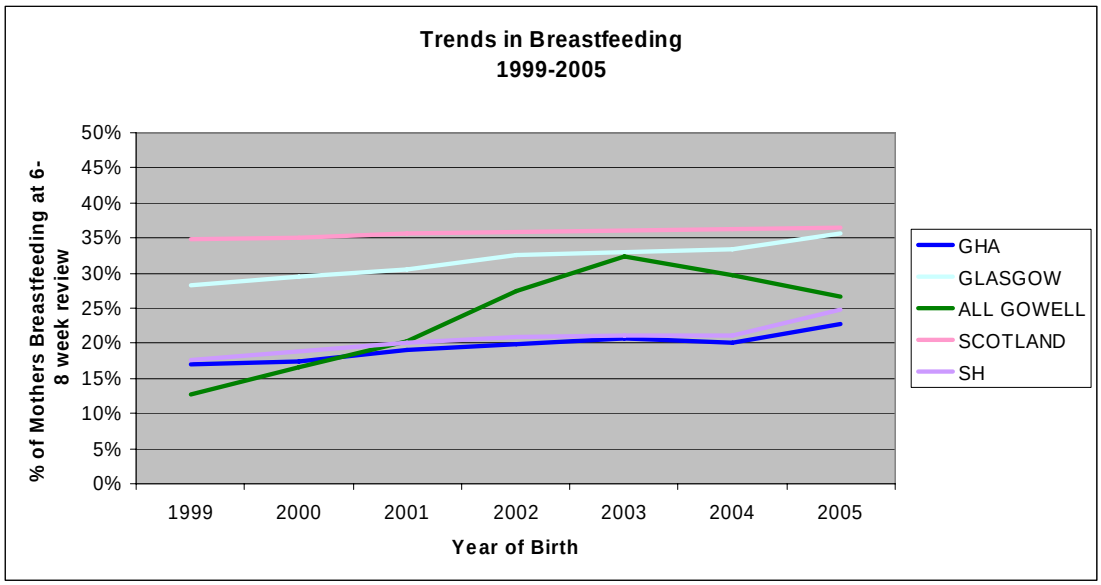
On average, 36% of Scottish mothers were breastfeeding their babies at six-eight week review during 2001-2005. Glasgow is not far behind with 33% of mothers breastfeeding. SH and GHA areas do not compare favourably: only 22% of mothers breastfed their newborns over the period. In 2006 'Let Glasgow Flourish' reported on the breastfeeding inequalities present in Scotland: "Deprivation has an important association with the levels of breastfeeding". This observation is supported by data shown here, and probably reflects the levels of deprivation experienced by those living in areas of socially rented accommodation. On the whole, GoWell areas appear to have a higher proportion of breastfeeding mothers (27%) but huge variation exists among the areas (see Figures 9.3 and 9.4).

Figure 9.1



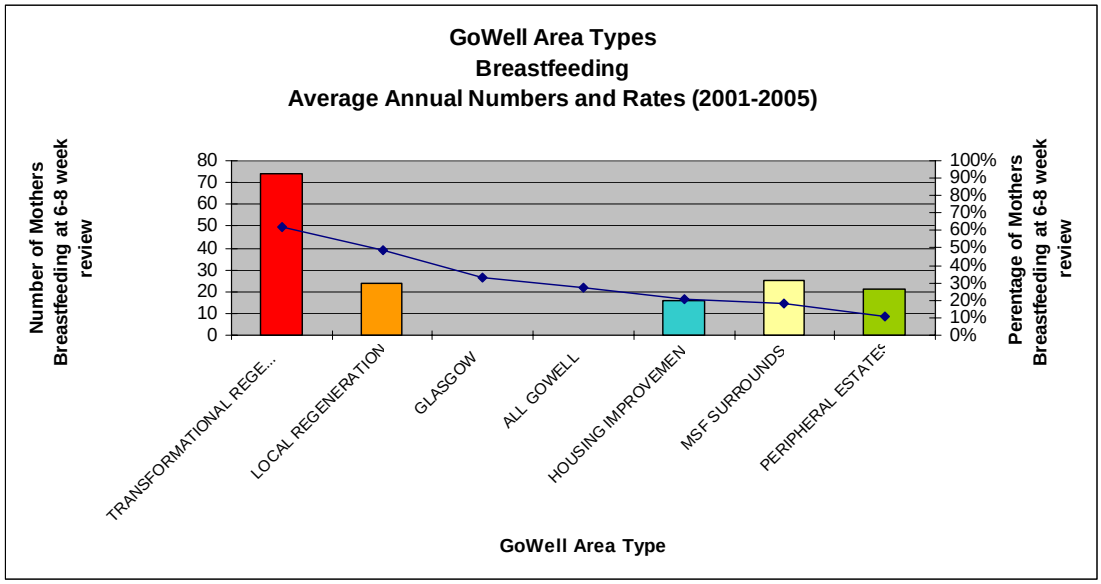
Breastfeeding trends are encouraging, if very gradual. From 2001 to 2005 the total change in Scotland was a 1% point. A bigger change in Glasgow rates (an increase of 8% points) has helped to close the gap between Scotland and Glasgow over the period. The increase in the rate in 'All GoWell' areas from 2001 onwards may be due to the influx of asylum seekers (who may exhibit higher levels of breastfeeding).

Figure 9.2



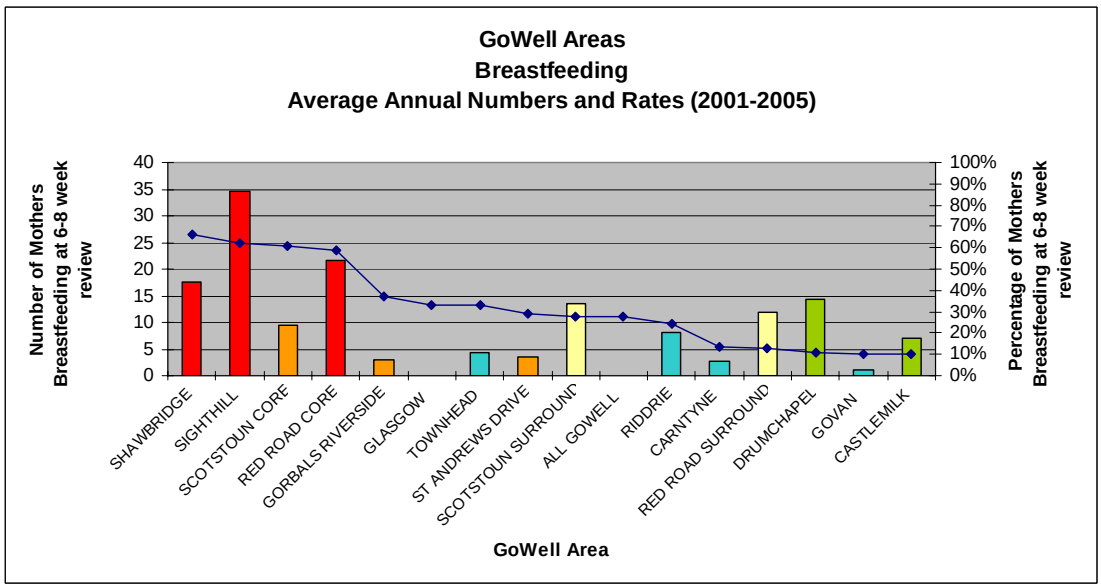
Average annual breastfeeding rates in the GoWell area types range from 11% in PE areas to 62% in TR areas (see Figure 9.3). This health indicator highlights the importance of localised data – the average breastfeeding rate of all GoWell areas is not representative of any of the area types or individual areas. Small area data are useful in this case to inform the distribution of resources, especially in the efforts to meet national targets.

Figure 9.3



In general, the pattern of GoWell area types is consistent with the individual GoWell areas. It is telling that the four GoWell areas with the highest rates of breastfeeding mothers all have large populations of asylum seekers.

Figure 9.4

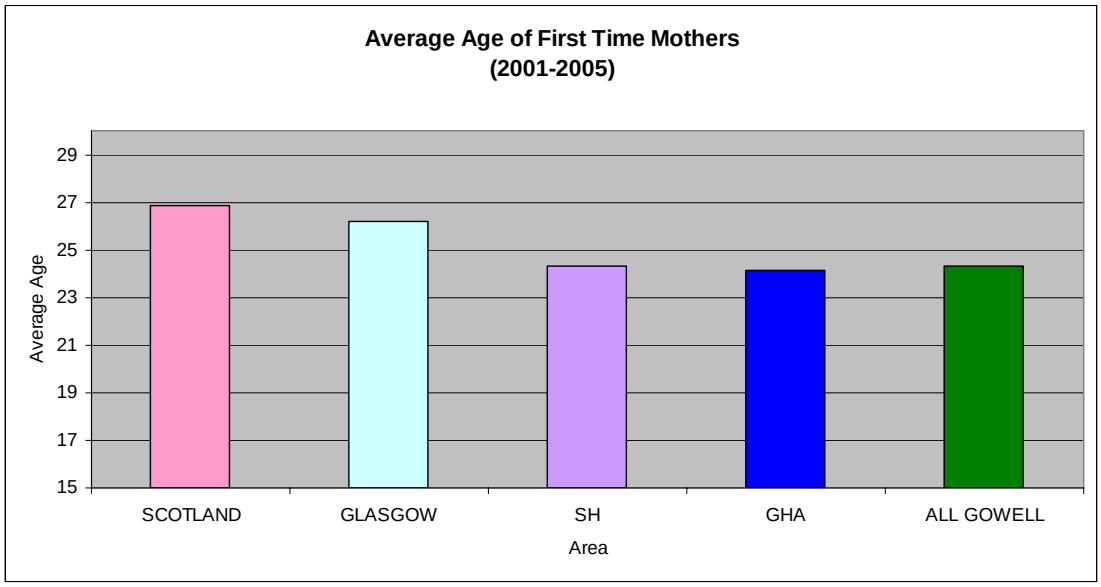


Average Age of First Time Mothers

The age of first time mothers for each area is expressed as a mean value over the five year period from 2001 to 2005.

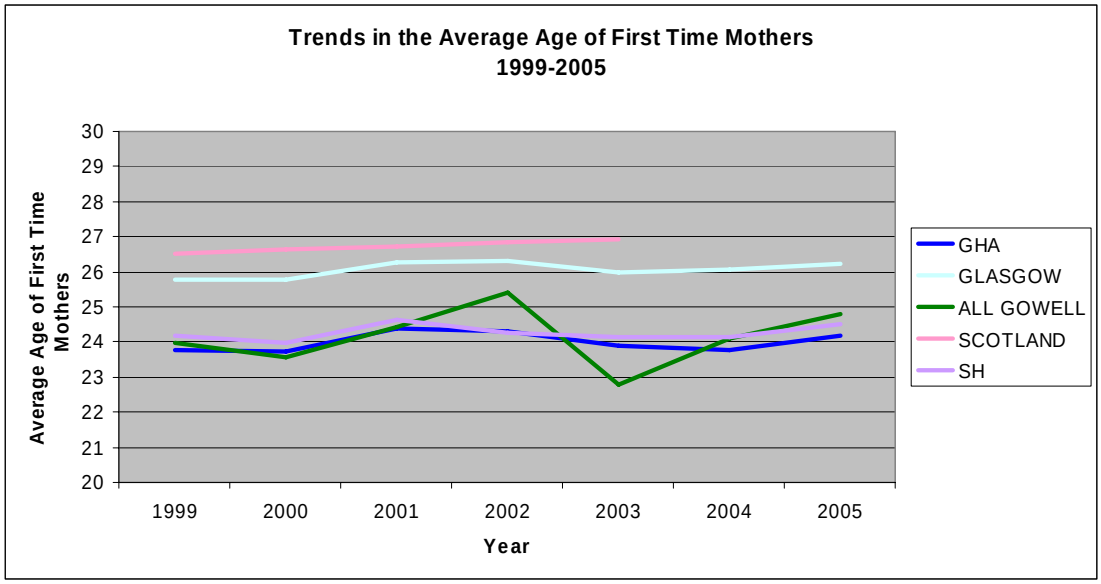
The average age of first time mothers in an area is correlated with other child and maternal health factors, and deprivation of the area in general. More affluent areas tend to have an average age of first time mothers higher than deprived areas [7]. The data displayed here are consistent with this pattern (see Figure 9.5). Whereas the average age for first time mothers in Scotland is almost 27 years, first time mothers in SH, GHA and GoWell areas are, on average closer to 24 years.

Figure 9.5



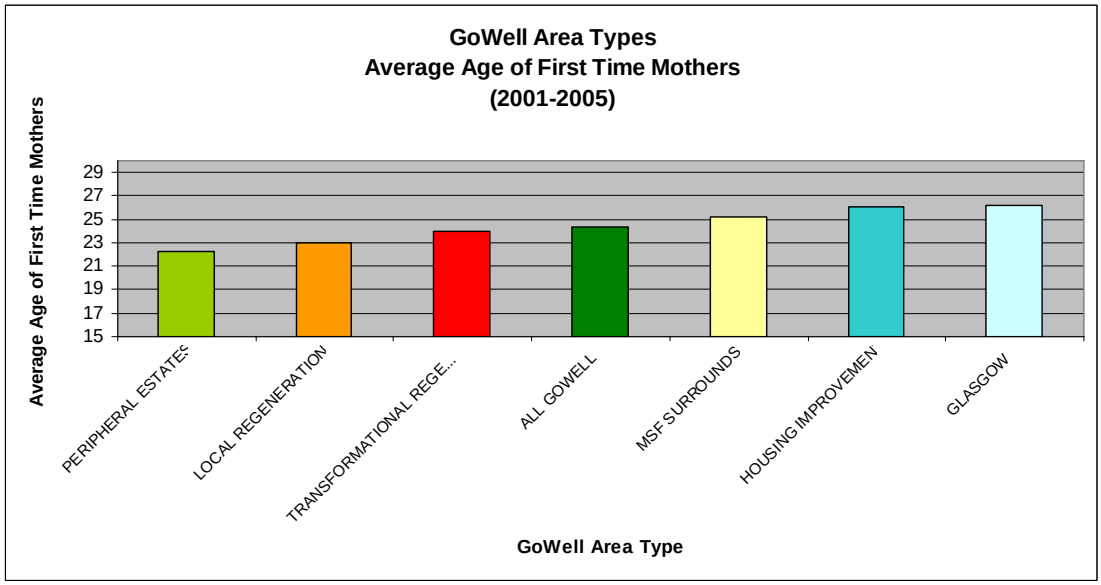
Over time the trends in average age of first time mothers for each area shown in Figure 9.6 are relatively flat. There is little or no overall change from 1999 to 2005 in any area.

Figure 9.6



The GoWell area types show some diversity in the average age of first time mothers in a range from 22 years in PE areas to 26 years in HI areas (see Figure 9.7). Individual areas are mostly typical of their area types, with the exception of Riddrie, Red Road Core area and Sighthill. See Appendix I for individual area data.

Figure 9.7



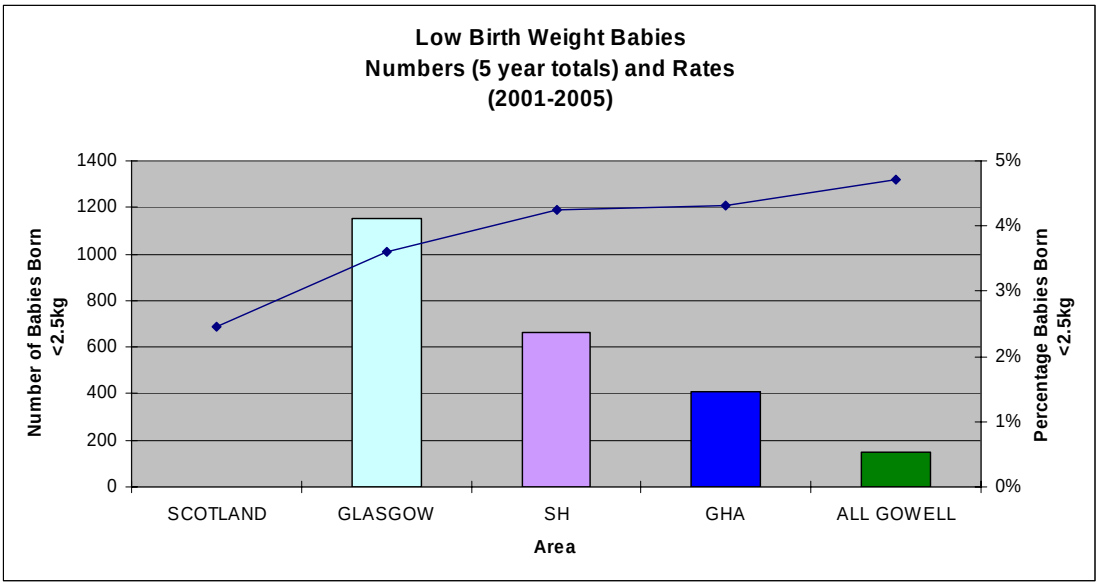
The average annual numbers and proportions of first time mothers under 20 years and over 35 years in each area are shown in Figures included in Appendix I.

Low Birth Weight Babies

Low birth weight babies are defined as those born weighing less than 2.5 kilograms. The rate is calculated using only live full term singleton births as the denominator. Data for the five year period from 2001 to 2005 are displayed here.

In Scotland as a whole, approximately two per cent of babies were born low weight over the period. This figure is almost double for Glasgow. Furthermore, in GoWell areas almost five per cent of babies are born under 2.5kg (see Figure 9.8).

Figure 9.8



Trends in low birth weight babies for Scotland and Glasgow are fairly flat over the seven year period from 1999 to 2005. However, for SH, GHA and 'All GoWell' areas there appears to be a collective divergence from Glasgow from 2002 to 2005 (see Figure 9.9). However, small annual numbers in these areas make interpretation difficult.

Figure 9.9

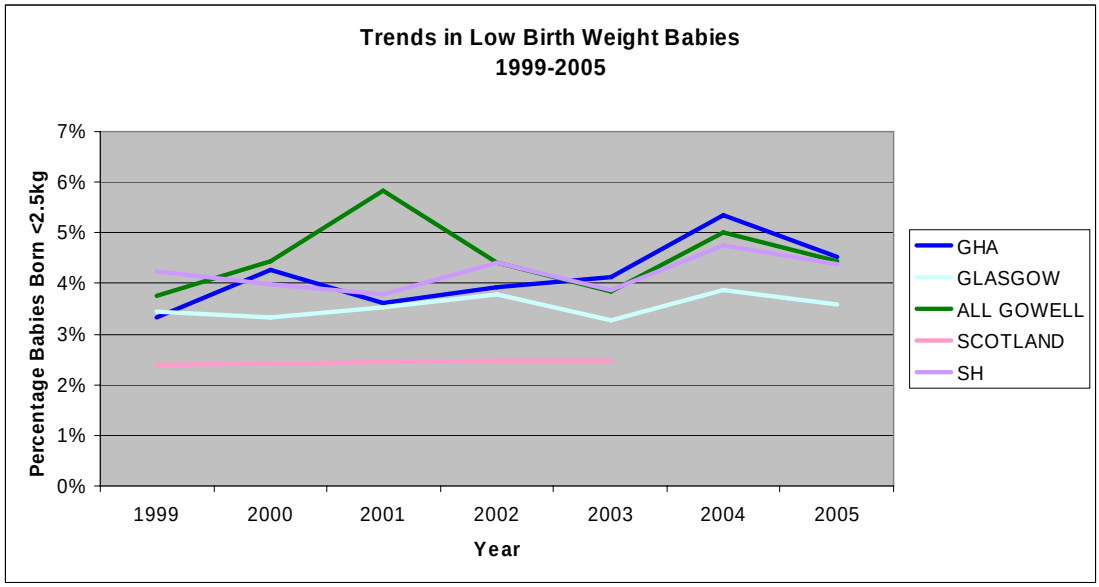
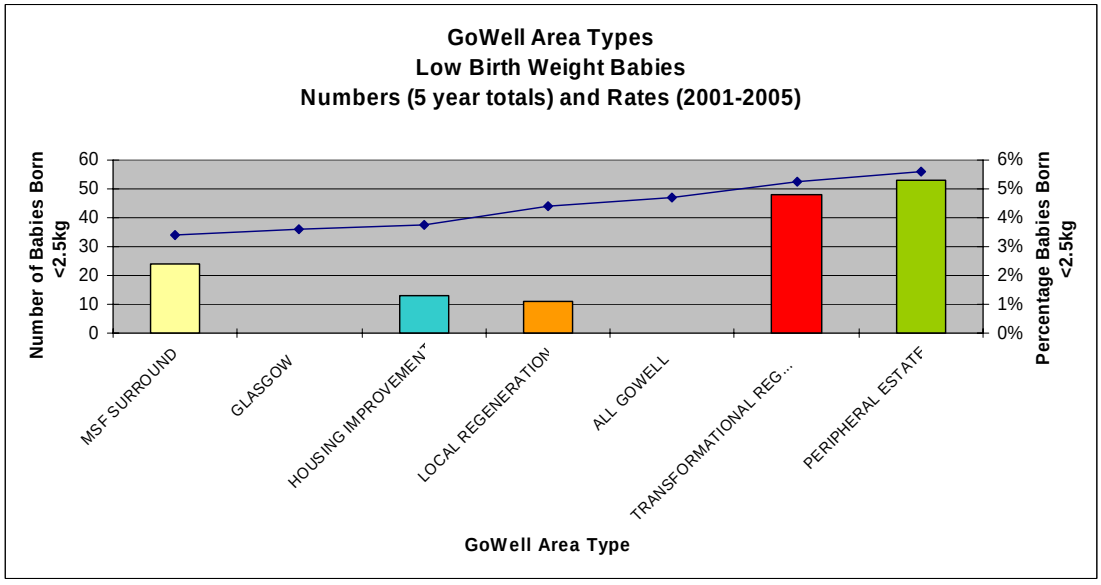


Figure 9.10 shows for each GoWell area type the five year total number of low birth weight babies alongside the percentage of full term singleton babies that are born under 2.5 kilograms. MSF Surrounds, HI and LR areas all have relatively similar rates of low birth weight babies to Glasgow as a whole (range 3% - 4%). The two areas types with an appreciably higher percentage of babies born under 2.5kg are the TR and PE areas (5% and 6% respectively). See Appendix I for individual GoWell area data.

Figure 9.10

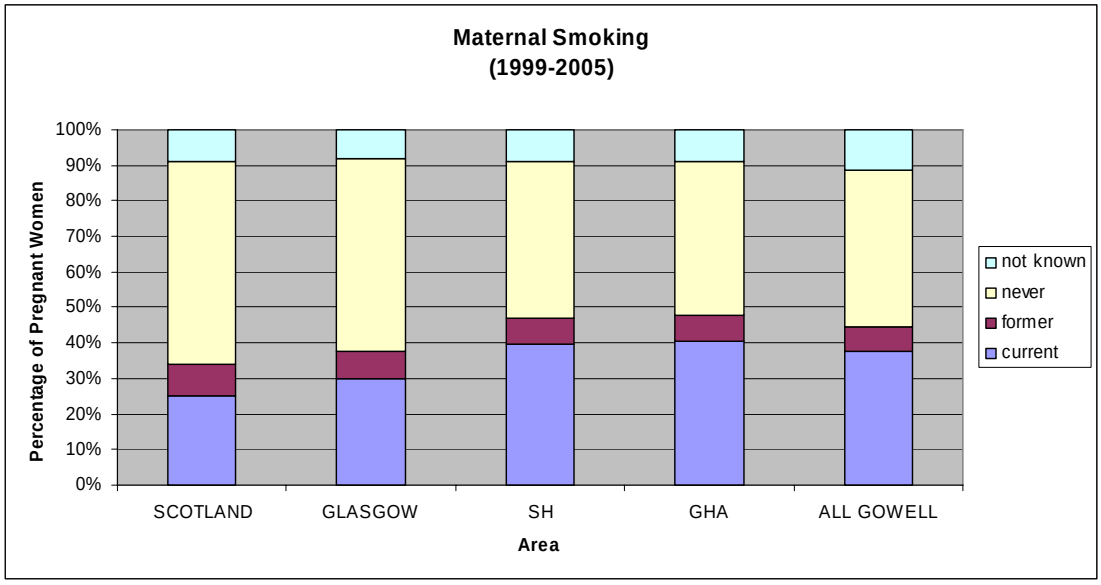


Maternal Smoking in Pregnancy

Maternal smoking is recorded at booking. It is a self-reported measure and has been shown elsewhere to under-represent the prevalence of smoking in pregnancy[14]. Pregnant women are categorised into four groups: 'current smoker', 'former smoker', 'never smoked' or 'not known'. The data are summarised for the seven year period from 1999 to 2005.

Figure 9.11 shows that, compared to the Scottish average (25%), a higher proportion of pregnant women smoke in Glasgow (30%). In SH and GHA areas this proportion is even greater (40% and 41%, respectively). The proportion of women who are former smokers is very small in each area (between 7% and 8%) indicating how difficult these women find smoking cessation, even when pregnant.

