Health outcomes over time

A comparison across the 2006, 2008 and 2011 GoWell community surveys

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GoWell

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Executive summary

This report presents cross-sectional findings from GoWell's community surveys for the years 2006, 2008 and 2011. The report compares changes to residents' self-reported general health, mental wellbeing, health service use and health behaviours across GoWell's five intervention area types: Transformational Regeneration Areas (TRAs), Local Regeneration Areas (LRAs), Peripheral Estates (PEs), Housing Improvement Areas (HIAs) and Wider Surrounding Areas around multi-storey flat redevelopments (WSAs). Percentage changes between waves are presented as absolute (rather than relative) increases or decreases. So, for example, if the prevalence of a particular outcome halves over time from 10% to 5% we would describe this as a fall of 5% rather than a 50% reduction.

General health

- In all survey waves, the majority of people reported their health as being at least 'good', however, the proportion doing so fell over the period and is currently lowest for those living in the WSAs and PEs (% reporting good or better health in 2011: 66% for WSAs and 68% for PEs). The TRAs had the highest proportion of residents (78%) reporting good or better than good health in 2011. The decline in self-reported health in GoWell areas does not correspond with more stable national figures. Furthermore, all but one of the GoWell area types (i.e. TRAs) had moved below the national average by 2011.

- Self-reported long-term health problems decreased in all area types between 2006 and 2008, but increased thereafter. By 2011, the percentage reporting long-term illness in the PEs, LRAs and WSAs exceeded baseline findings by 4%, 7% and 11%, respectively.

- Recent health problems (experienced over the past four weeks) increased in incidence across all GoWell study area types over time. Compared with the other intervention area types, the WSAs experienced the least favourable trajectory over time for recent health problems (30% reported at least one problem in 2006 compared with 48% in 2011). There was relatively little increased reporting of recent health problems over the study period (from 30% in 2006 to 34% in 2011) within TRAs.

Mental wellbeing

- In the TRAs there was an improvement in mean Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) scores, from 49.8 in 2008 to 51.3 in 2011, pushing mean WEMWBS scores above the national average (49.9) in that year. In the other GoWell study area types, mean WEMWBS scores were above the national average in both 2008 and 2011.

Health service use

- Minor increases (≤5%) in the percentage of participants who claimed to have consulted a General Practitioner (GP) in the previous year were found for WSAs and TRAs between 2006 and 2011. However, a greater increase (of 10%) in the proportion of participants who consulted occurred in the LRAs between 2006 and 2011, with most of this increase occurring within the earlier period of the study. National data on GP contacts suggest a general, temporal trend of increasing consultation rates and so GoWell's HIAs and PEs appear to buck that trend.

- In all area types, the proportion of respondents consulting a GP for mental or emotional health reasons increased between 2006 and 2011 (smallest increase = 2% in the WSAs, largest increase = 9% in the LRAs).

- Hence, on both indicators of GP consultation rates, it appears that the rate of service usage increased over time the most in the LRAs.

Health behaviours

- In most area types, the frequency with which people consumed a takeaway meal as their main meal of the day has decreased between 2006 and 2011. However, in the WSAs the proportion of respondents who reported eating at least one main meal from a takeaway in the past seven days increased by 5% over the study period.

- Smoking rates fell slightly (≤5%) in four area types and remained constant in the WSAs between 2006 and 2011. As is often the case with disadvantaged communities, smoking rates are very high: in all GoWell study area types, levels were at least one-and-a-half times the national average in 2011.

- Since 2006, the proportion of respondents who expressed an intention to quit smoking has risen in the LRAs by 9% and in the WSAs by 4%. However, it has fallen in the TRAs by 17% and HIAs by 6%, and remained constant in the PEs.

- Alcohol abstinence remained higher in the TRAs and LRAs than in the other area types.

- Neighbourhood walking (≤20 minutes on at least five days in the previous week) has increased slightly between 2008 and 2011 in the TRAs (+3%), LRAs (+4%) and PEs (+7%), and decreased in the WSAs (-4%). There has been little change in the HIAs.

