

Monitoring the impacts of the Commonwealth Games and regeneration on the east end of Glasgow: headline indicators 2012-2016

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Summary

This report contains data from both the 2012 baseline and the 2016 community surveys, conducted as part of the study, *GoWell: Studying change in Glasgow's east end*. The study aims to assess the impacts of the 2014 Commonwealth Games and associated regeneration activity upon the health and wellbeing of the host communities in the east end of Glasgow.

Key messages – Active

Levels of physical activity among survey participants have fallen over time, and remain lower in the east end in 2016 than across Glasgow and Scotland:

- Just over half (53%) the GoWell East 2016 sample was physically active at recommended levels, a drop of 9 points from the 2012 survey. The drop was concentrated in the group with secondary or post-secondary educational qualifications. The GoWell East figure for 2016 is slightly higher than that for deprived areas across Scotland (50%).
- The number of householders in the study samples who reported that they undertook exercise weekly in order to stay fit and healthy dropped by 12 points, to 31% in 2016. This drop was evident among those with secondary/post-secondary qualifications and those with no qualifications, but not among those with a degree.

Two active indicators have shown improvements over time, both of which may be related to regeneration activity in the area:

- Over half (55%) of the GoWell East participants in 2016 reported regularly walking in their local neighbourhood on four or more days per week. This is a significant increase from 40% of participants at wave 1. Levels of walking were highest among those in employment. It is possible that the local environment has become more walkable due to a combination of increased local economic activity (which may enhance the amount of pedestrian traffic and the number of destinations in the area), and enhancements to environmental quality and feelings of safety (see below).
- Levels of active travel in the study area were relatively high in 2012 and have increased slightly by 2016. Over a third (35%) of participants use active transport modes to get to work or college, approximately twice the city (18%) or national rates (16%). High levels of active travel may reflect lower levels of income and car ownership, proximity to the city centre, and improvements in local walking and cycling infrastructure.

Key messages – Flourishing

Employment increased among respondents in the east end over time, at a rate of improvement comparable with changes seen at city and national levels. The employment rate in the study area remains significantly lower than across the city and country:

- Over half (54%) of working-age adults in the study sample were in employment in 2016. This is an increase from wave 1 of the survey where 48% were in full-time or part-time employment. The employment rate in the study area remains below that for Glasgow (66%) and Scotland (73%).
- There has been an increase in full-time employment among men in the study area and in part-time employment among women.
- Employment which was directly related to regeneration projects was reported at both waves 1 and 3, although the number of households positively affected in this way had dropped from 4% to 3% over time, which may be the result of a higher level of Games-related development activity at the time of the baseline survey.

There has been a large drop in reported rates of volunteering over time, across all sectors of activity, and partly reflective of a general drop in collective engagement in the study area:

- Eight percent of the 2016 sample reported that they had volunteered / provided unpaid help to organisations, groups or individuals over the past 12 months. This figure is a decrease from the 24% reported at wave 1 of the survey and compares unfavourably with that found in other deprived areas in Glasgow (12%) and nationally (18%) in 2015.
- There was also a decline in the number of people reporting that they had been involved in groups or organisations for leisure or personal interest reasons.

Key messages – Sustainable

There has been an increase in the number of participants who are happy with their neighbourhood as a place to live:

- Neighbourhood satisfaction has increased, with over four-fifths (83%) of GoWell East respondents either very or fairly satisfied with their neighbourhood in 2016, an increase from 70% in 2012.
- As in the baseline survey, more people thought their neighbourhood had improved in the last few years than thought it had got worse: 32% versus 13% in 2016. The majority of participants at wave 3 (55%) perceived their area to have stayed the same over the past three years.

An increasing number of participants derive psychosocial benefits from their neighbourhood that are important for health and wellbeing:

- The number of participants who felt they could influence decisions affecting their local area increased from 37% in 2012 to 45% in 2016, nearly twice the national rate.
- The number of participants who said that they felt safe walking in their neighbourhood after dark increased from 52% in 2012 to 72% in 2016, the latter being higher than the rate for Glasgow (67%) and very close to the national figure (74%).

Neighbourhood environmental quality is seen by residents to have improved over time:

- The number of people rating local parks and green spaces as good increased from 75% to 80%.
- The identification of environment-related neighbourhood problems has reduced over time. The number of people identifying vacant and derelict land as problematic has fallen from 54% to 27%; rubbish and litter lying around has fallen from 79% to 64%; and vandalism, graffiti and property damage has fallen from 79% to 41%.

However, standards of environmental care, cleanliness and maintenance remain problematic for the area, both in terms of the experience of current residents and the ability to attract and retain new residents:

- Neighbourhood cleanliness remains an issue for most people, with nearly two thirds of people reporting rubbish or litter lying around as a slight (41%) or serious problem (23%).
- Local environmental problems such as street litter and property damage remain much more commonly identified in the study area than in other deprived areas in the country (64% versus 45% in the case of litter; 41% versus 19% in the case of vandalism).

There have been no improvements in reported regular environmentally-sustainable behaviours:

- Regular sorting of waste for recycling fell by 4 points to 51% in 2016 (although the rate of occasional recycling increased from 13% at wave 1 to 24% at wave 3).
- Regular avoidance of over-filling a kettle to conserve energy fell by 13 points to 41%.
- Regular selection of goods with less packaging when shopping fell by 10 points to 15%.

Key messages - Connected

Attitudes to the Commonwealth Games appear to have become less strongly positive over time, with a growth in neutral attitudes, but also with no increase in opposition to the hosting of the Games in the light of residents' experience:

- A majority of participants in 2016 supported the city having hosted the Games (56%), thought that the Games had had a positive impact on their local area (69%), and reported that they had engaged with the Games at the time (74%), although mostly by watching the Games on television.
- A substantial minority of respondents (41%) in 2016 felt that the Games had had a positive impact upon their families. However, this was lower than the 56% who said that they expected a positive impact in 2012.
- Perceptions that the Games had a positive impact were highest among recent residents, suggesting that the Games may have played a role in boosting the attractiveness of the area to newcomers.

The intended positive impacts of the Games and regeneration upon local civic pride are evidenced in the findings. This is an important effect as local pride can support people's self-esteem and sense of status as citizens:

- Pride in the local area increased from 60% of respondents in 2012 to 74% in 2016.
- Pride in the city of Glasgow was reported by 87% of the sample in 2012 and by 91% in 2016.

The legacy aim of achieving increased cultural engagement is not evident in the study area:

- Cultural attendance among respondents in the study area, at 75% on a broad measure, is lower than that in Glasgow (81%) or Scotland (82%), and represents a drop from that reported by the 2012 GoWell East sample (88%).
- Cultural participation among respondents in the study area, at 80%, is higher than for Glasgow (73%) and Scotland (79%), but represents a drop from that reported by the 2012 GoWell East sample (94%). Moreover, the rate of cultural participation is more than halved if the items of reading, social networking and bingo are removed from the measure.

Further research is warranted to establish the reasons for this lack of impact upon cultural engagement, which could include issues of the supply of cultural opportunities, particularly free ones, and a weakening of social participation among those on low incomes and out of work, among whom the drop in cultural attendance and participation was found to be greatest.

Introduction

GoWell East: studying change in Glasgow's east end is a sub-study of the main GoWell project¹. The aim of GoWell East is to assess the impacts of the Commonwealth Games (CWG) and associated regeneration activity upon the health and wellbeing of communities in the inner east end of Glasgow, where the main Games hosting sites were located.

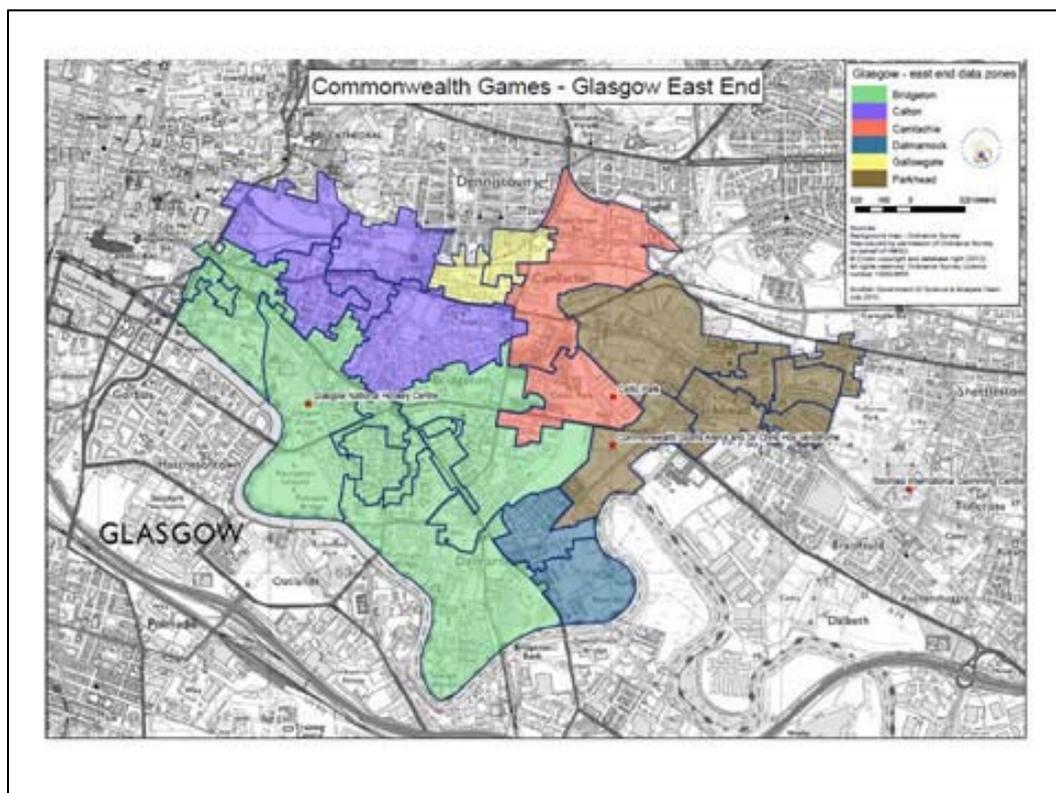
GoWell East surveyed the communities in the east end of Glasgow which are situated closest to the main Commonwealth Games (CWG) sites, where residents may be affected by the considerable amount of physical area changes (house building, road construction and upgraded sports facilities), as well as associated social and economic changes linked to the CWG.

The first household survey took place in summer 2012 and a report of headline indicators from the baseline survey was produced². This is a follow up to that earlier report, enabling a comparison of the pre-Games and the post-Games periods, each two years from the Games event itself.

The study area

The GoWell East study area comprises six sub-areas: Bridgeton; Calton; Camlachie; Dalmarnock; Gallowgate; and Parkhead (part) – see Figure 1 below. It should be noted that the GoWell East study area is similar to the area covered by the Glasgow City Council East End Local Development Strategy Area.

Figure 1: GoWell East study area and six communities.



¹ GoWell online: www.gowellonline.com

² See: Clark J, Kearns A. *GoWell in Glasgow's East End. Baseline Community Survey 2012: Report One: Headline Indicators*. Glasgow: GoWell; 2013. Available at:

http://www.gowellonline.com/publications/85_gowell_in_glasgow_s_east_end_baseline_community_survey_2012

Survey methodology

The study area was first surveyed attempting to make contact with all eligible, occupied properties (10,402) in the summer of 2012, with 1,015 adult householders interviewed across the six communities on that occasion; a response rate of 9.8%. A report of headline indicators was published from that survey³. A second survey was conducted soon after the Games in the winter of 2014-15, although on this occasion only past participants (414) were surveyed. A report comparing the results from this longitudinal cohort at the two time points (2012 and 2014-15) was published⁴.

The 2016 survey aimed to interview as many of the baseline survey (wave 1) participants as possible but also to ensure that the total number of participants remained as close to the target of 1,000 as possible by contacting new householders within the study area. After working through the wave 1 participant addresses, a fresh random sample of additional addresses was selected for the completion of the survey. A total of 1,013 adult householders were interviewed in 2016, with a response rate of 43.7%. The response rate at wave 3 was higher than for wave 1 of the survey as there was a sizeable element of non-participation at wave 1, with no contact made at 40% of addresses. We think this was mainly due to a local police campaign about bogus callers in the weeks immediately prior to the survey. The response rate at wave 3 was more in line with expectations for a survey of this type, accepting that falling response rates have meant that many surveys now have response rates below 50%⁵.

The initial low response rate may introduce non-response bias to the estimates derived from the wave 1 survey; this has been shown to be more of a problem in terms of distributional analysis (describing basic features of individual variables) than for relational analysis (looking at how variables are related to each other in the data)⁶. One way to test for non-response bias is to conduct 'willingness-to-respond' analysis⁷, to see whether those who are more- versus less-easy to recruit to the survey give different responses. When we conducted such analysis on our wave 1 data in respect of attitudes to the Commonwealth Games, we did not find evidence of such bias. This is an important indicator that the survey did not recruit people who were particularly keen or opposed to the central event we are studying, however it is still possible that bias may exist in some other respect within the data, which we have not detected.

Of the wave 3 participants, 268 had also been interviewed at wave 1 of the survey. In this report, we analyse 1,004 cases from the wave 3 sample, after omitting cases with missing sociodemographic data. Both the wave 1 and wave 3 surveys were conducted in the summer months, from the last week of May to the last week of August.

³ Clark J, Kearns A. *GoWell in Glasgow's East End. Baseline Community Survey 2012. Report One: Headline Indicators*. Glasgow: GoWell; 2013.

⁴ Cleland C, Stewart S, Clark J, Kearns A, Ellaway A. *GoWell East: Studying Change in Glasgow's East End. Headline Indicators Report for Wave 2 (2015) in comparison with Wave 1 (2012)*. Glasgow: GoWell; 2015.

⁵ Groves RM. Three eras of survey research. *Public Opinion Quarterly* 2011;75(5):861-871.

⁶ Rindfuss RR, Choe MK, Tsuya NO, Bumpass LL, Tamaki E. Do low survey response rates bias results? Evidence from Japan. *Demographic Research* 2015;32:797-828.

⁷ Lin I-F, Schaeffer NC. Using survey participants to estimate the impact of nonparticipation. *Public Opinion Quarterly* 1995;59(2):236-258.

The GoWell East wave 3 sample

The recruited sample covers all communities in the study, as shown in Table 1. There is little difference between the sample and the housing stock distribution apart from a degree of over-representation for Gallowgate but this is only around 1%.

Table 1. GoWell East 2016 sample, by community.

| Study area | Cohort coverage (%) | Dwellings in community (as % of study area) ¹ |
|------------|---------------------|--|
| Bridgeton | 35.9 | 37.3 |
| Calton | 22.8 | 22.2 |
| Camlachie | 3.9 | 3.9 |
| Dalmarnock | 10.0 | 9.9 |
| Gallowgate | 4.5 | 3.6 |
| Parkhead | 23.0 | 23.0 |
| Total | 100.0 | 100.0 |

1. Source: Glasgow City Council, 2015.

An analysis of length of residence shows that 78% of the wave 3 sample were living in the same neighbourhood four years earlier (i.e. at the time of our wave 1 survey in 2012) and over half (56%) had lived in the same area for 11 or more years, i.e. from before the Games were awarded to Glasgow.

A comparison of the (unweighted) sociodemographic profile of the final sample of 1,004 participants to population data sources is presented in Table 2. The following observations on the sample can be made:

- Women are slightly over-represented but not by much (3%).
- The sample under-represents adults under 30 years and over-represents those over 50. This may be due to the survey method which selected householders for interview rather than selecting any adult.
- The sample is approximately divided between social housing sector and private sector housing. Those in social housing are slightly over-represented (7%). With regard to private housing there is an under-representation of both private renters (6%) and owner occupiers (3%).

Table 2. GoWell East wave 3 sample (unweighted) compared with study area population.

| Category | | Sample (%) | Population (%) |
|--------------------------------|-------------------------|------------|----------------|
| Gender ¹ | Male | 44.8 | 48.1 |
| | Female | 55.2 | 51.9 |
| Age ¹ | 16-29 | 19.2 | 28.5 |
| | 30-49 | 33.7 | 34.2 |
| | 50-64 | 23.4 | 20.9 |
| | 65+ | 23.7 | 16.4 |
| Tenure ² | Social rented | 56.1 | 49.4 |
| | Private rented | 19.1 | 24.7 |
| | Owner occupied | 23.2 | 25.9 |
| | Other | 1.6 | |
| Employment Status ³ | Full-time work | 32.7 | |
| | Part-time work | 10.3 | |
| | Training | 0.0 | |
| | Full-time education | 4.2 | |
| | Sub total | 47.2 | 49.2* |
| | Unemployed | 10.5 | |
| | Temporary sick | 0.9 | |
| | Long-term sick/disabled | 9.9 | |
| | Home/family care | 4.1 | |
| | Other | 1.5 | |
| | Subtotal | 26.9 | 27.5** |
| | Retired | 25.8 | |

1. Source: General Register Scotland, Mid-Year Population Estimates, 2015

2. Source: Glasgow City Council, 2015

3. Source: SIMD 2012: * Employed. **

Unemployed. http://www.understandingglasgow.com/profiles/neighbourhood_profiles

If we compare the unweighted samples recruited at the two surveys, we can see several small differences (Table 3). The differences between the two samples include higher numbers (by up to 5%) at wave 3 of the following: pre-middle age adults (age 30-49), those of retirement age, those in rented housing (both social and private), those in employment; those with no qualifications; and short-term residents of two years or less. There are lower numbers at wave 3 of the middle aged (50-64), owner occupiers, those not working, those with a degree or higher qualification, and long-term residents of 11 years or more.

Table 3. Comparison of samples, wave 1 and wave 3.

| Category | | Wave 1, 2012 ¹ (%) | Wave 3, 2016 (%) | |
|----------------------------|-------------------------|----------------------------------|------------------|------|
| Gender | Male | 43.5 | 44.8 | |
| | Female | 56.5 | 55.2 | |
| Age | 16-29 | 19.1 | 19.2 | |
| | 30-49 | 30.3 | 33.7 | |
| | 50-64 | 28.8 | 23.4 | |
| | 65+ | 18.6 | 23.7 | |
| | Unrecorded | 3.1 | | |
| Tenure | Social rented | 51.0 | 56.1 | |
| | Private rented | 16.0 | 19.1 | |
| | Owner occupied | 30.5 | 23.2 | |
| | Other | 2.3 | 1.6 | |
| | Unrecorded | 0.2 | | |
| Employment Status | Full-time work | 30.1 | 32.7 | |
| | Part-time work | 9.6 | 10.3 | |
| | Training | 0.0 | 0.0 | |
| | Full-time education | 5.6 | 4.2 | |
| | Subtotal | 45.4 | 47.2 | |
| | Unemployed | 13.1 | 10.5 | |
| | Temporary sick | 1.4 | 0.9 | |
| | Long-term sick/disabled | 12.3 | 9.9 | |
| | Home/family care | 3.0 | 4.1 | |
| | Other | 1.3 | 1.5 | |
| | Subtotal | 31.0 | 26.9 | |
| | Retired | 23.3 | 25.8 | |
| | Qualifications | Degree or higher | 19.7 | 17.7 |
| | | Secondary/Post-sec. ² | 57.0 | 56.1 |
| None | | 20.5 | 25.2 | |
| Unrecorded | | 2.8 | 1.0 | |
| Length of Residence | 2 years or less | 16.8 | 20.0 | |
| | 3-10 years | 26.5 | 27.2 | |
| | 11+ years | 55.8 | 52.0 | |
| | Unrecorded | 0.9 | 0.8 | |

1. Source: Clark J, Kearns A. *GoWell in Glasgow's East End, Baseline Community Survey 2012. Report One: Headline Indicators*. Glasgow: GoWell; 2013. Available at: http://www.gowellonline.com/publications/85_gowell_in_glasgow_s_east_end_baseline_community_survey_2012
2. Post-secondary qualifications include: GSVQ, SVQ, HNC and HND qualifications; and business, trade and City & Guild qualifications. Secondary qualifications include all national qualifications normally taken at school such as standard and higher grade qualifications or their equivalents; secondary school leaving certificate or diploma.

Analysis

This report presents the results of a cross sectional comparative analysis of the wave 1 and wave 3 survey data. As we are not analysing longitudinal data we consider patterns of change over time at an aggregate not an individual level. This is a cross-sectional comparison of two samples of adult householders and thus provides a picture of change in the overall situation as seen by resident adults at the two points in time. Some of the differences between measures at the two time points may reflect underlying differences in the composition of the two samples (see above), but this effect is reduced somewhat by the fact that the two samples are weighted to represent key characteristics of the population at the two time points, respectively. The comparison of outcomes at the two time points is a reflection both of the effects of Games-related regeneration and other interventions, but also of changes in the resident population over time, and other unknown factors, i.e. it is a picture of change over time within the study area, for whatever reason.

The report will follow a similar outline to previous GoWell East reports focusing on the four Scottish Government Commonwealth Games legacy themes: 1) Active; 2) Flourishing; 3) Sustainable; and 4) Connected. Most of the variables selected for analysis in this report form part of the Scottish Government's legacy indicators programme. The survey questionnaires used at both waves to generate the data analysed here are available on the GoWell website (www.gowellonline.com).

Results will be presented for wave 3 of the survey along with the wave 1 – wave 3 comparative analysis. In addition to this for some variables, for example those concerning physical activity and employment, data will be presented by gender. A number of variables, for example, feelings of neighbourhood safety, are also analysed by length of residence in the area (local neighbourhood) at wave 3. For this, the wave 3 sample was divided into the following groups of residence: up to 2 years, being the post-Games residents; 3-10 years, representing those who had come to the area during the pre-Games period; and 11 or more years, being those who had lived in their neighbourhood from before the Games were awarded. Some variables are also analysed by employment status (working, not working, retired) or by educational attainment (degree or higher, secondary or post-secondary qualifications, none).