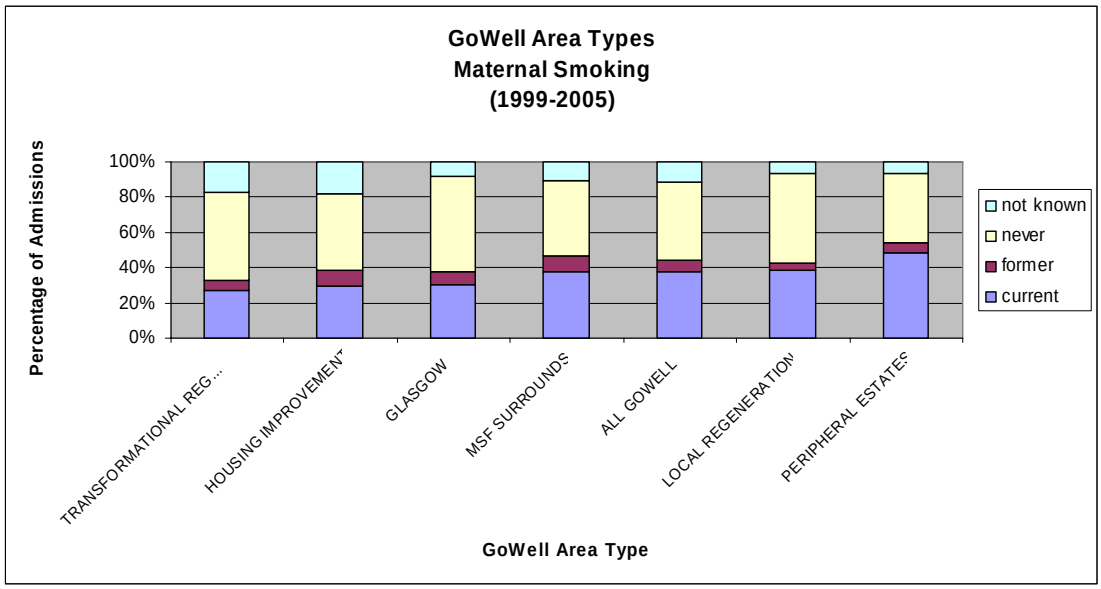
Figure 9.11



Over the time period, the proportion of pregnant women recorded as 'current smokers' declined in all areas. However, the proportion of 'not known' increased at a similar rate. The proportion of 'never smoked' and 'former smokers' remained unchanged over the period. It is therefore likely that the new 'not known' category was predominantly current smokers. Such inaccuracies have been highlighted elsewhere [15]. For this reason, trends over time are not shown.

The diversity of the GoWell area types with regard to smoking during pregnancy is obvious from Figure 9.12. Whereas only 27% of pregnant women in TR areas smoke, in PE areas close to half of all pregnant women are current smokers.

Figure 9.12

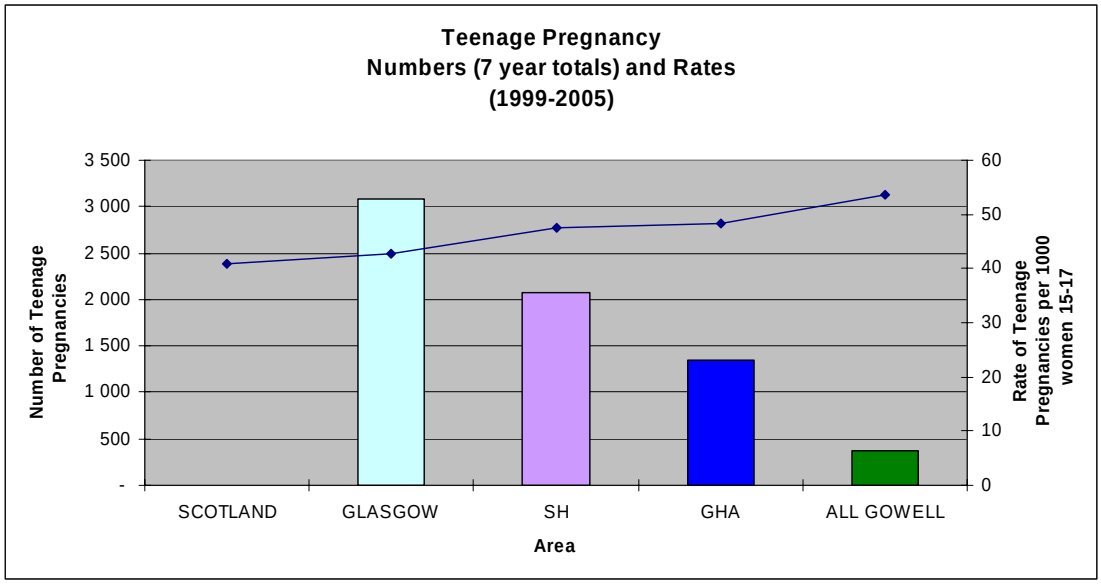


Teenage Pregnancy

Teenage pregnancy is defined as pregnancy in a woman under the age of 18 years and the denominator used for calculating rates is the population of women aged 15 to17 years. This method corresponds with the national data analysis method [16]. These rates are useful only as comparative tools between areas or time periods. Data displayed here refer to the seven year period from 1999 to 2005.

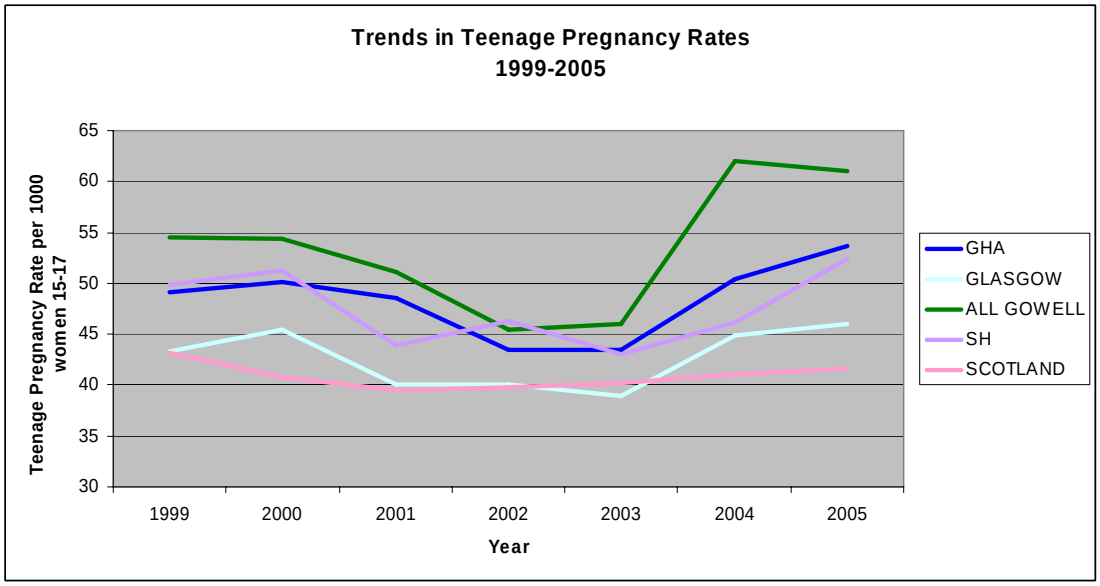
Overall rates of teenage pregnancy in Scotland and Glasgow are relatively similar (41 and 43 per 1,000 women aged 15-17 years, respectively). As seen in Figure 9.13, SH and GHA areas have higher rates (48 pregnancies per 1,000 women 15-17) and GoWell areas have a rate 25% above that of Glasgow (53 per 1,000 women 15-17).

Figure 9.13



Trends over the seven years illustrate fluctuations in Glasgow and its smaller areas against the background of a flat trend in Scotland (see Figure 9.14). In the last two years there have been increases in all Glasgow areas shown, after four years of generally decreasing rates.

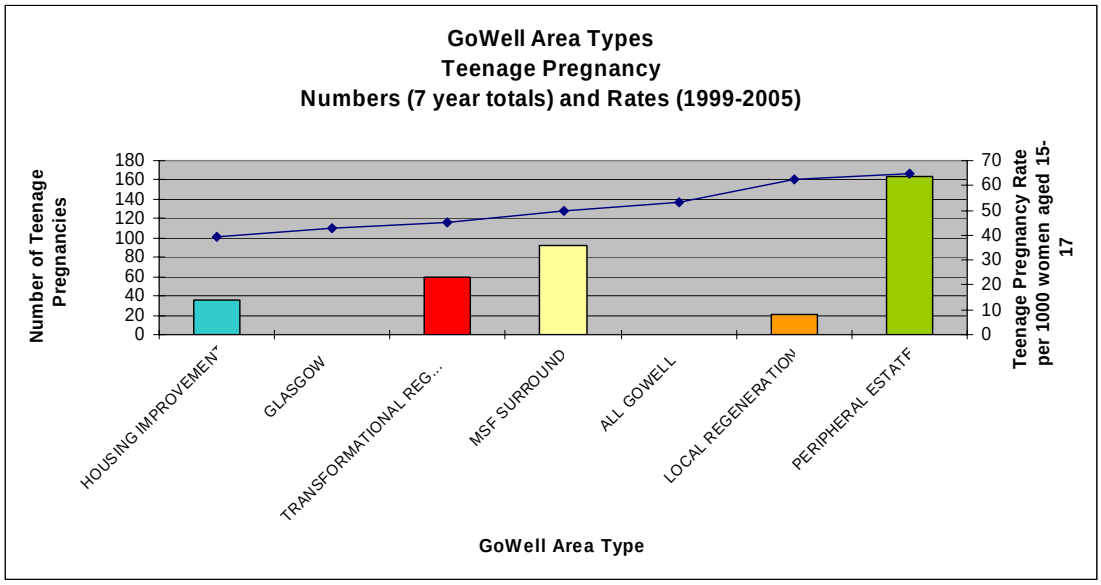
Figure 9.14



Teenage pregnancy rates are lowest in HI areas of GoWell (39 per 1,000 women 15-17) and highest in the PE areas (65 per 1,000 women 15-17). Figure 9.15 shows for each area type the total number of teenage pregnancies over the seven year period,

alongside the rate per 1,000 women aged 15-17 years. Although the pattern for GoWell area types is roughly representative of the GoWell areas there are two notable exceptions. Townhead and Gorbals Riverside areas have particularly high rates of teenage pregnancy (107 and 118 per 1,000 women 15-17, respectively) when compared to Glasgow and the other GoWell areas. See Appendix I for the graph displaying these data for each area.

Figure 9.15



Comments and Summary

- There is a common pattern for child and maternal health factors relating to Scotland, Glasgow, SH and GHA areas. SH and GHA areas have the lowest rates of breastfeeding, the youngest first time mothers, the highest rates of low birth weight babies, the highest percentages of pregnant smokers and the highest rates of teenage pregnancy. Scotland is at the other end of the scale, with Glasgow somewhere in between.

- Regarding the GoWell areas, there is so much variation within the areas that it is not useful to look at them together, as a single grouping, for these analyses.

- The Peripheral Estates have the least favourable profiles in the analysis of each child and maternal health variable: only 10% of mothers breastfeed, 6% of full term babies are born under 2.5kg, and almost 50% of pregnant women are current smokers. Despite the population of the PEs being less than 3% of Glasgow, more than 5% of Glasgow's total teenage pregnancies are in girls living in PEs.

- The four GoWell areas with large populations of asylum seekers – Shawbridge, Sighthill, Scotstoun Core and Red Road Core areas – have the highest rates of breastfeeding and are among the areas with the lowest rates of maternal smoking.

10. Health Determinants

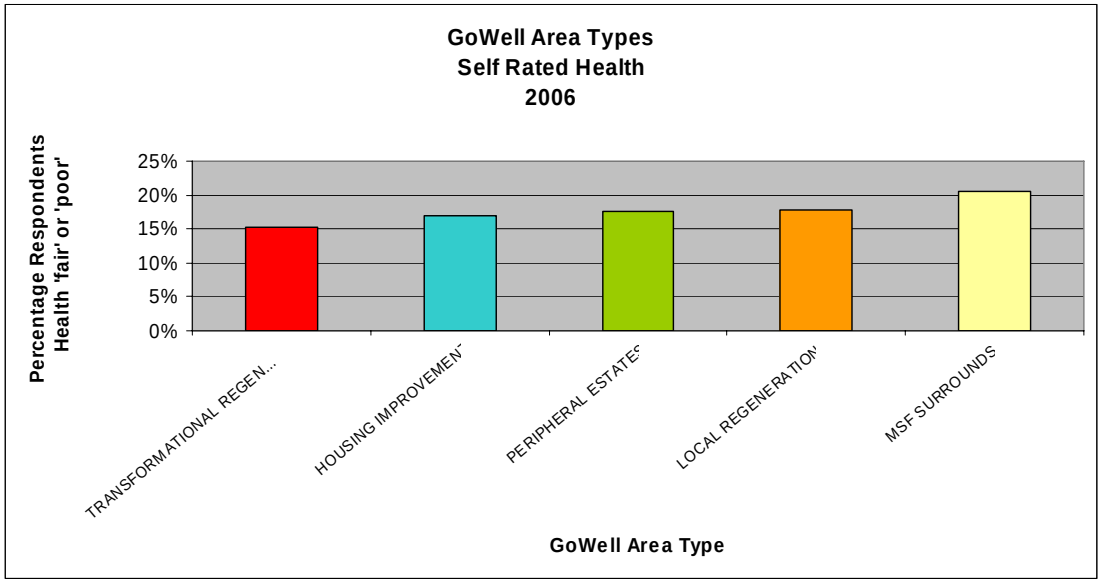
Health determinant data presented in this report are taken from the GoWell Community Health and Wellbeing Survey 2006 [3]. The survey interviewed more than 6,000 randomly selected adults from all 14 GoWell areas. Interviewees were asked to describe their health and how they felt about their housing, neighbourhood and the community they live in. Selected health and health determinant factors from the survey are displayed here to complement the health outcome analysis.

Self-Rated Health

Interviewees in the GoWell areas were asked to rate their health in one of five categories: 'excellent', 'very good', 'good', 'fair', or 'poor'. The percentage of respondents who rated their health either 'fair' or 'poor' in each area type and individual area are shown in Figures 10.1 and 10.2, respectively.

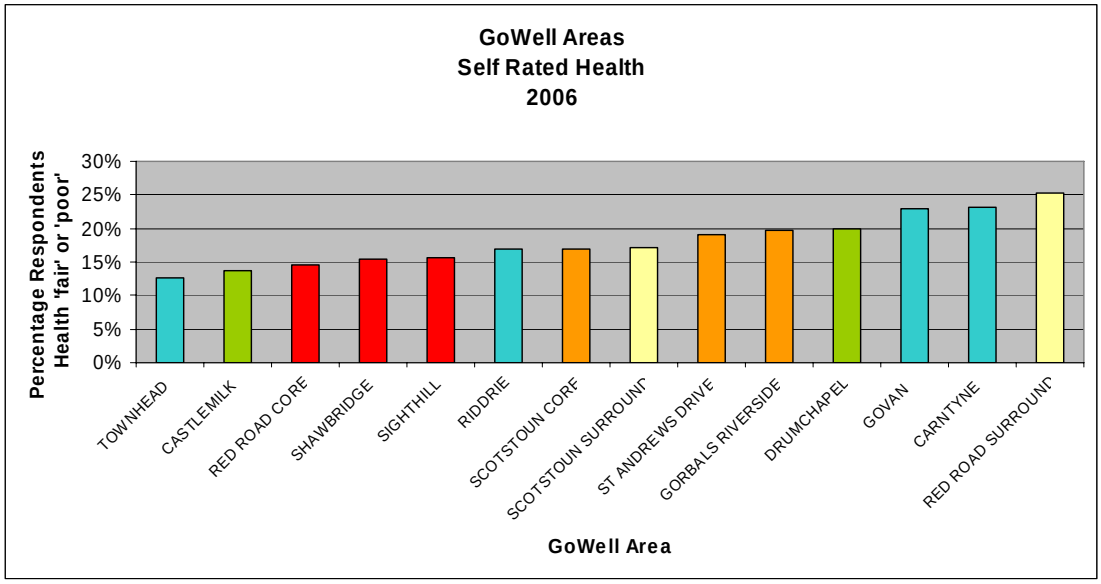
Respondents to the GoWell survey in all area types rated their health relatively well; between 15% (TR) and 21% (MSF Surrounds) rated their health either 'fair' or 'poor'. To put this in context, the 2003 Scottish Health Survey found that 32% of those living in Greater Glasgow and Clyde felt that their health was 'fair', 'bad' or 'very bad' [14].

Figure 10.1



The proportion of those rating their health as ‘fair’ or ‘poor’ in the individual GoWell areas ranged from 13% (Townhead) to 25% (Red Road Surrounds).

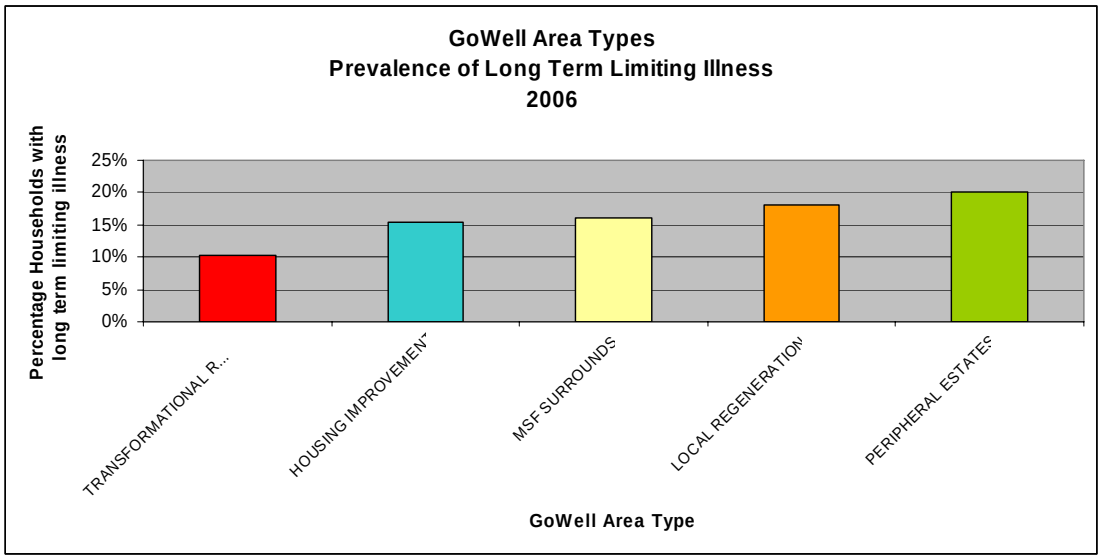
Figure 10.2



Long Term Limiting Illness

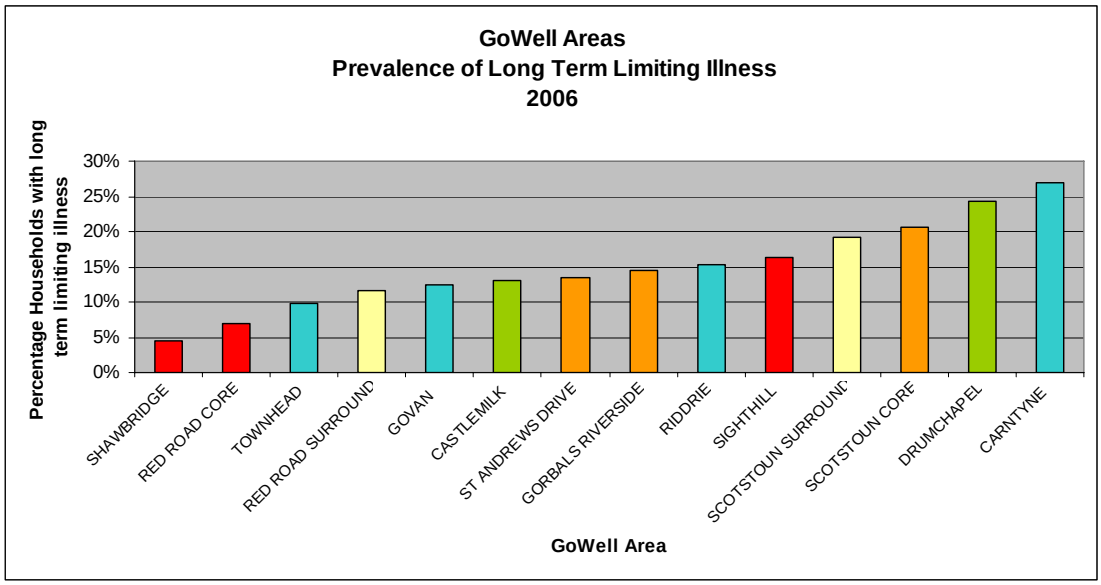
Respondents were asked if they, or anyone else in their household, had any long term limiting illness or disability. The proportion of households in GoWell area types that were reported to have at least one person with a long term illness was reported to be in the range of 10% to 20%.

Figure 10.3



The prevalence of long term illness in households within GoWell areas varies from less than 5% in Shawbridge to 27% in Carntyne.

Figure 10.4

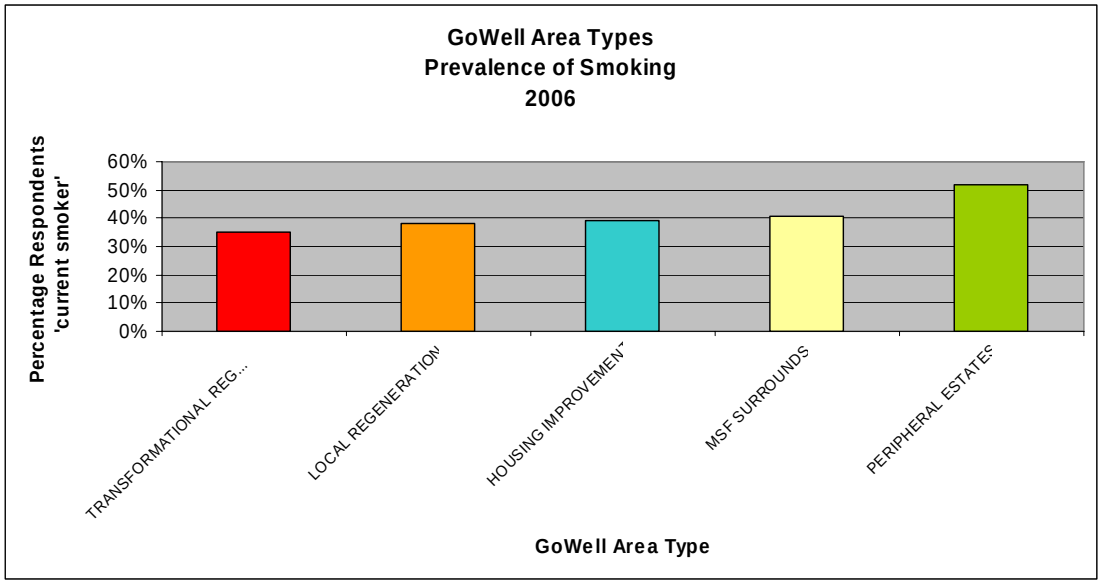


Smoking

Respondents were asked to describe their smoking status. The prevalence of smoking reported here is based on the number of people who classified themselves as current smokers.

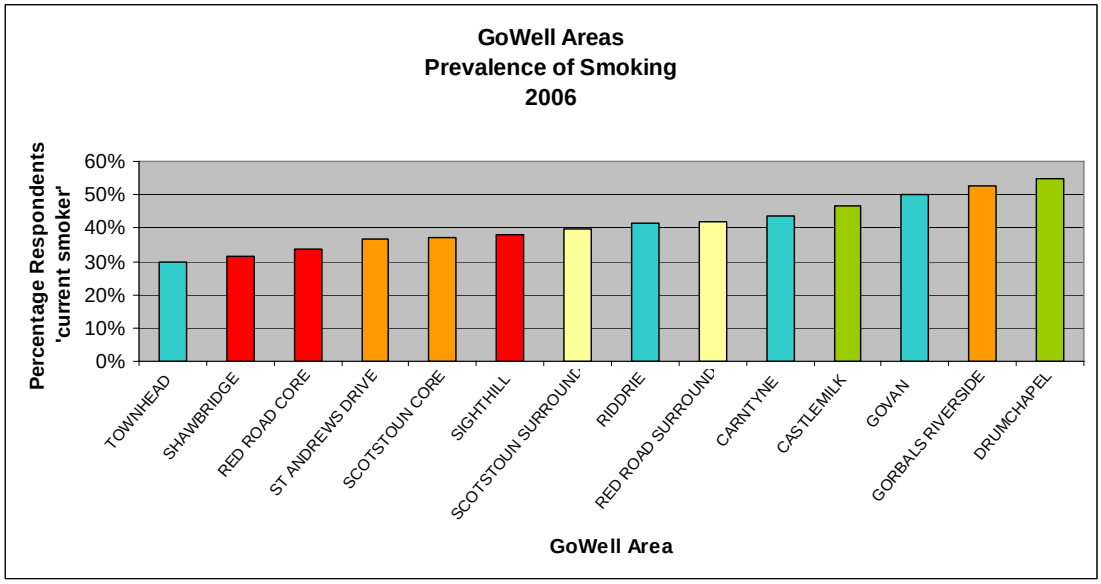
The 2003 Scottish Health Survey estimated that 31% of adults in Scotland smoked [17]. The prevalence of smoking in GoWell areas is relatively high. In PE areas it is estimated that over half the population are current smokers, the highest proportion of the GoWell area types (see Figure 10.5). PE areas also have the highest rate of lung cancer mortality among area types (see Figure 5.13).