Summary

There are indications that levels of mental wellbeing in the GoWell areas are similar to those in Scotland as a whole, and that improvements in wellbeing are taking place in the regeneration areas. Health behaviours also have improved slightly overall. However, most measures of self-reported general health suggest a worsening over time and use of primary care services is increasing. The differences between intervention area types may suggest early signs of health benefits in regeneration areas, but further analysis of the longitudinal cohort in GoWell is needed to ascertain the extent to which these might be due to changes in population composition.

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Background

Urban regeneration includes a range of interventions that may potentially improve the interlinked dimensions of household, dwelling, community and neighbourhood environment in urban areas. As poor health is associated with poorer living circumstances, there is a policy expectation that regeneration and housing improvement strategies in disadvantaged urban areas will contribute to health improvement and reduced social inequalities in health. The GoWell study aims to explore the links between regeneration and health.

GoWell focuses on a large, multi-faceted programme of housing investment and area regeneration across the city of Glasgow[1]. GoWell is a research and learning programme that aims to investigate the impact of investment in housing, regeneration and neighbourhood renewal on the health and wellbeing of individuals, families and communities over a ten-year period. The programme aims to establish the nature and extent of these impacts and the processes that have brought them about, to learn about the relative effectiveness of different approaches, and to inform policy and practice. It is a multi-component study with a comparative design.

This report summarises GoWell's findings from a repeat cross-sectional study that recently completed its third wave of data collection. This Community Health and Wellbeing Survey collected baseline data in 2006, conducted the first follow-up survey in 2008 and a second follow-up in 2011. These surveys are carried out in 15 neighbourhoods that have been categorised by intervention into five different GoWell area types, as detailed in Box 1 below.

This report presents descriptive comparisons of the different types of area, in terms of residents' self-reported health, health service use and behaviours, covering four main topics:

- **General health**
  - Residents' self-rated general health.
  - The proportion of residents reporting at least one long-term health condition over the previous 12 months.
  - The proportion of residents reporting at least one recent health problem over the last four weeks.

- **Mental wellbeing**
  - Measured using the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS).

- **Health service use**
  - Residents reporting having spoken to a doctor about their own health/wellbeing in the last 12 months.
  - Residents reporting having spoken to a doctor about their own anxiety, depression, or other mental/nervous/emotional problem(s) (including stress) in the last 12 months.

- **Health behaviours**
  - Diet: having eaten one or more main meals from a fast food/takeaway outlet in the previous seven days.
  - Smoking: current smoking status and intention to quit.
  - Alcohol: current alcohol use.
  - Walking: Number of days having walked in the neighbourhood for at least 20 minutes in the previous week.

Responses from residents in the GoWell study areas are compared over the three surveys (2006, 2008 and 2011). This timeframe allows us to begin to look at short and medium term impacts of regeneration, although it should be noted that it will take years for the full effects of many of the interventions to be felt.

Box 1. GoWell intervention areas types.

Transformational Regeneration Areas (TRAs)
Places where major investment is underway, involving a substantial amount of demolition and rebuilding over a long period. Many residents who remained in these neighbourhoods during the study period were waiting to relocate as properties in the neighbourhood were cleared for demolition.

Local Regeneration Areas (LRAs)
Places where a more limited amount and range of restructuring is taking place, and on a much smaller scale than in TRAs.

Wider Surrounding Areas (WSAs)
Places of mixed housing types surrounding areas of multi-storey flats subject to transformation plans. The surrounding areas are being used for decanting purposes from the core investment sites. These areas also receive substantial amounts of core housing stock investment.

Housing Improvement Areas (HIAs)
Places which are considered to be popular and functioning successfully, but where significant improvements are required to dwellings, both internally and externally. Extensive property improvement works take place in these areas.

Peripheral Estates (PEs)
Large-scale housing estates on the city boundary where incremental changes are taking place, particularly in terms of housing. These estates were originally entirely social rented but, as a result of the Right-To-Buy scheme and private developments in recent years, there is now a significant element of owner-occupied as well as rented housing. Private housing development and housing association core stock improvement works both take place on these estates.