We comment on changes over time in the responses given by the two east end samples, and also compare our wave 3 measures with the nearest equivalent national and city-level indicators, where possible. A further report will examine how changes over time in the GoWell East area compare with changes over a similar time period in several other GoWell study areas.

When presenting changes over time we will indicate the statistical significance of the change by giving the p value below the relevant chart. A p value less than .05 indicates that our observation of change in the variable means we are at least 95% sure that the change is real and not due to chance. We have used the p values in two different ways according to the analyses conducted. In some cases the p value is for the difference in the distribution of responses, usually for questions with ordinal response categories for example from satisfaction to dissatisfaction. At other times, the p value refers to difference in the response on a particular item or category such as use of the local services; where a respondent could choose multiple items from a list a separate p-value is given for each item. Where the p value refers to the distribution of responses across categories, this is indicated under the relevant chart.

Theme 1: Active

The active agenda was intended to inspire people to be more physically active and to take part in sport. In this section we look at changes in overall levels of physical activity, rates of sports participation and other elements of physical activity such as visiting the outdoors, walking in the neighbourhood and active travel.

Participation in moderate exercise at recommended levels

When the baseline survey was conducted the recommended level of physical activity was defined as 30 minutes of moderate or vigorous exercise on at least five days per week. Activities involving moderate exercise are comparable to carrying light loads, sweeping, bicycling or swimming at a regular pace. This definition does not include walking. By wave 3 the CMO guidelines had changed to comprise 150 minutes moderate activity per week or 75 minutes vigorous activity, or an equivalent mix of the two, and this could include walking – this is known as the moderate to vigorous physical activity (MVPA) guidelines.

The revised guidelines have been incorporated into the measurement of physical activity at a national level through the Scottish Health Survey (SHeS). The SHeS collects information in turn about physical activity from four sources – home-based, walking, sports and exercise, and activity at work – and then then asks about the duration and intensity level of that activity (vigorous, moderate, light, inactive). In assessing each person's level of overall activity and whether it meets the MVPA guidelines, the SHeS includes all moderate and vigorous activities of ten minutes duration or more derived from home, work or sport/leisure, plus walking described as 'brisk' by the under-65s and walking described as making people breath faster, sweat, or feel warmer in the over-65s, walking being considered moderate activity⁸.

The SHeS is the main available comparison for considering levels of physical activity in our study, although our measure of physical activity is derived from less detailed information collected from participants. We ask separately about vigorous and moderate activity and walking over the past week, including its frequency and duration. However we do not ask about each separate source of activity, nor do we ask about the intensity of each activity. To derive our measure of the number of participants meeting MVPA guidelines, we combine in a similar pro-rata manner the total minutes of vigorous and moderate activity, plus total minutes walking (classified as moderate activity) in the past week, adding a requirement that to meet the MVPA threshold the walking must be on five or more days per week, in line with CMO recommendations that regular walking would be a way of meeting the guidelines. Thus, our measure is a less precise aggregation of individual elements than the SHeS measure, but nonetheless contains the key components of vigorous activity, moderate activity and walking.

Using our measure of overall physical activity, we can divide our sample into three groups as shown in Figure 2: those meeting the MVPA guidelines; those with low physical activity (below recommended levels); and those inactive (reporting no vigorous or moderate activity and no walking in the past week). At baseline in 2012, our sample had significantly more women meeting the guidelines than nationally in the young (aged 16-34) and very elderly age groups (aged 75+) but significantly fewer men meeting the guidelines than nationally in the middle-aged groups (aged 35-54 and aged 55-64).

The results show a decline in overall physical activity levels among the GoWell East samples over time: the number meeting the MVPA guidelines fell from 62% in 2012 to 53% in 2016, a drop of 9 points; the number with low levels of activity rose by 4 points to 36%; and the number inactive rose from 6% in 2012 to 11% in 2016. At a national level, the proportion of adults meeting the MVPA guidelines in Scotland is virtually unchanged from 62% in 2012 to 63% in 2015⁹. Across Scotland, the proportion of adults living in the most deprived quintile of neighbourhoods (the category that most of our study area would fall into) who met the MVPA guidelines in 2015 stood at 50%¹⁰, slightly lower than our finding for adults in the GoWell East area in 2016.

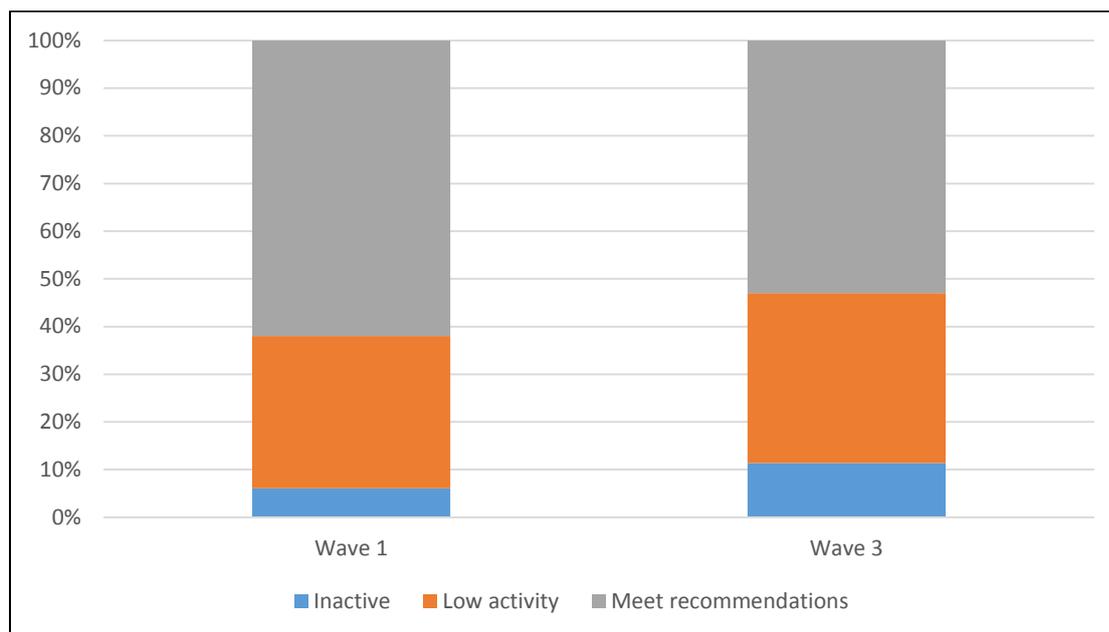
⁸ Bromley C. Physical Activity. In: Rutherford C, Hinchcliffe S, Sharp C (eds.) *Scottish Health Survey 2012 Edition. Volume 1: Main Report*. Edinburgh: Scottish Government; 2013. p149-186.

⁹ Hovald P. Physical Activity. In: Campbell-Jack D, Hinchcliffe S, Rutherford L (eds.) *The Scottish Health Survey 2015 Edition. Volume 1. Main Report*. Edinburgh: Scottish Government; 2016.

¹⁰ Scottish Health Survey (2015) *Supplementary Tables Part 6 – Adult physical activity, Table W329*

<http://www.gov.scot/Topics/Statistics/Browse/Health/scottish-health-survey/Publications/Supplementary2015>

Figure 2: Adult physical activity levels.



p-value for distribution: $p < .001$

Source: GoWell East

It might be suspected that reported changes in physical activity in our samples are associated with turnover in the resident population. On examination, we found that the composition of the two samples by length of residence in the area was little changed from wave 1 to wave 3. The drop in percentages meeting the physical activity guidelines was greatest for the longer-term residents of 11 or more years (-11%), least for the mid-term residents of 5-10 years (-4%) and for shorter-term residents of 4 or less years it was similar to that of long-term residents (-10%). Thus, although it is the case that shorter term residents are more physically active than long-term residents, the former group also exhibited a drop in physical activity, and the overall decline is not explained by a reduction in the presence of the short-term resident group in the study area.

We also examined our samples according to three factors known to be associated with physical activity and/or exercise in Scotland, where analysis of the SHeS has shown that men, those aged under 45, and those with degree or higher qualifications are more likely to take part in sport or exercise and to meet the physical activity guidelines¹¹. We already adjust for differences in the sample composition on two of these factors – age and gender – through the weighting process, although there was in fact little difference in our two samples according to the proportions that are male or adults under 40 years of age.

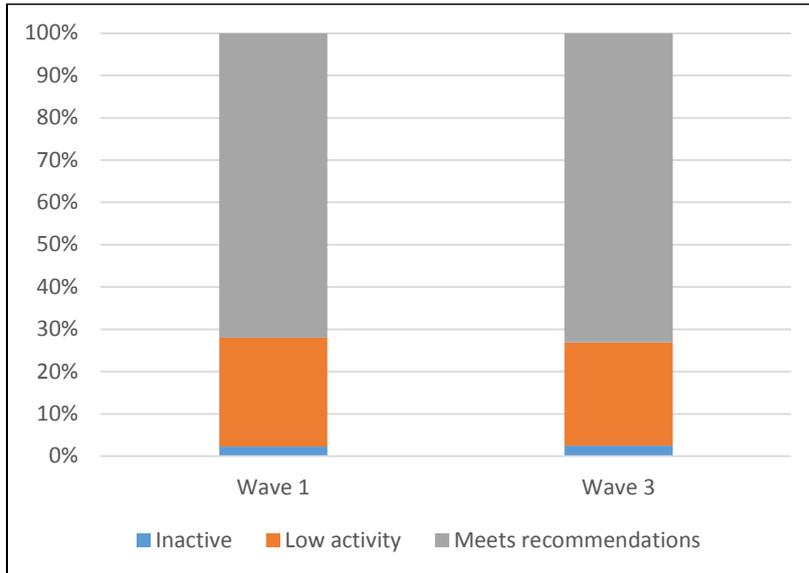
When analysed by level of educational qualifications, there was no significant change in physical activity levels for those with either no qualifications or with a degree, but a drop in physical activity was evident among those with secondary or post-secondary qualifications (Figure 3 a-c). Among those with a degree or higher qualification, the number of respondents meeting the MVPA guidelines was 72% at wave 1 and 73% at wave 3 (Figure 3a), whereas for those with no qualifications the equivalent figure was 41% at both waves (Figure 3b). However, for those with secondary or post-secondary qualifications, the number of participants meeting the guidelines fell from 65% at wave 1 to 48% at wave 3, while there was an increase in this group both of those who were inactive and those who were active below the recommended level (Figure 3c)¹². This group of adults with secondary or post-secondary qualifications span the age range with a 53:47 split between those aged under and over 40 years at wave 1 and a 60:40 split at wave 3.

¹¹ Leadbetter C, Geyer J, O'Connor N. *The Scottish Health Survey. Physical Activity Topic Report*. Edinburgh: Scottish Government; 2014.

¹² The results for the two lower educational categories would change very little if the school leaving certificate/diploma were to be classified into the 'no qualifications' group: the decline in numbers meeting the MVPA

Figure 3: Adult physical activity levels by educational qualification.

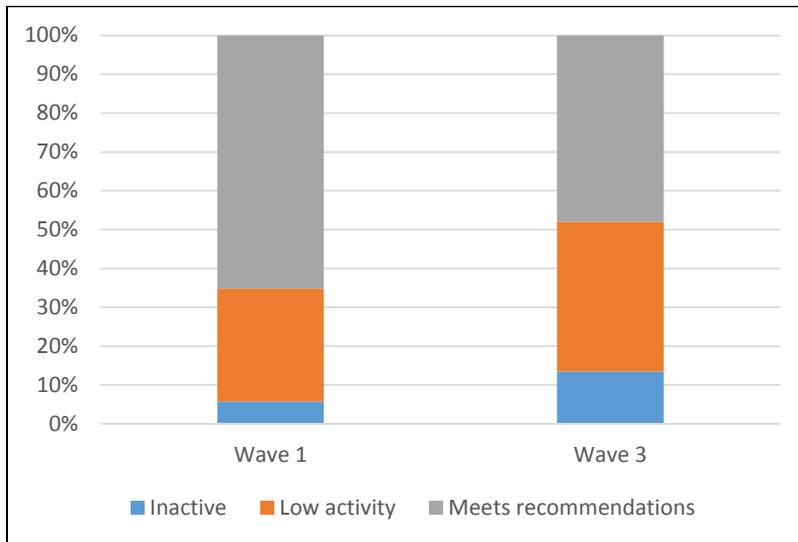
a) Degree or Higher



p-value for distribution:

P=.944

b) Secondary or post-secondary qualifications.

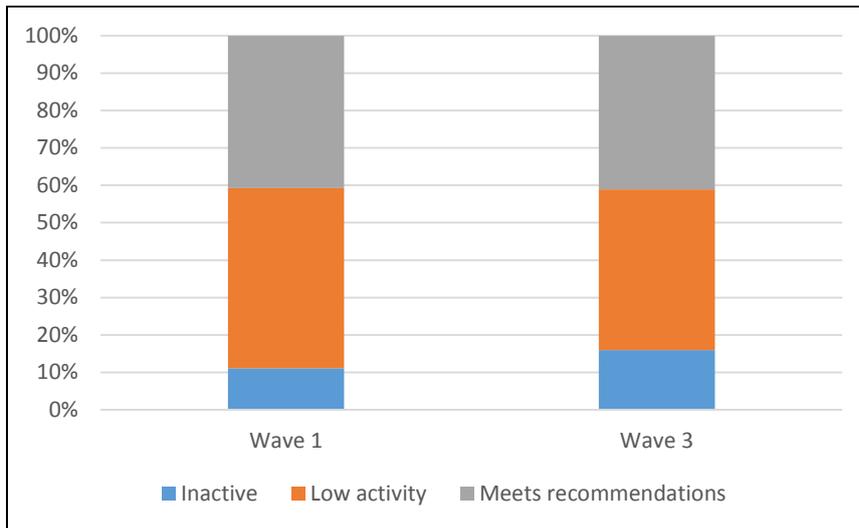


p-value for distribution:

P<.001

guidelines over time would increase by 2 percentage points for the secondary/post-secondary group and by 3 percentage points for the 'no qualifications' group.

c) No qualifications.

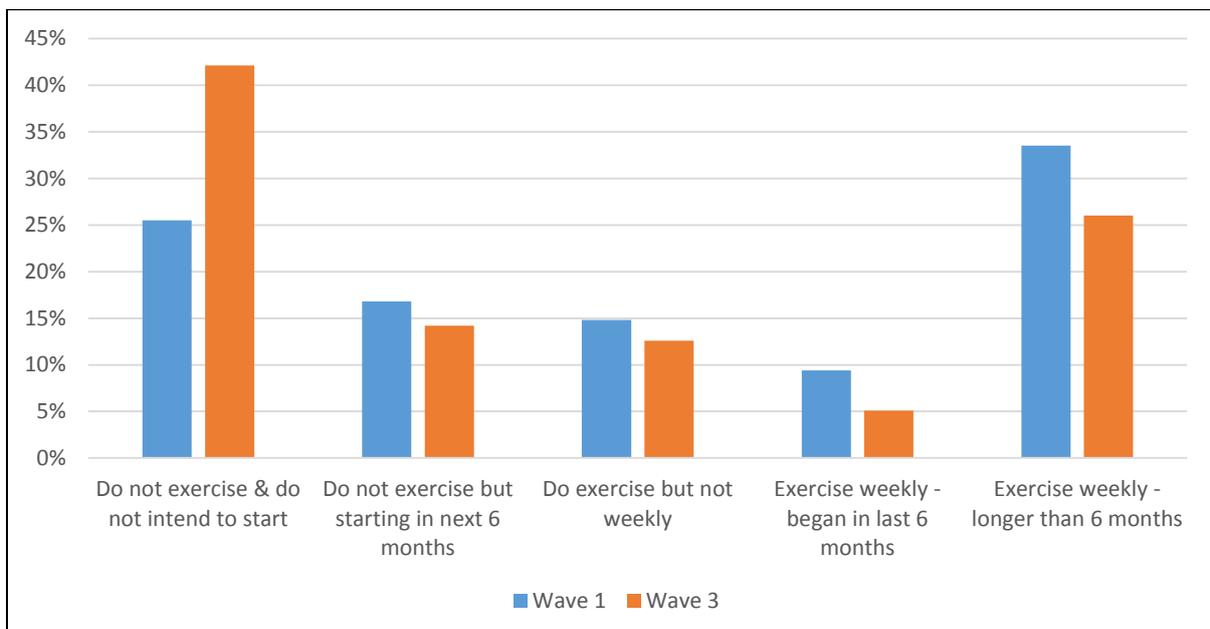


p-value for distribution:
P=.369

Exercise behaviour

At each wave, respondents were asked to select a statement that best described their exercise behaviour at the time. Exercise was defined as something that was done to improve health and fitness. As Figure 4 shows, there has been a fall over time in all exercise categories including established and less established regular exercisers as well as in less regular exercisers. Alongside this, there has been an increase over time, or around 14 points, in the number of respondents saying that they do not exercise (bottom two categories).

Figure 4: Reported exercise behaviour.

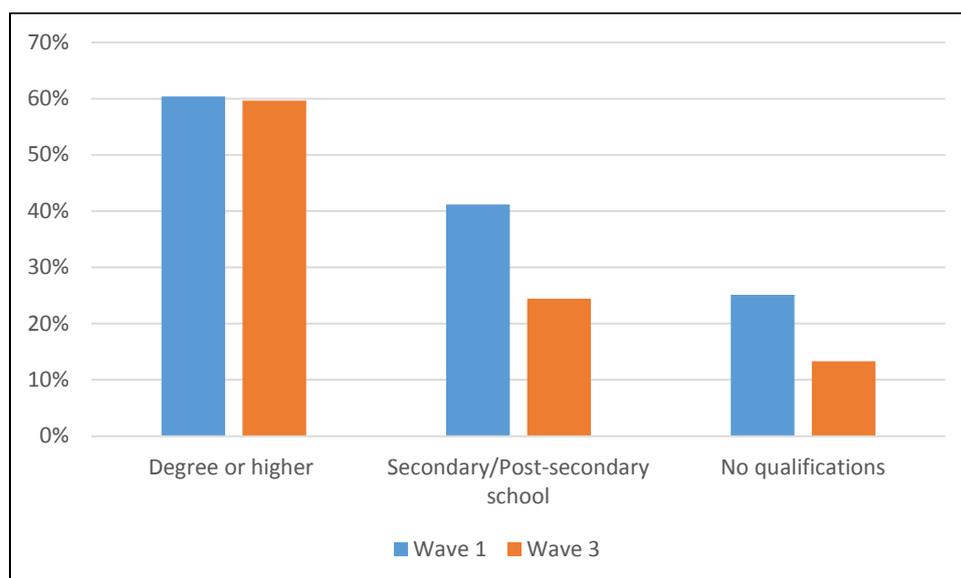


p-value for distribution:
P < .001

Source: GoWell East

Further analysis of the exercise variable by level of education (Figure 5) showed that there was a significant drop in the number of those with either secondary/post-secondary or with no qualifications who exercised weekly, but no change for those with a degree.

Figure 5: Reported weekly exercise behaviour by educational qualification.



Degree or higher $p=0.879$

Secondary/post-secondary $p<.001$

No qualifications $p<.010$

Visiting the outdoors

Since wave 1 of the survey regeneration work in the study area has led to a number of environmental improvements not least changes to the riverside area giving residents access to the new Cuningar Loop Woodland Park. In order to gauge how respondents are accessing this and other 'green spaces' as part of their physical activity, we asked participants:

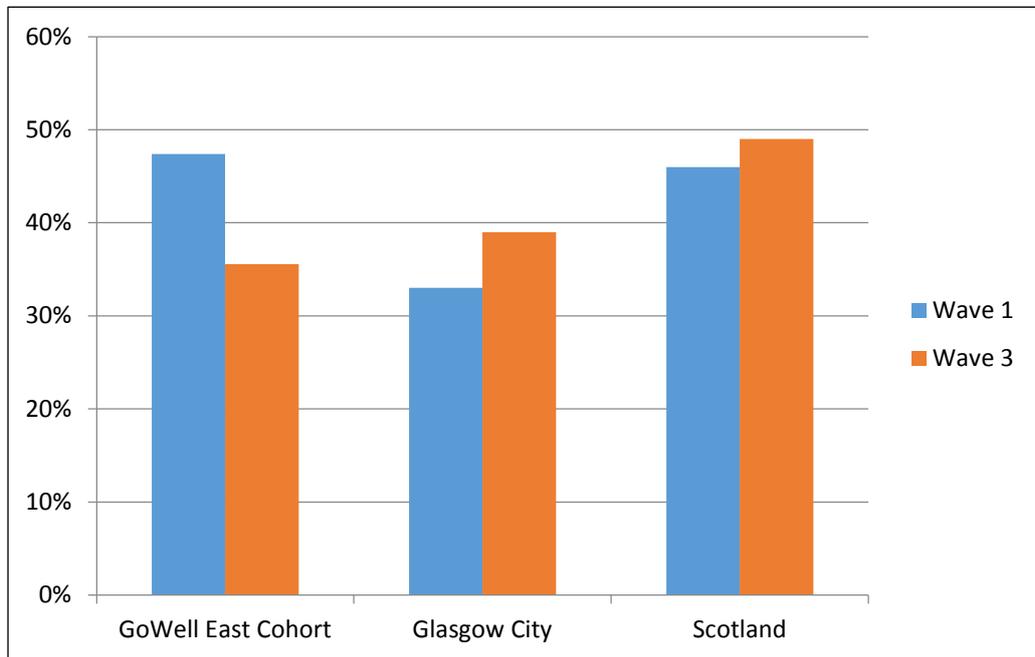
'How often do you use or go to any of the following facilities:

- Woodland, forest or the countryside.
- River, loch, canal, beach or the sea shore.
- Park, green area, sports field or play area'.