Figure 10.5



The prevalence of smoking in GoWell areas is in a range between 30% (Townhead) and 55% (Drumchapel).

Figure 10.6



Adults without Qualifications

Respondents were asked about the level of qualifications that they held. The proportion of adults who reported that they had no qualifications is presented here.

Between 61% (PE) and 74% (LR) of respondents in the GoWell area types reported that they had no qualifications (see Figure 10.7)

Figure 10.7

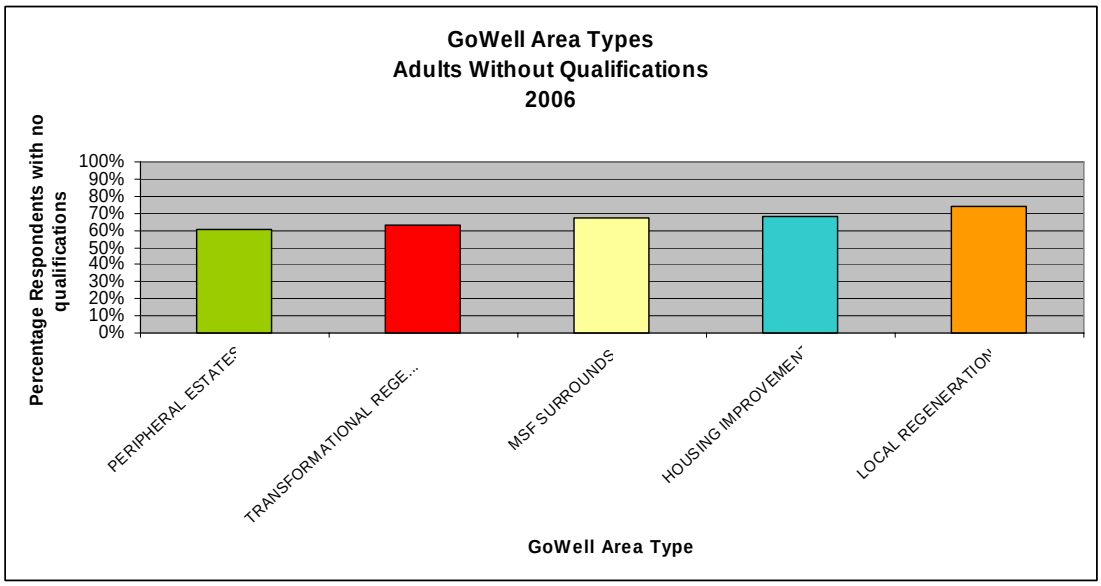
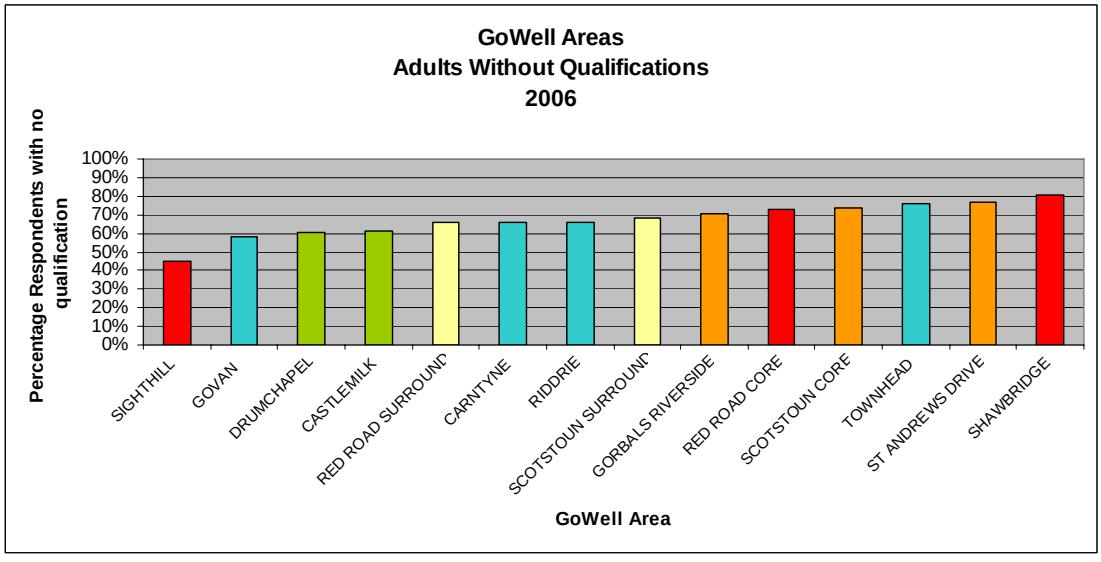


Figure 10.8



Perceived Problems of Violence, Assaults and Mugging

Respondents were asked to describe their concern about the incidence of violence, assaults and muggings in their area. Responses were categorised into the following: 'not a problem', 'slight problem', 'serious problem', 'don't know'. The proportion of

respondents who said that violence in their area was either a slight or serious problem is displayed in Figures 10.9 and 10.10.

While only 23% of residents in LR areas described violence as a problem, 39% and 44% of people in MSF Surrounds and TR areas, respectively, considered violence a problem. Ironically, hospital admission rates for assault are highest in LR areas and lowest in MSF Surrounds areas.

Figure 10.9

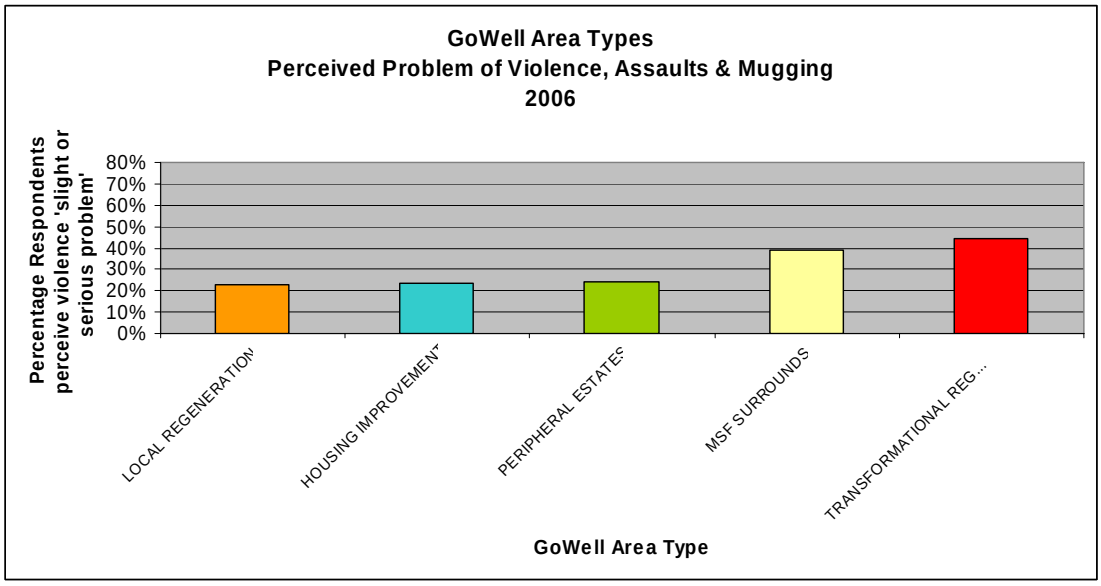
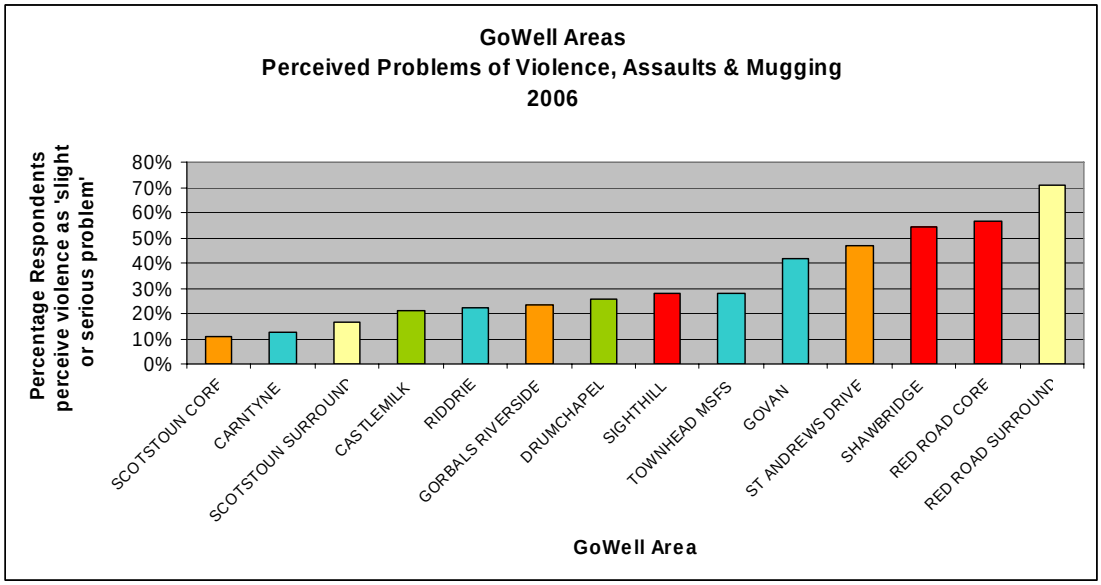


Figure 10.10



Perceived Problem of Drug Use or Dealing

Respondents were asked to describe their concern about drug use or dealing in their area. Responses were categorised into the following: 'not a problem', 'slight problem', 'serious problem', 'don't know'. The proportion of respondents who said that drugs in their area were either a slight or serious problem is reported here.

The proportion of respondents who consider drug use or dealing a problem in LR areas was reported to be 28%. In TR areas 53% of respondents thought that drugs were a problem where they lived. Drug-related hospital admission rates are very high in TR areas, although not as high as in LR areas (see Figure 8.9).

Figure 10.11

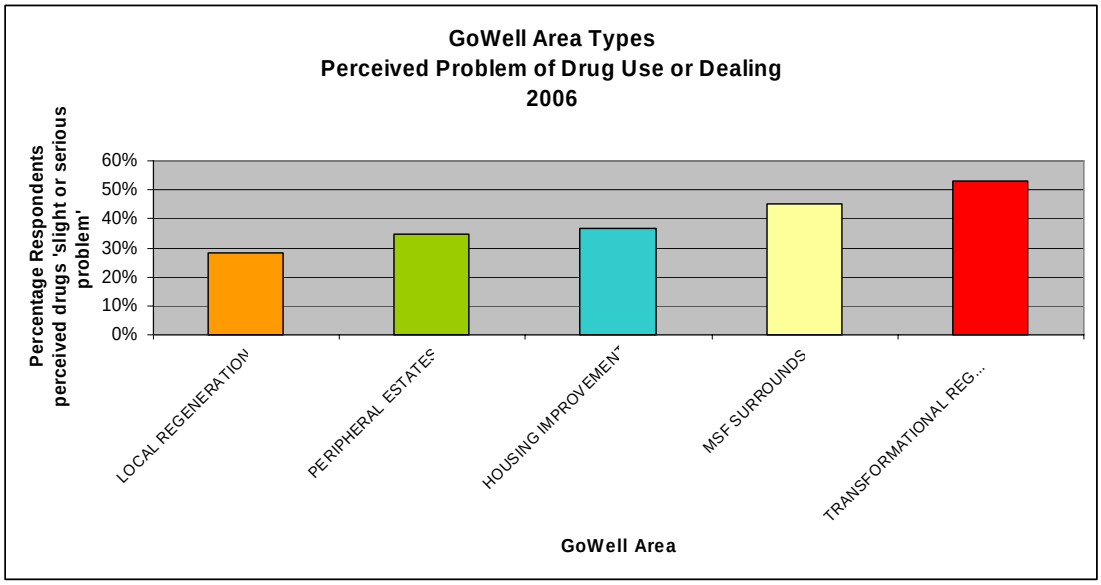
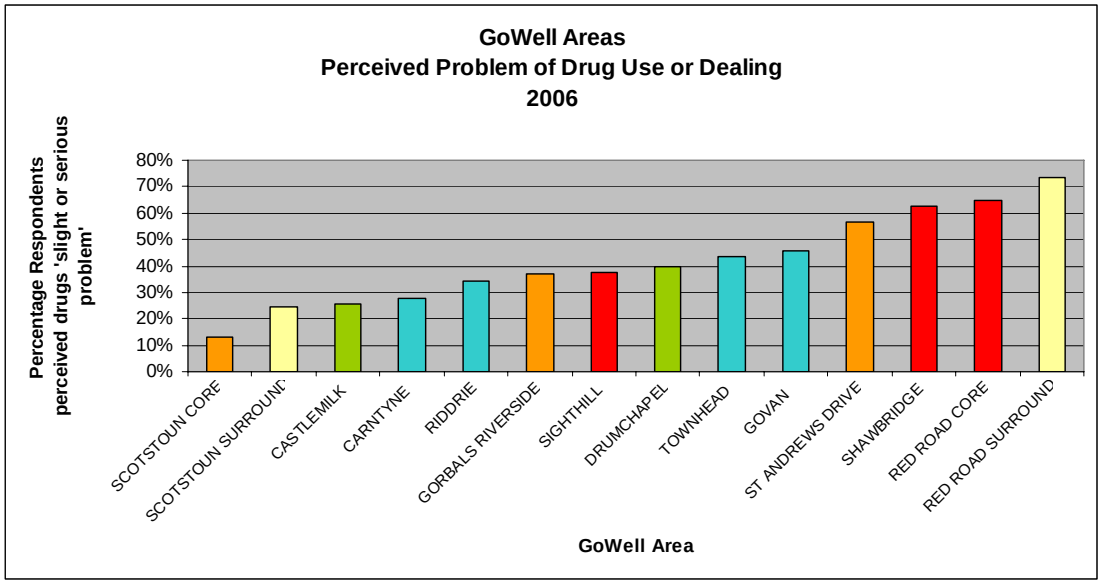


Figure 10.12



Perceived Problem of Drunk or Rowdy Behaviour

Respondents were asked to describe their degree of concern about the issue of drunken or rowdy behaviour in their area. Responses were categorised into the following: 'not a problem', 'slight problem', 'serious problem', 'don't know'. The proportion of respondents who said that drunken or rowdy behaviour in their area was either a slight or serious problem is displayed in Figures 10.13 and 10.14.

As with the patterns seen for the perceived problems of violence and drugs, residents in LR areas are the least concerned about drunken or rowdy behaviour while those in MSF Surrounds and TR areas are the most concerned (see Figure 10.13). Alcohol-related mortality rates and hospital admission rates are highest in LR areas and lowest in MSF Surrounds areas.

Figure 10.13

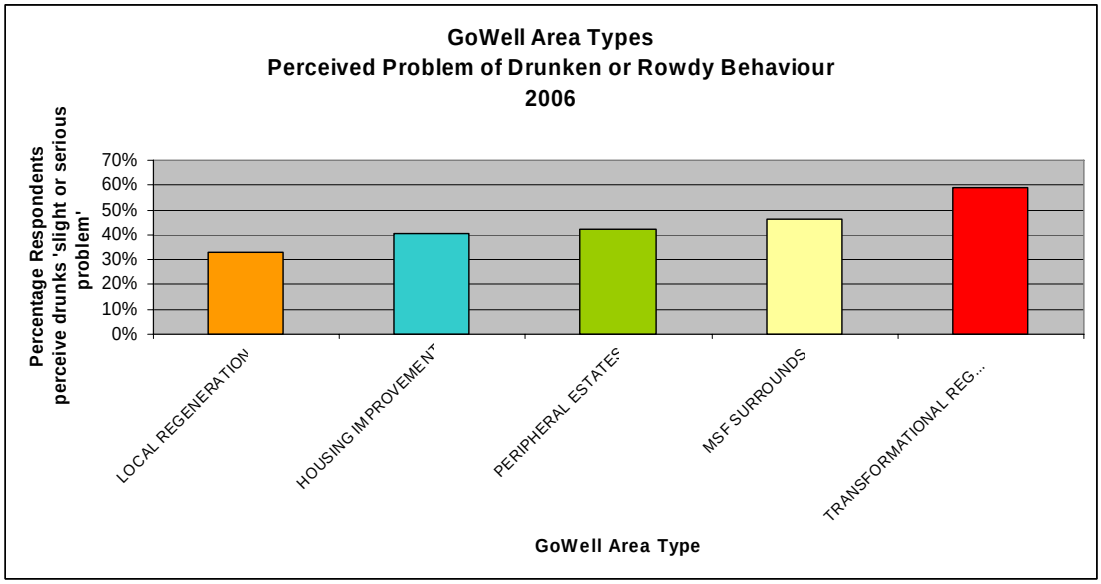
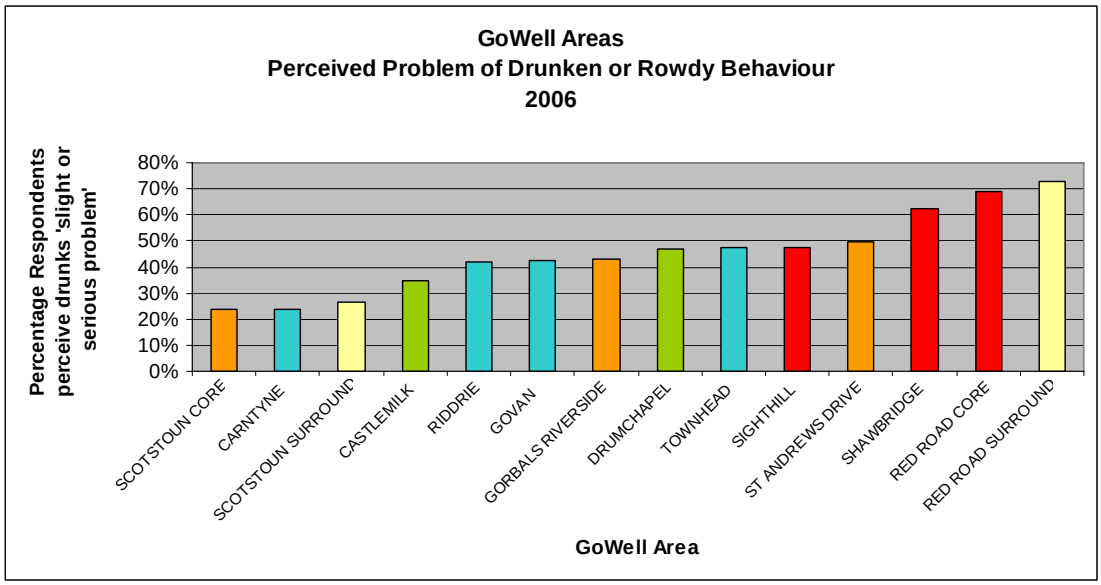


Figure 10.14



Comments and Summary

- Despite evidence from the health outcome data which shows that the population of GoWell areas have very poor health, the survey found that most people rated their health relatively well. These findings may indicate something about the lack of health awareness in the GoWell areas, or the adaptation and acceptance of people to their situation.

- Self-reported smoking prevalence is very high in the GoWell areas. Considering the causal association between smoking and lung cancer, it should not be a surprise that these areas have such high rates of lung cancer mortality (see Figure 5.11).

- When asked to evaluate the degree to which drugs, drunkenness and violence were a problem in their neighbourhood, there was considerable variation across areas. Those areas with the highest hospital admission rates from these issues were not the areas where residents expressed most concern about the problems.

11. Summary and Discussion

Population Demographics

- The population of all the GoWell areas make up 9% of the population of Glasgow. There are a large proportion of children in the GoWell population, and a high dependency ratio.
- Fertility rates in all areas are increasing but GoWell areas maintain a high fertility rate compared to Glasgow, SH or GHA areas.
- All cause death rates in GoWell areas are relatively high, but the annual number of births has exceeded the number of deaths since 2003.

Life Expectancy

- Male life expectancy in the GoWell population is substantially lower than in the Glasgow population.
- The difference between life expectancy in men and women living in the GoWell areas is 10 years.
- In Local Regeneration area types, on average, only 43% of 15 year old boys will survive to retirement age, 65.

Mortality

- Deaths from all cancers, coronary heart disease and cerebrovascular disease occur at a higher rate in GoWell areas than in Glasgow, although variation displayed within the GoWell areas may be significant.
- Lung cancer mortality rates are markedly higher in GoWell areas than Glasgow, especially in the Local Regeneration and Peripheral Estates area types.
- The rate of deaths due to suicide in GoWell areas are particularly striking. Again, Local Regeneration and Peripheral Estate area types have very high rates compared to Glasgow, and especially Scotland.
- The mean rate of suicide mortality in Scotstoun Core, Townhead and Gorbals Riverside is 13 times as great as the mean rate in Carntyne, Shawbridge and Scotstoun Surround.

- The percentage of deaths in Glasgow that can be attributed to areas of Social Housing, GHA housing or GoWell areas are disproportionately high considering their respective population sizes. This is especially true in relation to deaths due to lung cancer, suicide, and alcohol.

Hospitalisation and Injury

- The rate of patients being registered with cancer in Glasgow is similar to those in SH, GHA and GoWell areas. Despite this, cancer mortality rates in these areas are higher than the Glasgow average.
- The rate of cancer registrations in the Local Regeneration area type is 22% less than the Glasgow rate. The cancer mortality rate in the Local Regeneration area type is 25% greater than in Glasgow.
- Over the five year period shown, rates in heart disease hospital admissions in SH, GHA and GoWell areas have steadily decreased, closing the gap between these areas and Glasgow.
- Emergency, unintentional injury and assault hospital admission rates in SH, GHA and GoWell areas are high compared to Glasgow. The Peripheral Estates and Local Regeneration area types have particularly high admission rates for all three causes.

Alcohol and Drugs

- Glasgow has a significantly greater burden of health problems associated with alcohol and drugs than Scotland. The SH and GHA areas would appear to contribute the majority of Glasgow's alcohol and drug deaths/hospitalisations.
- GoWell areas have particularly high rates of mortality and hospitalisation associated with alcohol and drugs. In the Local Regeneration and Transformational Regeneration area types these problems are at their peak.
- Each year, on average, seven people out of 1,000 in Gorbals Riverside will be admitted to hospital with alcohol-related or attributable conditions.

Child and Maternal Health

- Compared to Glasgow, SH and GHA areas are characterised by low breastfeeding rates, high rates of low birth weight babies, a high proportion of pregnant smokers and a high rate of teenage pregnancy.
- GoWell areas show marked diversity in child and maternal health factors. In the Transformation Regeneration area type 62% of mothers breastfeed; only 10% do so in the Peripheral Estates.
- In Glasgow, 13% of low weight full term births are in mothers from GoWell areas.
- A quarter of pregnant women in Scotland are current smokers. Almost a third of pregnant women in Glasgow are current smokers. Half of pregnant women in the Peripheral Estates are current smokers.

Health Determinants

- The baseline survey data showed there to be notably high levels of smoking prevalence in the GoWell areas, as well as high proportions of residents without any educational qualifications.
- Interestingly, however, residents of the GoWell areas also rate their own health relatively highly.

A Broad Model of Health

Considered separately, the health factors covered in this report are interesting, but the combined, overall picture of the state of health in certain areas may be more relevant. With respect to the GoWell areas, it may be useful to discover which areas are 'worse off' than the others. Table 11.1 shows the health outcome factors and the GoWell area type which fares 'best' or 'worst' for each one. It can be seen that while the MSF Surrounds area type has relatively good overall health, the Local Regeneration and Peripheral Estate area types suffer by comparison. In particular, the Local Regeneration area type has the worst alcohol/drugs/assault/suicide health problems, whereas the Peripheral Estate area type has poor child and maternal health. A similar table displaying the 'best' and 'worst' individual areas is included in Appendix I.

Table 11.1

FACTOR TYPE	HEALTH FACTOR	'BEST' AREA	'WORST' AREA
Population demographics	Dependency ratio	PE	HI
	All cause mortality	MSF Surrounds	LR
Life Expectancy	Male life expectancy	MSF Surrounds	LR
	Female life expectancy	MSF Surrounds	LR
Mortality	Cancer mortality (<75s)	TR	PE
	CHD mortality (<75s)	MSF Surrounds	LR
	CVD mortality (<75s)	MSF Surrounds	HI
	Lung cancer mortality	TR	PE
	External cause mortality	MSF Surrounds	LR
	Suicide mortality	MSF Surrounds	LR
Hospitalisation and Injuries	Cancer registrations	LR	MSF Surrounds
	HD hosp	TR	HI
	CVD hosp	MSF Surrounds	PE
	Emergency admissions	MSF Surrounds	LR
	Unintentional injury	MSF Surrounds	PE
	Assault admissions	MSF Surrounds	LR
Alcohol and Drugs	Alcohol mortality	MSF Surrounds	LR
	Alcohol admissions	MSF Surrounds	LR
	Drugs admissions	MSF Surrounds	LR
Child and Maternal Health	Breastfeeding	TR	PE
	Average age ft mum	HI	PE
	LBW babies	MSF Surrounds	PE
	Maternal smoking	TR	PE
	Teenage pregnancy	HI	PE

Conclusions

Generally, the population of Glasgow is in a worse health state than the average Scottish population. This was already known.