We are aware that the implementation of regeneration plans has been affected by macro-level circumstances, with private sector developments appearing to be the most significantly affected by the economic recession. Thus, whilst social housing new build programmes are well underway and housing improvement programmes are in an advanced stage of implementation, the development of mixed tenure communities driven by private sector new builds has largely stalled as macro-economic conditions impact upon private housing developments. Furthermore, some types of intervention take longer to complete than others: for example, some of the large-scale clearance and demolition programmes will take many more years to complete. Some respondents may therefore have experienced completed interventions but others are living in areas in which regeneration is underway but not completed, and still others are living in areas where some aspects of regeneration may be considered to have barely begun[a].

[a] New build development by private contractors have slowed. This affects different types of GoWell area to different degrees but we believe the most affected area types are likely to be the Transformational Regeneration Areas and the Peripheral Estates.

Sample and methods

GoWell uses a prospective quasi-experimental design to evaluate the effects of regeneration on a broad range of housing, neighbourhood and health outcomes. A major component of the evaluation is the GoWell repeat cross-sectional community survey. We have undertaken three waves of data collection: in 2006 (wave 1), 2008 (wave 2) and 2011 (wave 3), with a fourth wave planned for 2014. The aim of this survey is to describe changes in GoWell areas and the residential, neighbourhood and health changes for individuals living in these areas.

Sampling

The sampling frames differed for the three waves of data collection, reflecting changes in population size in some of these areas (e.g. due to demolition plans, populations in regeneration areas have decreased from wave 1 to the next two waves) and to further develop a nested longitudinal cohort (details of which will be reported elsewhere).

Table 1. Sampling for the three survey waves.

Year and wave	Sampling
2006 – wave 1	All areas: random property selection
2008 – wave 2	Regeneration areas: all properties Other areas: random selection
2011 – wave 3	Regeneration areas: all pre-existing properties, plus all new builds Other areas: return to all previous interview addresses, plus all new builds.

Samples and response rates

Table 2 provides information on the sample size and response rates for each wave.

Table 2. Achieved samples and response rates for the GoWell cross-sectional surveys.

Year and wave	Sample size	Response rate %
2006 – wave 1	6,016	50.3
2008 – wave 2	4,657	47.5
2011 – wave 3	4,063	45.4

Results

General health

We asked residents to rate their general health as excellent, very good, good, fair or poor. We went on to ask about their experience of illness: we asked if they had experienced one or more health problems regularly over the last 12 months (our measure of long-term health problems); and we asked them about health problems experienced over the last four weeks (our measure of recent health problems).

Self-reported general health

Table 3 shows the proportion of residents from each area type reporting their health to be good or better than good. In all of the GoWell area types this proportion has declined over time. Broadly speaking this declining trend has occurred across the whole study period with figures for 2011 being worse than figures for 2008, which in turn are worse than figures for 2006. The only area type that does not quite fit this trend is the TRAs, where self-reported good health declined between 2006 and 2008 and then levelled off between 2008 and 2011. The WSAs have experienced the steepest decline in the percentage of residents reporting good or better than good health: a 15% drop from 81% in 2006 to 66% in 2011. The greater part of the WSAs' decline took place after 2008.

In previous analyses we have found that residents who moved out of TRAs during early stages of pre-demolition clearance tended to have worse health than those who remained[2]. The 2011 data also suggest that residents who reside in TRAs tend to have better health compared with other GoWell participants. It should also be noted that many residents who are relocated to make way for demolitions tend to move into nearby neighbourhoods such as those that comprise the WSAs. Future analysis should therefore explore whether these relocations may in some way contribute to adverse health outcomes in the WSAs.

According to national Scottish Health Survey findings, 75% of adults described their health as 'good' or 'very good' in 2008, compared to 76% in 2011 (The Scottish Health Survey was not conducted in 2006). Therefore, the decline in self-reported health in most GoWell areas between 2008 and 2011 does not correspond with the national figures. Furthermore, all but one of the GoWell area types (i.e. TRAs) had moved below the national average by 2011.

Table 3. General health.

Intervention area type	Percentage of residents who rated their general health as excellent/very good/good		
	2006	2008	2011
Transformational Regeneration Areas (TRAs)	82	78	78
Local Regeneration Areas (LRAs)	78	73	71
Wider Surrounding Areas (WSAs)	81	78	66
Housing Improvement Areas (HIAs)	77	75	72
Peripheral Estates (PEs)	78	73	68

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Long-term health conditions

Participants were asked if they had experienced any health problems regularly over the past 12 months (Table 4). They were asked to exclude any temporary conditions and focus only on those conditions lasting 12 months or more. The findings in Table 4 contrast with those reported in Table 3, suggesting that some participants were willing to report their current general health as good (or better than good) despite regularly experiencing ill health over the previous 12 months.