This is equivalent to Scottish Government legacy indicator A5, which measures visits to the outdoors for leisure or recreation in the past 12 months.

We found that from wave 1 to wave 3 the proportion of GoWell East participants visiting the outdoors more than once a week decreased from 47% to 36% (Figure 6). This is in contrast to the overall measure for Glasgow City where over the same period frequent visits to the outdoors has increased from 33% to 39% of adults. The proportion for Scotland as a whole has also increased but from a higher starting point of 46% at wave 1 to 49% by wave 3. Thus, by 2016, slightly fewer householders in the study area were regular visitors to the outdoors than was the case among all adults in the city, and both of these rates of visiting the outdoors were a lot lower than found across Scotland.

Figure 6: Adults visiting the outdoors once or more per week (%).

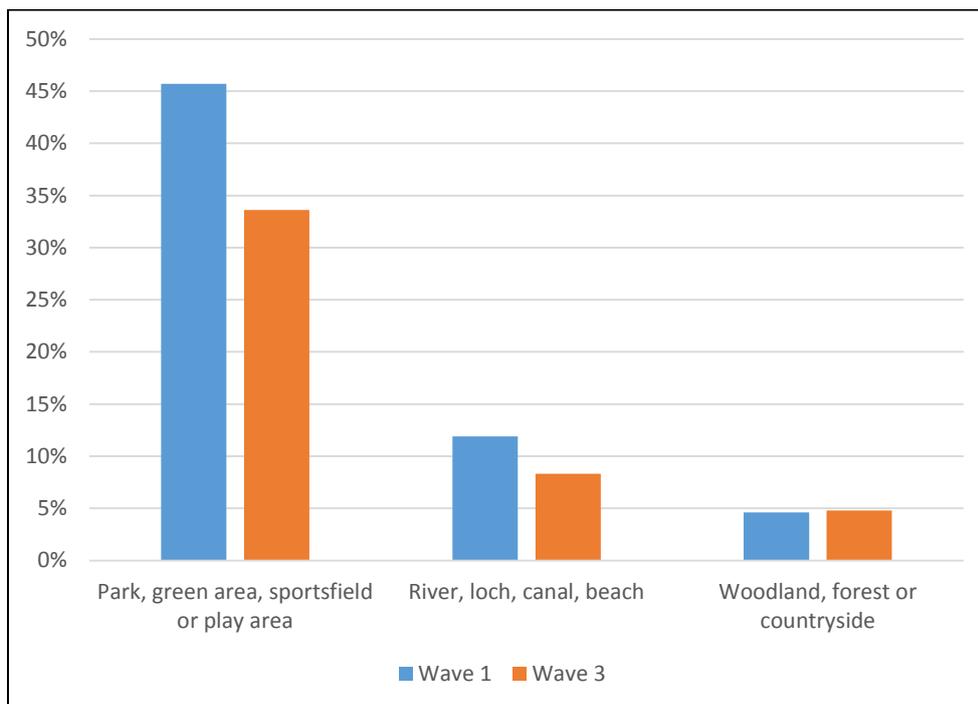


$p < .001$

Source: GoWell East; Scottish Household Survey 2011 and 2015

As Figure 7 shows, of the three different kinds of outdoor activity, visiting parks, play areas and sports fields is the most common at both waves, although the number of respondents reporting this activity weekly decreased by around a quarter, from 46% at wave 1 to 34% at wave 2. There was also a drop in the number of people reporting regular visits to rivers, canals or beaches, from 12% to 8%, while the number of people regularly visiting forests or the countryside remained the same at just under 5%.

Figure 7: Visiting the outdoors weekly.



$P < .001$ – Park, green area, sports field or play area

$P = .011$ – River, loch, canal, beach

$P = .853$ – Woodland, forest or countryside

Source: GoWell East

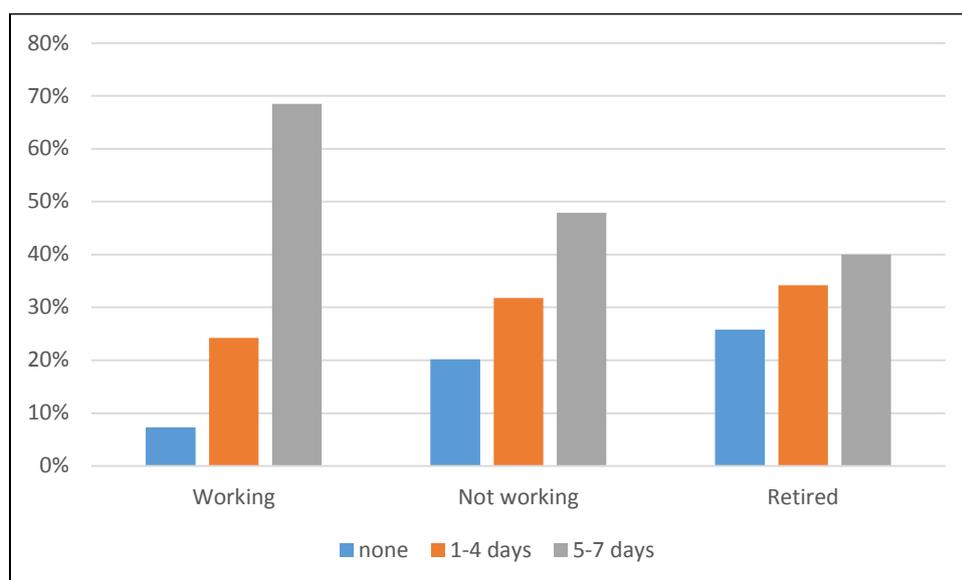
Walking in the local neighbourhood

The regeneration work in the east end that aimed to make it safer and more attractive may have an impact on the amount of time residents walk in their local area, since a safe and well-maintained neighbourhood encourages people to walk more¹³. Time spent walking in the local environment can benefit not just physical health but also mental wellbeing and social interaction. As part of the GoWell study participants were asked 'During the past seven days, on how many days did you walk for more than 20 minutes at a time in your local neighbourhood?' Using the response to this question we calculated how many people went walking for four or more days per week.

We found that the proportion of residents walking in their local area for more than 20 minutes on four or more days per week had increased from 40% at wave 1 to 55% at wave 3, a relative increase of over a third. This increase was present for both men and women. The Scottish Government walking indicator A9 is different, and looks at the percentage of adults who have walked for more than 30 minutes for recreation in the past four weeks. It also showed increases in walking at national and city levels over time. From the Scottish Household Survey the number of people reporting half an hour's recreational walking in a month increased by a fifth in relative terms, from 51% in Glasgow in 2011 to 62% by 2015. The percentage for Scotland also increased from 57% in the 2011 survey to 69% by 2015. Notwithstanding the different measures used, there was a greater relative increase in the neighbourhood walking measure used in the GoWell East survey over time, than found in the city or national measures of recreational walking.

When examined by employment status at wave 3, levels of regular walking were highest among those in employment and lowest among the retired (Figure 8). The numbers walking in their local neighbourhood on most (5-7) days of the week at wave 3 reached nearly 70% among the employed, around half among those out of work, and was 40% among the retired. Conversely, the number of participants who did not walk for 20 minutes in their neighbourhood on any days of the week was highest at 25% among the retired and lowest at 7% among those in work.

Figure 8: Frequency of walking by employment status (wave 3).



p-value for distribution:
P<.001

¹³ Sinnett D, Williams K, Chatterjee K, Cavill N. *Making the Case for Investment in the Walking Environment: A review of the evidence*. Bristol: UWE & Cavill Associates; and London: Living Streets; 2012.

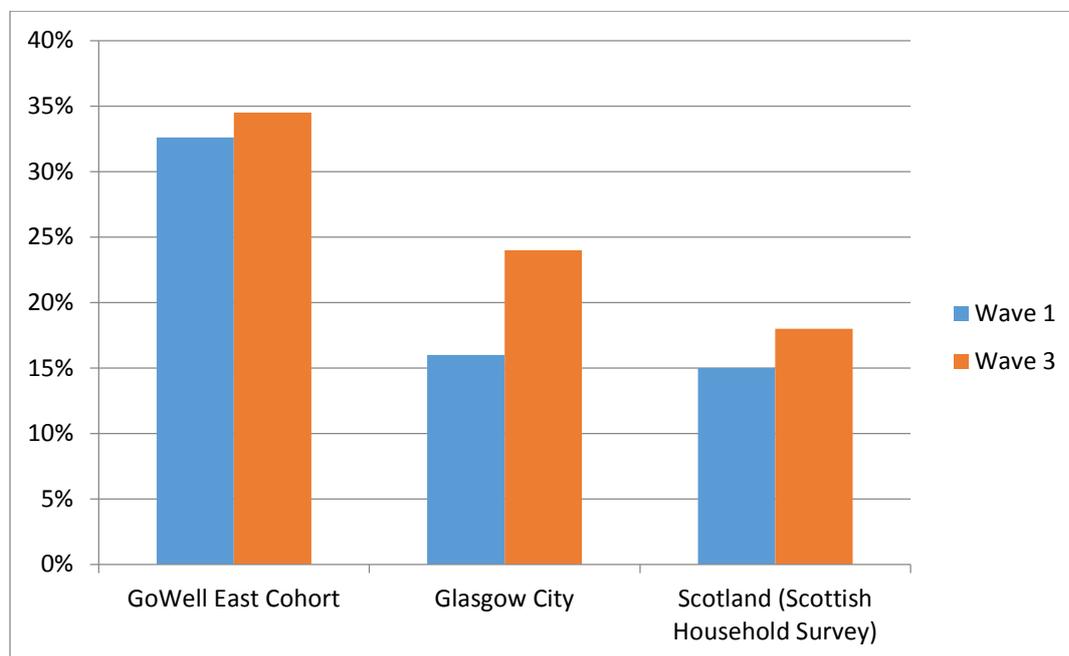
Active travel

GoWell East participants in work or full-time education were asked about their main mode of transport for travelling to work or college. This enabled us to measure the percentage engaging in 'active travel' (i.e. walking or cycling was reported as the main mode of travel, rather than using a vehicle or public transport), and to investigate the possible impact of the upgrading of transport corridors in the east end as part of the East End Accessibility Project. This indicator is equivalent to Scottish Government legacy indicator A10.

We found that there was a slight increase, not statistically significant ($p=.472$), in the percentage of participants using active modes to get to work or college from 33% at wave 1 to 35% at wave 3 (Figure 9). The mode of transport changed somewhat overtime with the percentage of those walking to work or college increasing from 28% to 31%.The corresponding figure for cycling has changed slightly from 5% at wave 1 to 4% at wave 3.

Comparing the 'main' mode reported in our survey with the 'usual' mode recorded in the Scottish Household Survey, active travel modes were much more common for the study area sample than across Scotland as a whole or in Glasgow, at both waves. Both walking and cycling are twice as common as main modes of travel for sample participants compared with Glasgow or Scotland figures. One reason for these differences may be the proximity of parts of the study area to the city centre. Indeed, when analysed by area of residence, we found that rates of active travel were much higher, at 43% at wave 3, among those living in Bridgeton and Calton, the two communities closest to the city centre, than among those living in the other four communities, at 19%.

Figure 9: Participants undertaking active travel to work or college (%).



$p = .472$

Source: GoWell East; Scottish Household Survey 2011 and 2012/13/14 combined¹⁴

¹⁴ Source: Scottish Government. 2014 Commonwealth Games.

<http://www.gov.scot/Topics/ArtsCultureSport/Sport/MajorEvents/Glasgow-2014/Commonwealth-games/Indicators/A10>.

Summary

Levels of reported physical activity among study area survey participants declined over time, with the number of people meeting recommended levels of physical activity falling by 9 percentage points, from 62% in 2012 to 53% in 2016. Decline was present among both genders and all age groups, although the relative size of the decline was greater for women (-13%) than men (-6%) and greater for those aged 65 and over (-14%) compared with other age groups. The number of people meeting the recommended levels of physical activity fell predominantly among those with secondary or post-secondary qualifications. There were also increases in inactivity among both this group and those with no qualifications. A decline in exercise regimes may lie behind this fall in levels of physical activity: when asked about activities undertaken to improve health and fitness, the number of respondents reporting that they exercised on a weekly basis fell by 12 percentage points over time, from 43% in 2012 to 31% in 2016; these activities could include sport and non-sport, organised and non-organised activities. It suggests a lessening of attention to health and fitness as a motivation for undertaking activity among householders in the study area, but especially those with secondary or post-secondary levels of education. There was no change in levels of physical activity or exercise among those with degrees who live in the study area.

However, two indicators of physical activity showed improvements over time in the study area: walking around the neighbourhood most days of the week; and participation in active travel (among those working or in full-time education). The increase in the first of these – local walking – was relatively greater among host community householders than found among adults in Glasgow or Scotland, whereas the increase in the second – active travel – reflected similar changes at city and national levels. Levels of active travel appear to be much higher in the GoWell East study area than elsewhere, which may reflect a combination of the effects of low incomes and proximity to the city centre. Both these activities, walking and active travel, are things that may be undertaken for reasons other than health and fitness, but as part of routine activities (to complete daily tasks) or for leisure and recreation; indeed, the greatest increase in walking was among those in employment. Increases in local walking and active travel may also reflect changes made to the local environment in recent years, including increased economic activity (which may enhance pedestrian flows and destinations in the area), physical environmental improvements and infrastructure provision (see later section on the sustainability legacy).

Theme 2: Flourishing

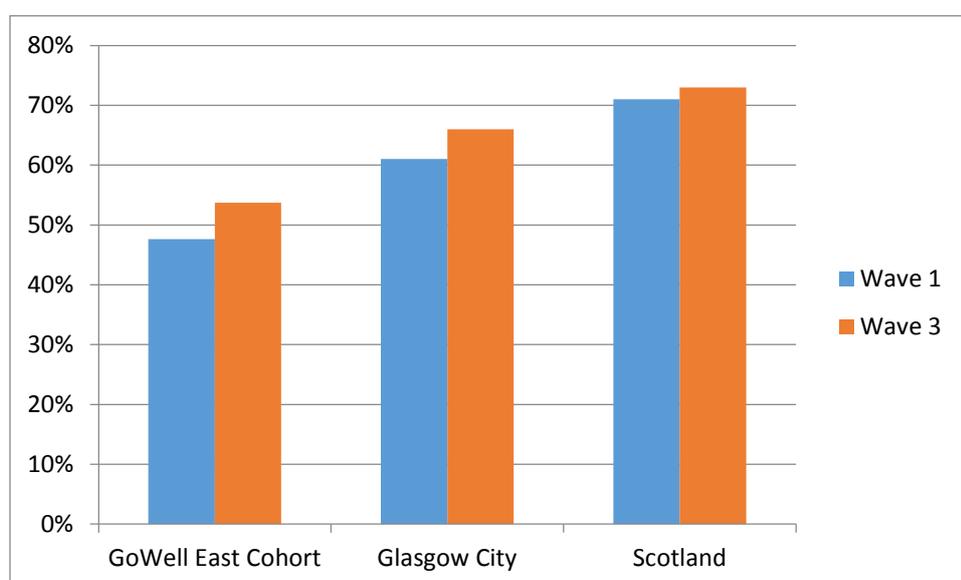
The flourishing legacy theme focuses on economic opportunities offered by the Games. In this section we examine trends in employment and volunteering in the study area.

Employment rate of working-age adults

A little over three quarters of the 2016 sample (76%) were of working age (16-64 years old). Over half of this group were in employment, with 42% working full time and 12% working part time. The remainder comprised: 11% in full-time education; 14% unemployed; 9% long-term sick or disabled and 1% temporarily sick; 2% retired; 5% occupied by home or family care; and 3% reported their employment status as 'other'.

Thus, the employment rate for working age householders for the 2016 survey was 54%. This is an increase from the 48% reported in the 2012 wave 1 results, with part-time employment rising from 11% to 12% and the percentage of those in full-time work increasing from 37% to 42%. There has also been an increase in the employment rate for Glasgow (66%) and Scotland (73%) over the same period¹⁵ (Figure 10).

Figure 10: .Employment rates for working-age adults (%).



p = .011

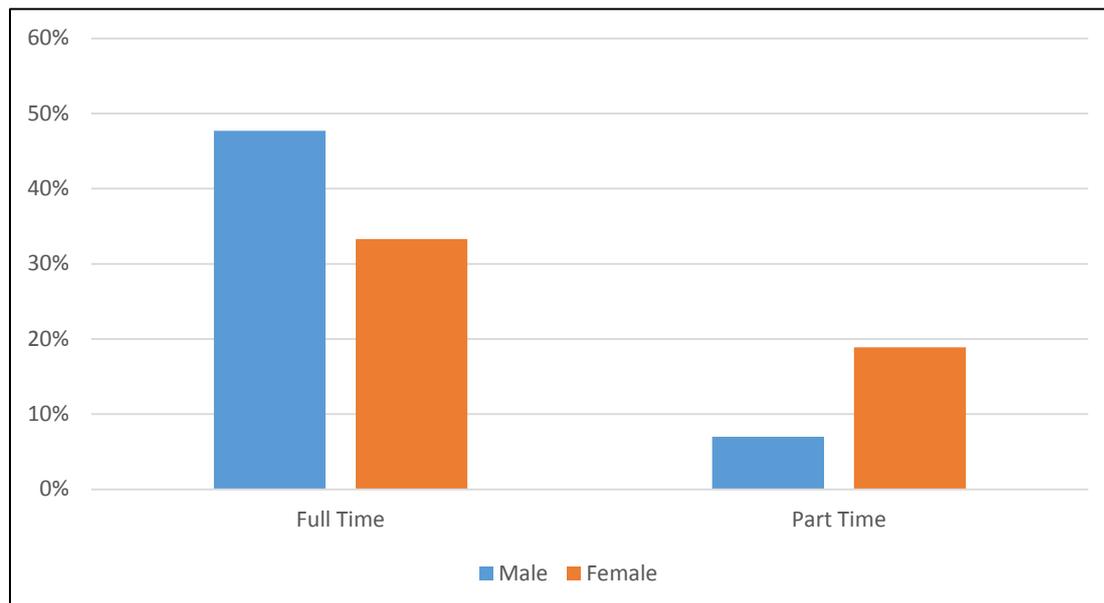
Source: GoWell East; NOMIS 2011-12 and 2015-16

Employment rate by gender

When we examined the employment rate by gender we found that a slightly higher percentage of men (55%) were in employment than women (52%). A further examination of the data by employment type (Figure 11) showed that a higher percentage of men were in full-time employment; 48% compared with 33% of women. The opposite was true of part-time employment with more women than men reporting this type of employment; 19% compared with 7% of male participants.

¹⁵ NOMIS. *Labour Market Profile, Glasgow City July 2015 – July 2016 – NOMIS Official Labour Market Statistics*; 2017. Available at <https://www.nomisweb.co.uk/reports/lmp/la/1946157420/report.aspx>

Figure 11: Employment rate for working aged adults by gender and employment type (wave 3).



p-value for distribution: $p < .001$

Source: GoWell East

We also found that more men than women were in full-time education; 14% compared with 8.5%. A higher percentage of women (12%) than men (1%) reported being occupied by home or family care and there were a higher percentage of female retirees than male; 2.6% compared to 1.9%.

Analysing the change in employment status by gender from wave 1 to wave 3 we found that the percentage of women in full-time employment remained fairly static at around a third; 32% at wave 1 and 33% at wave 3. The proportion of women in part-time employment increased during this period; from 14% at wave 1 to 19% at wave 3. For men there was an increase in those reporting full-time employment from 41% at wave 1 to 48% at wave 3 and a slight decrease in part-time employment from 8.5% at wave 1 to 7% by wave 3.

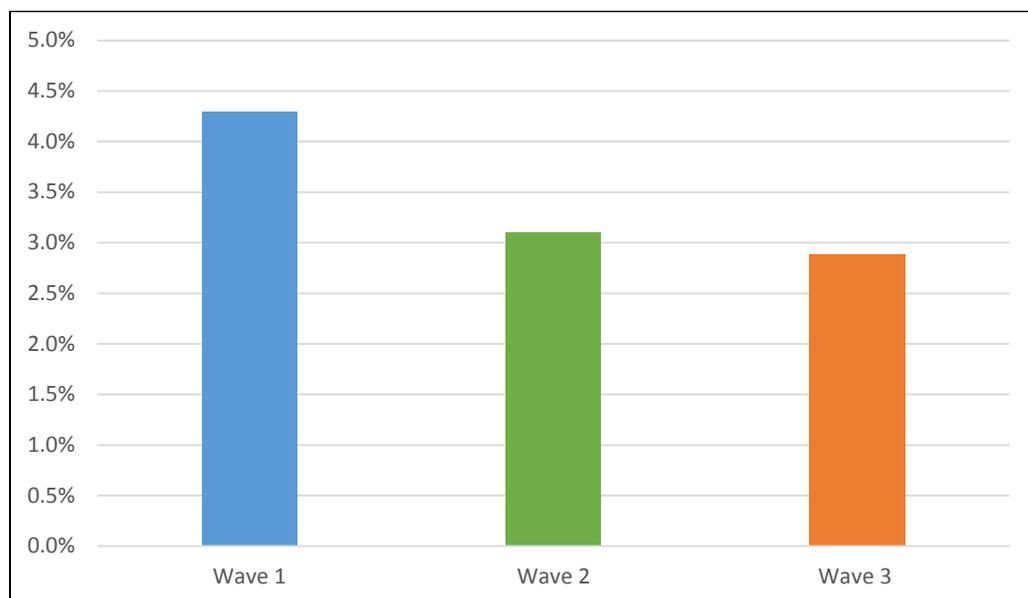
Regeneration-related employment

Participants were also asked if they had gained employment from one of the regeneration activities/projects in the east end since 2012. This included:

- New or refurbished sports and leisure centres.
- Transport infrastructure.
- New housing.
- New community centres.
- New libraries.
- New offices or business premises.
- Improvements to public spaces / green spaces.