What may have been speculated about the health of those living in social housing has been confirmed by this report. In most health outcome analyses SH and GHA housing areas compare badly to Glasgow as a whole. Life expectancy is lower,

alcohol and drug associated health problems are more pronounced, and children are not getting as good a start at life.

If those living in social housing have relatively poor health, GoWell area residents are, on average, much worse off. Mortality and morbidity related to social problems such as alcohol, drugs and violence are particularly evident. Stratified by area type, the type that most reflects Glasgow health is the MSF Surrounds area type.

There is some evidence that the 'average' health of the population in the Transformational Regeneration area type is affected by the asylum seeker/refugee population resident in some GoWell areas. This is especially significant in the health of pregnant women and new babies.

Also striking is the relatively poor health of the population in the Peripheral Estate area type. The Peripheral Estate areas (Castlemilk and Drumchapel) have been the focus of a considerable amount of regeneration investment in recent decades, and yet the areas still exhibit among the worst health profiles of the city. This is relevant when we consider the context in which the GoWell research programme has been established, and the aspirations for the current wave of GHA-led housing investment in Glasgow.

It is clear that the health of the GoWell population is cause for concern. How the planned housing and community regeneration projects will affect this, and what the impact on Glasgow will be, remains to be seen.

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Appendices

Appendix I – Supplementary Figures

Population Demographics

Trends in Population Size

Figure 3.25

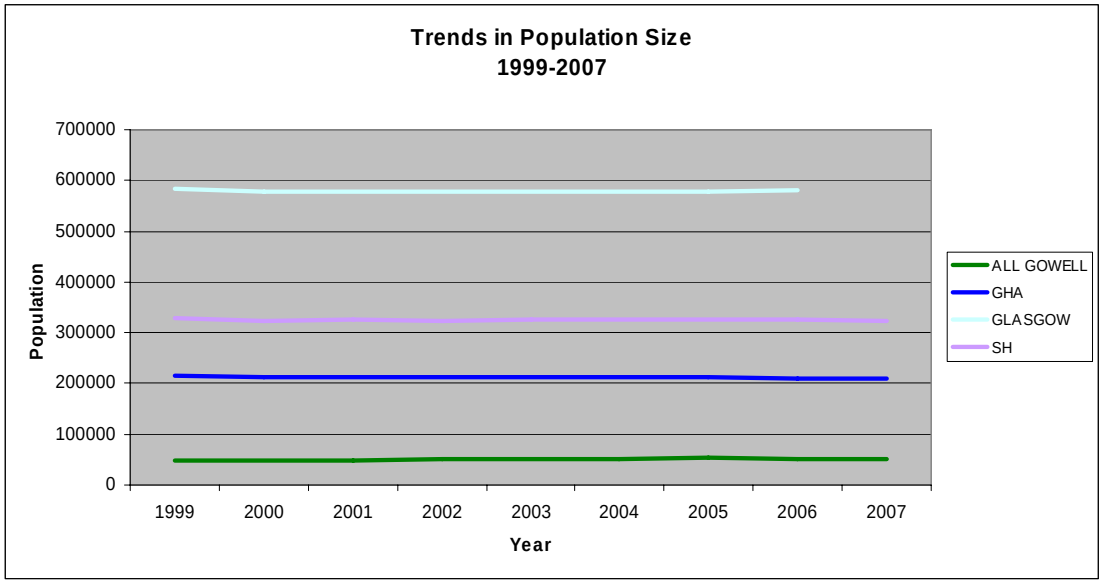
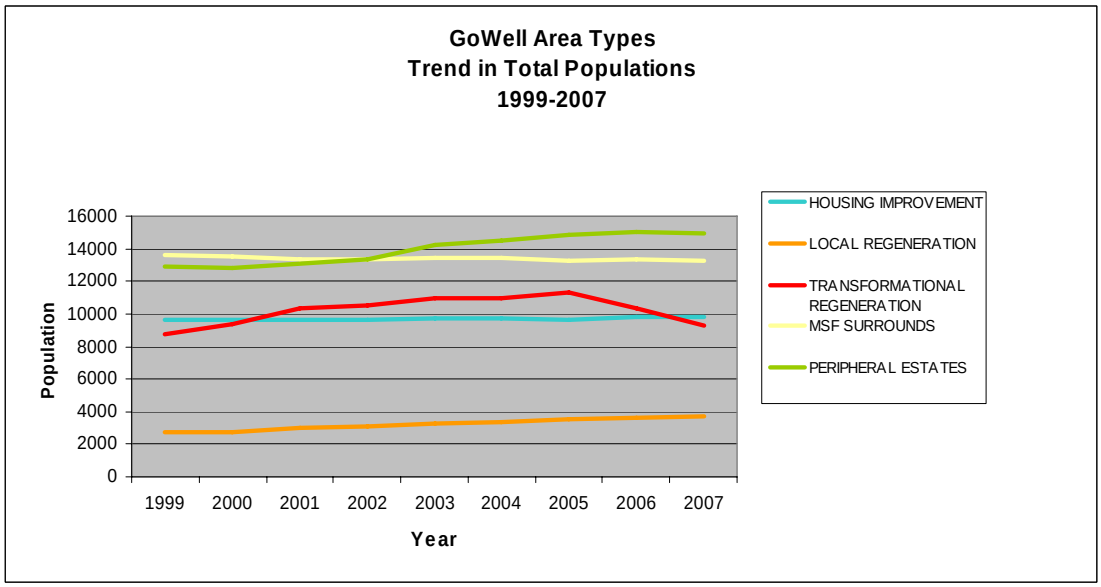


Figure 3.26



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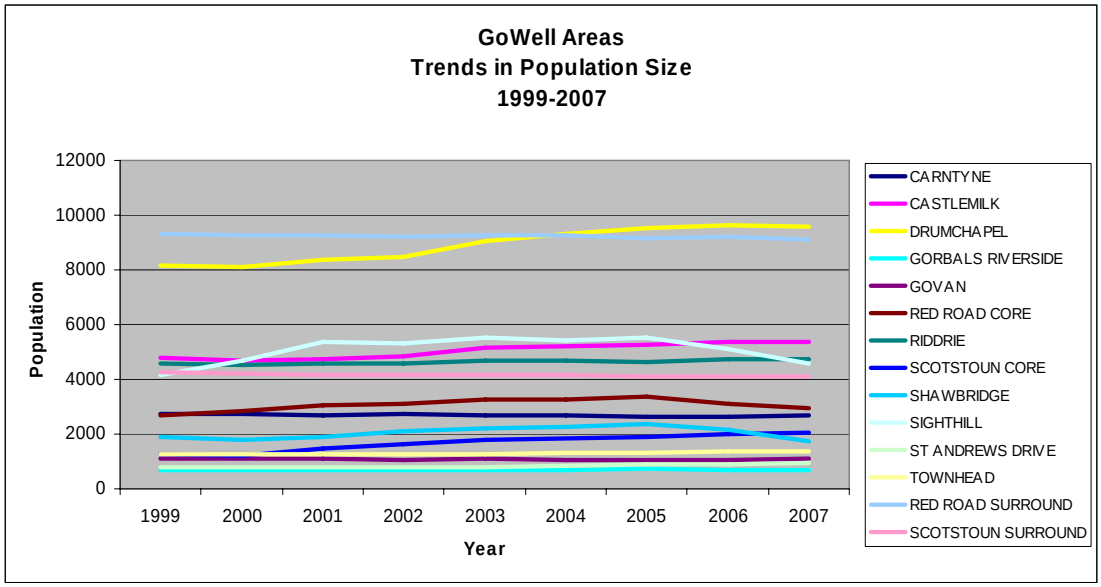
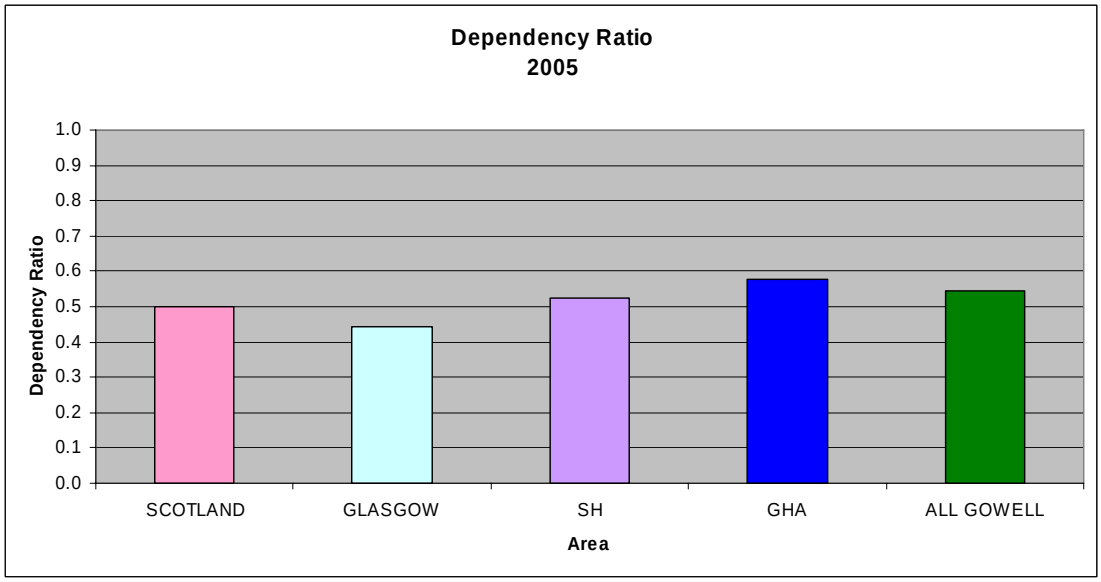


Dependency Ratios

Figure 3.28



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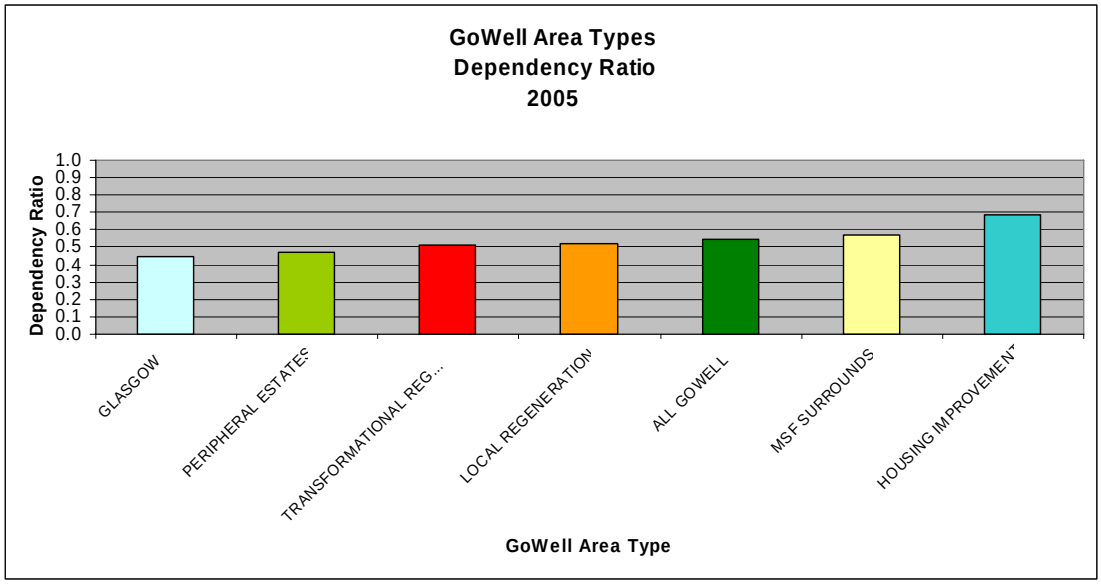

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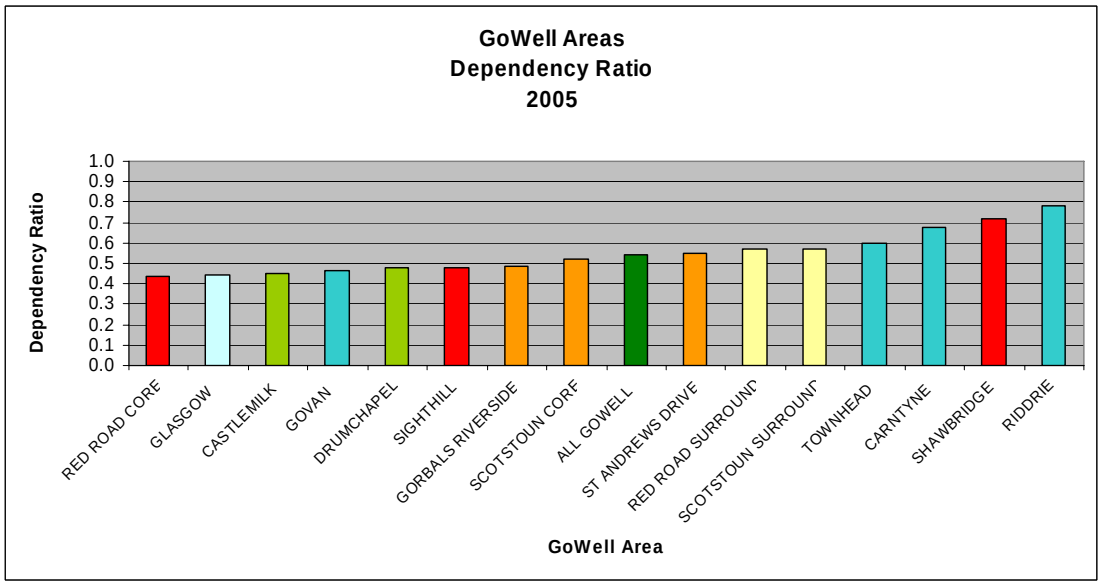

Trends in Fertility Rates

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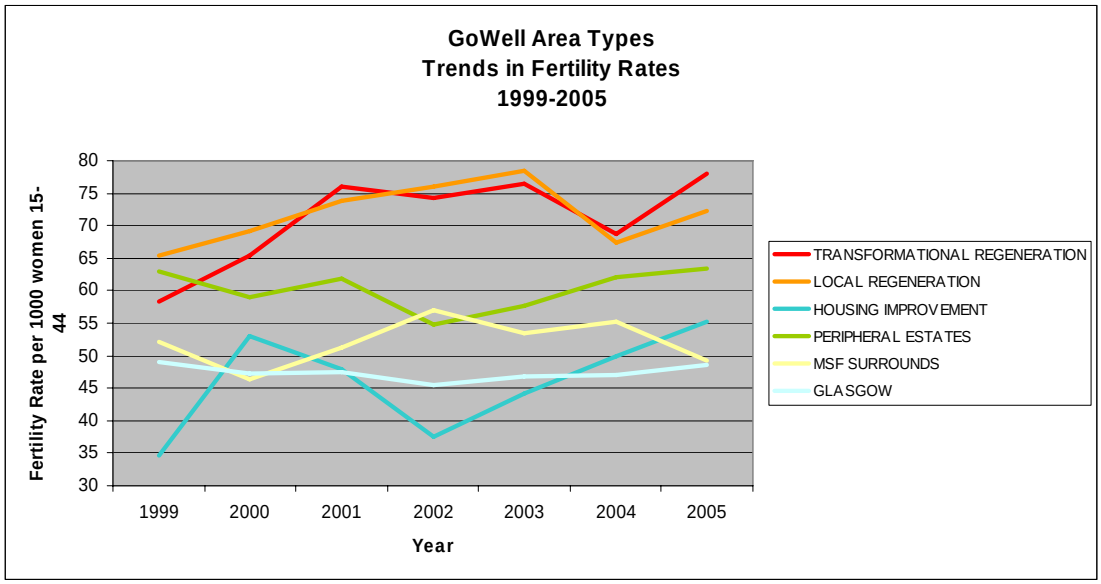

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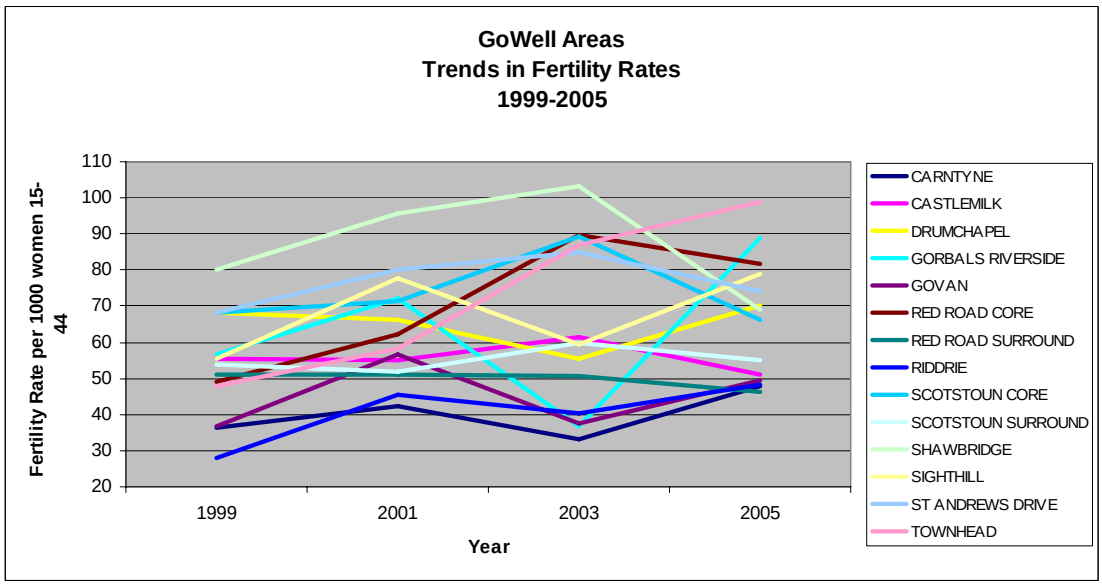
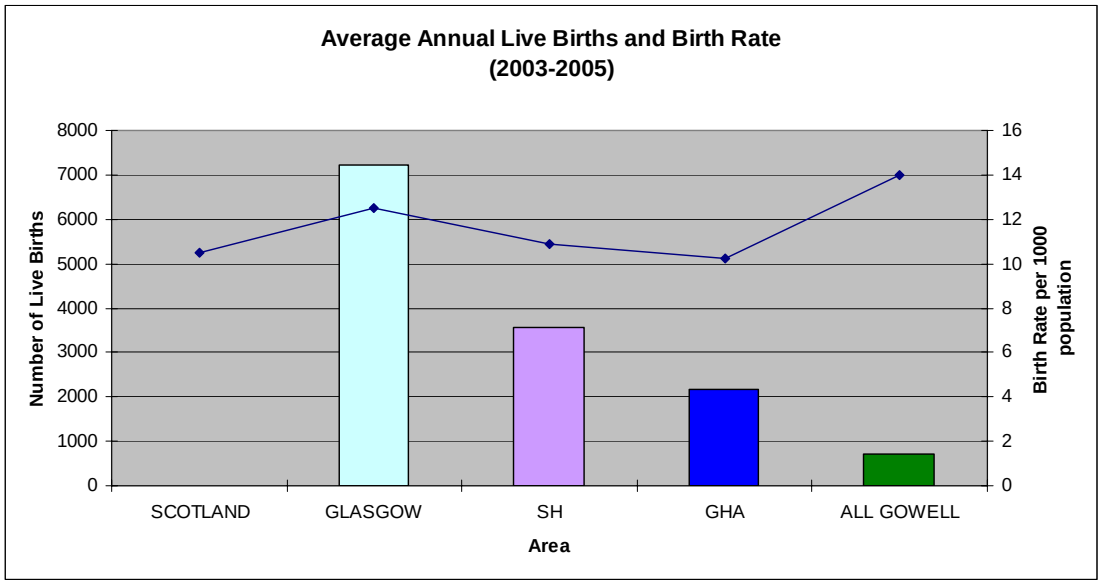


Birth Rates

Figure 3.33



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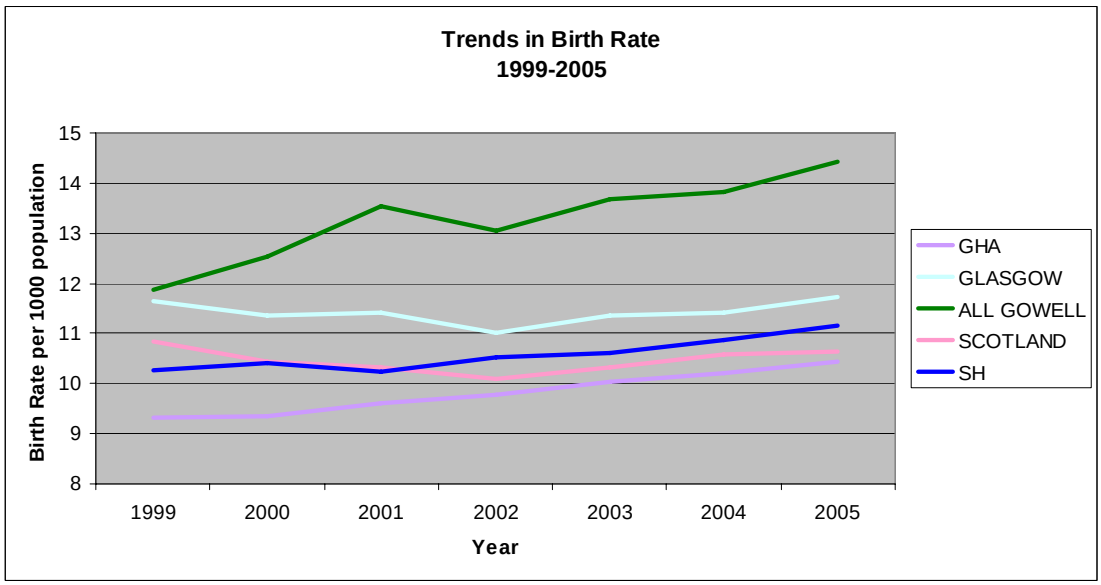