The trend for long-term illness suggests an overall worsening of health among GoWell participants, with TRA participants being least likely and WSA participants most likely to report a long-term illness in 2011. In contrast, there is no evidence of an overall increase between 2006 and 2011 in the prevalence of long-term illness in HIAs and TRAs. Furthermore, the long-term illness data for all the GoWell area types implies that the key period for worsening health occurred between 2008 and 2011: i.e. post-economic recession. In the earlier part of the study (2006 to 2008), rates of self-reported long-term illness tended to fall slightly amongst GoWell participants. Scottish Health Survey data covering the 2008-11 period suggest that the prevalence of limiting long-term conditions increased nationally, but the increase was smaller than that found in the GoWell population. Nationally, 23% of men and 28% of women had limiting long-term conditions in 2008, compared to 2011 figures of 26% and 30% respectively (note that the national figures are not directly comparable with those reported from GoWell, and are only to be used as a general indicator).

Table 4. Long-term health conditions.

Intervention area type	Percentage of residents who reported experiencing one or more health conditions regularly over the last 12 months		
	2006	2008	2011
Transformational Regeneration Areas (TRAs)	32	28	31
Local Regeneration Areas (LRAs)	36	31	43
Wider Surrounding Areas (WSAs)	39	35	50
Housing Improvement Areas (HIAs)	45	33	43
Peripheral Estates (PEs)	42	34	46

Recent health conditions

Participants were asked if they had suffered from any of the following symptoms during the previous four weeks: sleeplessness, palpitations/breathlessness, sinus trouble/catarrh, persistent cough, fainting/dizziness, chest pain, migraines/frequent headaches, difficulty walking or managing other physical tasks, or any other pain. Table 5 presents the findings from this question.

As with long-term health conditions, the WSAs experienced the least favourable trajectory over time for recent health problems (30% reported at least one problem in 2006 compared with 48% in 2011). In contrast, there was relatively little increased reporting of recent health problems over the study period in TRAs. For most GoWell area types, the data indicate that the greatest increase in rates of self-reported recent health problems occurred between 2008 and 2011.

Table 5. Recent health conditions.

Intervention area type	Percentage of residents who reported experiencing one or more health conditions during the previous four weeks		
	2006	2008	2011
Transformational Regeneration Areas (TRAs)	30	31	34
Local Regeneration Areas (LRAs)	30	33	45
Wider Surrounding Areas (WSAs)	30	35	48
Housing Improvement Areas (HIAs)	35	32	44
Peripheral Estates (PEs)	37	37	47

Mental wellbeing

Previous GoWell research has shown that for people living in deprived areas, the quality and aesthetics of housing and neighbourhoods are associated with mental wellbeing, but so too are the feelings of respect, status and progress that may be derived from how places are created, serviced and talked about by those who live there[3]. The implication for regeneration activities undertaken to improve housing and neighbourhoods is that it is not just the delivery of improved housing that is important for mental wellbeing, but also the quality and manner of delivery.

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) is a validated scale of 14 positively worded items used to assess a population's mental wellbeing. The Universities of Warwick and Edinburgh were commissioned to develop the scale in 2006, but the measure was not ready for inclusion in GoWell until the second survey wave (2008). Table 6 therefore presents summary WEMWBS data for 2008 and 2011 only. For most of the GoWell area types, we cannot be confident that the apparent differences in mean WEMWBS scores at each wave represent a meaningful change in wellbeing, as in most cases the confidence intervals for 2008 and 2011 findings overlap.

TRAs are the exception to this rule: a noticeable improvement occurred in the mean WEMWBS score from 49.8 in 2008 to 51.3 in 2011 – an increase that lies beyond the margin of error suggested by the 95% confidence intervals. Hence, like the findings reported in the section on general health above, GoWell's wellbeing outcomes suggest that the TRAs have experienced a more favourable health and wellbeing trajectory compared with other GoWell area types.