We found that in 2016, 2.9% of working-age adults reported gaining employment from one or more regeneration activities / projects. When set alongside the results at wave 1 and wave 2 (Figure 12) this shows a slight decline in regeneration related employment from a little over 4% at wave 1 to around 3% at wave 3. For wave 3 participants the most commonly reported types of regeneration activities / projects they worked on were transport and infrastructure projects and new housing.

Figure 12: Adults reporting regeneration related employment: wave 1 to wave 3.



Source: GoWell East

We also asked the latest GoWell East sample if any member of their household had gained employment as part of regeneration activities / projects since 2012 and 1% of respondents reported that a household member had been employed in one or more of these activities. We combined the two measures and found that in all cases where other household members were employed in regeneration activities the main respondent was also a beneficiary of such employment. This means that overall 2.9% of all households experienced regeneration related employment.

Adults providing unpaid help

As part of the GoWell East survey participants were asked:

‘In the past 12 months, have you done any voluntary work – that is, have you helped an organisation, group or individual in an unpaid capacity?’

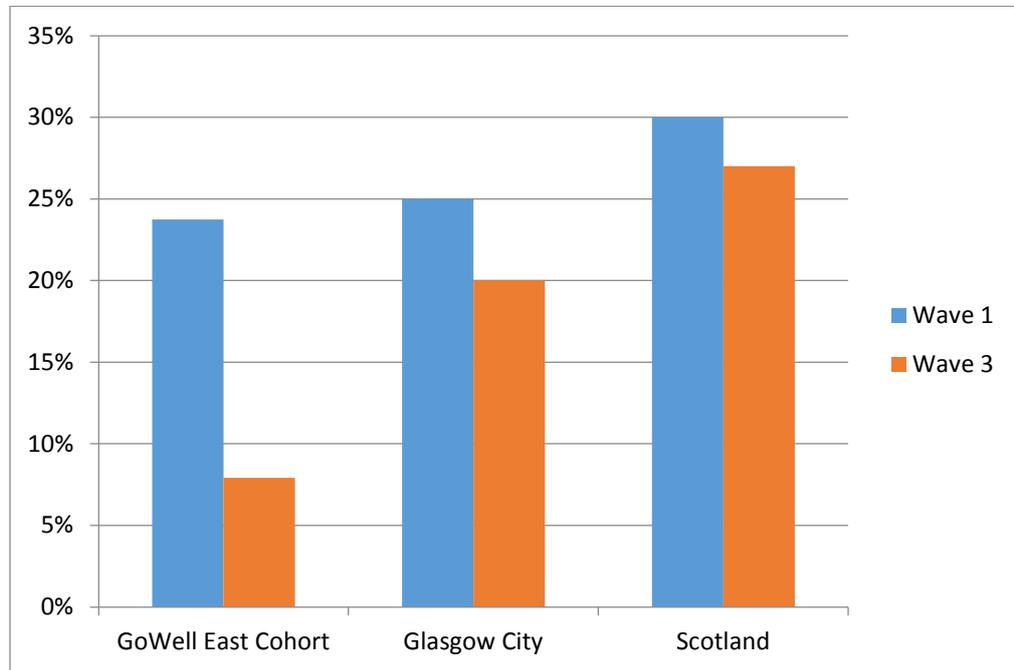
We found that in 2016, 8% of the Go Well East cohort had provided unpaid help in the last 12 months, a significant decrease from the 2012 survey where nearly a quarter of respondents were involved in voluntary work of some kind. Further analysis showed that the decline in volunteering was substantial for all education groups, but was relatively larger (a drop of around three-quarters) among those with either none or with secondary/post-secondary qualifications, than among those with a degree (a drop of around 60%).

The latest GoWell East volunteering rate is lower than that recorded for the most deprived quintile of neighbourhoods by the Scottish Household Survey in 2015 (which also asks about unpaid help to organisations or groups in the last 12 months) of 12% for the most deprived areas in Glasgow and 18% for the most deprived areas in for Scotland¹⁶. Both Glasgow and Scotland have seen a decrease in volunteering activity over the same period but not to such a large extent as the GoWell East cohort (Figure 13)¹⁷.

¹⁶ Scottish Government. *Scotland’s People Annual Report: Results from the 2015 Scottish Household Survey (Local Authority Tables 2015)*, Table 12.4. Edinburgh: Scottish Government; 2016.

¹⁷ The volunteering questions asked in the Scottish Household Survey and the GoWell East survey are similar in that they both refer to giving ‘help’ in an ‘unpaid capacity’ over the past 12 months. The SHS refers to ‘clubs, charities, campaigns and organisations’ and the GoWell East survey refers to ‘organisation, group or individual (not family member)’. Thus, while in both surveys the focus is mainly on formal volunteering to help an organised entity, the GoWell East survey also allows for the inclusion of informal volunteering to help an individual.

Figure 13: Adults providing unpaid help (%) – all neighbourhoods.



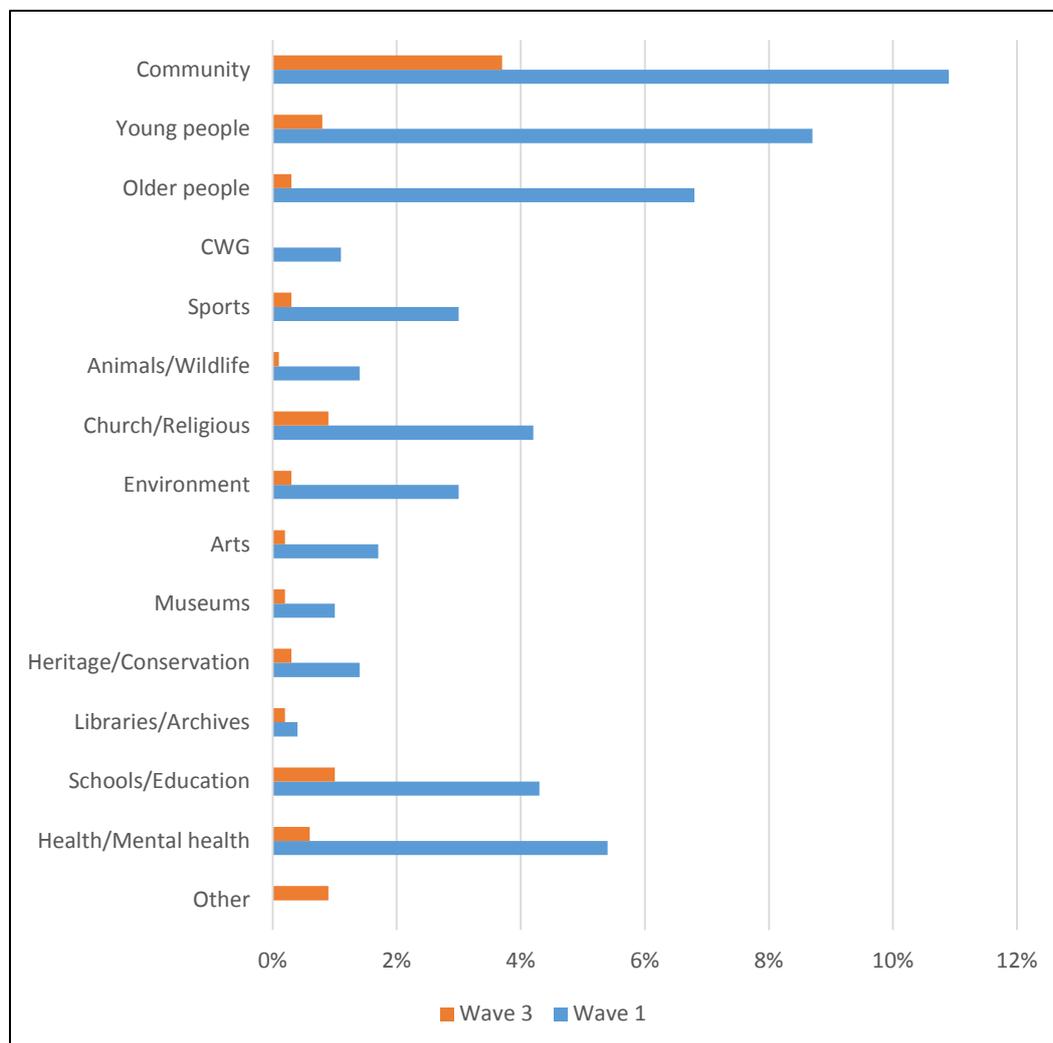
$p < .001$

Source: GoWell East; Scottish Household Survey 2011 and 2015

Figure 14 shows that the decline in volunteering was recorded for all categories of unpaid help, although community activity remained the most popular form of volunteering. While four sectors of activity attracted a volunteering rate of over 5% in 2012 (community, young people, older people and health), this was not true of any activity in 2016.

Further analysis indicated that the drop in volunteering may reflect a decline in collective engagement and social participation in general within the study samples, as the numbers involved in leisure or interest groups also fell over time. Moreover, within the collectively active group of respondents the biggest decline was in those who were engaged in both group involvements for their own interests and in providing unpaid help.

Figure 14: Unpaid help by category.



Source: GoWell East

Summary

From the pre-Games to the post-Games period there has been an increase in the rate of employment among working-age householders in the study area of 6 percentage points. This increase in the rate of employment reflects an increase in full-time employment for working-age men and in part-time employment for working-age women. The overall increase in employment is similar to the increase seen across the city of Glasgow as a whole. However, the employment rate in the host communities continues to lag behind that for Glasgow (by 12 points) and Scotland (by 19 points).

Regeneration-related employment among participants has decreased slightly from the pre-Games rate of 4% to 3% in 2016, which is as may have been expected given the greater Games-related construction activity in the earlier period. The majority of the wave 3 respondents involved in regeneration related employment reported participating in housing, transport and infrastructure projects. In addition, 1% of respondents indicated that other members of their household had gained regeneration related employment since 2012.

There has been a large fall in reported rates of volunteering among study area householders since 2012, greater than the drops in volunteering seen across Glasgow and Scotland. This drop in volunteering was evident at all levels of educational attainment, reported for all sectors of voluntary activity, and coincident with a drop in participants' level of involvement in group activities for their own interests, suggesting a general decline in collective engagement over time. Indeed it is possible, although we cannot be certain, that the recent period of financial downturn and austerity could have affected both the demand and supply side of local social involvement and volunteering during the period of study.

Theme 3: Sustainable

The sustainable legacy theme centred on the achievement of regeneration, environmentally-friendly development, and strong communities. In this section we consider psychosocial indicators of perceived neighbourhood improvement, neighbourhood satisfaction, neighbourhood influence, and feelings of safety; residents' assessments of local environmental and amenity quality; and reported sustainable lifestyle behaviours.

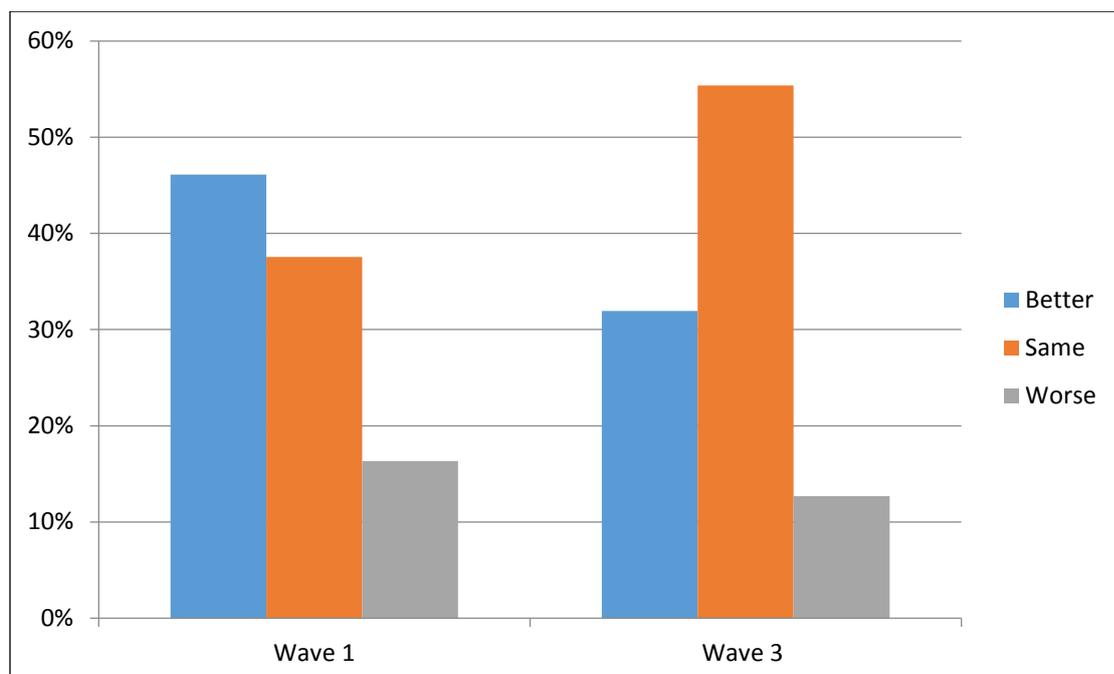
Perceived neighbourhood improvement

As mentioned already, there has been considerable investment in improving the local area in the inner east end and around the main Games site over the last few years and we were interested to know about the neighbourhood perceptions of the local residents. Participants were asked:

'Overall, has this area got better or worse to live in over the last two years (or since you moved to the area, if a shorter time than this?)'

We found that 32% of the 2016 respondents thought their neighbourhood had improved over the last two years, a decrease from the 45% who thought the same at wave 1 (Figure 15). This rate of perceived neighbourhood improvement is greater than that reported in the Scottish Household Survey in 2015 by people living in the most deprived quintile of areas, 23% of whom said their neighbourhood had improved in the last three years¹⁸. There was also a small reduction in the number of respondents who thought their neighbourhood had got worse, to 13% in 2016. These two changes were reflected in a significant increase from wave 1 to wave 3 in the number of respondents who considered that their neighbourhood had stayed the same in the past few years, to 55% in 2016. Nonetheless, despite a growing sense of neighbourhood stability, at both waves, those considering their neighbourhood had improved outnumbered those who thought it had got worse, by more than two-to-one.

Figure 15: Adults who think their neighbourhood has improved in the last two or three years¹ (%).



1. The question asked about perceived change over the past three years at Wave 1 and over the past two years (post-Games) at Wave 3.

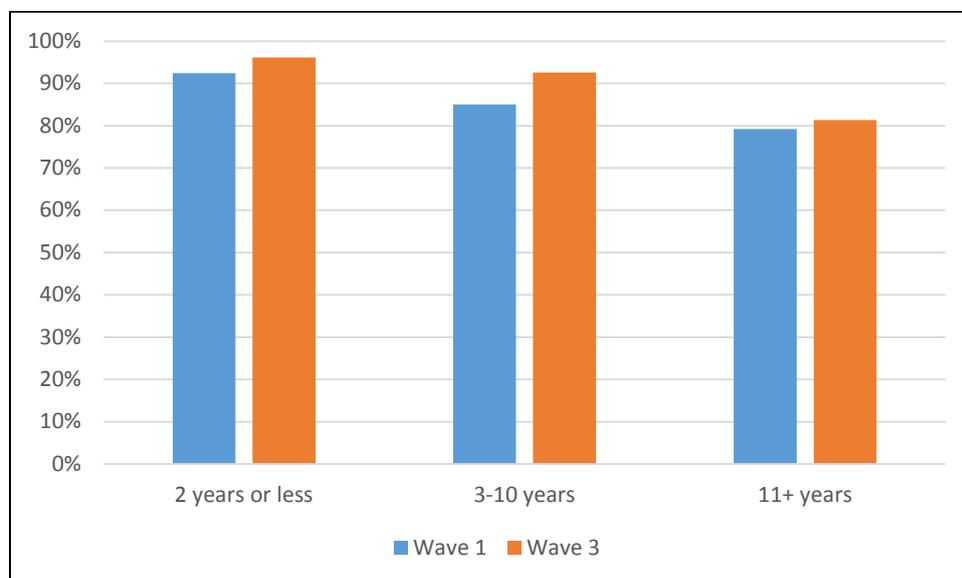
p < .001

Source: GoWell East

¹⁸ Scottish Household Survey Project Team. *Scotland's People Annual Report. Results from the 2015 Scottish Household Survey*, Table 4.3, p.71. Edinburgh: Scottish Government; 2016.

At both waves, perceptions of neighbourhood change became less positive with longer length of residence in the area (Figure 16). However, the numbers considering their neighbourhood had ‘got better’ or ‘stayed the same’ were higher at wave 3 than at wave 1 for all residence groups. In 2016, the number of respondents who thought their neighbourhood had ‘got worse’ increased from less than 1-in-20 (4%) among those who had lived in their area for two years or less, to nearly 1-in-5 (19%) among those who had lived in the area for 11 or more years.

Figure 16: Perceived neighbourhood change, by length of residence – numbers (%) saying their neighbourhood had ‘got better’ or ‘stayed the same’.



p=.164 - 2 years or less

p<.01 – 3-10 years

p=.439 – 11+ years

Source: GoWell East.

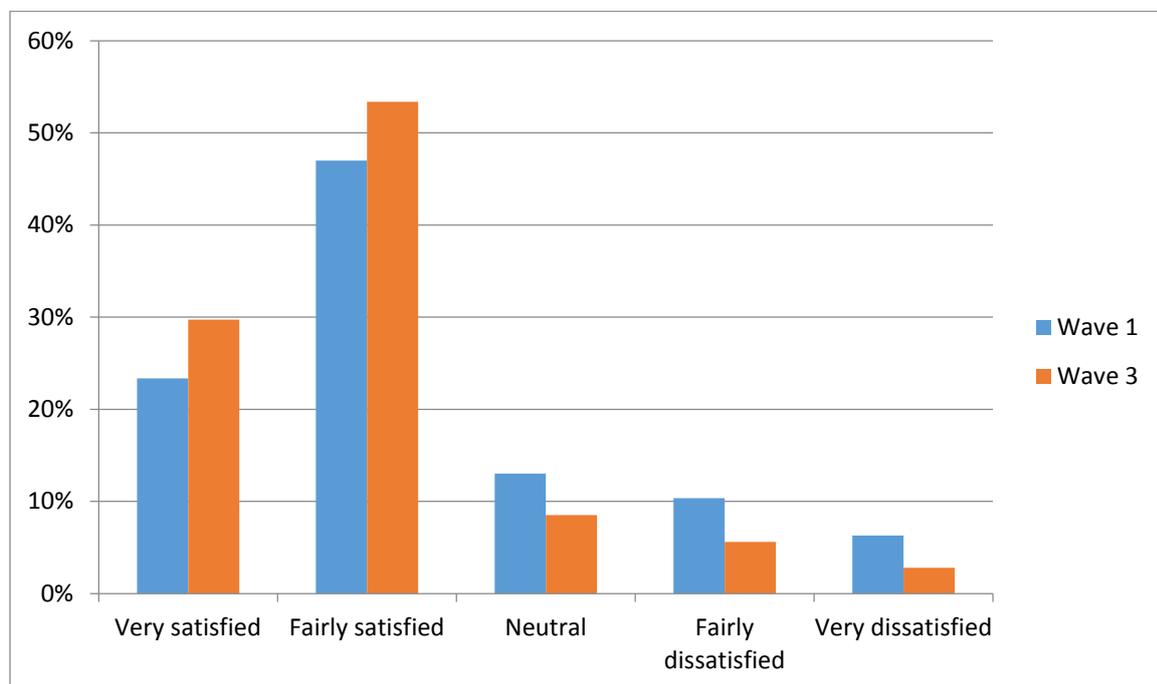
Neighbourhood satisfaction

GoWell East participants were asked ‘How satisfied or dissatisfied are you with this neighbourhood as a place to live?’

This is a similar question to the Scottish Household Survey asking respondents to rate their area as a place to live. This question is also broadly comparable to the Scottish Government legacy indicator S2.

We found that over four-fifths (83%) of GoWell East respondents were satisfied with their neighbourhood, with 30% saying that they were very satisfied (Figure 17). This is an increase from the overall satisfaction rate of 70% at wave 1. Six percent of respondents said they were fairly dissatisfied and 3% very dissatisfied.

Figure 17: Satisfaction with neighbourhood as a place to live (%).



p-value for distribution: $p < .001$

Source: GoWell East

Perceptions of neighbourhood for Glasgow and Scotland overall are higher than among GoWell East householders, with 42% of Glaswegians and 56% of people in Scotland¹⁹ rating their neighbourhood as 'very good' in 2014. The 30% of our sample who were 'very satisfied' with their neighbourhood is comparable to the national figure for residents²⁰ in the most deprived areas, where a third rate their neighbourhoods as 'very good', but it is low compared to the opinion of those in large urban areas, where 50% of residents²¹ consider their neighbourhood to be 'very good' as a place to live.

Perceived community influence

Participants in GoWell East were also asked about the issue of community empowerment, defined here as whether they believe they can influence decisions that affect their local area. This indicator is equivalent to Scottish Government legacy indicator S11.