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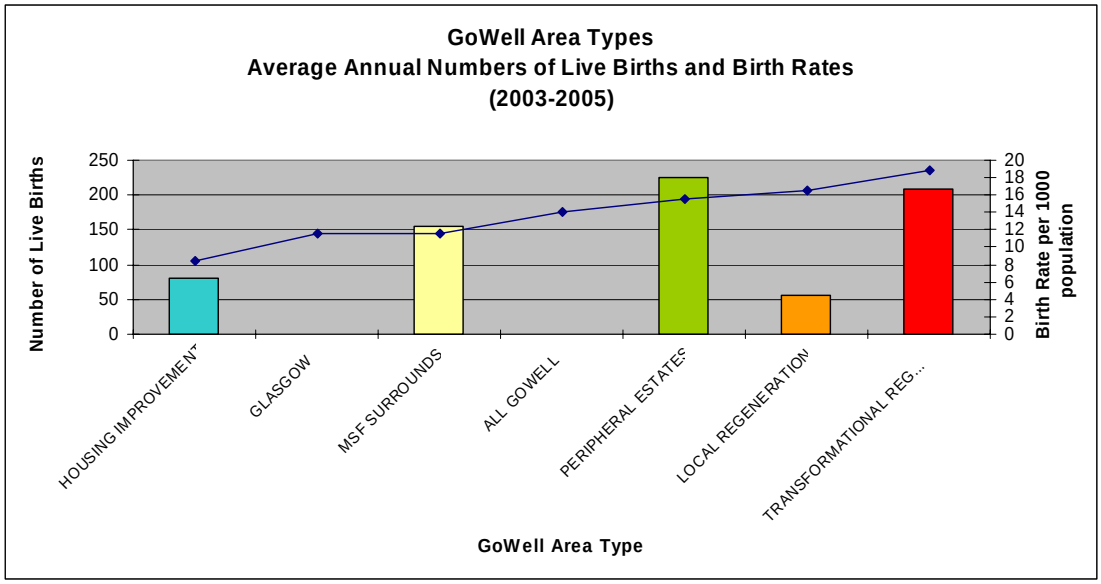
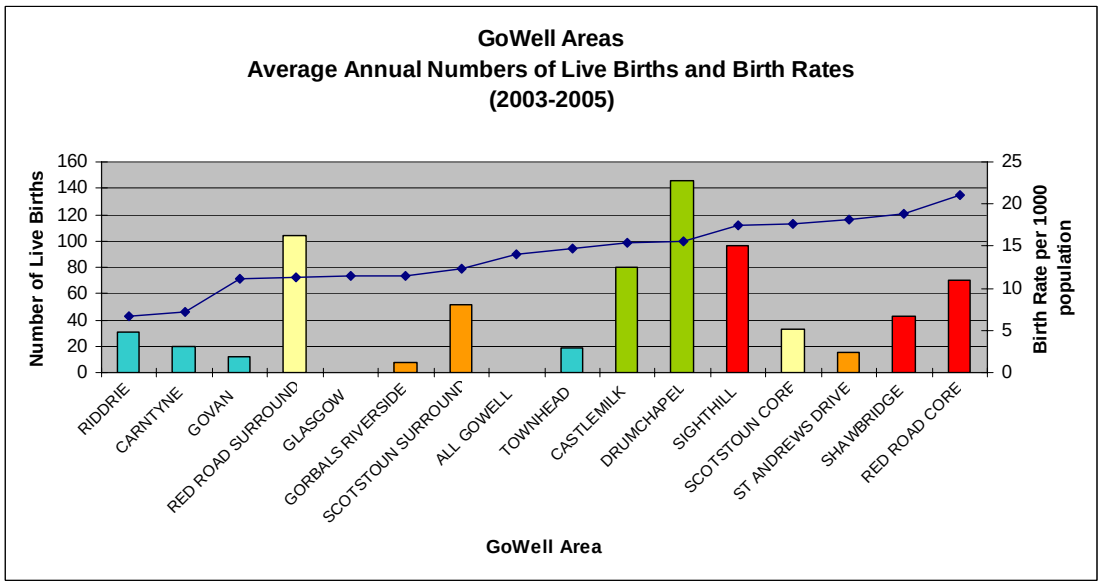
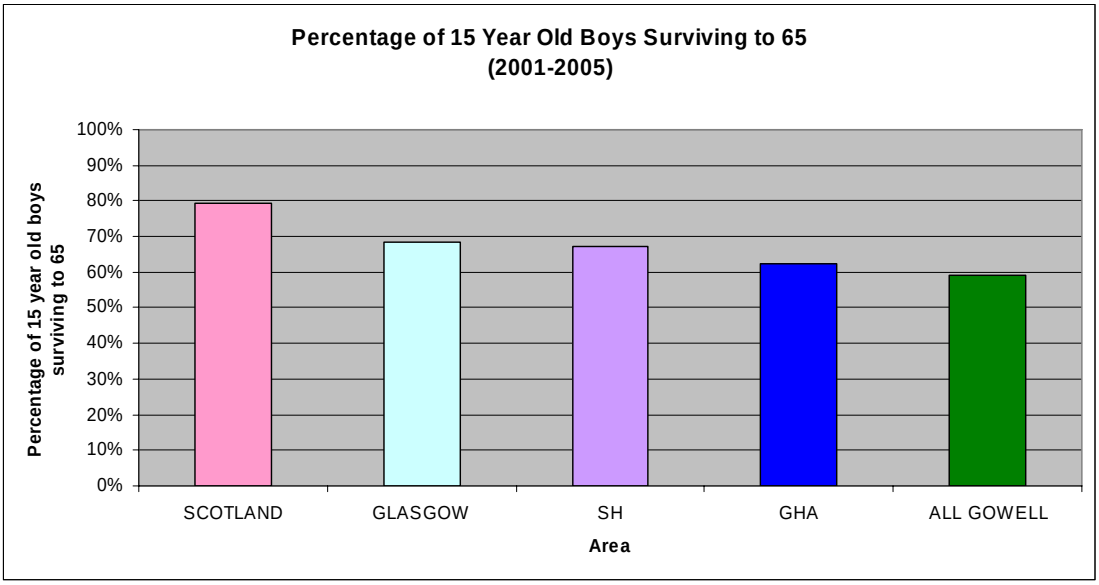


Figure 3.36



Percentage of 15 Year Olds Surviving to 65

Figure 4.7



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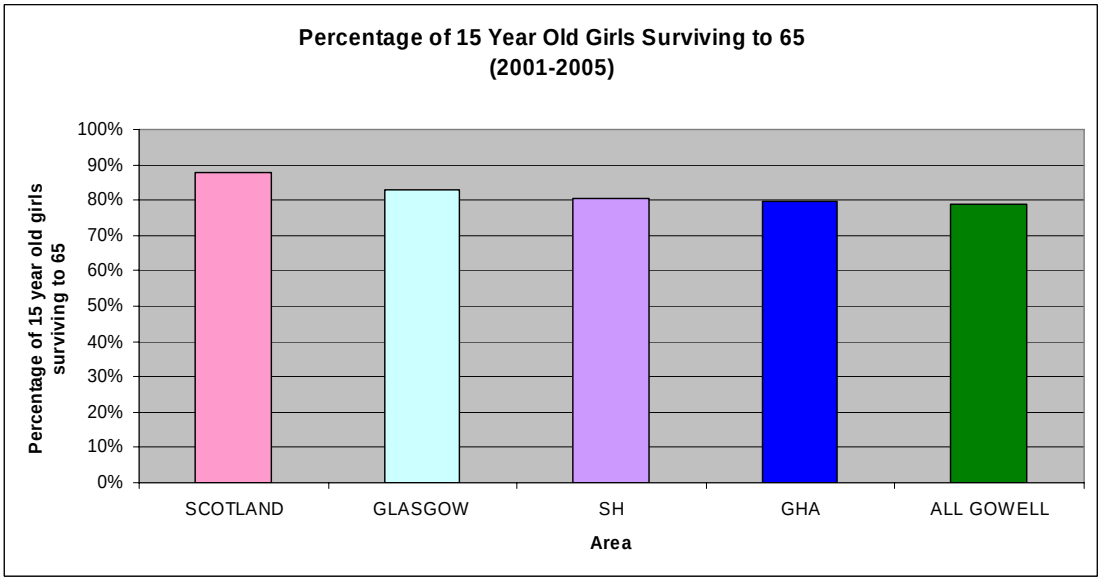

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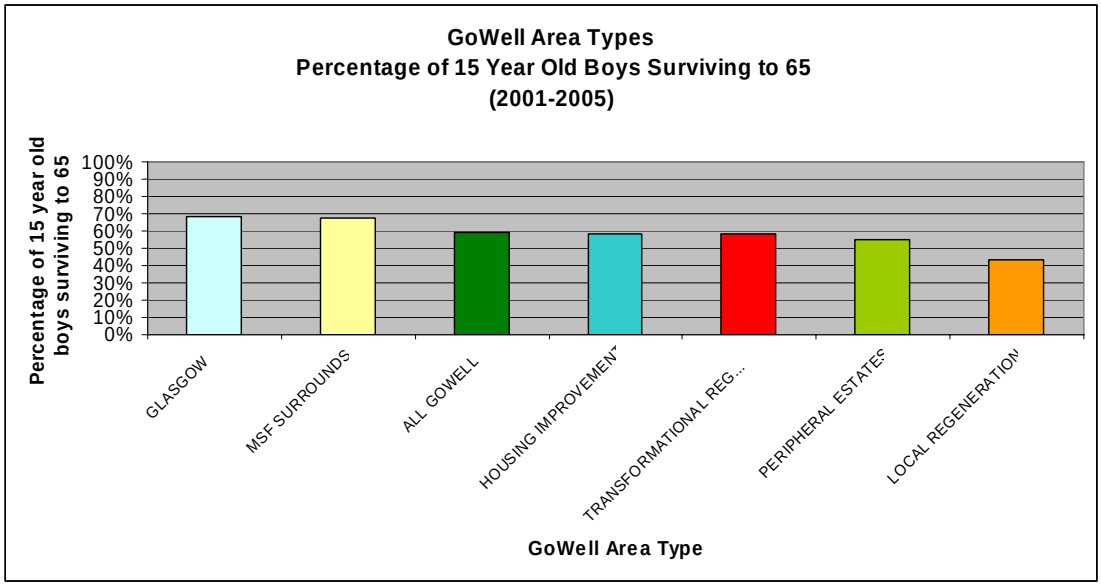

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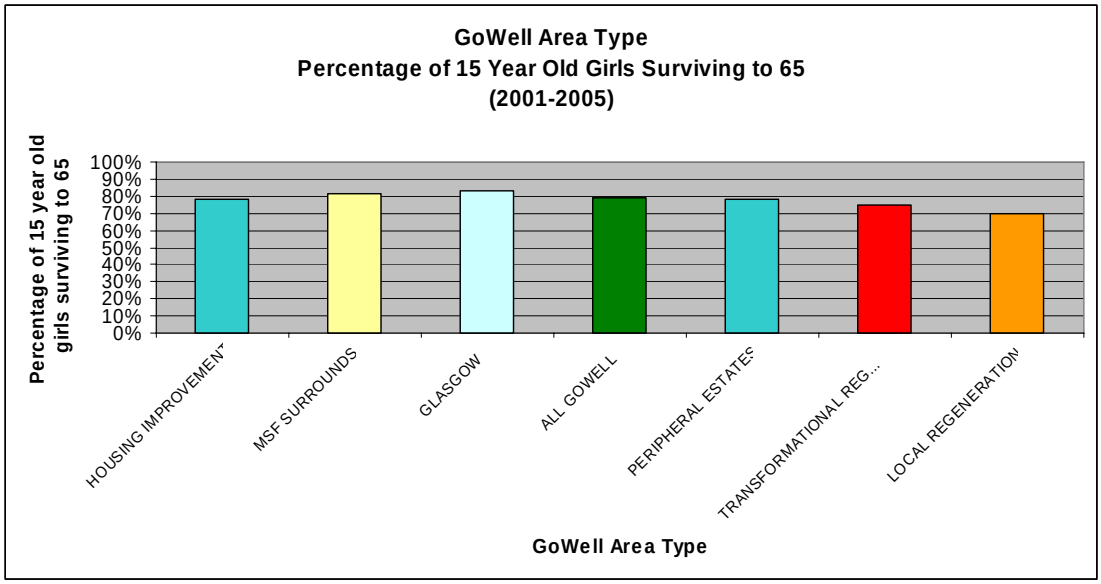
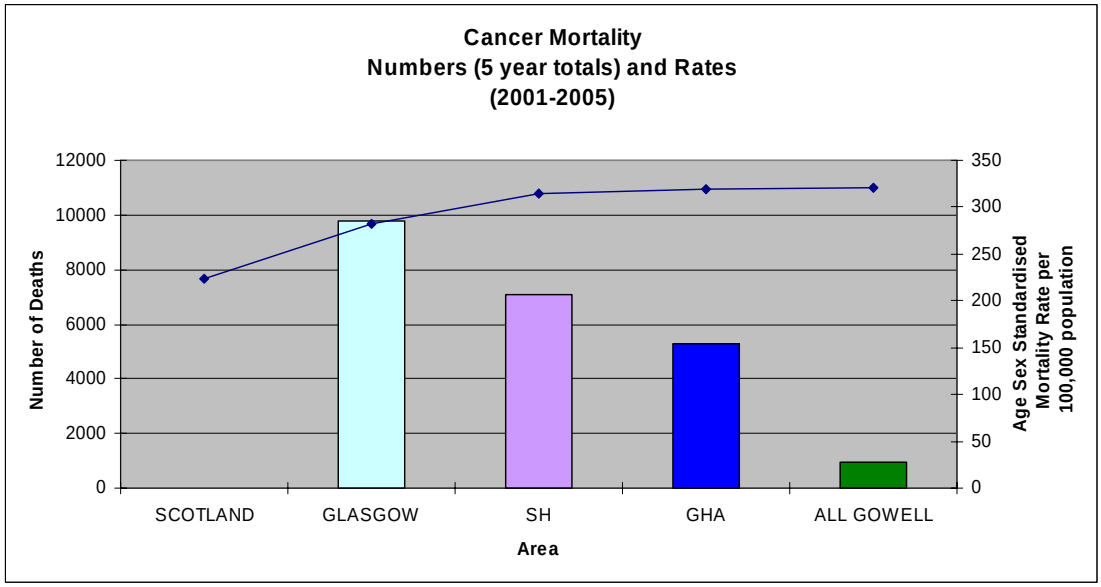


Cancer Mortality (all ages)

Figure 5.20



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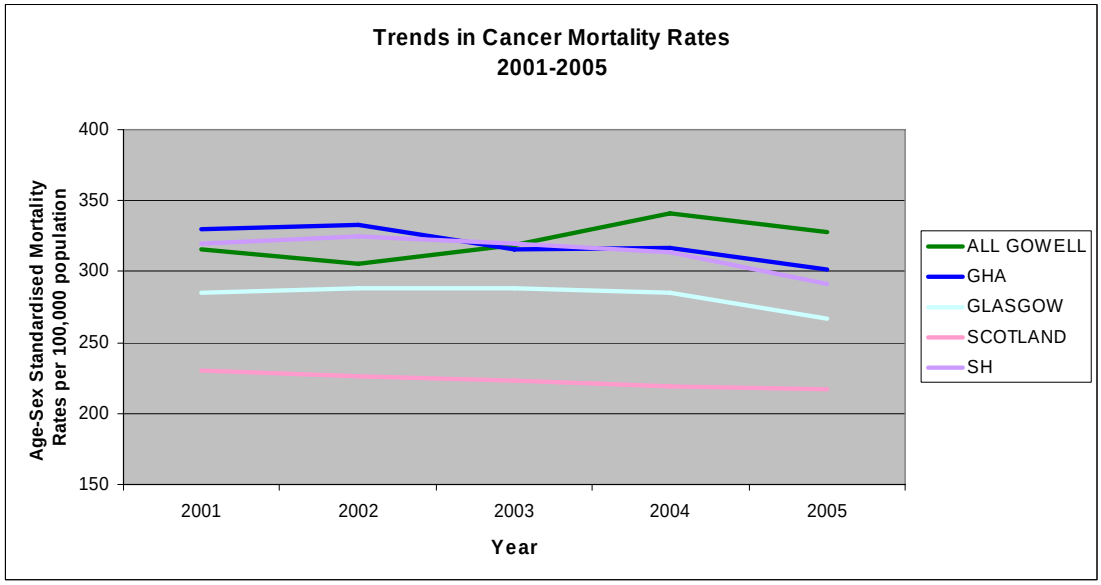

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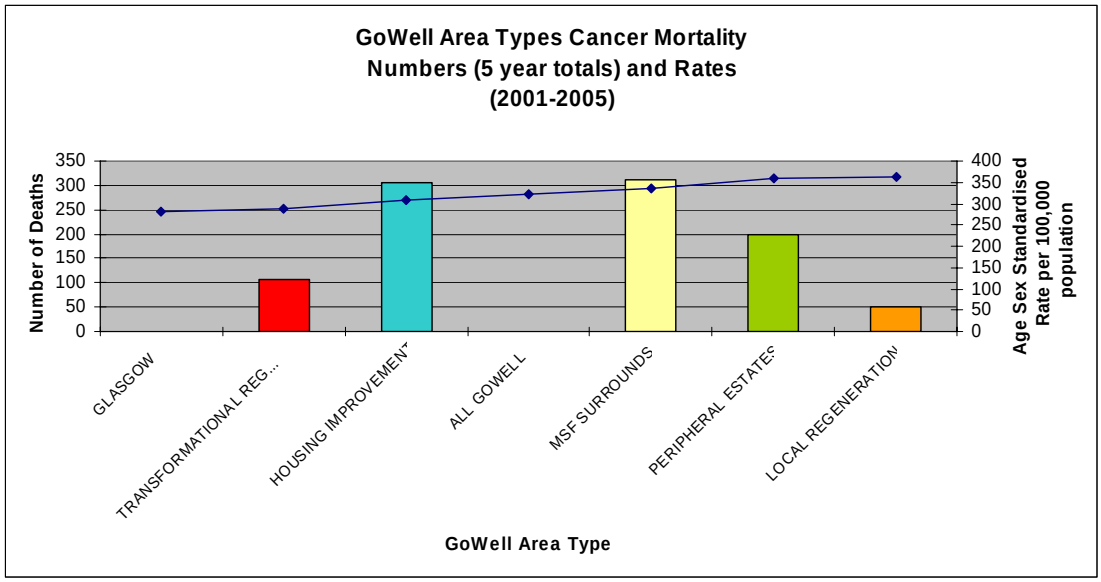

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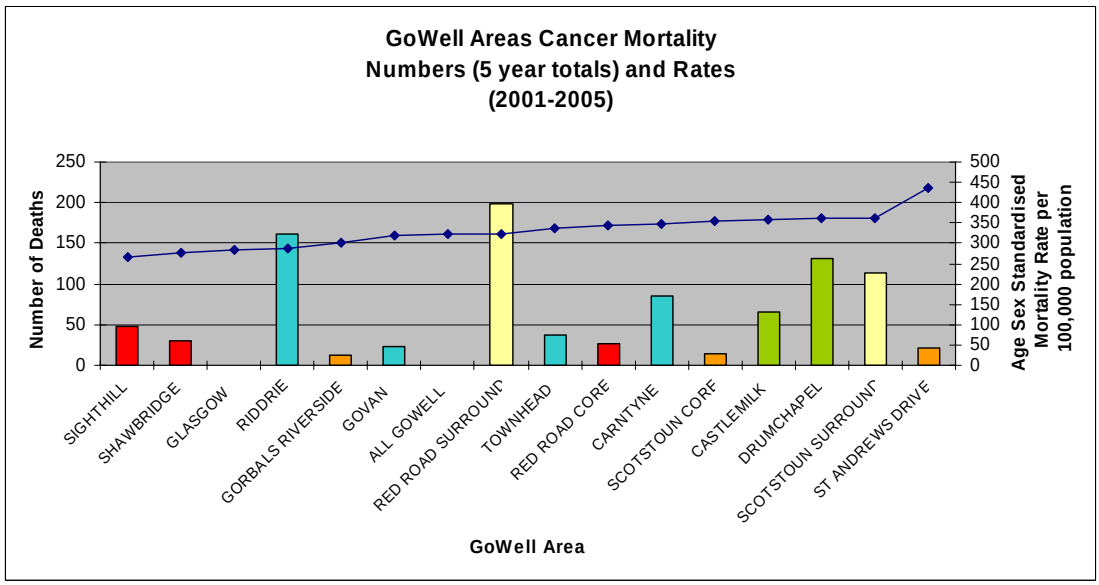
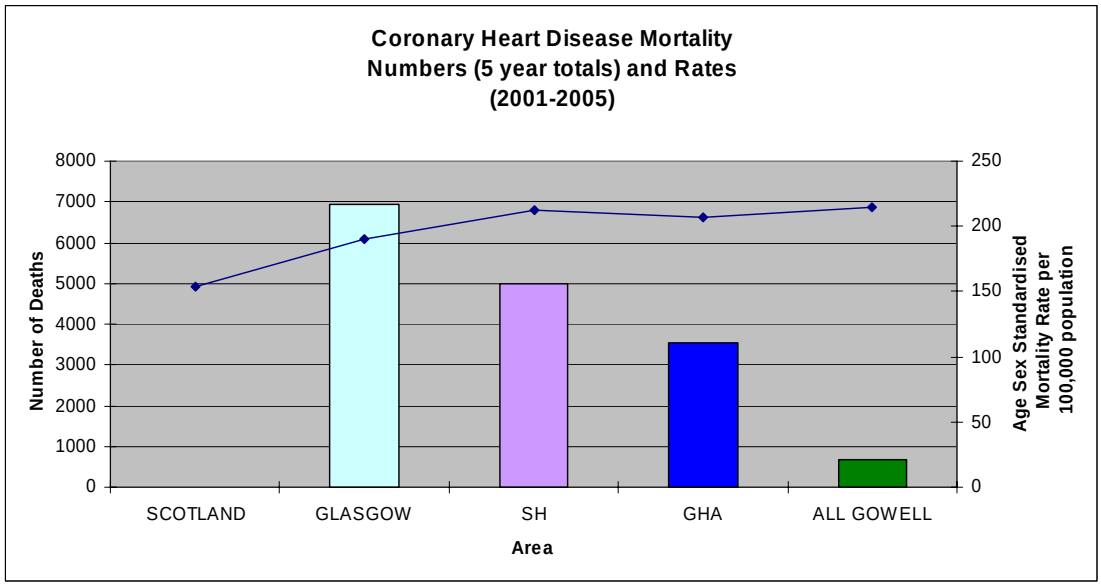


Coronary Heart Disease Mortality (all ages)

Figure 5.24



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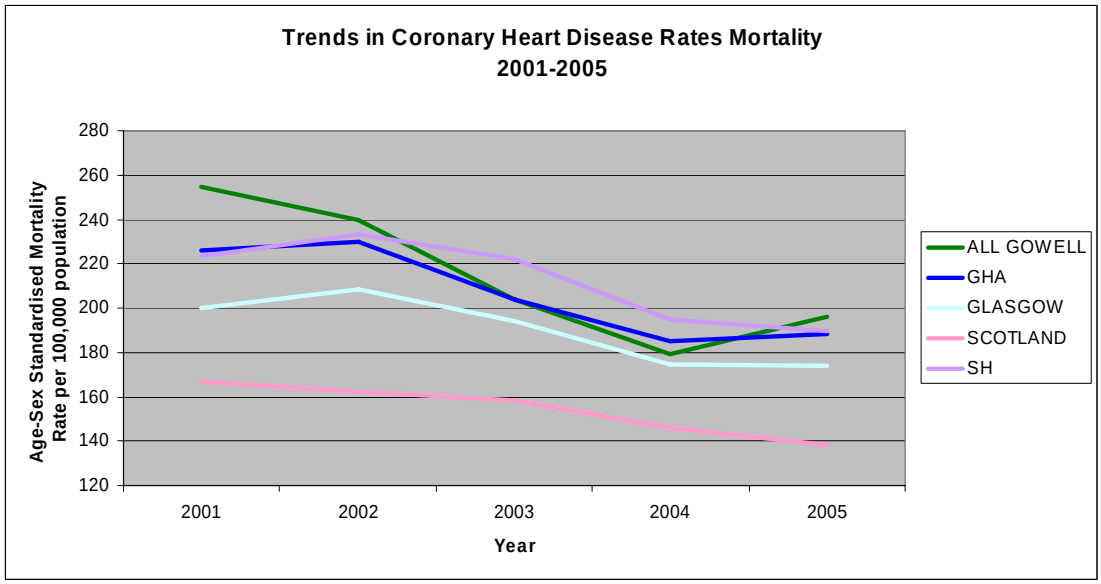

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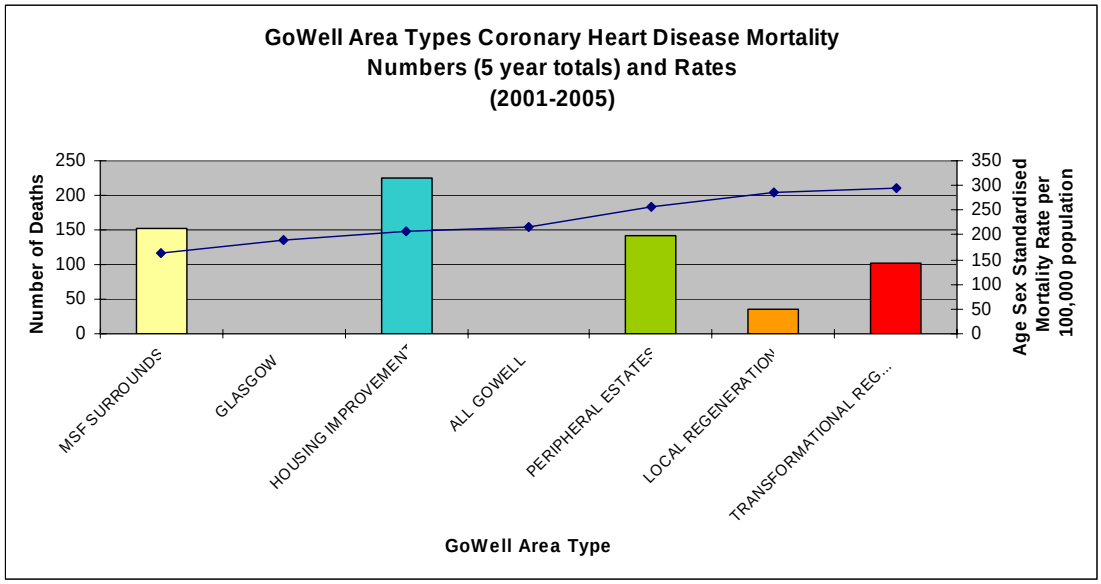