According to the Scottish Health Survey, the national mean WEMWBS score was 50.0 in 2008 and 49.9 in 2011. Hence, in 2011, all the GoWell area types were above the national average.

Table 6. Mean Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) scores (higher = better).

Intervention area type	Year of survey	Mean	95% Confidence interval	
			Lower	Upper
Transformational Regeneration Areas (TRAs)	2008	49.8	49.2	50.5
	2011	51.3	50.6	52.0
Local Regeneration Areas (LRAs)	2008	50.9	50.1	51.5
	2011	51.9	51.1	52.6
Wider Surrounding Areas (WSAs)	2008	51.6	50.8	52.4
	2011	51.2	50.5	51.9
Housing Improvement Areas (HIAs)	2008	53.3	52.7	53.9
	2011	52.6	51.8	53.3
Peripheral Estates (PEs)	2008	52.7	52.1	53.4
	2011	52.3	51.6	53.0

Health service use

National data suggest that there is a direct relationship between area deprivation and GP consultation rates (greater deprivation = more consultations)[4]. This relationship fits broadly with the social gradient often observed in studies that look at deprivation and morbidity or mortality. Given this similarity in social patterning, it is plausible to suggest that self-reported GP consultations may be considered to be a proxy health measure, and so a change in consultation rates may reflect a change in morbidity. However, it is important to recognise that there are alternative interpretations: health service use (and particularly use of primary care services) may be influenced by a number of factors, including levels of population health, accessibility of health services, cultural factors and people's willingness to seek help.

For Scotland as a whole, health service use at the local practice level has increased in recent years. GPs and practice-employed nurses combined had an estimated 24.2 million face-to-face consultations with patients in 2011/12[5]. This is a rise of 0.65 million compared to the previous year, and of nearly 2.5 million compared to 2003/04, when Practice Team Information (PTI) recording started. The number of GP consultations rose by almost 6% from 15.6 to 16.5 million over the nine years, whereas the practice nurse consultations rose by 25% from 6.1 million to 7.6 million over the same period.

The relevant items on the GoWell questionnaire specify consultations with GPs (although it is possible that some participants may have decided to include consultations with a practice nurses). Residents were asked if they had spoken to a GP in the last 12 months about any health issue relating to themselves. They were then asked if they had spoken to a GP specifically about issues relating to mental or emotional health. Table 7 presents percentage figures for residents who report having consulted a GP at least once in the previous 12 months about their own health. The figures are relatively stable: at each wave, roughly three out of every four participants stated that they had consulted a GP over the preceding year. The figures for 2011 are slightly higher than 2006 for the TRAs, LRAs and WSAs, but not the HIAs or PEs. Differences between waves are relatively small (i.e. 5% or less) in most cases.

However, the proportion of participants who consulted a GP increased more substantially (by 10%) in the LRAs between 2006 and 20011, with most of this increase occurring between the first and second waves of the study. Although these figures are not directly comparable to the national data on GP consultations referred to above, the national figures do suggest a general, temporal trend of increasing consultation rates and so the HIAs and PEs appear to buck that trend.

Table 7. Health service use.

Intervention area type	Percentage of residents who reported consulting their General Practitioner in the last 12 months		
	2006	2008	2011
Transformational Regeneration Areas (TRAs)	72	71	76
Local Regeneration Areas (LRAs)	69	78	79
Wider Surrounding Areas (WSAs)	78	78	83
Housing Improvement Areas (HIAs)	78	75	74
Peripheral Estates (PEs)	80	77	79

Table 8 focuses on participants who said they consulted a GP at least once in the last 12 months about their own anxiety, depression, or other mental, nervous or emotional problem(s) (including stress). Consultation rates were higher for each intervention area type in 2011 compared to 2006, although the difference was marginal (2%) in the WSAs. GP consultations for mental or emotional problems appear to have spiked (i.e. peaked) in the LRAs and WSAs in 2008. By 2011, the WSA figures had reverted back to around their baseline (2006) level, while mental health consultations amongst the LRA participants remained 9% higher than they were at baseline. In the PEs and TRAs, the increase in consultations appeared to accelerate after 2008. In only one area type was there an apparent fall between waves: this occurred in the HIAs between 2006 and 2008, although the apparent reduction in consultations was small (3%).