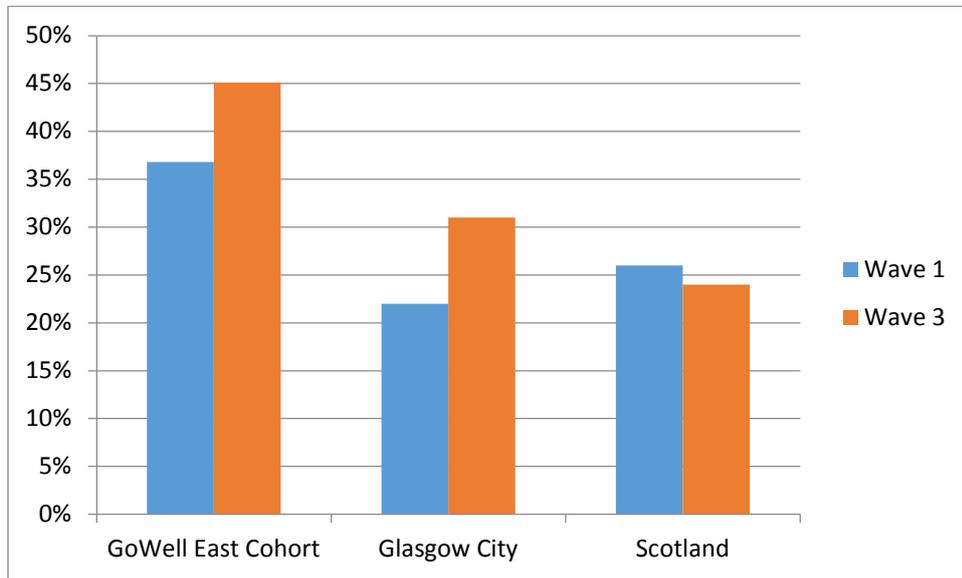
We found that the GoWell East sample had a relatively strong sense of being able to influence decisions affecting their local area and that this had continued to grow over time. Forty-five percent of participants in 2016 agreed or strongly agreed that they can influence local decisions compared with 31% of adults in Glasgow and 24% across Scotland (Figure 18).

¹⁹ Scottish Government. *Scotland's People Annual Report: Results from the 2015 Scottish Household Survey (Local Authority Tables 2015)*, Table 4.1. Edinburgh: Scottish Government; 2016.

²⁰ Scottish Government. *Scotland's People Annual Report: Results from the 2015 Scottish Household Survey (Local Authority Tables 2015)*, Table 4.3. Edinburgh: Scottish Government; 2016.

²¹ Scottish Government. *Scotland's People Annual Report: Results from the 2015 Scottish Household Survey (Local Authority Tables 2015)*, Table 4.2. Edinburgh: Scottish Government; 2016.

Figure 18: Adults who believe they can influence decisions in their local area (%).

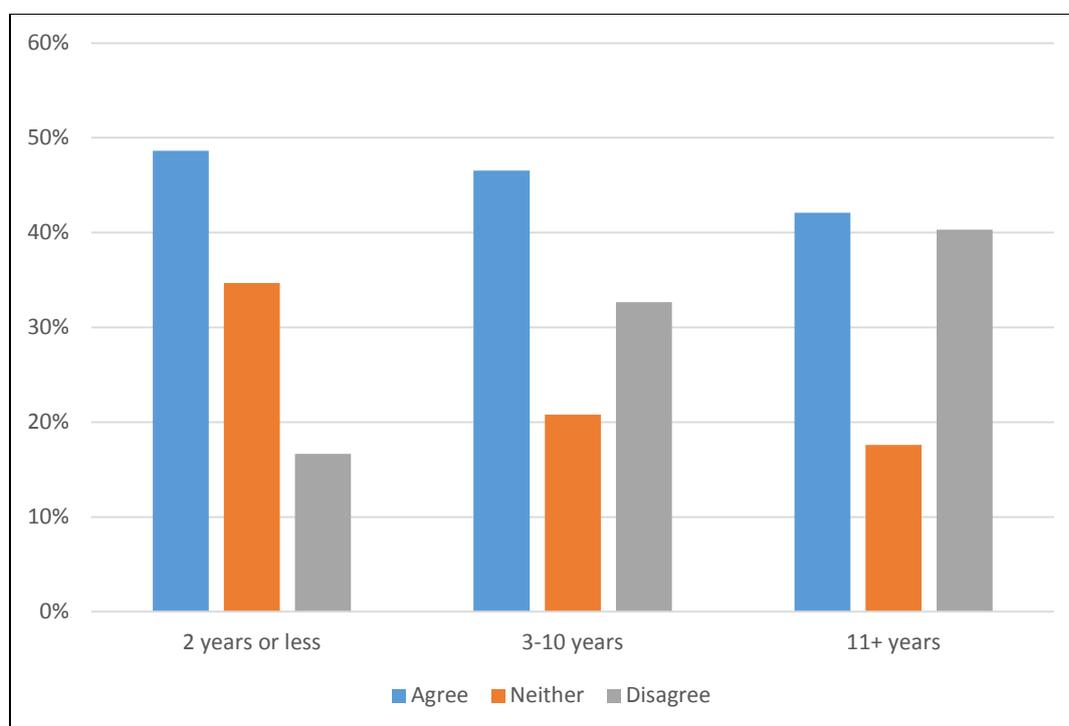


$p < .001$

Source: GoWell East; Scottish Household Survey 2011 and 2015

When analysed by length of residence, we found there to be a high level of agreement among all participants regardless of the length of time they have been resident in the area. Perceived influence is highest for new comers (living in the area for two years or less), 49% of whom agreed with the statement, and drops to 42% for long term residents of 11 years or more (Figure 19). However the percentage of those who do not think they can influence decisions in their area increases with length of residency from 17% for new comers to 40% for those that have stayed in the area for 11 years or more. This would indicate a greater level of confidence among the newer residents and/or greater ineffectualness among long-term residents.

Figure 19: Adults who believe they can influence decisions in their local area by length of residence in the local area (%).



Source: GoWell East

Perception of community safety

Participants were asked ‘How safe would you, or do you, feel walking alone in this neighbourhood after dark?’ This is a well-established measure of perceived community safety, which is monitored by the Scottish Crime and Justice Survey (SCJS).

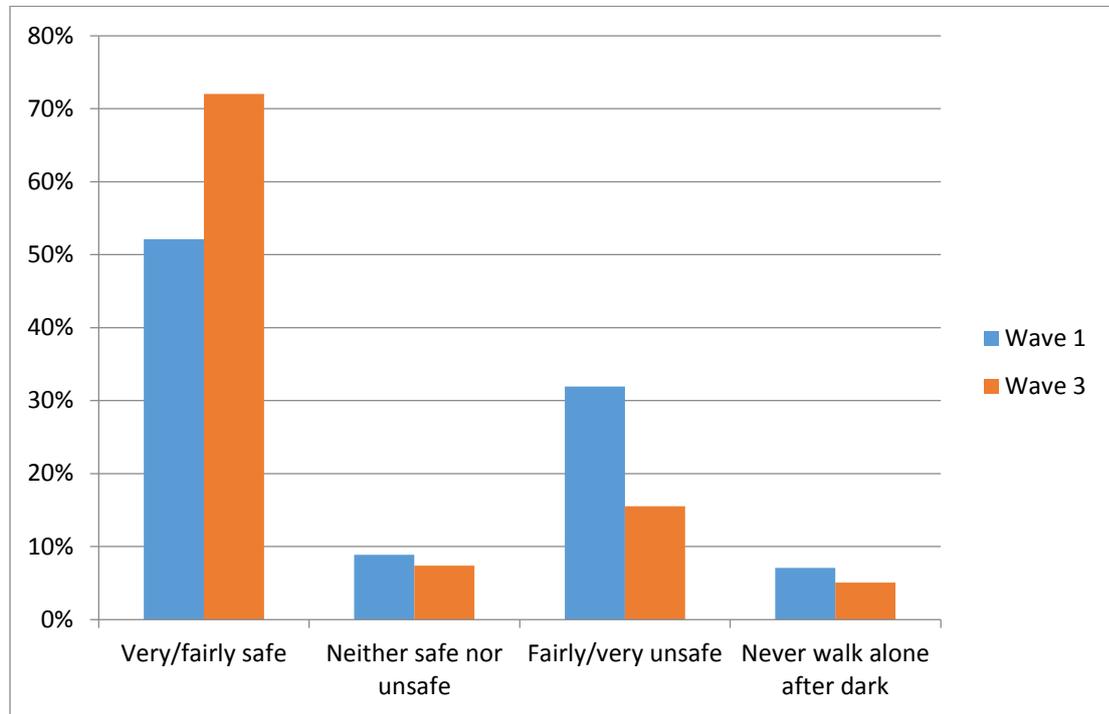
We found that 72% of GoWell East respondents felt safe outdoors at night, a significant increase from 52% at wave 1 (Figure 20). This is a higher percentage than the figure for Glasgow (67%) but slightly lower than the overall figure for Scotland (74%)²².

Sixteen percent of GoWell East respondents felt fairly or very unsafe, while 5% said they never walk alone after dark. This is a reduction from wave 1 where a third of respondents felt unsafe and 7% reported never walking alone after dark. The figure for feeling unsafe is lower than that for residents of the most deprived 15% neighbourhoods in the country (37%)²³.

²² Scottish Government. *2014-15 SCJS Data Tables Police Division & CJAA*, Table 5, page 10. Edinburgh: Scottish Government; 2016.

²³ Scottish Government. *2014-15 SCJS Data Tables Demographics*, Table 5, page 10. Edinburgh: Scottish Government; 2016.

Figure 20: Adults who feel safe in the local area after dark (%).



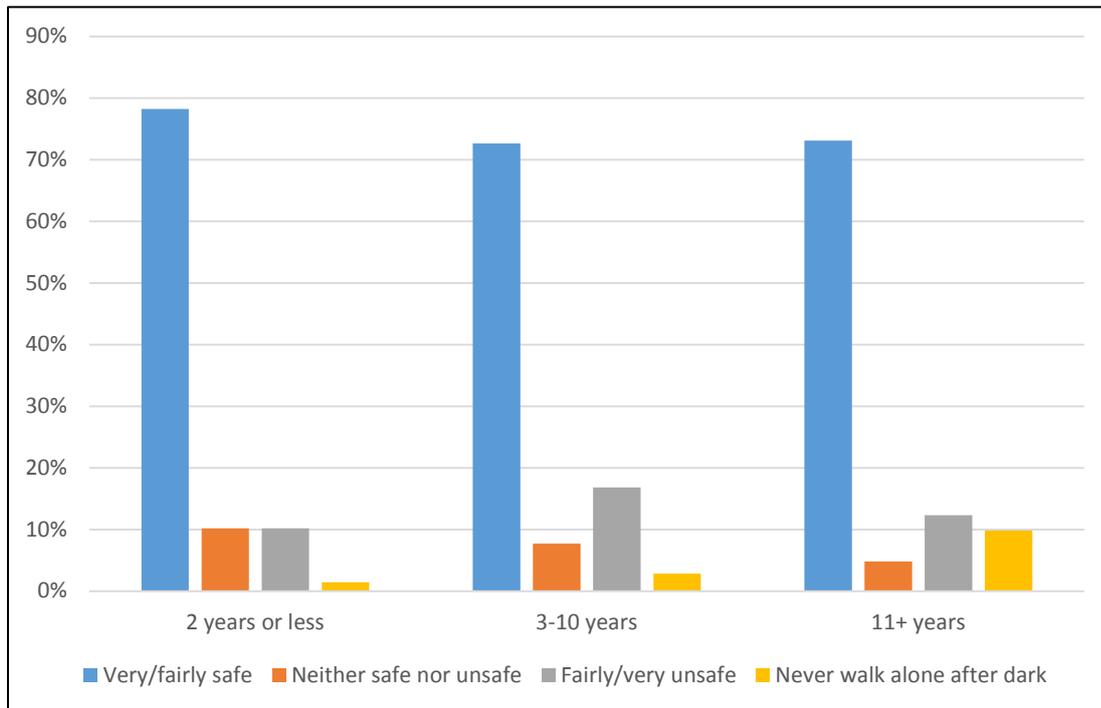
p-value for distribution: $p < .001$

Source: GoWell East

We examined this wave 3 increase in perceived safety using the three residency categories outline in the previous section; new comers (resident for two years or less), residents during Games preparation phase (resident 3-10 years) and long term residents (11+ years).

We found that the percentage of those that perceived their area as very or fairly safe did not alter greatly with length of residence (Figure 21). Seventy-eight percent of new comers said they felt very or fairly safe and the corresponding figure for the other two categories of resident was not much lower at 73%. However the percentage of residents that would never walk in their area alone at night does increase as length of residency increases, although this could also be a reflection of age (more long-term residents being older). Ten percent of long-term residents never walk alone at night compared with 1% of new comers.

Figure 21: Adults who feel safe in the local area after dark by length of residence in the local area (%).



Source: GoWell East

Perceived crime rates

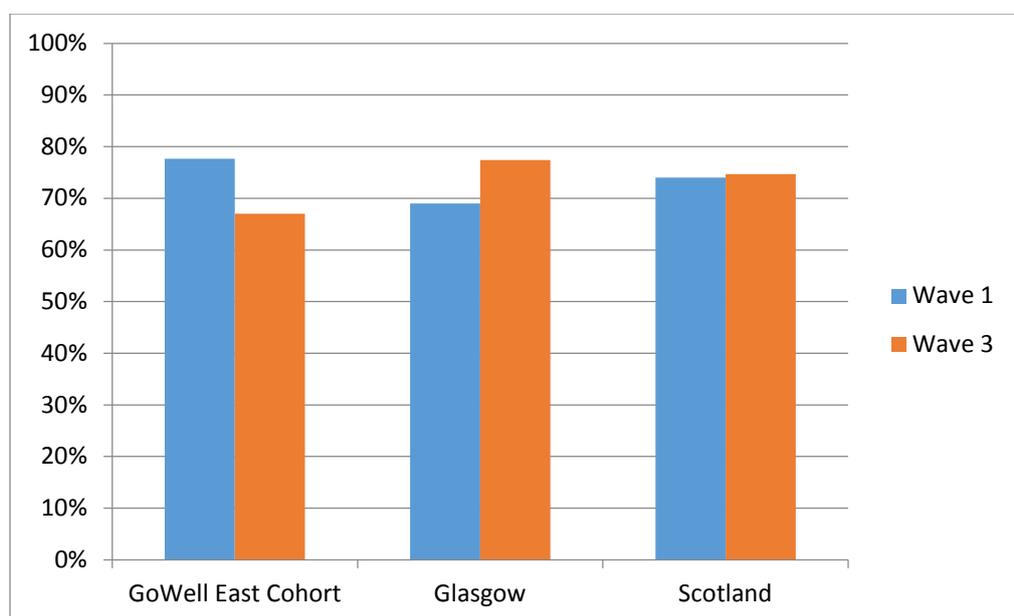
The GoWell East survey also asked a retrospective question about perceived crime rates:

‘How much would you say the crime rate in your local area has changed since two years ago (or since you moved to the area, if a shorter time than this)? Would you say there is more, less or about the same amount of crime?’

This is equivalent to Scottish Government legacy indicator S5.

We found that a similar percentage of adults at wave 3 (63%) of the survey felt that the crime rate had stayed the same as had in wave 1 (64%) (Figure 22). The proportion of respondents who felt crime had reduced decreased from 14% at wave 1 to 5% at wave 3. The total of 67% positive responses from wave 3 is lower than both the figure for Glasgow (77%) and Scotland overall (74%).

Figure 22: Adults who perceive the crime rate in their area to have stayed the same or reduced in the past two years (%).



p = .197

Source: GoWell East; 2014-2015 SCJS Data Tables Police Division & CJAA

Community facilities

In the run up to the 2014 Commonwealth Games new sports facilities were introduced and existing ones refurbished. After the Games, a new community hub was provided in Dalmarnock, opening in 2015. This section explores resident's reported use and perceptions of these community facilities and compares them to the Scottish Government indicator S3 which tracks satisfaction with community centres and facilities.

Use of community facilities

Participants were asked 'How often do you use or go to any of the following facilities?' We focused our analysis on regular use of these facilities, i.e. those using facilities weekly or monthly.

- Community centre
- Sports hall, gym or fitness centre
- Swimming pool
- Park, green area, sports field or play area

We found that 24% of respondents regularly visited a sports hall, gym or fitness centre (either weekly or monthly); this is a slight reduction from 27% at wave 1 (though not statistically significant) (Figure 23). Sixteen percent of the sample regularly went to a swimming pool, significantly fewer than at wave 1 where 23% reported frequently using a pool. These rates are lower than the rate of use of sports and leisure facilities reported for the city in the Scottish Household Survey 2014 of 30%, and more comparable with the rates reported for adults in Glasgow with low incomes, e.g. 21% of adults in households with a net annual income of £6-10,000 used sports and leisure facilities at least once per month in 2014²⁴.

Data from Glasgow Life (GL)²⁵ over a similar period indicates a substantial increase in membership of Glasgow Club (GC) – which gives access to sports and leisure facilities – from within the study area, with pay-monthly membership increasing by 70% from 2013 to 2017 and being twice as high as pay-as-you-go membership; in total GL estimate that 14% of the population in the study area hold a GC membership card.

²⁴ Fenton L. *Glasgow City: How Active Are We?*, Figure 18. Glasgow: NHS Greater Glasgow & Clyde; 2017.

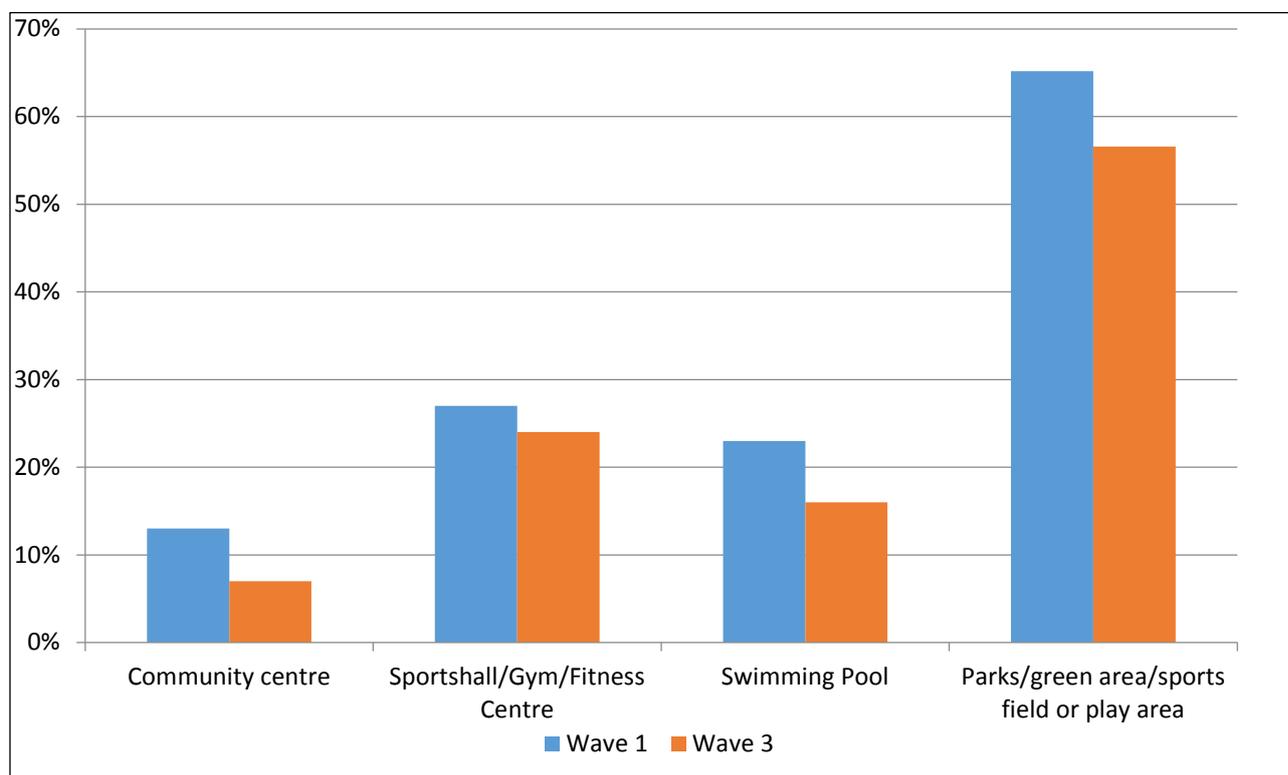
²⁵ Bespoke analysis of management data conducted for GoWell East purposes by Glasgow Life, the community interest company which manages the city's sport, leisure and cultural facilities.

It is interesting that the most popular venue for pay-monthly members is the Emirates Arena with the most popular activities being gym use and class attendance, while the most popular venues for pay-as-you-go members are the Tollcross and Gorbals centres (rather than the smaller Crownpoint Centre within the study area) with swimming being the most popular activity. Thus, while growth in GC membership is a positive development, there may still be issues of both cost and access to overcome in order to encourage more regular use of facilities and greater use of the Emirates Arena and Crownpoint centre by local residents, particularly pay-as-you-go members.

As at wave 1 a smaller proportion regularly attended a community centre (7%); when compared with other facilities, this is a significant drop in usage from wave 1 when 13% attended community centres on a regular basis. Slightly fewer people reported regularly using parks or play areas at wave 3, 57% compared with 65% at wave 1. When we examined any use of community facilities at any time in the past year, i.e. not just regular use, we also found a drop in the reported use of all four facilities.

It is worth noting that in one of the study communities, Dalmarnock, the community centre was in the process of being closed during 2012 (it was demolished in autumn 2013). Its replacement, the Legacy Hub, was officially opened in October 2015, so local use may not have picked up by the time of our wave 3 survey in summer 2016. These facts could have contributed to the much lower rates of use of community centres compared with other facilities reported across the study area at both waves.

Figure 23: Adults using community facilities weekly or monthly (%).