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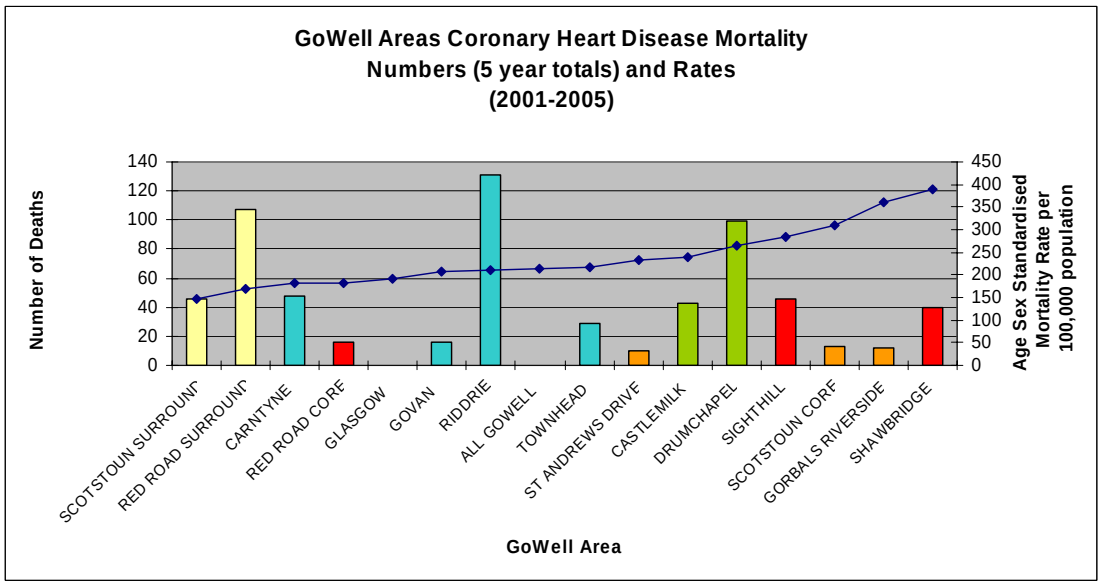
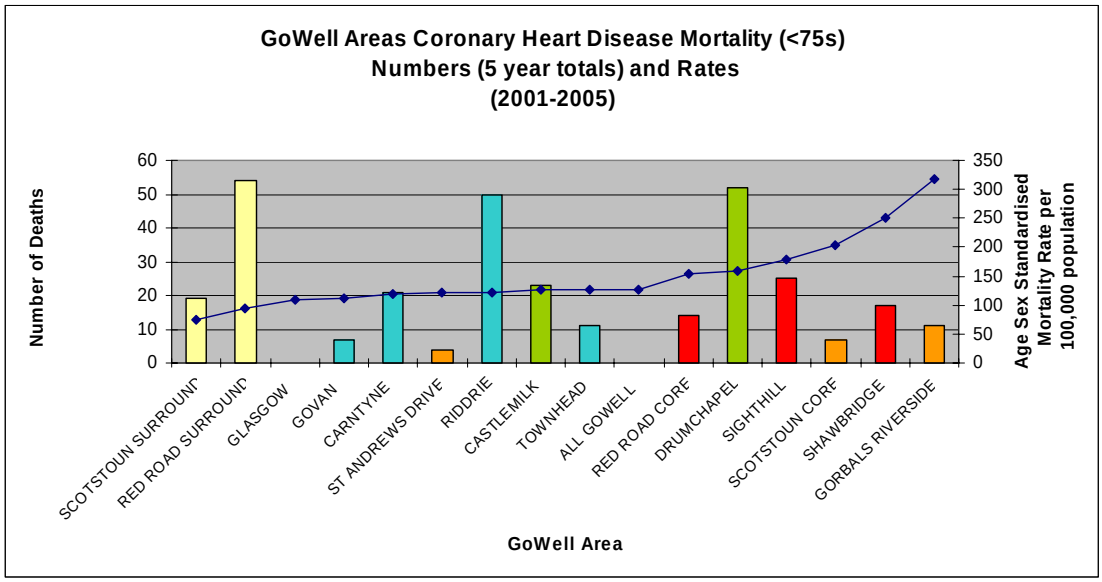


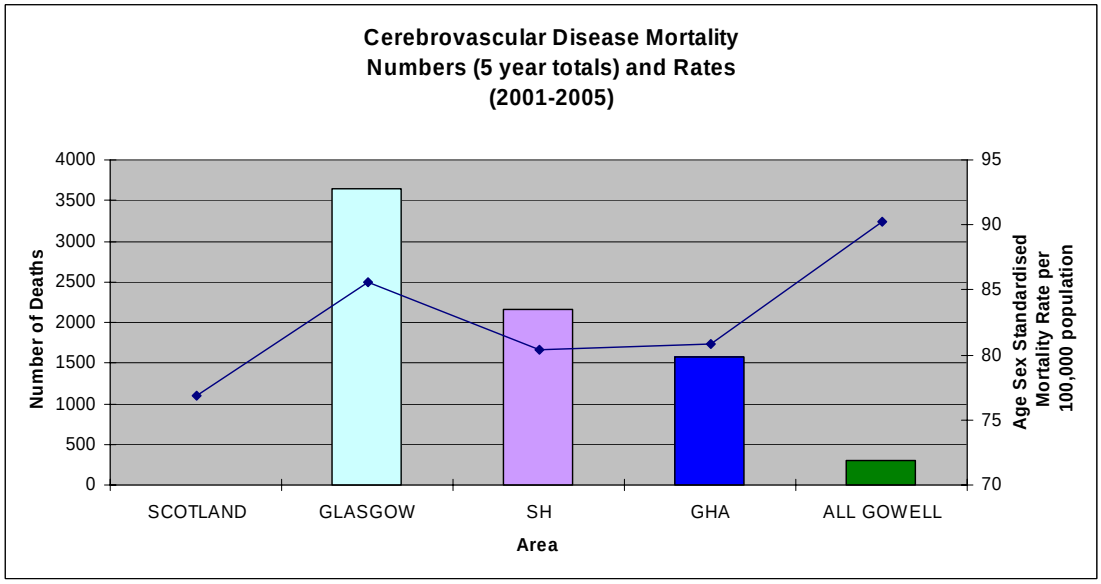
Coronary Heart Disease Mortality (<75s) in GoWell Areas

Figure 5.28



Cerebrovascular Disease Mortality (all ages)

Figure 5.29



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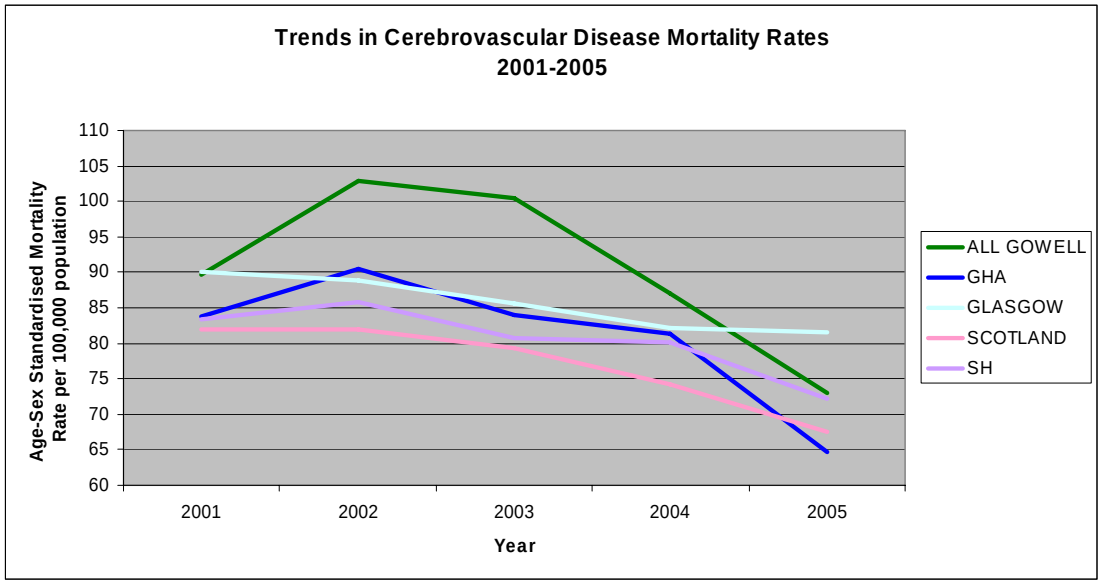

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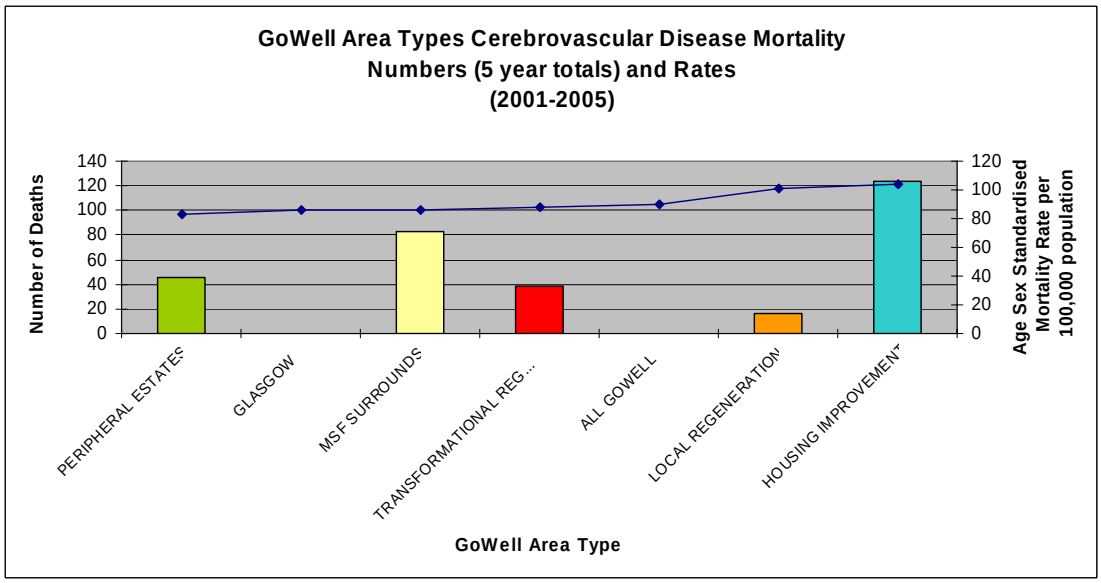

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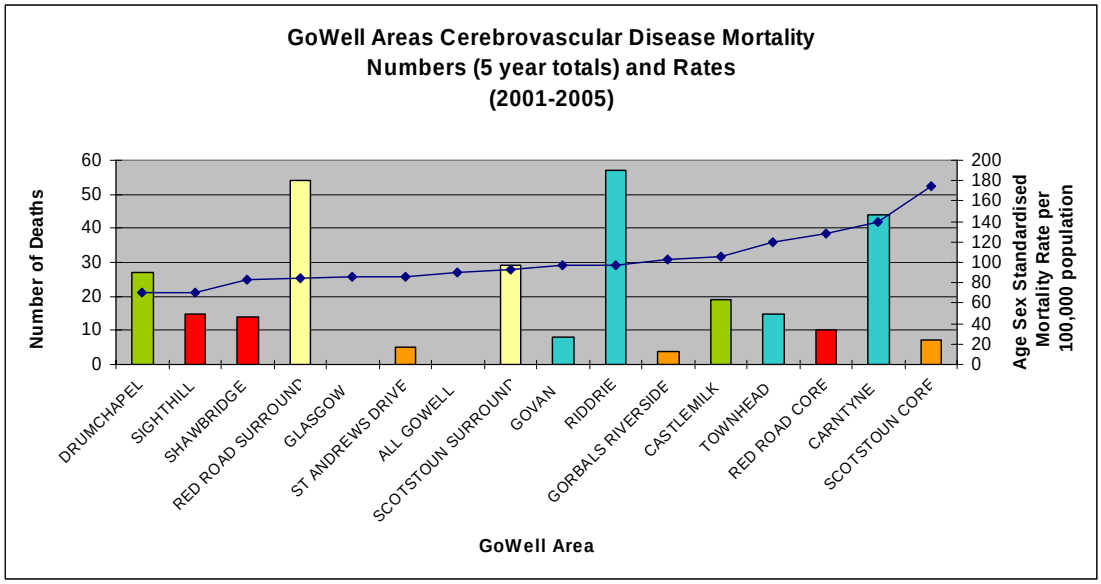
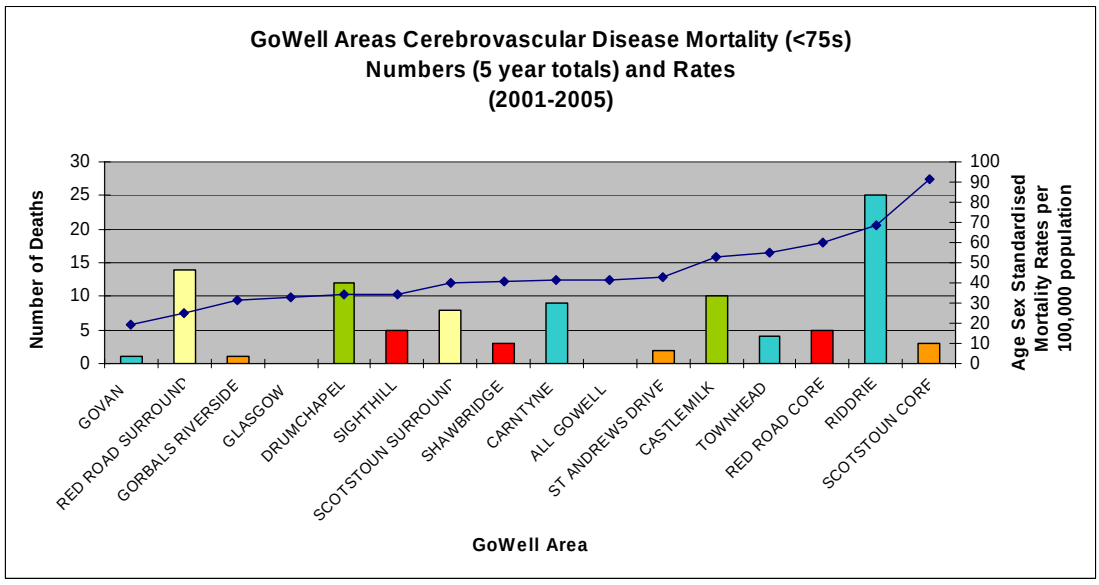


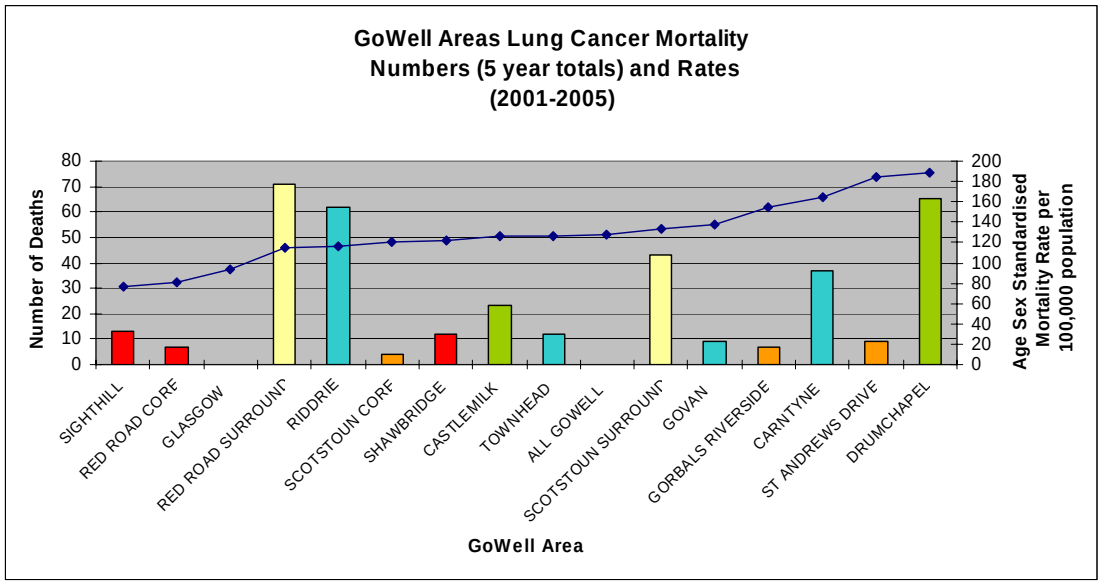
Cerebrovascular Disease Mortality (<75s) in GoWell Areas

Figure 5.33



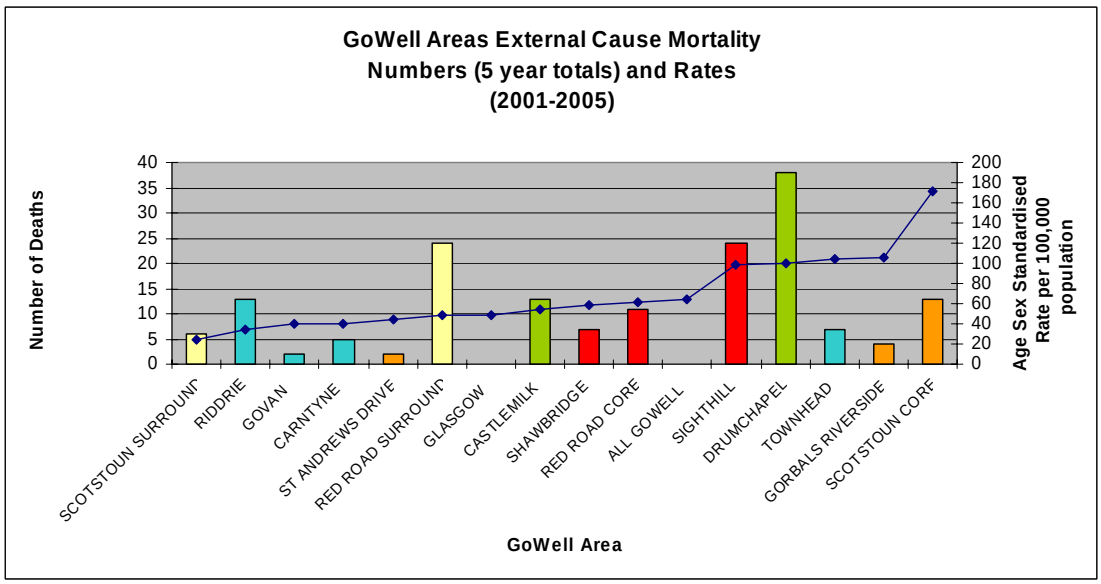
Lung Cancer Mortality in GoWell Areas

Figure 5.34



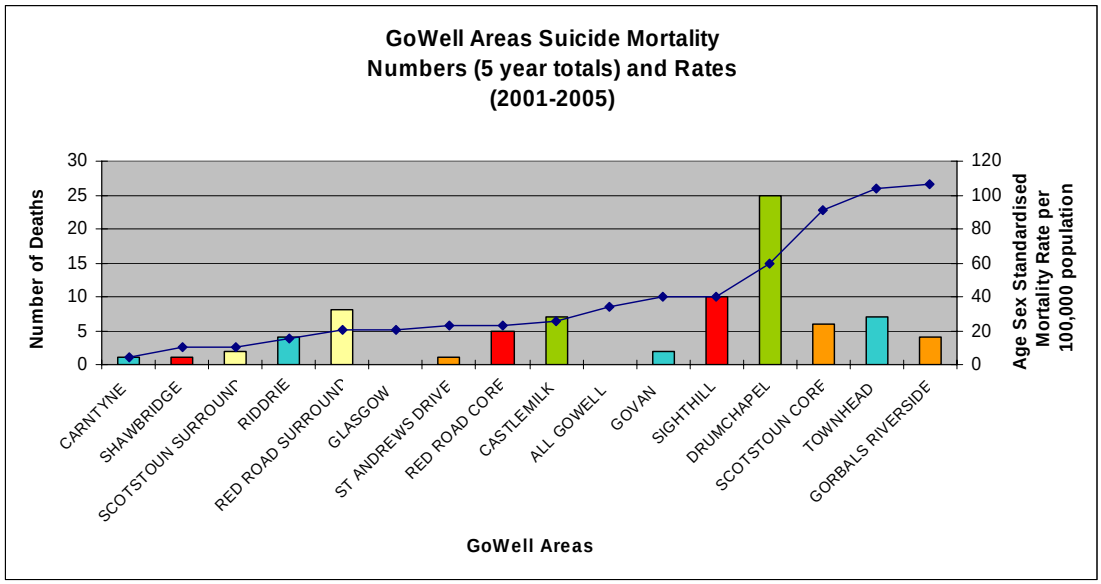
External Cause Mortality in GoWell Areas

Figure 3.35



Suicide Mortality in GoWell Areas

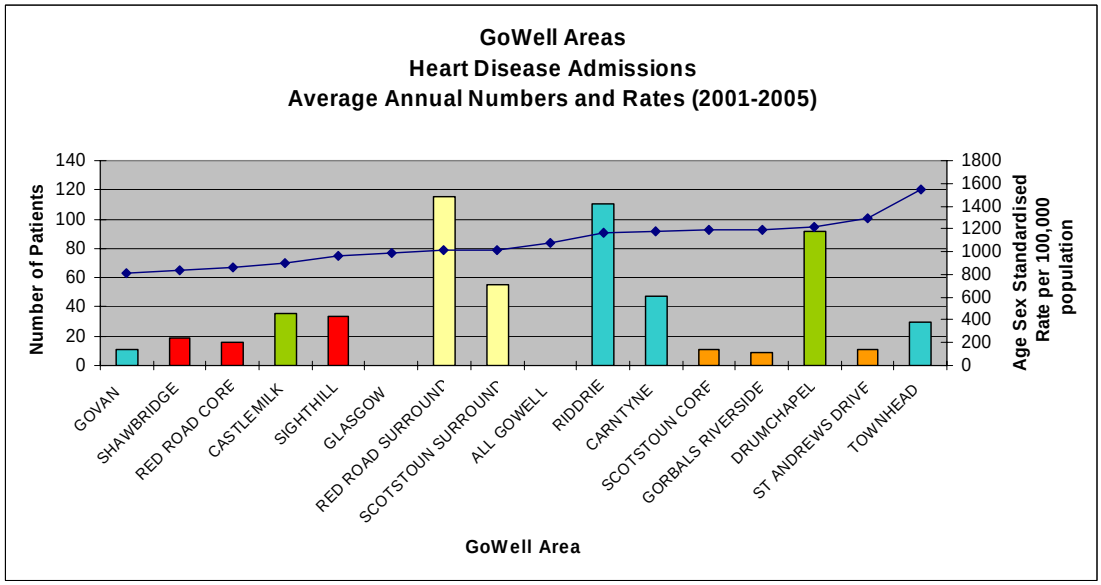
Figure 5.36



Hospitalisation and Injuries

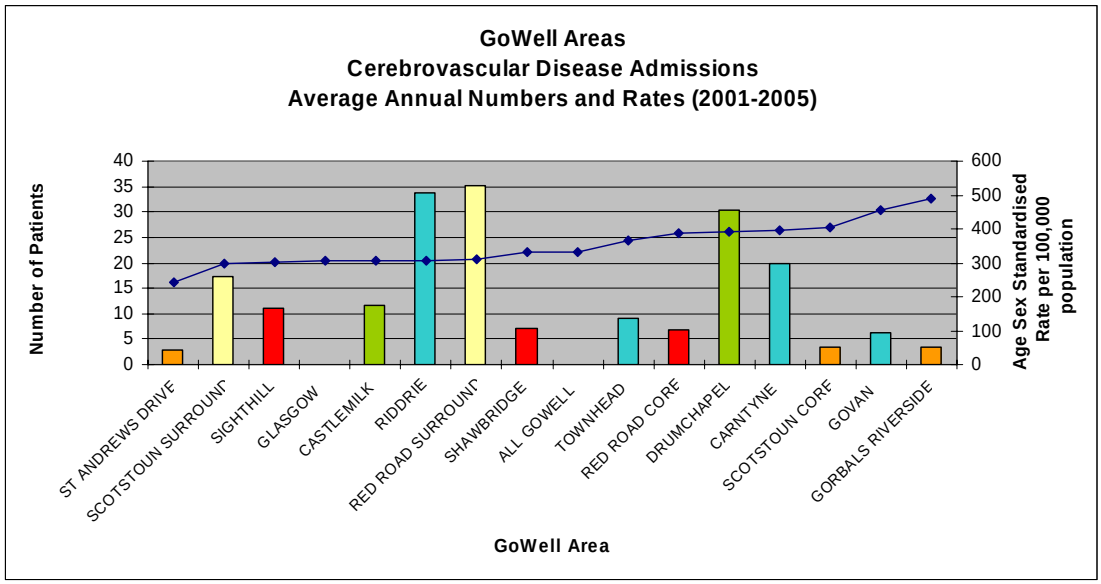
Heart Disease Admissions in GoWell Areas

Figure 7.20



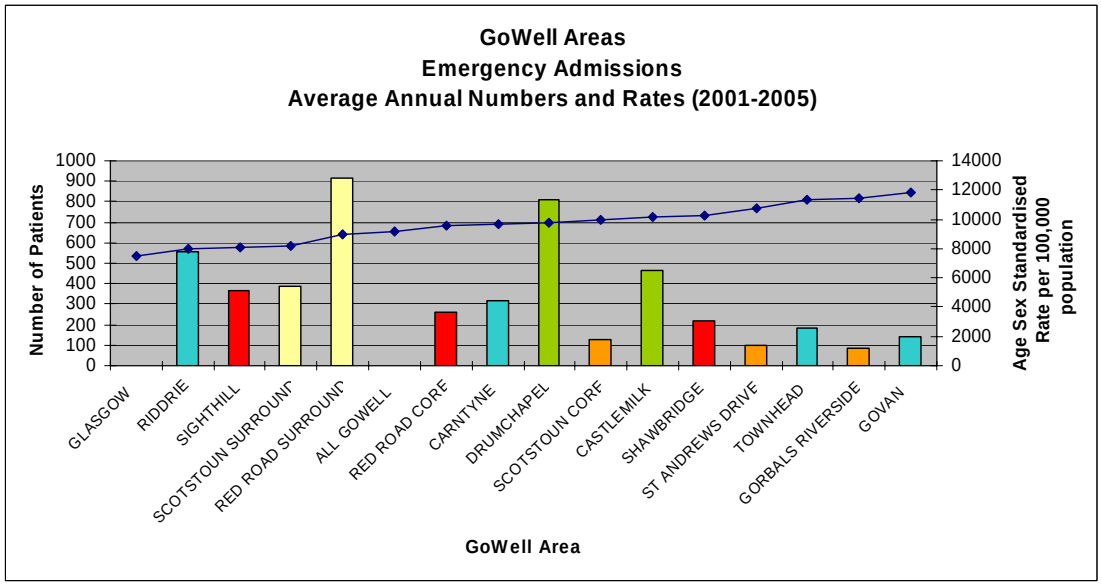
Cerebrovascular Disease Admissions in GoWell Areas