Table 8. Health service use for psychological problem(s).

Intervention area type	Percentage of residents who reported consulting their GP in the last 12 months about a psychological problem		
	2006	2008	2011
Transformational Regeneration Areas (TRAs)	16	17	24
Local Regeneration Areas (LRAs)	18	28	27
Wider Surrounding Areas (WSAs)	17	27	19
Housing Improvement Areas (HIAs)	16	13	21
Peripheral Estates (PEs)	22	24	28

Health behaviours

The health, wellbeing and health service use findings summarised above generally suggest a worsening of outcomes over time. On occasion, the outcomes for WSAs appear to be particularly unfavourable whilst outcomes for TRAs are most favourable compared with the other intervention area types. As health behaviours are commonly assumed to be important influences on individual health outcomes, it is reasonable to hypothesise that differences in health behaviours may contribute to the variations in health we have identified between intervention area types and over time. With this in mind, some summary findings on diet, smoking, alcohol consumption and physical activity are considered below.

It should be noted, however, that health behaviour data can be particularly problematic. They often rely on assumptions that participants are able to define, recall and quantify activities and consumption patterns in a relatively standardised way. These assumptions may not be justified: for example, it is conceivable that some participants may define themselves as a non-drinker or non-smoker even though they do occasionally consume alcohol or tobacco. Confusion over what constitutes a unit of alcohol or a portion of fruit is also likely, given the difficulties involved in defining these terms. Reporting physical activity, such as walking, can also vary greatly depending on whether participants choose to include all the time they spend on their feet, or perhaps just those specific periods when they are walking outdoors as a means of travel or as self-defined exercise. It is essential to provide easy-to-understand definitions in the surveys, but this is far from straightforward and participants may still choose to define terms differently or give answers that present themselves in a particular light.

Hence, the health behaviour findings are particularly susceptible to error. Nevertheless, we suggest that when the same question is asked of different respondents, the level of bias is likely to be broadly similar across the various intervention area types. If this assumption is correct, the data can still be used to compare the different area types. In light of the above, we report on relatively simple indicators of health behaviours here, rather than their more complicated counterparts.

Diet

We asked participants how many times in the past week their main meal had come from a fast food/takeaway outlet. The question has clear relevance to an evaluation of urban regeneration, in that the choice to go to a takeaway outlet may be influenced not only by individual attitudes to diet, but also by environmental factors that may be modified through regeneration, such as neighbourhood amenities (e.g. local availability of fast food outlets and/or shops selling food for home cooking) and the home environment (e.g. quality of kitchens). The findings suggest a small reduction in main takeaway meals for four of the five area types. The exception is the WSAs: figures for these areas suggest a modest increase in takeaway main meals over the study period, though peaking in 2008 (see Table 9).

Table 9. Fast food consumption.

Intervention area type	Percentage of residents who reported having at least one main meal in the last seven days from a fast food/ takeaway outlet		
	2006	2008	2011
Transformational Regeneration Areas (TRAs)	50	40	36
Local Regeneration Areas (LRAs)	45	39	35
Wider Surrounding Areas (WSAs)	42	49	47
Housing Improvement Areas (HIAs)	45	42	39
Peripheral Estates (PEs)	50	46	44

Smoking

We asked participants if they were current smokers and whether they had any intention of stopping smoking at some point in the future. Smoking prevalence rates in the various area types either declined slightly (≤5%) or, in the case of the WSAs, barely changed between 2006 and 2011 (see Table 10).

Across all areas and times, smoking prevalence in GoWell area types has been considerably higher than the national average. According to the Scottish Health Survey, smoking in Scotland has declined from 28% to 23% of the adult population between 2003 and 2011. The Scottish Health Survey also found that in 2011, 40% of adults living in neighbourhoods ranked as the most income-deprived quintile in Scotland were current smokers. Using this 40% figure as a benchmark, we find that two of our study area types, TRAs and HIAs, have lower smoking rates than one might expect for deprived areas, whilst two other area types, LRAs and especially PEs, have higher than expected rates of smoking.

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Table 10. Smoking status.