$p < .001$ – Community centre, Swimming pool, Parks/green areas/sports field or play area

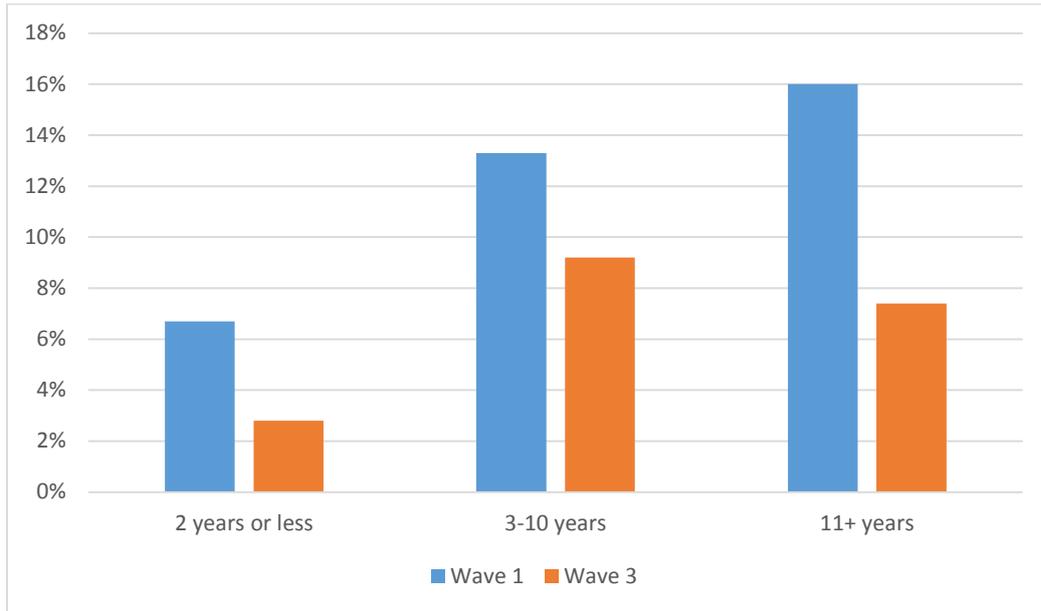
$p = .128$ – Sports hall

Source: GoWell East

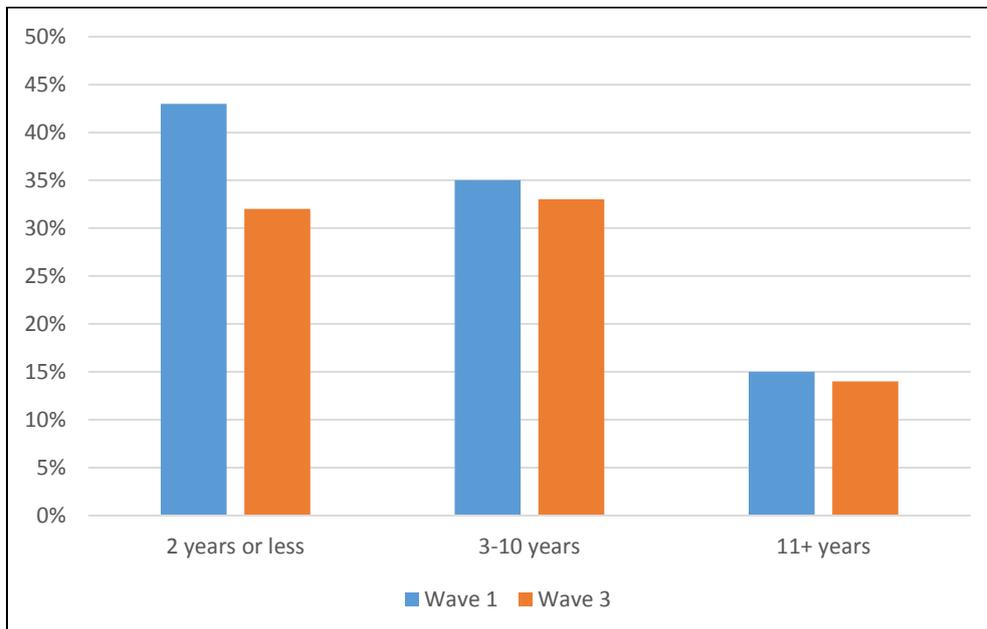
An analysis of regular use of facilities by length of residence in the area shows that for three of the facilities – sports hall, swimming pool and parks – the relative drop in rate of use was greatest among recent residents (up to two years) and least among long-term residents (11+ years) (Figure 24). The largest drops reported were a relative decline of a third in the rate of use of swimming pools among recent residents, and a drop of over half in the rate of use of community centres by long term residents.

Figure 24: Change in regular use of community facilities by length of residence in the neighbourhood.

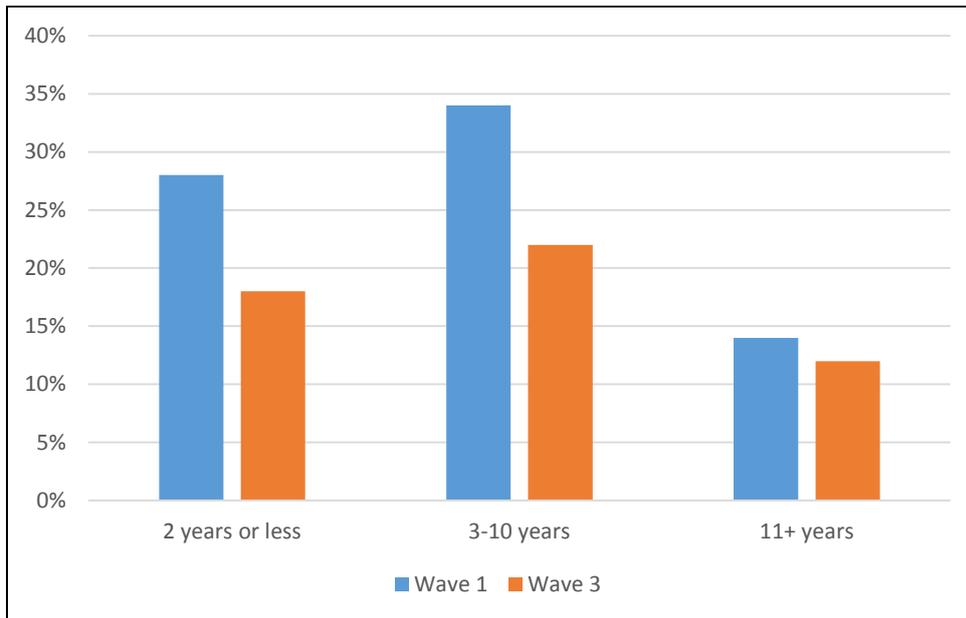
a) Community centre



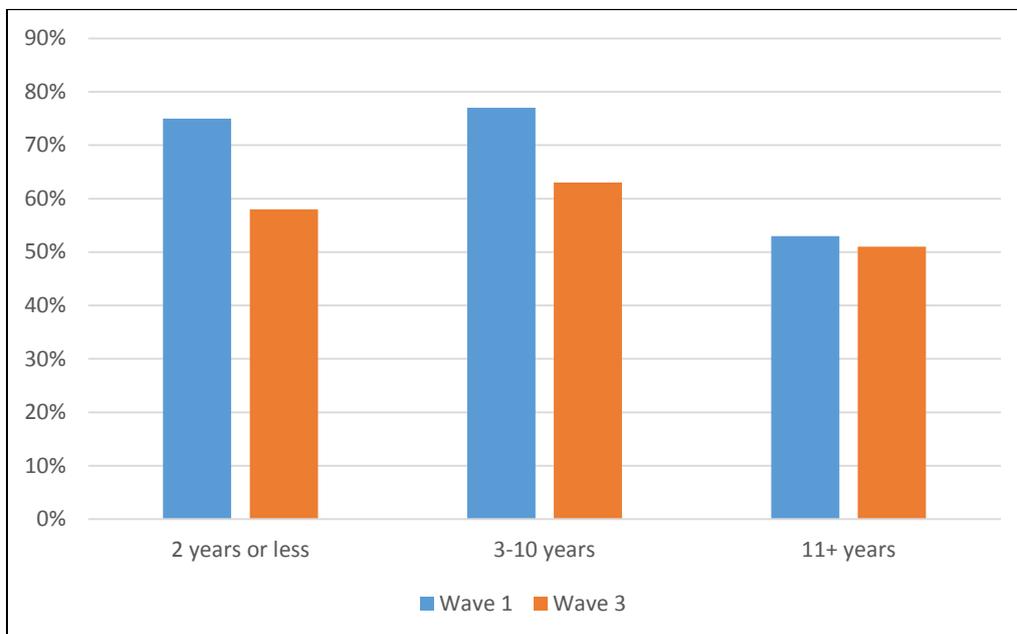
b) Sports hall, gym, fitness centre



c) *Swimming pool*



d) *Parks, green areas, sports field, play area*



Perceived quality of facilities

Participants were also asked 'How would you rate the quality of the following services in or near your local area?'

- Sports facilities
- Youth and leisure services
- Children's play areas
- Parks and green spaces

We found that 68% of respondents considered sports facilities to be very or fairly high quality in 2016 (Figure 25), a significant increase on the already high level of satisfaction (53%) reported at wave 1. Twenty-six percent of the cohort rated the quality of sports facilities in the most positive category. The rating of local sports facilities in the GoWell East survey in 2016 is higher than the level of satisfaction with

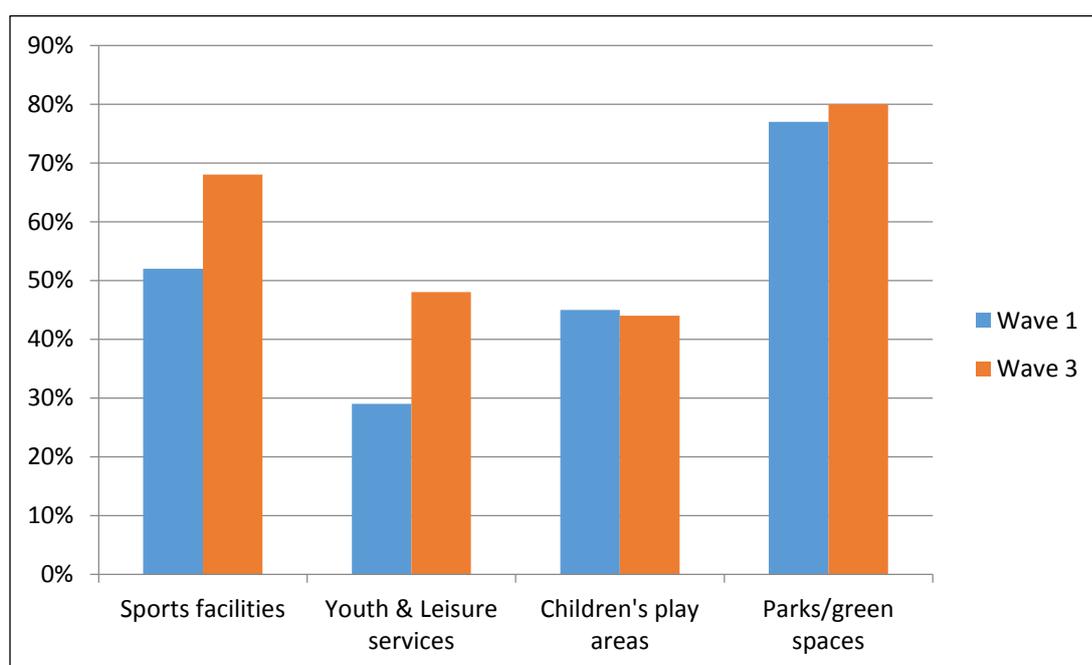
local authority sports and leisure services recorded in the Scottish Household Survey in 2015 of 51% across Scotland (unchanged since 2012) and 41% in Glasgow (down from 51% in 2012)²⁶.

At wave 1, youth facilities were rated far less positively than the other amenities, but by wave 3 perceptions had changed with almost half of all respondents (48%) considering youth and leisure services to be very or fairly good. Sixteen percent of the cohort gave the most favourable rating of 'very good' compared with 8% at wave 1.

The proportion of respondents with a positive perception of the quality of children's play areas has remained fairly stable over the period with 45% at wave 1 considering them very or fairly good and 44% of the same opinion at wave 3. The proportion of those expressing a neutral opinion or no view increased from 22% to 34% and the percentage of those holding negative opinions reduced from 33% to 21%. It is worth noting that children's play areas continued to be the community amenities registering the highest level of dissatisfaction when compared with the others.

Lastly, the highest rated of the local amenities was parks and green spaces, with a slight increase over time in the number of respondents rating these as very or fairly good, from 77% to 80%.

Figure 25: Perceived quality of community amenities – Very/fairly good (%).



p < .001 – Sports facilities, Youth & Leisure services

p = .804 – Children's play areas

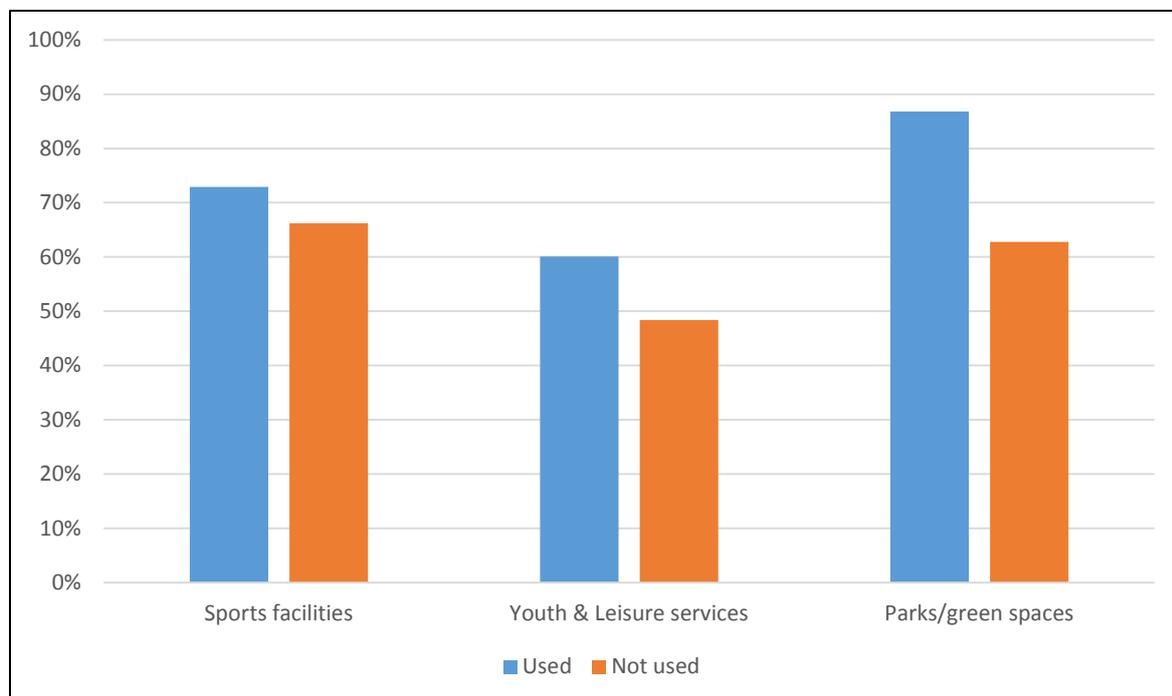
p < .05 - Parks/green spaces

Source: GoWell East

Further analysis was undertaken of the rating of the quality of local amenities according to whether or not respondents reported using the facility or service in the last year (Figure 26). This showed that users generally rated facilities higher than non-users, though the difference varied between items. Parks and green spaces showed the largest differential, with 24% more users than non-users rating the amenity as very or fairly good. The smallest differential was for sports facilities.

²⁶ Scottish Government. *Scotland's People Annual Report: Results from the 2015 Scottish Household Survey and Local Authority Tables 2015*, Table 9.4. Edinburgh: Scottish Government; 2016.

Figure 26: Rating of amenity quality according to usage – very/fairly good (%).



P = .146 – Sports facilities

P < .01 – Youth & Leisure services

p < .001 – Parks/green space

Source: GoWell East

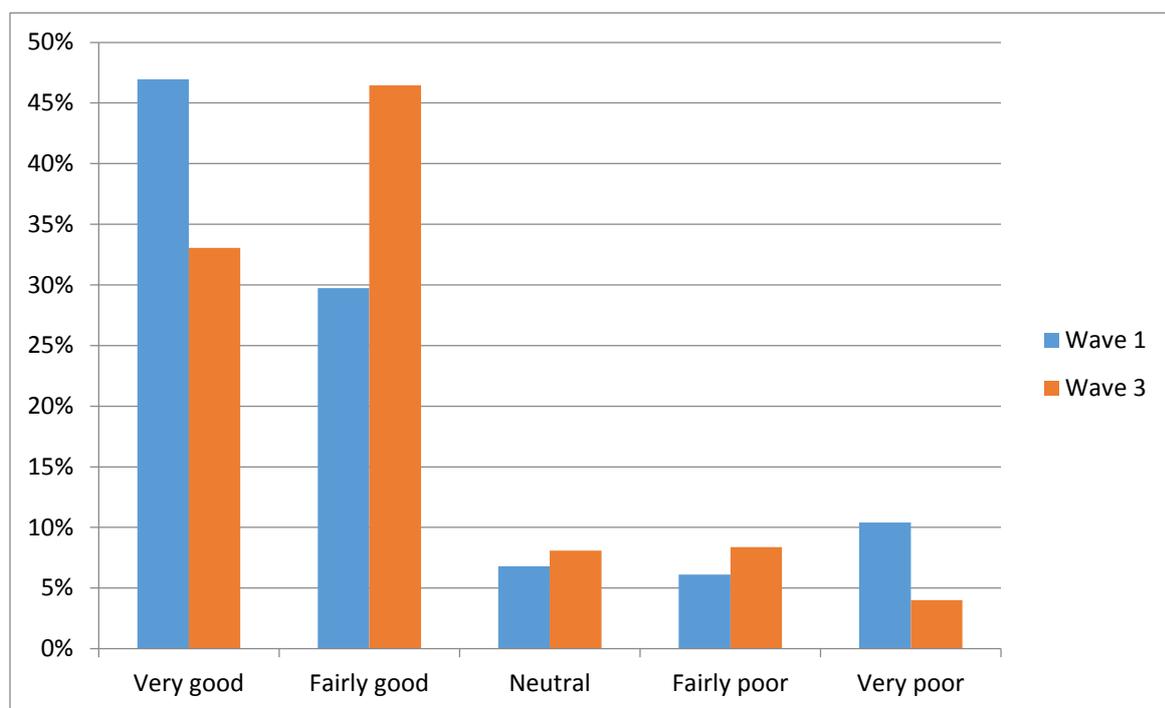
Environmental quality

Parks and green space

Scottish Government legacy indicator S7 provides an analysis of different types of green space in the east end. Since the first round of the GoWell East survey the Cuningar Loop Woodland Park has been developed giving an additional 14 hectares to the 48 hectares of public parks and gardens adjacent to the study area, although direct access to it by footbridge across the River Clyde had not been opened at the time of the wave 3 survey. The GoWell East study has monitored respondents' perceptions of the quality of local parks and green spaces.

We asked participants how they would rate the quality of parks and green spaces in or near their local area. We found that the percentage of respondents giving local parks and green spaces a positive rating had increased from wave 1 to wave 3, with 80% at wave 3 considering them very or fairly good compared with 75% at wave 1 (Figure 27). However, this positive perception has become less effusive since the first survey with only 33% categorising parks and green spaces as very good compared with 46% at wave 1. Four percent of interviewees considered these amenities very poor, a reduction from the 10.5% reported in wave 3.

Figure 27: Perceived quality of parks and green spaces (%).



p-value for distribution: $p = .023$

Source: GoWell East

Vacant and derelict land

Scottish Government indicator S8 quantifies vacant and derelict land brought back into use. Official records show that the annual rate of reduction in vacant and derelict land has been 1.7% per annum in Scotland and 2.7% per annum in Glasgow²⁷. In the period leading up to our wave 1 survey, the rate of reduction of vacant and derelict land in our study area was 1.6% per annum²⁸.

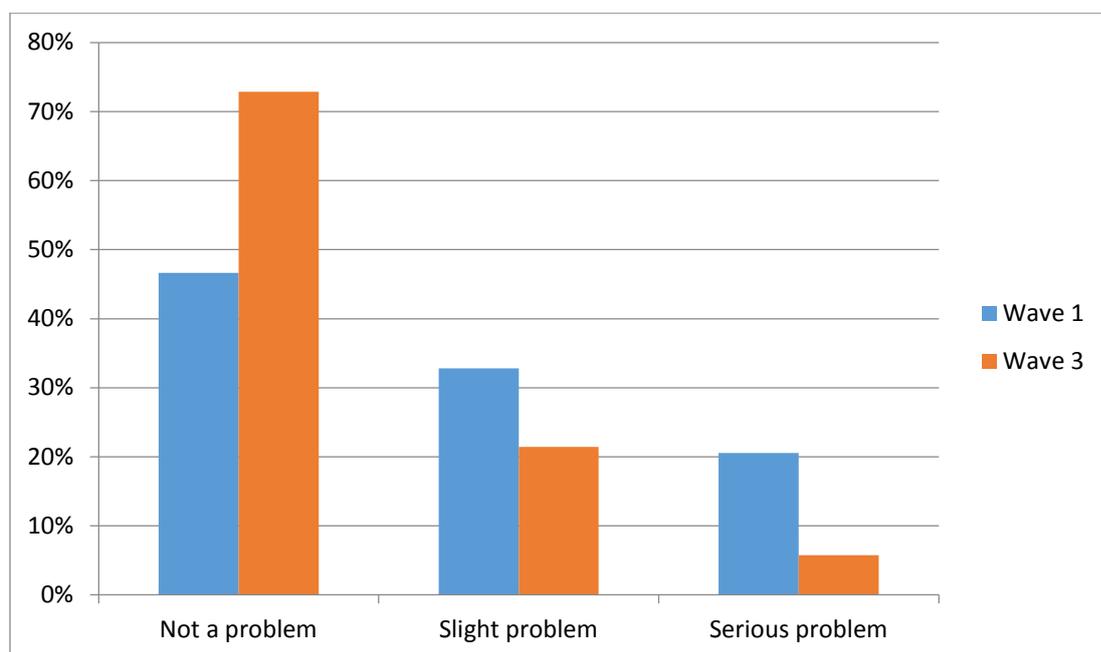
GoWell East tracks householders' perceptions of vacant and derelict land as a problem in the study area. Participants were asked whether they thought vacant or derelict buildings and land sites were a serious problem, a slight problem or not a problem in their local neighbourhoods.