Figure 7.21



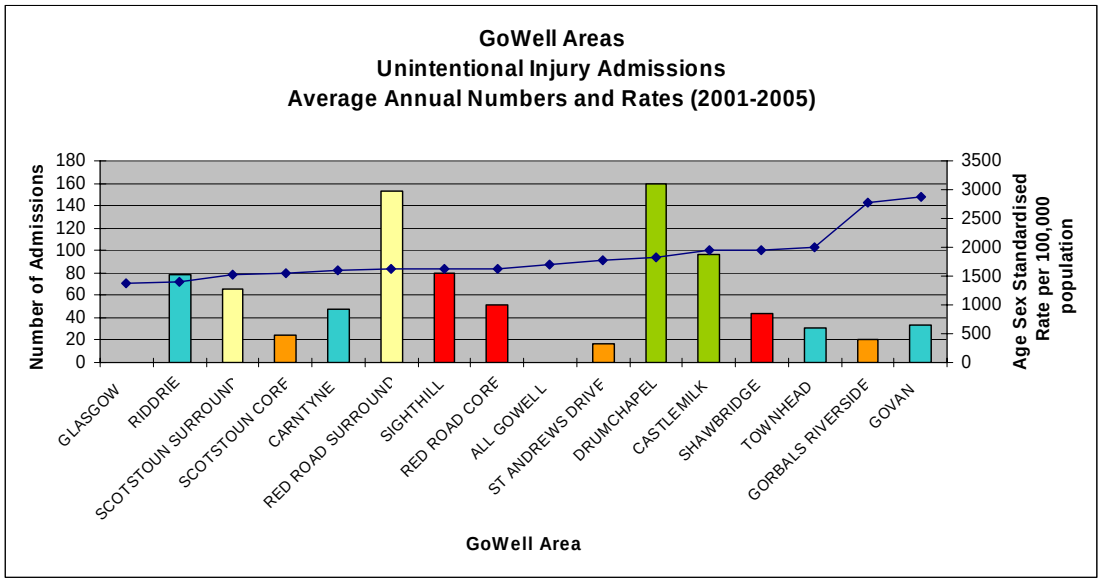
Emergency Admissions in GoWell Areas

Figure 7.22



Unintentional Injury Admissions in GoWell Areas

Figure 7.23



Assault Admissions (Crude rates per 1000 population)

Figure 7.24

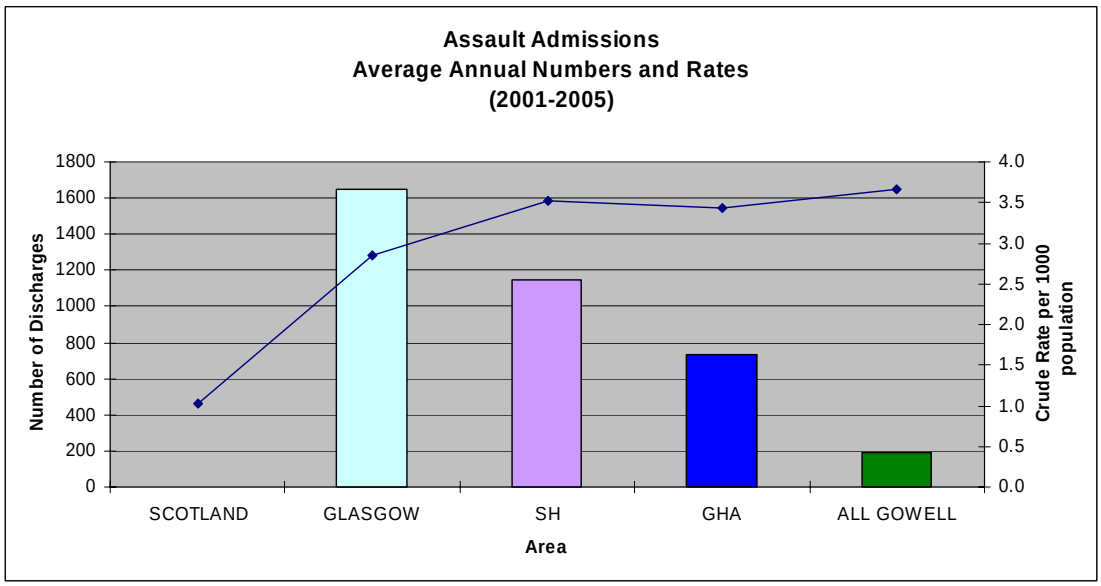
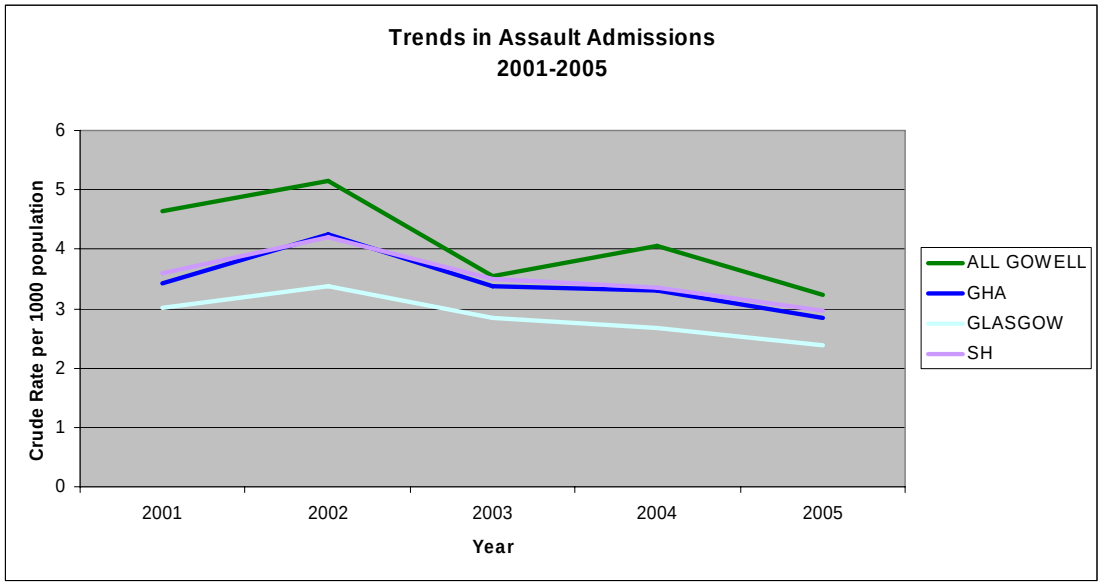
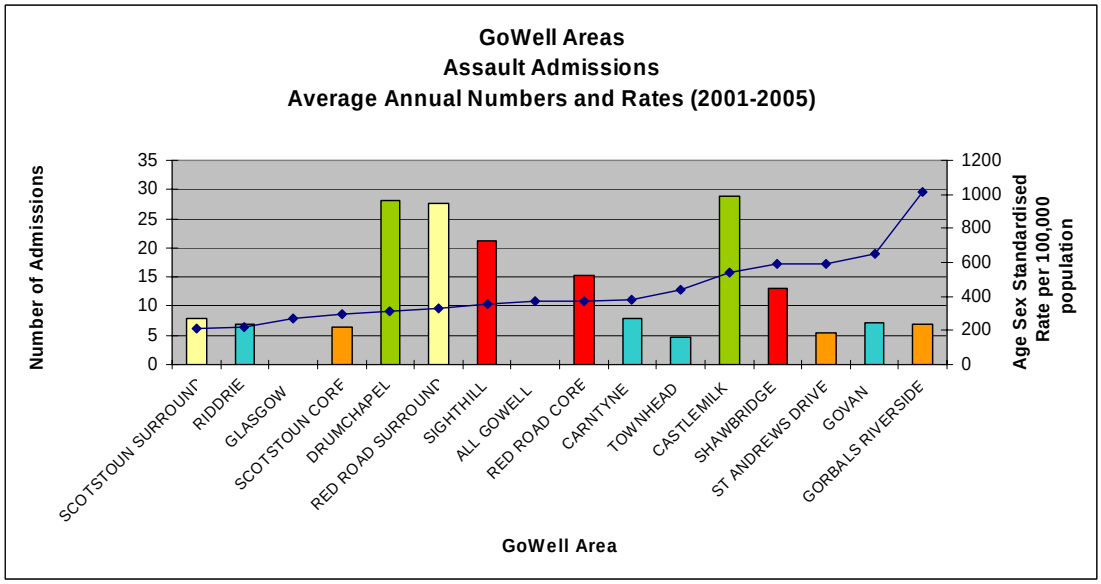


Figure 7.25



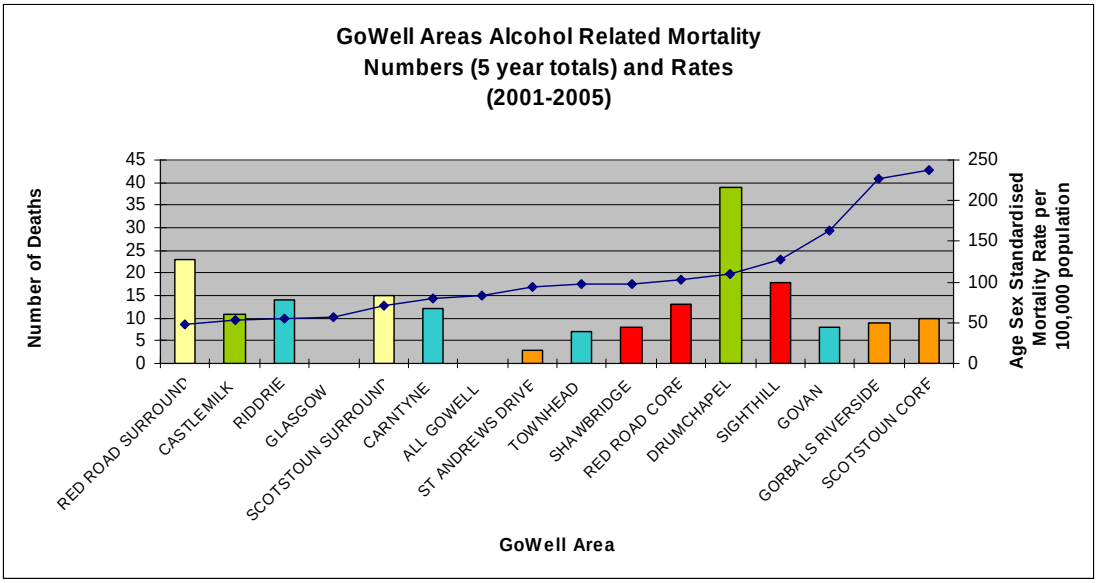
Assault Admissions in GoWell Areas

Figure 7.26



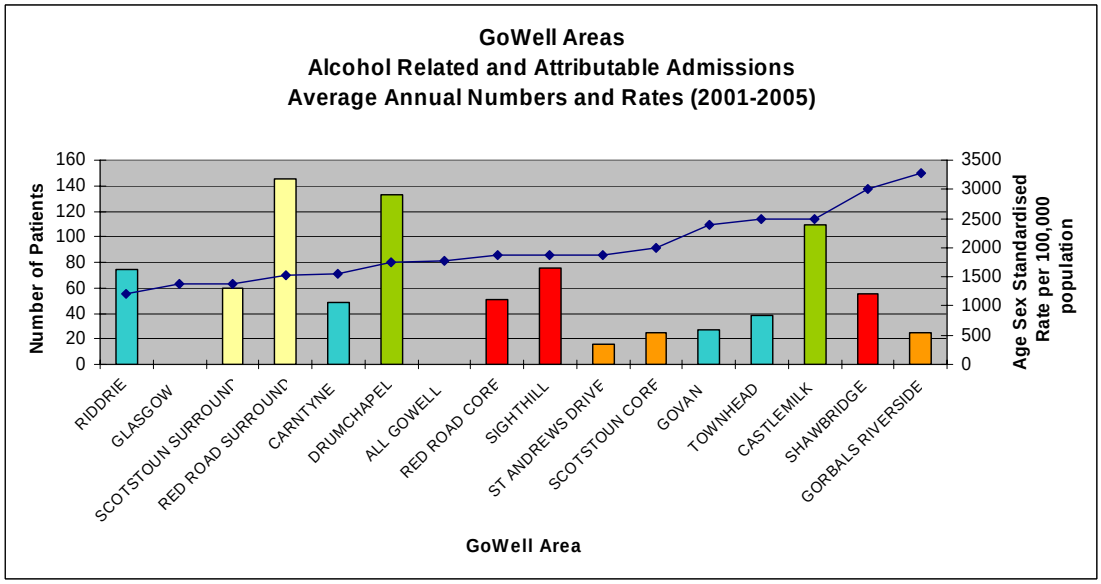
Alcohol-related Mortality in GoWell Areas

Figure 8.10



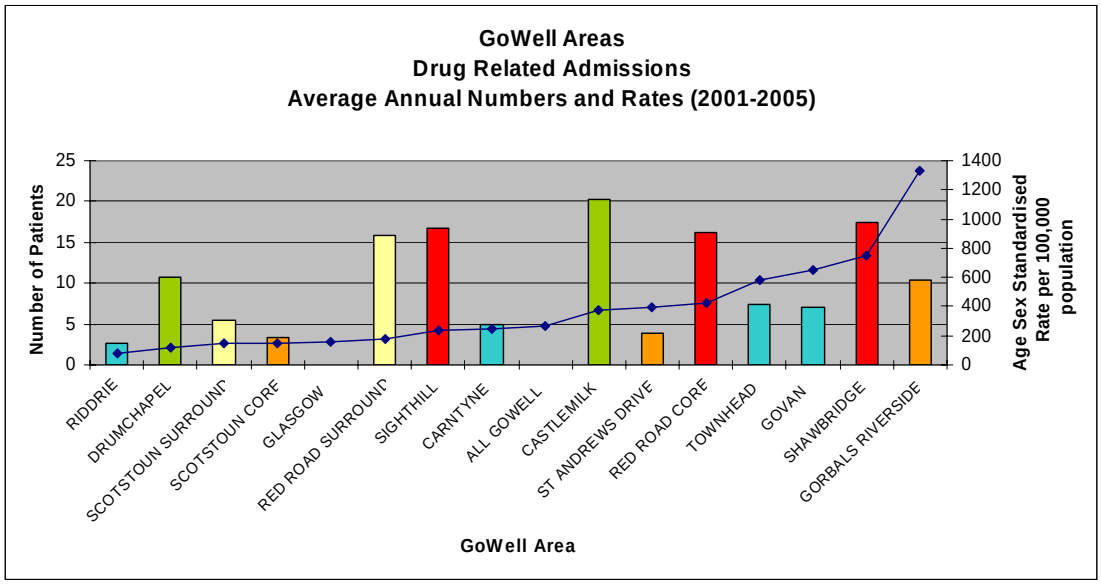
Alcohol-related and Attributable Admissions in GoWell Areas

Figure 8.11



Drug-related Admissions in GoWell Areas

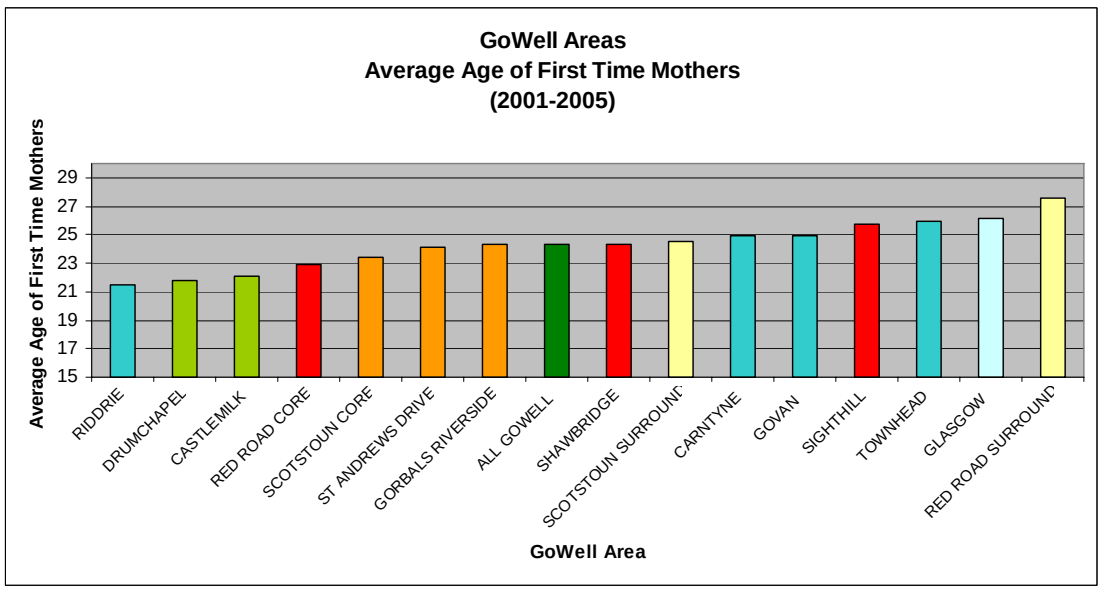
Figure 8.12



Child and Maternal Health

Average Age of First Time Mothers in GoWell Areas

Figure 9.13



First Time Mothers Under 20 Years Old

Figure 9.14

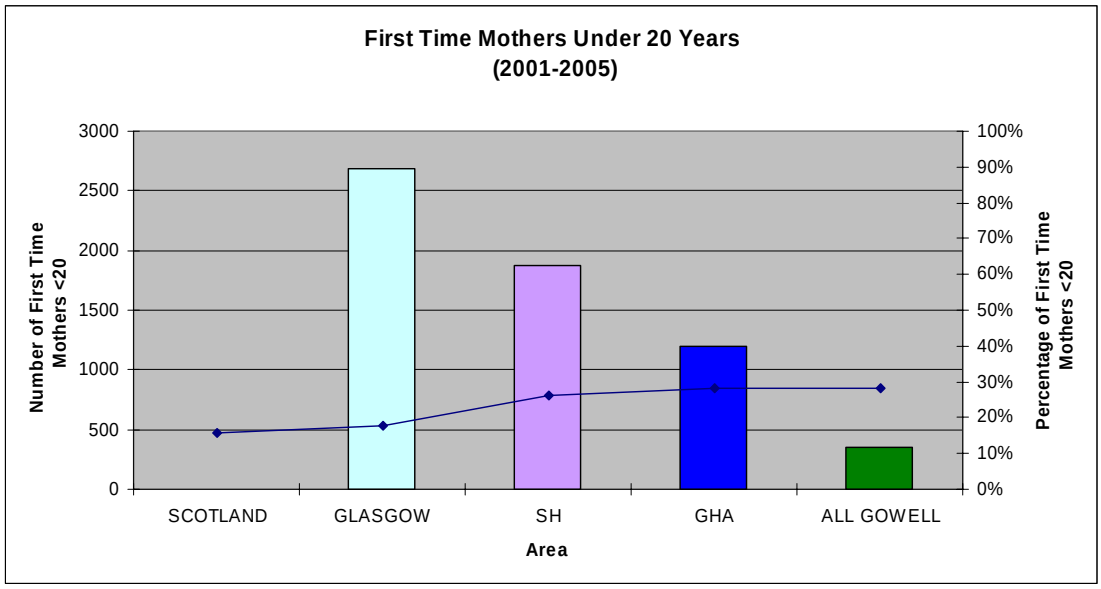


Figure 9.15

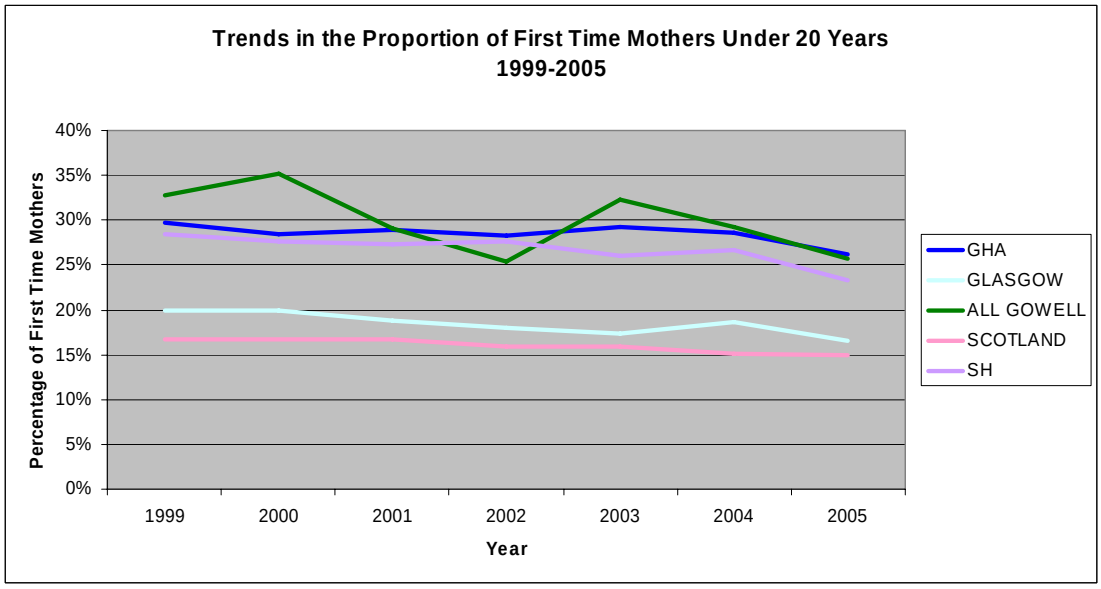


Figure 9.16

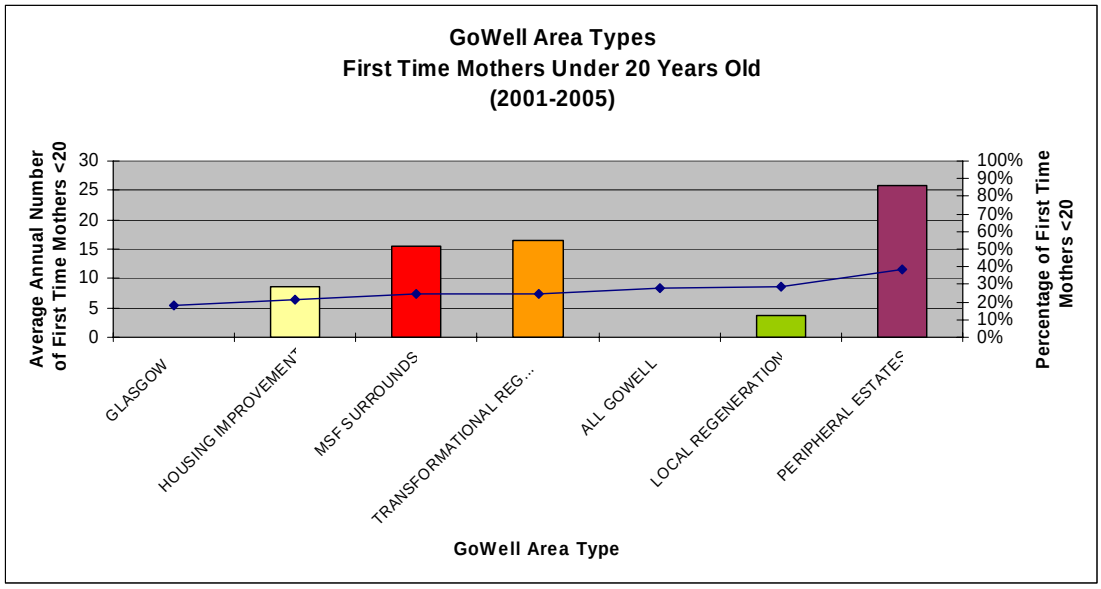
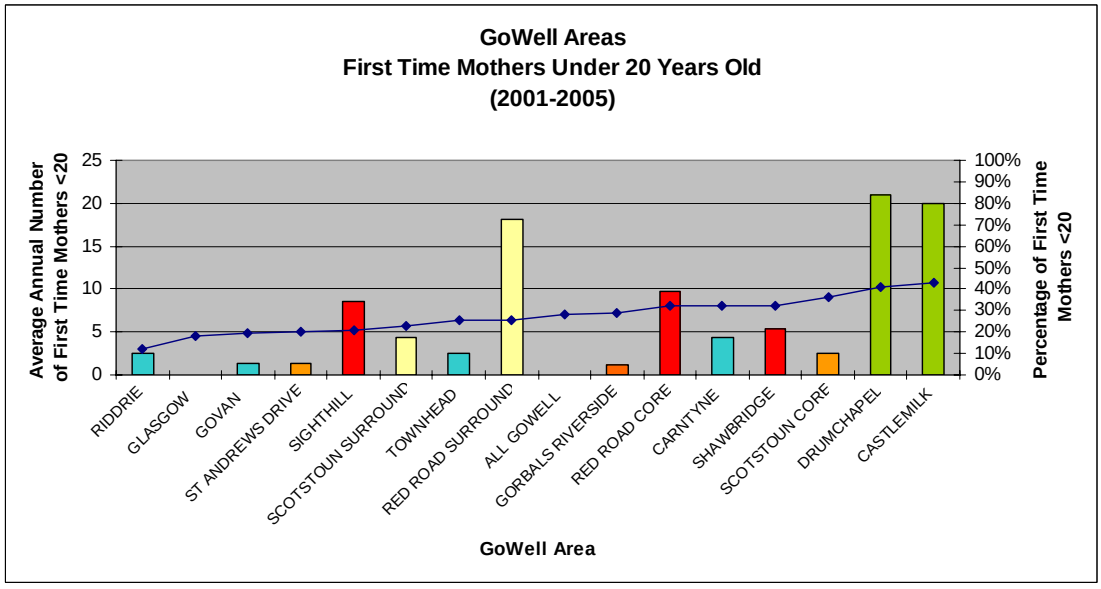