Intervention area type	Percentage of residents who reported being a current tobacco smoker		
	2006	2008	2011
Transformational Regeneration Areas (TRAs)	39	34	34
Local Regeneration Areas (LRAs)	46	42	44
Wider Surrounding Areas (WSAs)	40	41	40
Housing Improvement Areas (HIAs)	41	39	37
Peripheral Estates (PEs)	53	45	49

Regarding the intention to quit findings (Table 11), the proportion of smokers in the LRAs who reported that they intended to give up smoking at some point increased at each survey wave. The figures for WSAs suggest an increase of 16% in residents who intended to quit between 2006 and 2008, but this increase was not sustained by 2011 (intention to quit fell 12% between 2008 and 2011). The figures for the HIAs suggest a modest (6%) reduction in the proportion of smokers who intended to quit between 2006 and 2008. A larger reduction (17%) took place in the TRAs between 2006 and 2008, and the level remained stable thereafter. Intention to quit rates for the PEs changed little throughout the study period. Overall, the findings suggest a fairly complicated pattern whereby intention to quit can vary noticeably between area types and between time points.

Table 11. Intention to quit smoking.

Intervention area type	Percentage of residents who reported intending to quit smoking at some point in the future		
	2006	2008	2011
Transformational Regeneration Areas (TRAs)	67	50	50
Local Regeneration Areas (LRAs)	49	53	58
Wider Surrounding Areas (WSAs)	46	62	50
Housing Improvement Areas (HIAs)	62	56	56
Peripheral Estates (PEs)	60	57	60

(Figures refer only to participants who identify themselves as current smokers).

Alcohol

We asked participants if they were current drinkers (Table 12). The proportion of GoWell participants who report not being a current drinker has consistently been high: at baseline the majority of participants claimed to be teetotal. In comparison, national figures for non-drinkers from the last five Scottish Health Surveys (2003, 2008, 2009, 2010, 2011) suggest abstinence rates have generally increased slightly from 11% in 2003 to 14% in 2011.

Cultural differences between ethnic groups (or other social sub-groups) may impact on alcohol consumption and/or the willingness to admit to alcohol consumption. Abstinence rates have been particularly high in the TRAs and LRAs, which contain substantial numbers of minority ethnic groups and first generation immigrants, who are particularly likely to report abstaining from alcohol. From previously reported analysis we concluded that ethnic variation could explain some but not all of the high levels of teetotalism in GoWell areas[6]. We have also speculated that abstinence rates may be more common amongst populations where alcohol causes particular problems: for example, abstainers may include former alcoholics who have now quit drinking, or other people who have been adversely affected by problems relating to their own drinking or that of people they know.

It could be argued that the baseline findings on alcohol abstinence are too high to be reliable, so we make no comment about how alcohol abstinence rates have changed across the study period.

Table 12. Alcohol consumption.

Intervention area type	Percentage of residents who reported that they drink alcoholic beverages		
	2006	2008	2011
Transformational Regeneration Areas (TRAs)	28	44	36
Local Regeneration Areas (LRAs)	26	49	49
Wider Surrounding Areas (WSAs)	46	69	65
Housing Improvement Areas (HIAs)	43	65	60
Peripheral Estates (PEs)	51	66	62

Walking

In 2008 we added further questions about physical activity including one that that asked "in the last seven days, on how many days did you walk in your neighbourhood for at least 20 minutes at a time?". Like the question on fast food/takeaways, the neighbourhood walking question was intended to focus on a health behaviour that could be influenced by the neighbourhood environment – for example, people may be more likely to walk if their neighbourhood feels safe, or is attractive or peaceful, or if there are local amenities or friends' houses that a resident might want to walk to. More than one in three residents reported that they walked for at least 20 minutes in their neighbourhood on at least five days during the preceding week (see Table 13). In the TRAs, LRAs and especially the PEs, frequent neighbourhood walking appears to have increased between 2008 and 2011.

In the HIAs the figures are similar for each wave, whilst in the WSAs there has been a slight decrease in reported neighbourhood walking.

Table 13. Neighbourhood walking.