We found that 73% of participants did not consider vacant or derelict buildings or land to be a problem in their neighbourhood in 2016. This positive perception has increased from wave 1 where 46% did not consider vacant land and derelict buildings to be a problem (Figure 28). Those considering it a slight problem has reduced from 32% at wave 1 to 21% at wave 3, whilst only 6% described it as a serious problem at wave 3 compared with 21% at wave 1. Overall this shows an increasingly positive perception of their neighbourhood over time with regards to vacant and derelict land and buildings.

²⁷ Scottish Government. *Scottish Vacant and Derelict Land Survey 2015, Statistical Bulletin Planning Series PLG/2016/05*. Edinburgh: Scottish Government; 2016. Available at <http://www.gov.scot/Publications/2016/05/1596>
See Table 16. Figures relate to the years 2009-2015.

²⁸ Glasgow City Council vacant and derelict land register showed a reduction in the study area from 103 hectares of vacant and derelict land in 2006 to 93 hectares in 2012.

Figure 28: Neighbourhood problems: vacant and derelict buildings and land sites (%).



p-value for distribution: $p < .001$

Source: GoWell East

Cleanliness of the neighbourhood

Cleanliness is a key part of improving the quality of the local environment and one of the main objectives of regeneration in the east end. Scottish Government indicator S12 tracks neighbourhood cleanliness using Local Environment Audit and Management System data (LEAMS). GoWell East tracked resident perceptions of neighbourhood cleanliness by monitoring two 'neighbourhood problem' indicators. These ask people to judge whether there is not a problem, a slight problem or a serious problem in their local area in respect of:

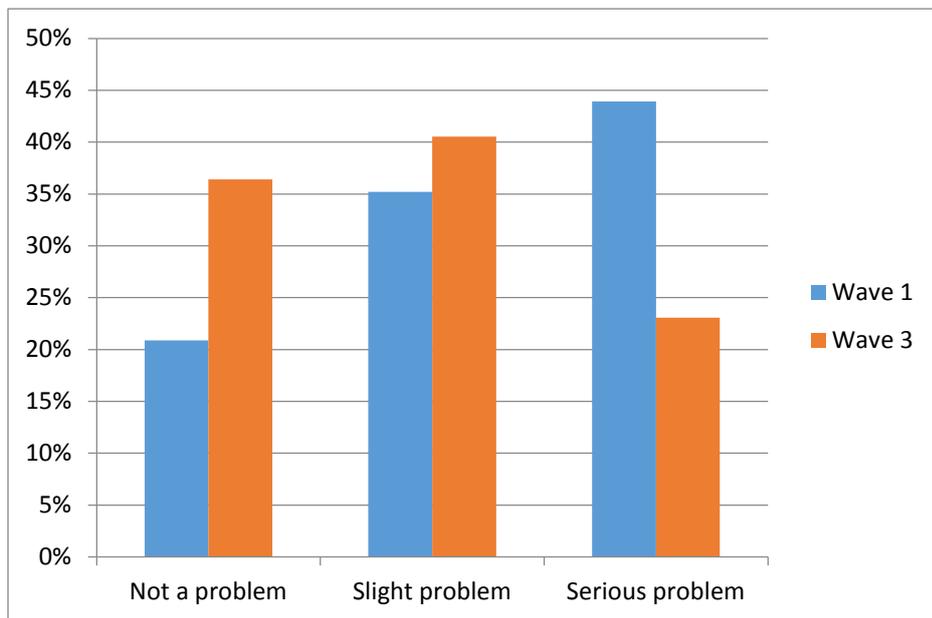
- rubbish or litter lying around
- vandalism, graffiti and other deliberate damage to property or vehicles.

Rubbish or litter

We found that in 2016 the majority of GoWell East participants (64%) considered rubbish and litter to be a problem in their area, with 36% considering it not to be a problem. This was, however, a decrease in the negative perception of litter as a problem from wave 1 where 79% of the cohort considered it a slight or serious problem (Figure 29). The percentage of residents who believed litter to be a serious problem reduced from 44% at wave 1 to 23% at wave 3 and those that did not consider it a problem increased from 21% to 36%. Overall the data shows a significant 15 percentage point improvement in relation to street cleanliness in the study area from 2012 to 2016, far beyond the slight improvement of 2% recorded for the most deprived areas in Scotland over a similar period. However, the rate at which householders in the east end identify rubbish or litter as a problem, at 64% in 2016, is far higher than the 45% rate found among adults across the most deprived areas of Scotland in 2015²⁹.

²⁹ Scottish Household Survey Project Team. *Scotland's People Annual Report. Results from the 2015 Scottish Household Survey*, Table 4.6, p.75. Edinburgh: Scottish Government; 2016.

Figure 29: Perception of rubbish or litter lying around as a neighbourhood problem (%).



p-value for distribution: $p < .001$

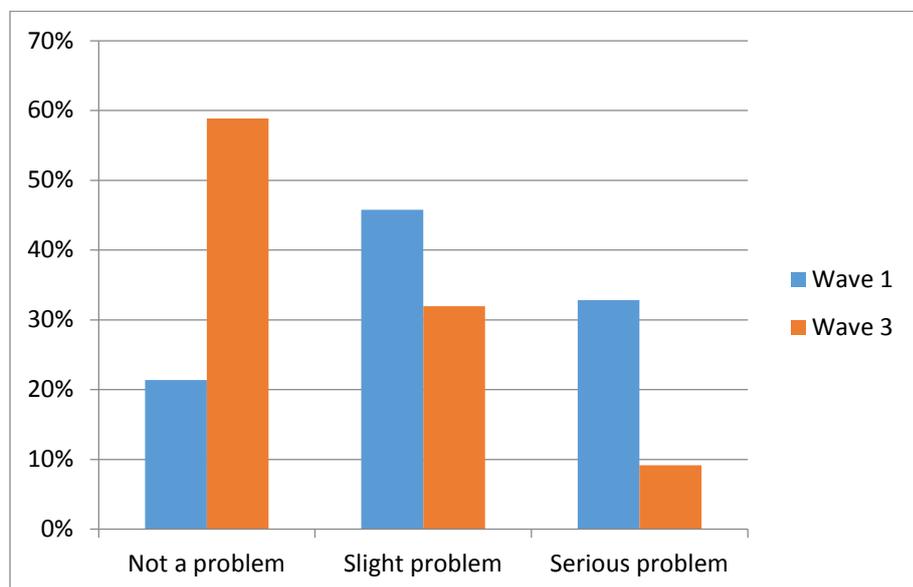
Source: GoWell East

Vandalism, graffiti and property damage

We found that in 2016 the majority of the GoWell East cohort (59%) did not consider issues with vandalism, graffiti and other damage to property or vehicles to be a problem in their area. Local opinion appears to have changed from wave 1 where 79% of respondents considered these issues to be a problem in their neighbourhoods. At wave 3 this has dropped to 41% considering vandalism and graffiti to be slightly or seriously problematic, indicating a noticeable improvement in this issue for residents of the study area (Figure 30). The rate of improvement on this indicator, with a near halving of the identification of the problem over the four year period is similar to that recorded for adults in deprived areas across Scotland over a three-year period, where the number of people identifying property damage as a local problem fell from 29% to 19% from 2012 to 2015³⁰. However, the problem remains much more common in the east end than across all deprived areas.

³⁰ Scottish Household Survey Project Team. *Scotland's People Annual Report. Results from the 2015 Scottish Household Survey*, Table 4.6, p.75. Edinburgh: Scottish Government; 2016.

Figure 30: Perceptions of vandalism, graffiti or property damage as a neighbourhood problem (%).



p-value for distribution: $p < .001$ Source: GoWell East

Environmental behaviours

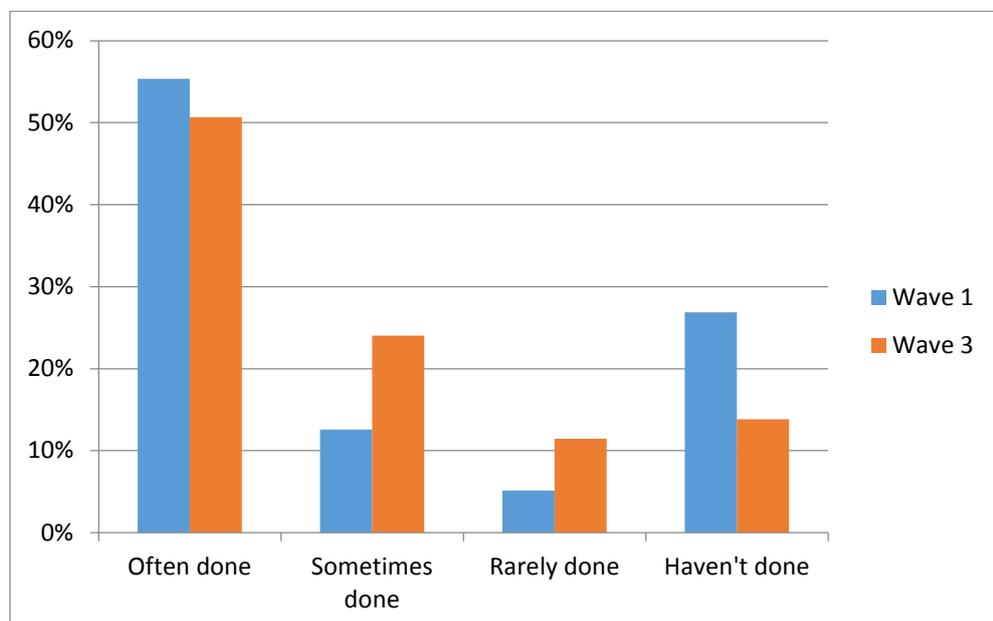
Household recycling

One of the legacy objectives of the 2014 Commonwealth Games was to increase the uptake of sustainable behaviours and attitudes among the Scottish population.

The GoWell East Survey tracks the sample's recycling behaviours as one of three indicators relating to environmental sustainability. We asked participants how often they sorted household waste for recycling.

We found that in 2016 14% of participants said they did not sort household waste for recycling compared with 27% at wave 1. The percentage of residents often recycling has decreased slightly from 55% to 51% (Figure 31). In total 86% of the GoWell East wave 3 sample had sorted household waste for recycling which is an increase from 73% at wave 1. The data shows an overall increase in recycling over time but a slight drop in frequency.

Figure 31: Household recycling (%).



p-value for distribution: $p < .001$

Source: GoWell East

Understanding of environmental responsibility

In addition to recycling behaviours, the GoWell East participants also gave opinions on two indicators that can be used as proxies for understanding environmental responsibility. The indicators for tracking behaviours associated with energy use and waste are:

- Avoiding overfilling a kettle
- Choosing products with less packaging

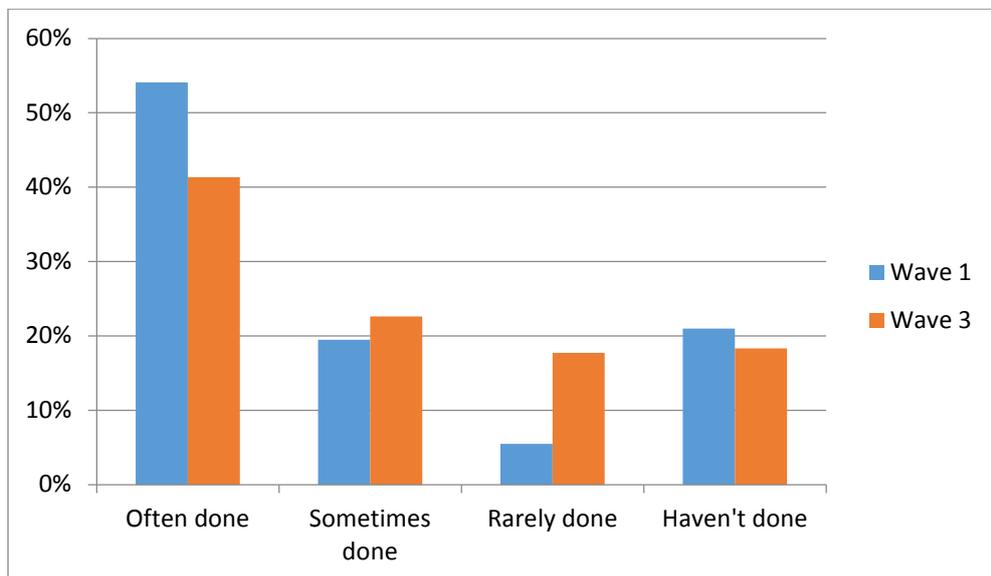
These indicators relate to Scottish Government indicator S15, concerned with environmental responsibility among young people.

Energy use

Participants were asked how often they avoided overfilling a kettle.

We found that in 2016 41% of participants often avoided overfilling a kettle, while 23% sometimes did so (Figure 32). This indicates a reduction in frequency of energy conservation over time as at wave 1 the majority of participants (54%) said that they often avoided overfilling a kettle and 19% sometimes did.

Figure 32: Understanding environmental responsibility: energy use (%).



p-value for distribution: $p < .001$
Source: GoWell East

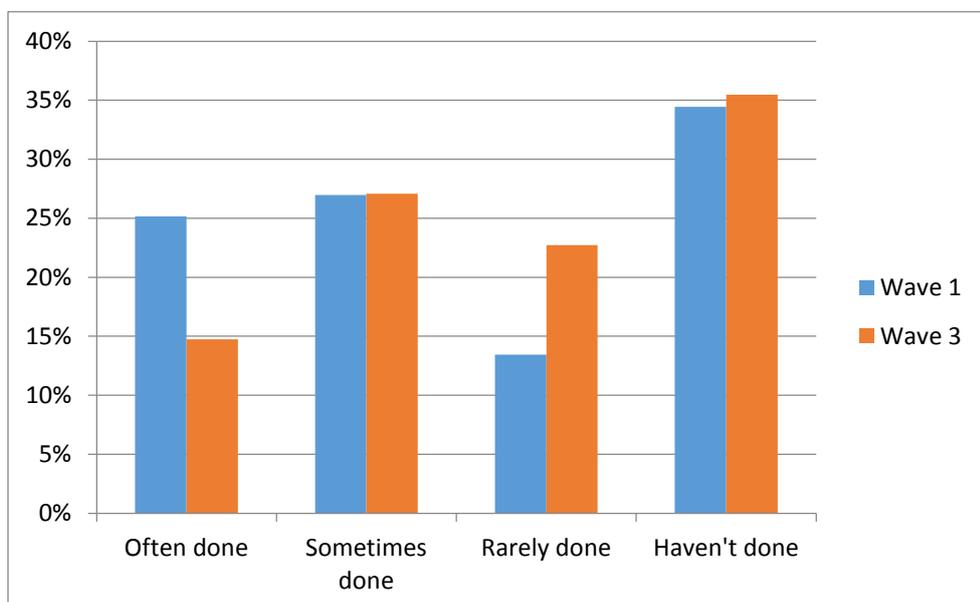
Waste

We asked participants how often they chose products with less packaging.

We found that in 2016 15% of participants said they often chose products with less packaging and another 27% said that they sometimes made that choice. Compared with wave 1, there was a lower percentage of participants regularly choosing less packaging. There has also been an increase in the amount of people reporting that they rarely pick products with less packaging, from 13% at wave 1 to 23% at wave 3 (Figure 33).

Overall respondents' concern about waste packaging is not as high as that around energy usage. This was also the case at wave 1 but over time we see a fall in concern for both energy usage and waste packaging.

Figure 33: Understanding environmental responsibility: waste (%).



p-value for distribution: $p < .001$
Source: GoWell East

Summary

There were a number of improvements over time in residents' perceptions of their neighbourhoods, with the biggest gains being in terms of enhanced feelings of safety and improved perceptions of environmental quality – with significant reductions in the identification of problems relating to vacant and derelict land and buildings, street litter, and property vandalism. Several of these environmental issues nevertheless still remain more problematic in the east end than in other deprived areas across the country. The study area appears to have performed better than the city of Glasgow in respect of feelings of safety and better than both Glasgow and Scotland in respect of residents having a sense of their ability to influence local decisions.

Residents' assessments of the quality of several local amenities improved over time. However, only a minority of respondents rated youth and leisure facilities and children's play areas as being of 'good' quality. On the other hand, two-thirds of respondents rated sports facilities as 'good' in 2016 and four-out-of-five people rated parks and green spaces as 'good'. Nonetheless, reported regular usage by householders of community facilities dropped from 2012 to 2016. Administrative data suggests that patterns of use of sports facilities may reflect income levels, with pay-as-you-go customers preferring swimming at the Tollcross and Gorbals leisure centres (outside but nearby the study area) and pay-monthly customers preferring the gym and fitness classes at the Emirates Arena (within the study area). The largest drops in reported rates of use of local facilities were found to lie among more recent residents, i.e. those who had lived in the area for two years or less at the time of each survey. This suggests there may be benefits in targeting new residents for the promotion of local amenities, particularly given the ongoing residential changes in the study area.

As regards sustainable or environmentally-friendly household behaviours, the survey findings do not suggest consistent improvements over time. While recycling rates have risen, there were reductions in the number of participants reporting regular engagement in sustainable behaviours such as conserving domestic energy use and avoiding wasteful packaging when shopping.

Theme 4: Connected

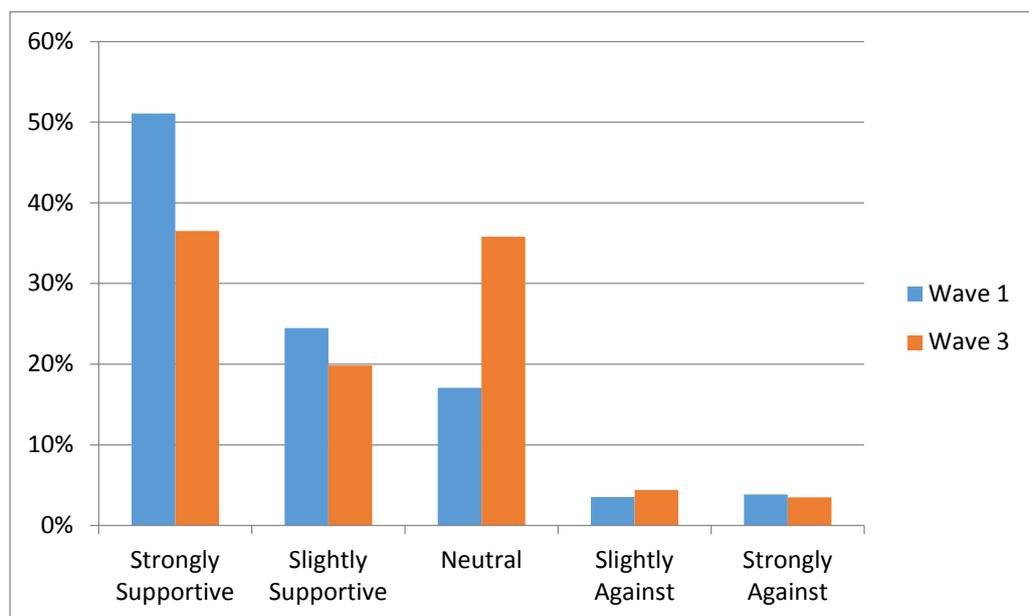
The Connected legacy theme was intended to generate participation in the Games and in wider culture and learning, as well as boosting local pride. In this section we review participants' level of support for hosting the Commonwealth Games, perceptions of the Games' impacts, reported engagement with the Games and with wider culture, and people's sense of civic pride in relation to both Glasgow and the east end.

Level of public support for hosting the Games

Participants were asked 'Glasgow hosted the 2014 Commonwealth Games. How do you feel about that now?'

Support for hosting the Games has dropped over time, although we found that the majority of respondents still had a positive perception of the Games in 2016, with 56% indicating they were slightly or strongly supportive (Figure 34). However, the percentage of strongly supportive participants fell from 51% at wave 1 to 36% at wave 3. The percentage of those expressing a more neutral point of view rose from 17% to 36% since the wave 1 survey was carried out. Opposition to hosting the Games remained at a low level over time.