Figure 9.17



First Time Mothers Over 35 Years Old

Figure 9.18

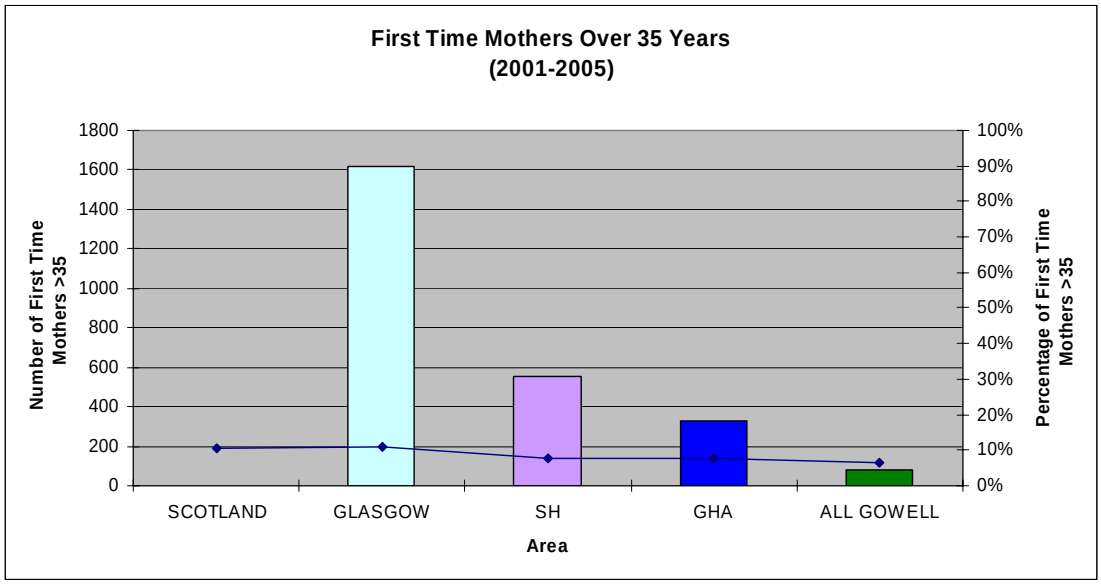


Figure 9.19

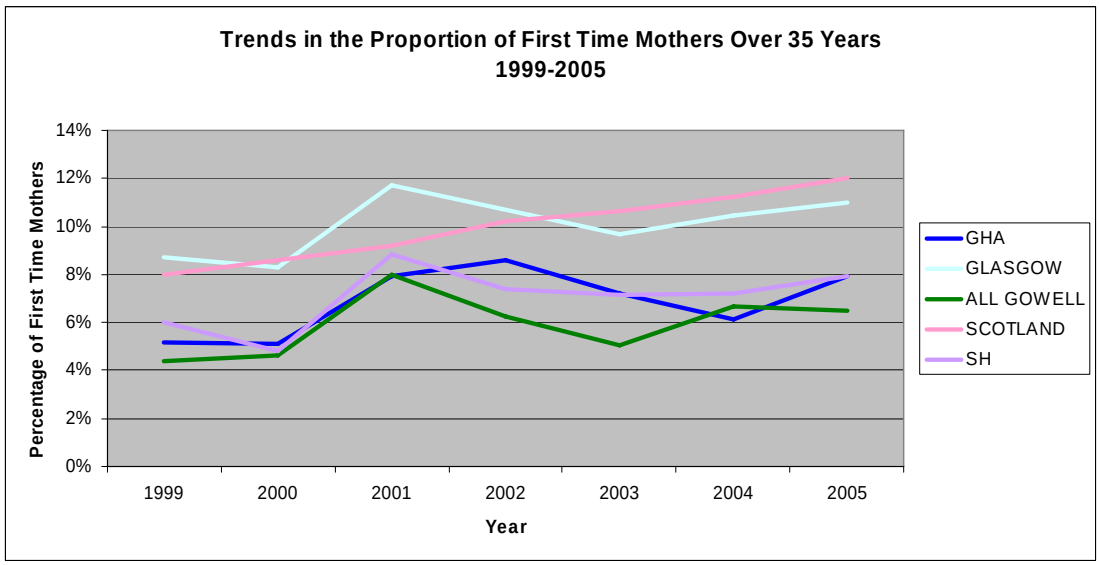


Figure 9.20

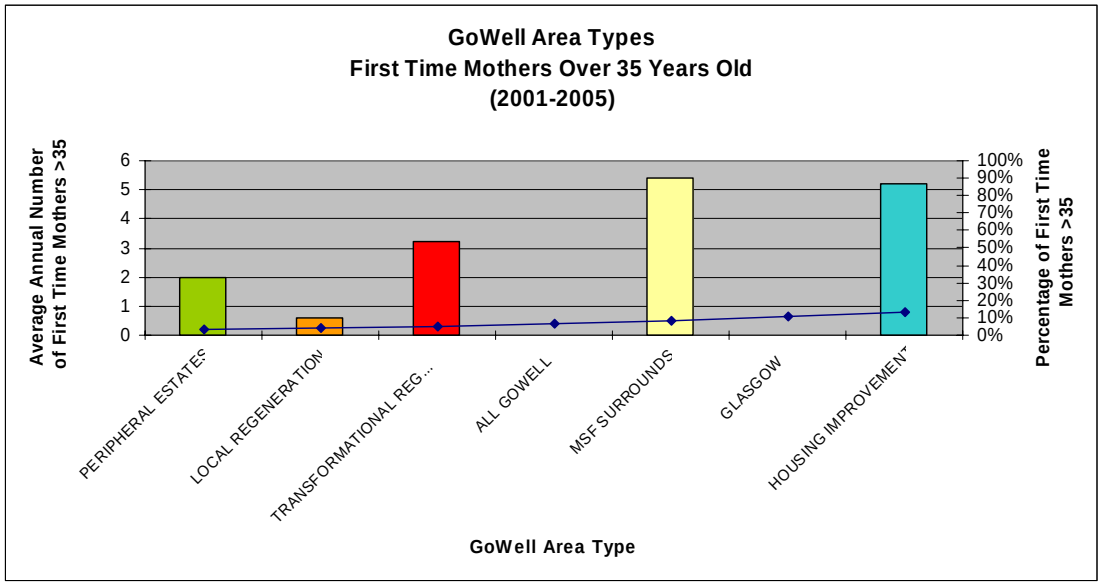
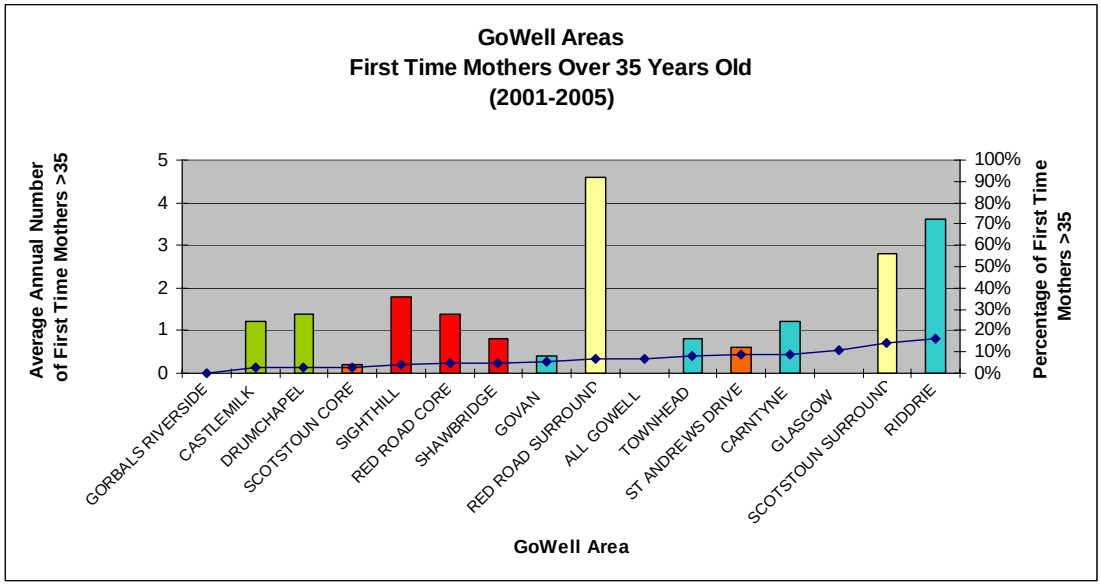
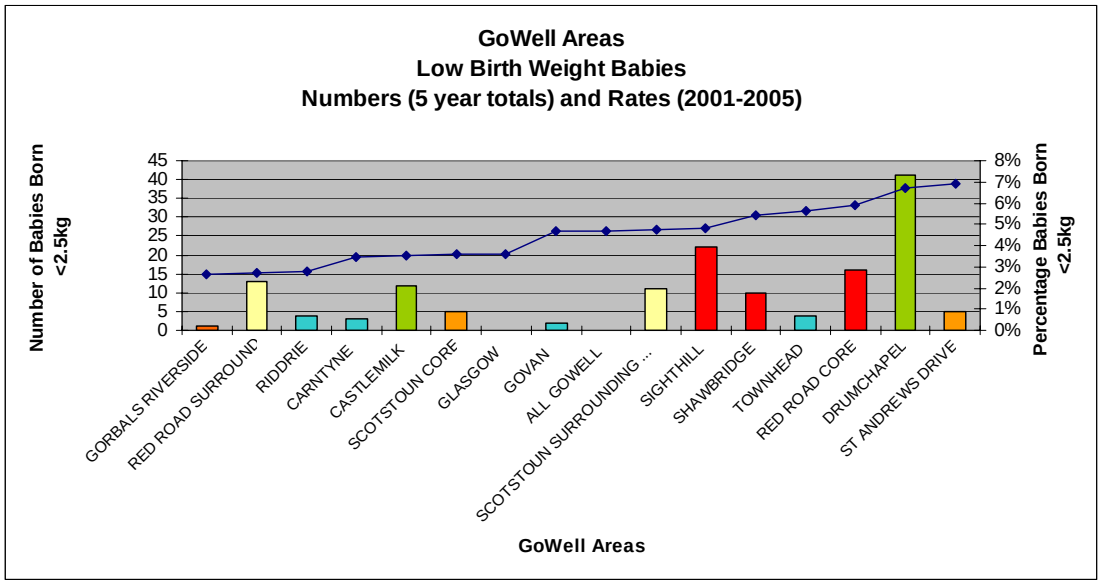


Figure 9.21



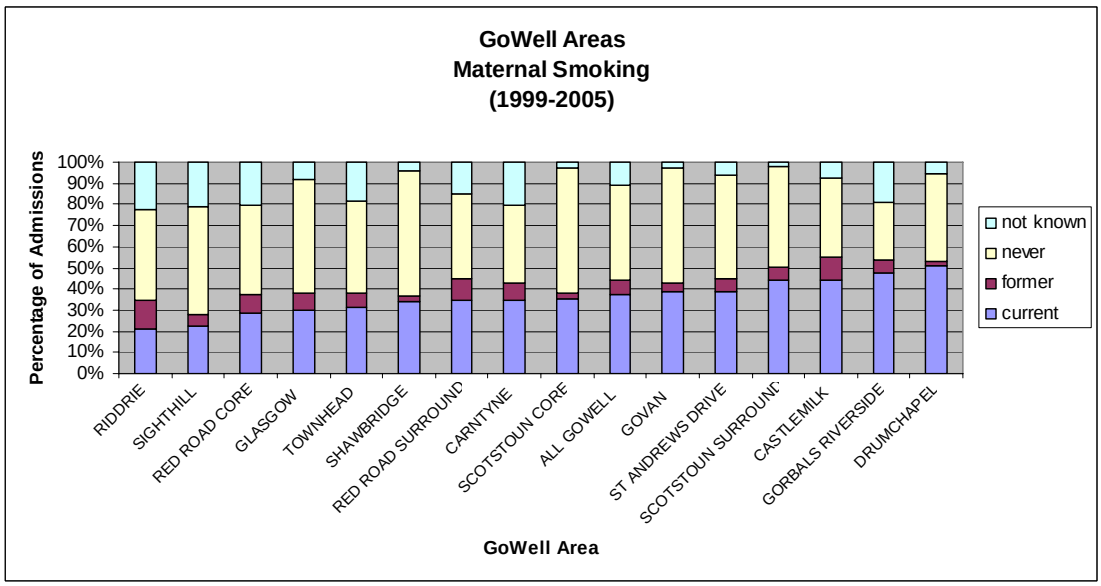
Low Birth Weight Babies in GoWell Areas

Figure 9.22



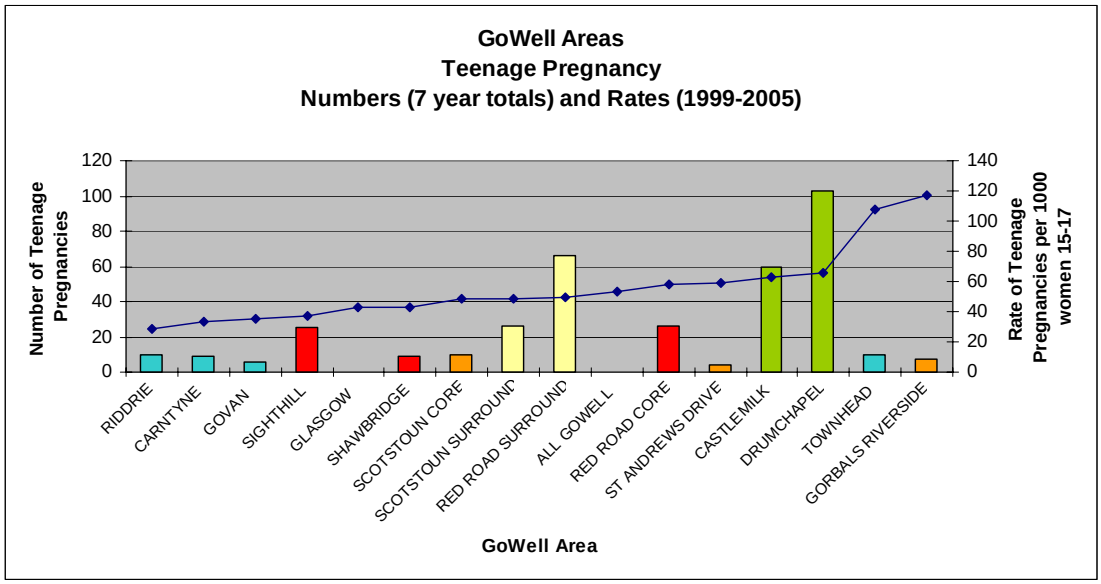
Maternal Smoking in GoWell Areas

Figure 9.23



Teenage Pregnancy in GoWell Areas

Figure 9.24



‘Best’ and ‘Worst’ GoWell Areas

Figure 11.2

FACTOR TYPE	HEALTH FACTOR	‘BEST’ AREA	‘WORST’ AREA
Population demographics	Dependency ratio	RED RD CORE	RIDDRIE
	All cause mortality	RED RD SURROUND	SCOT CORE
Mortality	Cancer mortality (<75s)	SIGHTHILL	RED RD CORE
	CHD mortality (<75s)	SCOT SURROUND	GORBALS
	CVD mortality (<75s)	GOVAN	SCOT CORE
	Lung cancer mortality	SIGHTHILL	DRUMCHAPEL
	External cause mortality	SCOT SURROUND	SCOT CORE
	Suicide mortality	CARNTYNE	GORBALS
Hospitalisation and Injuries	Cancer registrations	GORBALS	SCOT SURROUND
	HD hosp	GOVAN	TOWNHEAD
	CVD hosp	ST ANDREWS DR	GORBALS
	Emergency admissions	RIDDRIE	GOVAN
	Unintentional injury	RIDDRIE	GOVAN
	Assault admissions	SCOT SURROUND	GORBALS
Alcohol and Drugs	Alcohol mortality	RED RD SURROUND	SCOT CORE
	Alcohol admissions	RIDDRIE	GORBALS
	Drugs admissions	RIDDRIE	GORBALS
Child and Maternal Health	Breastfeeding	SHAWBRIDGE	CASTLEMILK
	Average age ft mum	RIDDRIE	RED RD SURROUND
	LBW babies	GORBALS	ST ANDREWS DR
	Maternal smoking	RIDDRIE	DRUMCHAPEL
	Teenage pregnancy	RIDDRIE	GORBALS

Appendix II – Definitions and Sources

Definition	Indicator	Description	Areas	Time Period	Source
1	Population	Number of the total population and the number and percentage of the total population in each age group (0-14; 15-44; 45-64; 65+)	Scotland; Glasgow; SH; GHA; **All** GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2005	CHI (GoWell; SH; GHA) GRO(S) (Glasgow City; Scotland)
2	Live Births	All live births over the period expressed as an average annual number of live births and fertility rate per 1000 women aged 15-44 years old	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2003-2005; 1999-2005 for trends	ISD Scotland
3	Life Expectancy	Estimated male and female life expectancy at birth in years (using Chiang II method) & percentage of 15 year old boys surviving to 65	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5)	2001-2005	GRO(S)
4	All Cause Mortality	Deaths from all causes (all ages) over the period expressed as a 5 year total and a directly age-sex standardised rate per 100,000 population	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	GRO(S)
5	Cancer Mortality	Deaths from all cancers (for under 75s) over the period expressed as a 5 year total and a directly age-sex standardised rate per 100,000 population (of under 75s). ICD10 codes: C00-C97 primary diagnosis only	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	GRO(S)
6	Coronary Heart Disease Mortality	Deaths from coronary heart disease (for under 75s) over the period expressed as a 5 year total and a directly age-sex standardised rate per 100,000 population (of under 75s) ICD10 codes: I20-I25 primary diagnosis only	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	GRO(S)
7	Cerebrovascular Disease Mortality	Deaths from cerebrovascular disease (for under 75s) over the period expressed as a 5 year total and a directly age-sex standardised rate per 100,000 population (of under 75s) ICD10 codes: I60-I69; G45 primary diagnosis only	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	GRO(S)
8	Lung Cancer Mortality	Deaths from lung cancer (all ages) over the period expressed as a 5 year total and a directly age-sex standardised rate per 100,000 population. ICD10 codes: C33; C34 primary diagnosis only	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	GRO(S)
9	Suicide Mortality	Deaths from suicide (all ages) over the period expressed as a 5 year total and a directly age-sex standardised rate per 100,000 population. ICD10 codes: X60-X84; Y10-Y34; Y870; Y872 primary diagnosis only	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	GRO(S)
10	External Cause Mortality	Deaths from external causes (all ages) over the period expressed as a 5 year total and a directly age-sex standardised rate per 100,000 population. ICD codes: V01-Y98 primary diagnosis only	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	GRO(S)
11	Alcohol-Related Mortality	Deaths from alcohol-related causes (all ages) over the period expressed as a 5 year total and a directly age-sex standardised rate per 100,000 population. ICD10 codes: F10; K36; X45; Y15; K70; K73; K74 (excl. K743 & K745); G312; G621; I426	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	GRO(S)
12	Mortality Burden	Deaths from each cause over the period expressed as a percentage of deaths from the same cause in the same period for Glasgow	SH; GHA; All GoWell	2001-2005	GRO(S)
13	Alcohol-Related & Attributable Hospital Admissions	Patients admitted to hospital with alcohol-related and attributable conditions over the period expressed as a 5 year total and a directly age-sex standardised rate per 100,000 population	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	ISD Scotland (SMR1/01 linked database)
14	Drug-Related Hospital Admissions	Patients admitted to hospital with drug related conditions over the period expressed as a 5 year total and a directly age-sex standardised rate per 100,000 population. ISD10 codes: F11-F19 any diagnosis	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005; 2004-2006 for Scotland	ISD Scotland (SMR1/01 linked database)
15	Patients Registered With Cancer	Patients registered with cancer over the period expressed as an average annual number and directly age-sex standardised rate per 100,000 population. ICD10 codes: C00-C96 (excl C44 (skin cancer)) NB C97 is not used by Scottish Cancer Registry	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005; 2002-2004 for Scotland	ISD Scotland; Socrates
16	Heart Disease Patients	Patients admitted to hospital with heart disease over the period expressed as an average annual number and directly age-sex standardised rate per 100,000 population. ICD10 codes: I00-I52 primary diagnosis only	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005; 2004-2006 for Scotland	ISD Scotland (SMR1/01 linked database)
17	Cerebrovascular Disease Patients	Patients admitted to hospital with cerebrovascular disease over the period expressed as an average annual number and directly standardised rate per 100,000 population. ICD10 codes: I60-I69; G45 primary diagnosis only	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005; 2004-2006 for Scotland	ISD Scotland (SMR1/01 linked database)
18	Assault Hospital Admissions	Admissions (not patients) to hospital for assault-related injuries over the period expressed as an average annual number and directly age-sex standardised rate per 100,000 population (and crude rate per 1000 population to compare with available Scotland data). ICD10 codes: X85-Y09 any diagnosis	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	ISD Scotland (SMR1/01 linked database)
19	Emergency Hospital Admissions	Patients admitted under any medical emergency over the period expressed as an average annual number and directly standardised rate per 100,000 population.	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005; 2004-2006 for Scotland	ISD Scotland (SMR1/01 linked database)
20	Multiple Emergency Hospital Admission	Patients admitted more than once within the same year over the period expressed as an average annual number and directly standardised rate per 100,000 population	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005; 2004-2006 for Scotland	ISD Scotland (SMR1/01 linked database)
21	Unintentional Injury Hospital Admissions	Patients admitted as either an emergency road traffic accident, emergency home accident or other emergency injury based on admission type, expressed as an average annual number and directly standardised rate per 100,000 population	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005; 2004-2006 for Scotland	ISD Scotland (SMR1/01 linked database)

22	Infant Mortality	Infant deaths (for under 1s) over the period expressed as a 5 year total and infant mortality rate per 1000 live births	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	GRO(S)
23	Breastfeeding	Children being breastfed at 6-8 week review over the period expressed as an average annual number and percentage of all 6-8 week reviews	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	ISD Scotland
24	Average Age of First Time Mothers	Mean age of first time mothers over the period	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	ISD Scotland
25	Low Birth Weight Babies	Low weight (under 2.5kg) live singleton full term (>= 37 weeks) births expressed as a 5 year total and percentage of all live singleton full term births	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	2001-2005	ISD Scotland
26	Maternal Smoking	Maternal smoking recorded at booking over the period expressed in categories (current; former; never; not known) as percentages of all bookings over 7 years	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	1999-2005	ISD Scotland (SMR02)
27	Teenage Pregnancy	Teenage pregnancy (for under 18s) over the period expressed as a 7 year total and crude rate per 1000 women aged 15-17 years old	Scotland; Glasgow; SH; GHA; All GoWell; GoWell Area Types (x5); GoWell Areas (x14)	1999-2005	SMR01; SMR02

Appendix III – GoWell Areas and CHCP Neighbourhoods

GoWell Area	CHCP Neighbourhood
CARNTYNE	Haghill & Carntyne
CASTLEMILK	Castlemilk
DRUMCHAPEL	Drumchapel
GORBALS RIVERSIDE	Greater Gorbals
GOVAN	Greater Govan/Ibrox & Kingston
RED ROAD CORE	Springburn/Balornock & Barmulloch
RIDDRIE	Riddrie & Cranhill
SCOTSTOUN CORE	Yoker & Scotstoun
SHAWBRIDGE	Pollokshaws & Mansewood
SIGHTHILL	Sighthill, Roystonhill & Germiston
ST ANDREWS DRIVE	Pollokshields East
TOWNHEAD	City Centre & Merchant City
RED ROAD SURROUND	Springburn/Balornock & Barmulloch
SCOTSTOUND SURROUND	Yoker & Scotstoun