Intervention area type	Percentage of residents who walk for at least 20 minutes in their neighbourhood on five or more days a week	
	2008	2011
Transformational Regeneration Areas (TRAs)	36	39
Local Regeneration Areas (LRAs)	38	42
Wider Surrounding Areas (WSAs)	35	31
Housing Improvement Areas (HIAs)	38	38
Peripheral Estates (PEs)	35	43

Summary

Generally, self-reported health appears to have declined since 2006 across all the GoWell intervention area types. Findings are fairly consistent across different self-reported health outcomes: taking into account findings for self-reported general health, long-term illness and recent health problems, it appears as though this apparent decline in population health has been less pronounced in the TRAs and most pronounced in the WSAs – with the other area types falling in between.

Mental wellbeing does not appear to have changed substantially over the period in most of the area types although in each case the mean WEMWBS scores at 2011 are higher than the national average. In TRAs there does seem to have been a significant increase in WEMWBS scores between 2008 and 2011.

In terms of health service use, there appears to have been a small general increase in GP consultations between 2006 and 2011, for any health problem and, specifically, for mental health problems. Consultations have increased particularly in the LRAs. The extent to which these changes reflect greater levels of ill health, greater willingness to access health services, or sampling bias is not clear – although, broadly speaking, they fit a general national pattern of increased GP consultation.

We hypothesised that health behaviours may have contributed to changes in health outcomes within the GoWell areas, and so we explored whether key changes in population health behaviour outcomes mirrored those in self-reported health. However, we did not find a consistent pattern that might suggest a link between self-reported health and health behaviours. On the one hand, we found self-reported general health to have declined over time in most places on all three indicators examined. However, on the other hand, we found small improvements in several health behaviours: diet (reductions in the frequency of fast food consumption); smoking status (but not the intention to quit); and neighbourhood walking. The one exception to this pattern was drinking, where responses to our indicator worsened over time. Furthermore the health behaviour findings did not tend to suggest that outcomes were relatively more favourable in the TRAs and relatively less favourable in the WSAs, whereas the self-reported health findings did suggest this pattern.

So, the findings from these initial analyses suggest that, generally, across the GoWell areas there may have been modest improvements in some types of health behaviour, but these improvements have occurred alongside worsening self-reported health. Further analysis is required to explore and formally test these findings and to test hypotheses that could account for why health appears to have declined in most GoWell areas. To some extent, GoWell findings may simply reflect national temporal trends, but some findings (e.g. for self-reported general health) suggest that trends within GoWell that are generally less favourable than the national figures; whilst other indicators (e.g. mental wellbeing) suggest GoWell outcomes have been more favourable compared to national figures. In addition, if health behaviours are found to have improved as a result of regeneration, and these improvements can be extended and sustained, then this could lead to improved health in the future.

References

1. Egan M, Beck S, Bond L, Coyle J, Crawford F, Kearns A, Lawson L, Mason M, Tannahill C, Sautkina E, Thomson H, Walsh D, on behalf of the GoWell Team. Protocol for a mixed methods study investigating the impact of investment in housing, regeneration and neighbourhood renewal on the health and wellbeing of residents: the GoWell programme. *BMC Medical Research Methodology* 2010;10:41.

2. GoWell. Moving Out, Moving On? Short to medium term outcomes from relocation through regeneration in Glasgow. Glasgow: Glasgow Centre for Population Health; 2011.

3. Bond L, Kearns A, Mason P, Tannahill C, Egan M, Whitely E. Exploring the relationships between housing, neighbourhoods and mental wellbeing for residents of deprived areas. *BMC Public Health* 2012;12:48.

4. Information Services Division. Estimated number of consultations per patient with a GP or practice nurse. Practice Team Information (PTI), ISD Scotland. http://www.isdscotland.org/Health-Topics/General-Practice/Publications/2012-11-27/PTI_Nov12_AgeSIMDChart.xls

5. Information Services Division. *Practice Team Information (PTI) Annual Update (2011/12).* ISD Scotland and NHS National Services Scotland: Edinburgh, 2012.

6. GoWell. Progress for People and Places: Monitoring change in Glasgow's communities. Evidence from the GoWell Surveys 2006 and 2008. Glasgow: Glasgow Centre for Population Health; 2010.

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Health outcomes over time

A comparison across the 2006, 2008 and 2011 GoWell community surveys

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