Figure 34: Level of public support for the Games (%).



p-value for distribution: $p < .001$

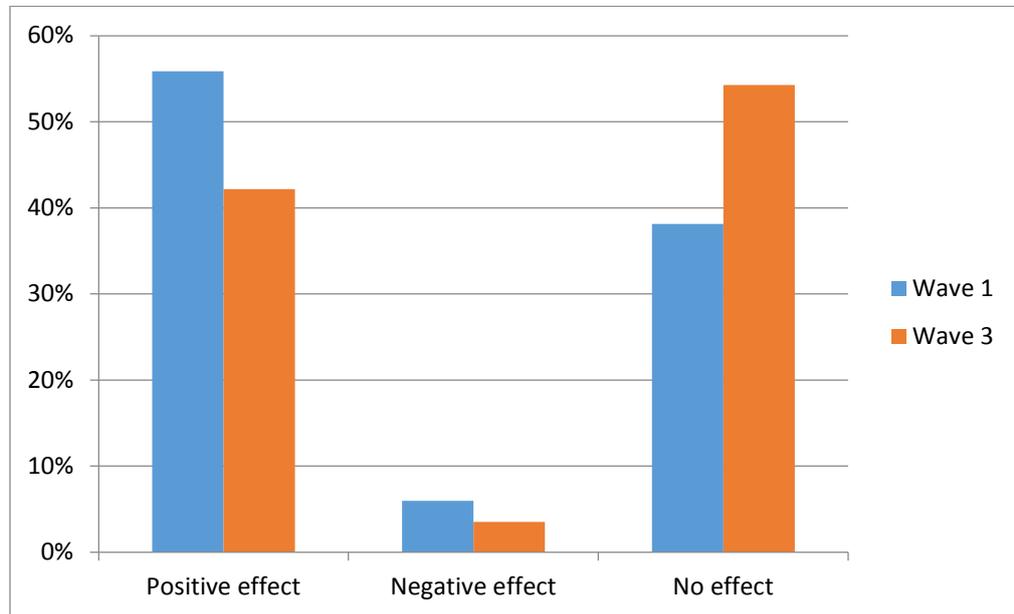
Source: GoWell East

Perceived impacts of the Games

Participants were also asked about the impact of the Games on themselves and their families.

When asked 'Do you think the Commonwealth Games has had a positive effect upon you and your family?' 42% of participants in 2016 reported that it had a positive effect. This is a reduction over time from 56% at wave 1 (Figure 35). At wave 3 respondents exhibit a more neutral view with 54% stating that the Games had no effect on them or their family.

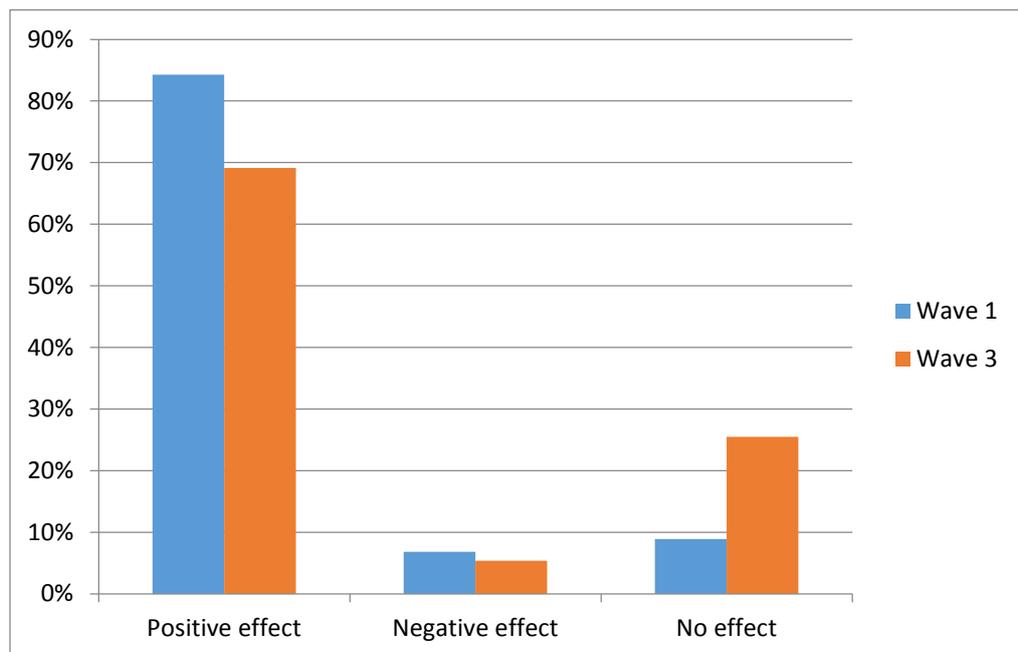
Figure 35: Adults considering the Games to have a positive effect on their families (%).



p-value for distribution: $P < .001$
Source: GoWell East

The GoWell East sample was also asked if they thought the Commonwealth Games had a positive or negative effect upon their local area. We found that the majority of participants in 2016 (69%) felt that the Games had a positive effect on their neighbourhood; this is a decrease from 84% at wave 1 of the survey (Figure 36). The percentage of those viewing the Games as having had no effect on their area rose from 9% to 26% over time. Overall the GoWell East participants view the Games impact on their area as largely positive but this positive opinion had become less strong over time.

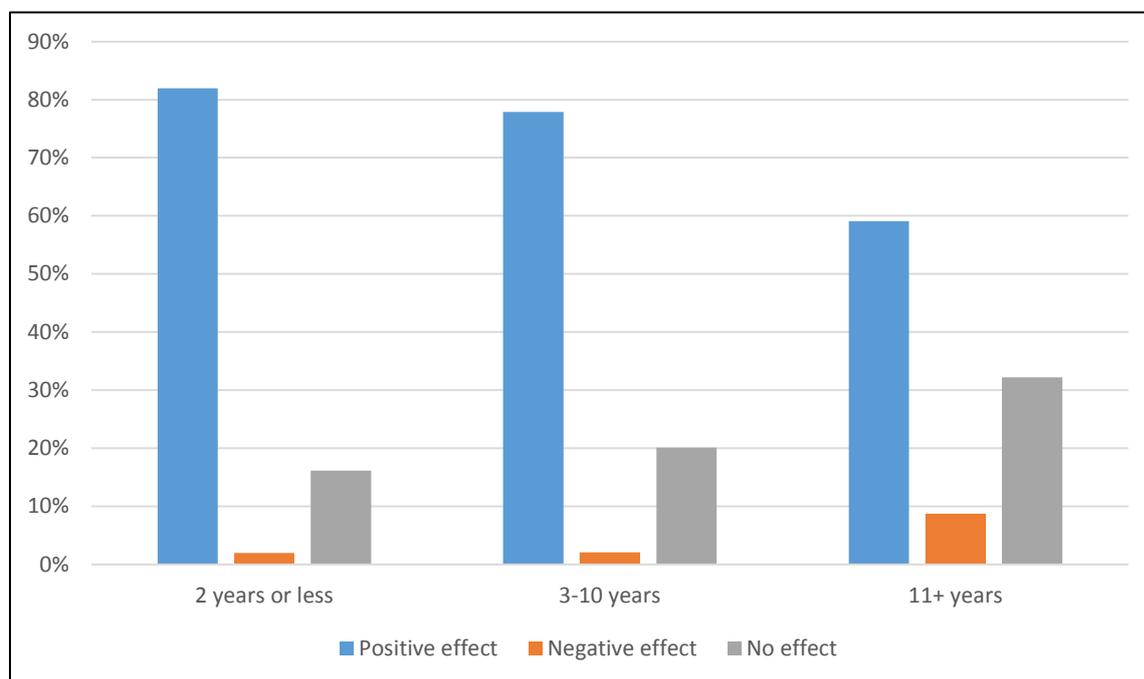
Figure 36: Adults considering the Games to have a positive effect on their local area (%).



p-value for distribution: $p < .001$
Source: GoWell East

When we examined wave 3 participants' opinions by length of residence in the study area we found that the highest positive rating was among new comers at 82%, and this reduced across the groupings to 59% of long term residents, though this is still the majority of that resident grouping. (Figure 37) We also found that 32% of long term residents felt the Games had no effect on their local area, more than for those resident 3-10 years (20%) and for new comers (16%). Two percent of new comers and those resident 3-10 years believed there had been a negative effect on their area; 10% of long term residents shared this opinion.

Figure 37: Adults considering the Games to have a positive effect on their local area by length of residence in the local area (%).



Source: GoWell East

Level of public engagement with the Games

Participants were asked 'In which ways, if any, did you get involved in the Commonwealth Games in the year leading up to, or at the time of the Games itself?' They were given a number of possible response options including:

- Attend a ticketed Games event.
- Took part in a Games-related cultural event.
- Watched on television, internet or listened on the radio.
- Volunteering.
- Spent time out and about in the city.
- None of these.

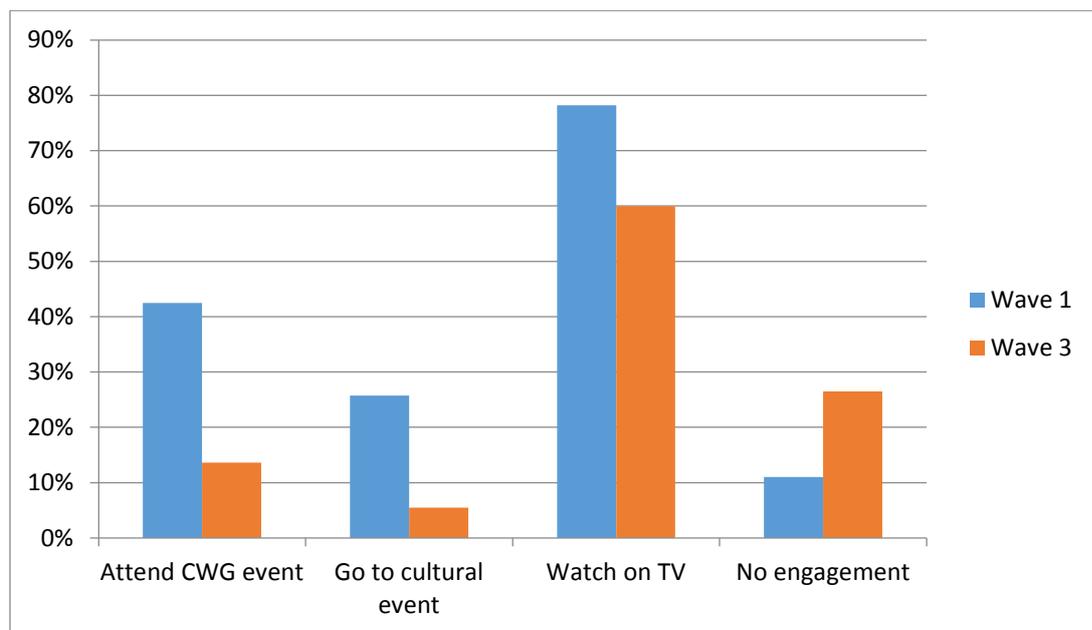
This indicator relates to the Scottish Government indicator C5, which seeks to measure levels of public engagement in Scotland. Prior to the Games, participants were asked how they intended to engage with the event.

We found that although in 2012 42% stated they would attend a ticketed Games event, only 14% of the 2016 sample said they had attended a Games sporting event or ceremony (Figure 38). Although some of those who attended the Games may have moved³¹, it is clear that attendance at ticketed events was lower in reality than people thought likely beforehand. The majority of respondents (60%) said that they watched

³¹ In our smaller, immediately post-Games 2014 sample, 23% of participants reported attending a Games event.

the Games on TV compared with 78% who stated their intention to do so back in 2012. Twenty-six percent at wave 1 in 2012 said they would attend a cultural event related to the Games but in 2016 only 5% of respondents reported that they had been to a Games-related cultural event. However, 10% said they had spent time out and about in the city experiencing the Games atmosphere.

Figure 38: Level of public engagement with the Games (%).



$p < .001$ – Attend CWG event, Go to cultural event, Watch on TV, No engagement

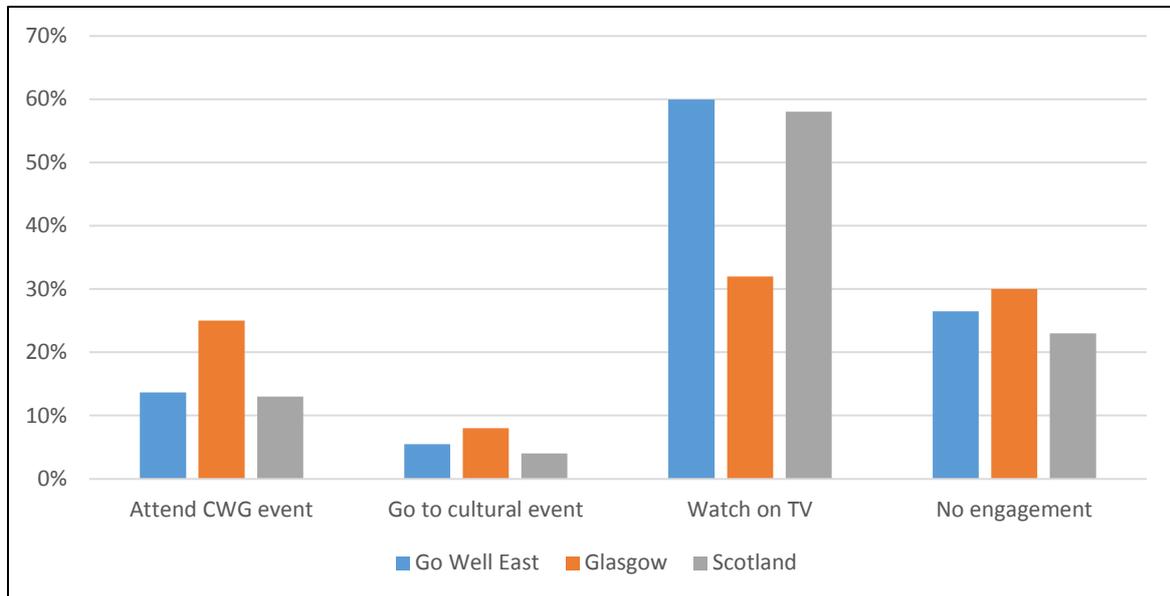
Source: GoWell East

At wave 1 nearly a quarter of participants said they intended to engage with the Games by volunteering but at wave 3 only 1.3% reported volunteering as either a Clyde-sider or Host City Volunteer. Thirty-one percent of respondents said they intended to take part in a Games related community event prior to the Games but at wave 3 only 2% reported having taken part in such an event. At wave 1, 11% of respondents said they did not intend to be involved with the Games in any capacity, whereas at wave 3 26% said they did not have any engagement with the Games.

Although participants may well have failed to recall all the things they had done around Games time in 2014, it is evident that very high prior intentions to engage with the Games were not matched when the time came, although the majority of people did engage with the Games in one way or another.

We can compare the level of actual engagement with the Commonwealth Games among east end householders with that reported by adults in Glasgow and across Scotland. The comparison shows that more adults across the city of Glasgow attended a Games event than among householders in the GoWell East study area (Figure 39). On the other hand, more people in the east end and across Scotland watched the Games on television than was the case for adults in Glasgow. This pattern of engagement may reflect issues of low income in the study area and of less accessibility to the Games across Scotland, compared with the situation for all adults in Glasgow.

Figure 39: Public engagement with the Games across GoWell East, Glasgow and Scotland.



Source: GoWell East; TNS Omnibus Survey 2014

Sense of civic pride

One of the 2014 Commonwealth Games legacy objectives was to increase people's sense of national and civic pride as a component of quality of life and as a support for mental wellbeing and happiness.

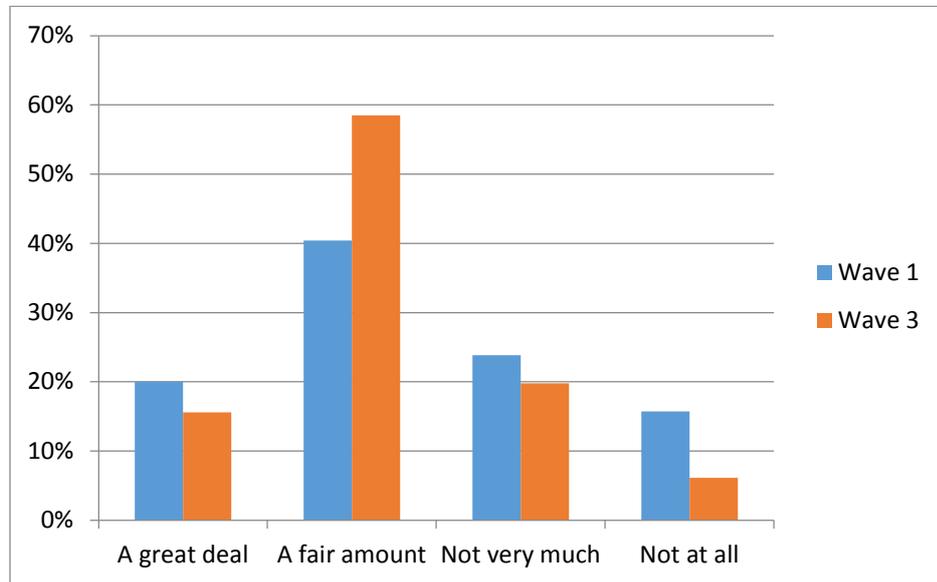
We asked participants to what extent two statements applied to them:

'I feel proud of this local area', and
'I feel proud of the city of Glasgow'.

This is equivalent to Scottish Government indicator C10.

We found that overall participants were positive about both their local area and the city as a whole, and that pride had increased over time. In 2012, 60% of participants felt pride in their local area, and this had risen to 74% by 2016 (Figure 40). Pride in the city increased marginally from 87% in 2012 to 91% in 2016 (Figure 41). In both cases, there was a decline in the number reporting the strongest feelings of pride.

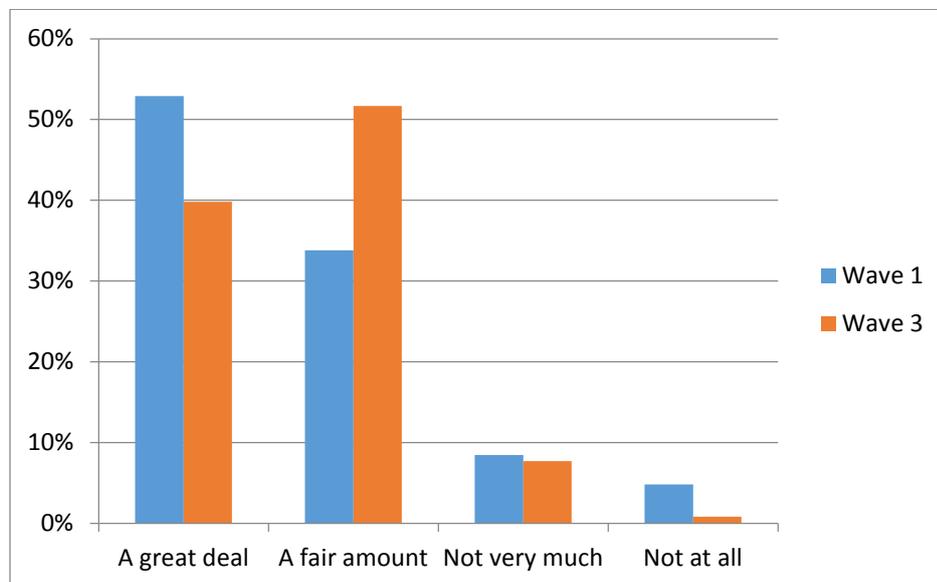
Figure 40: Sense of civic pride (%) – proud of local area.



p-value for distribution: $p < .001$

Source: GoWell East

Figure 41: Sense of civic pride (%) – proud of Glasgow.

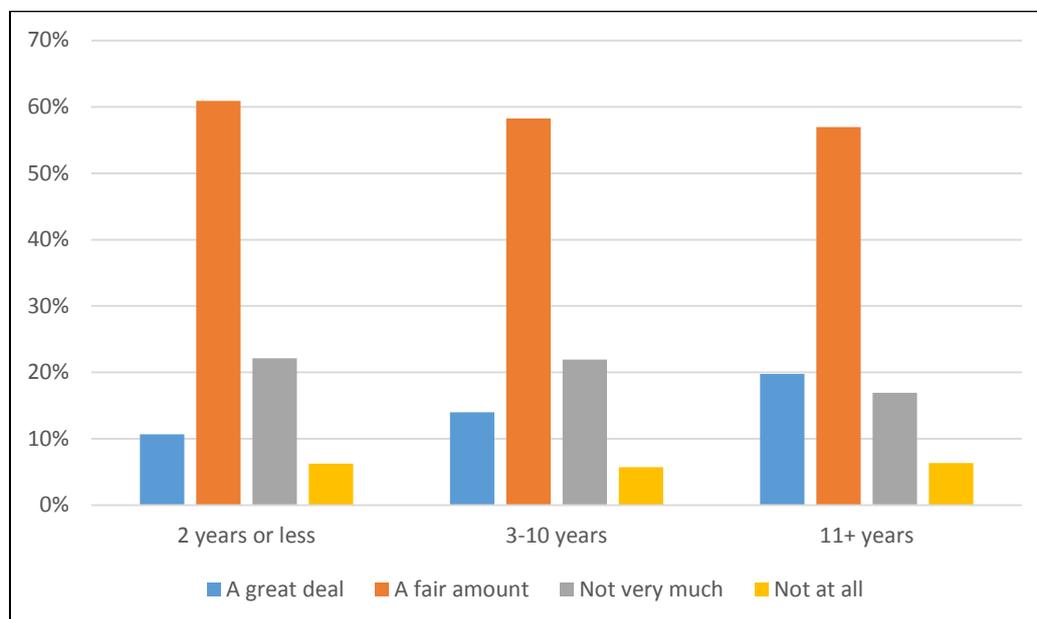


p-value for distribution: $p < .001$

Source: GoWell East

When we examined the issue of local pride by resident grouping for wave 3 participants we found that the majority of all three groupings had pride in their local area (Figure 42). Around 60%, regardless of length of residency, stated they had a fair amount of pride in their local area. A fifth of long-term residents said they had a great deal of pride in the area, more than those living in the study area 3-10 years (14%) and new comers (11%). The number of people with no pride at all in their area was the same across resident groupings (6%).

Figure 42: Sense of civic pride by length of residence in study area (%) – proud of local area.



Source: GoWell East

Cultural engagement

In 2014 there was a cultural programme of arts and entertainment associated with the Commonwealth Games. This programme aimed to boost public attendance and participation in a range of cultural activities, as well as contributing to longer-term interest in arts and culture.

Cultural attendance

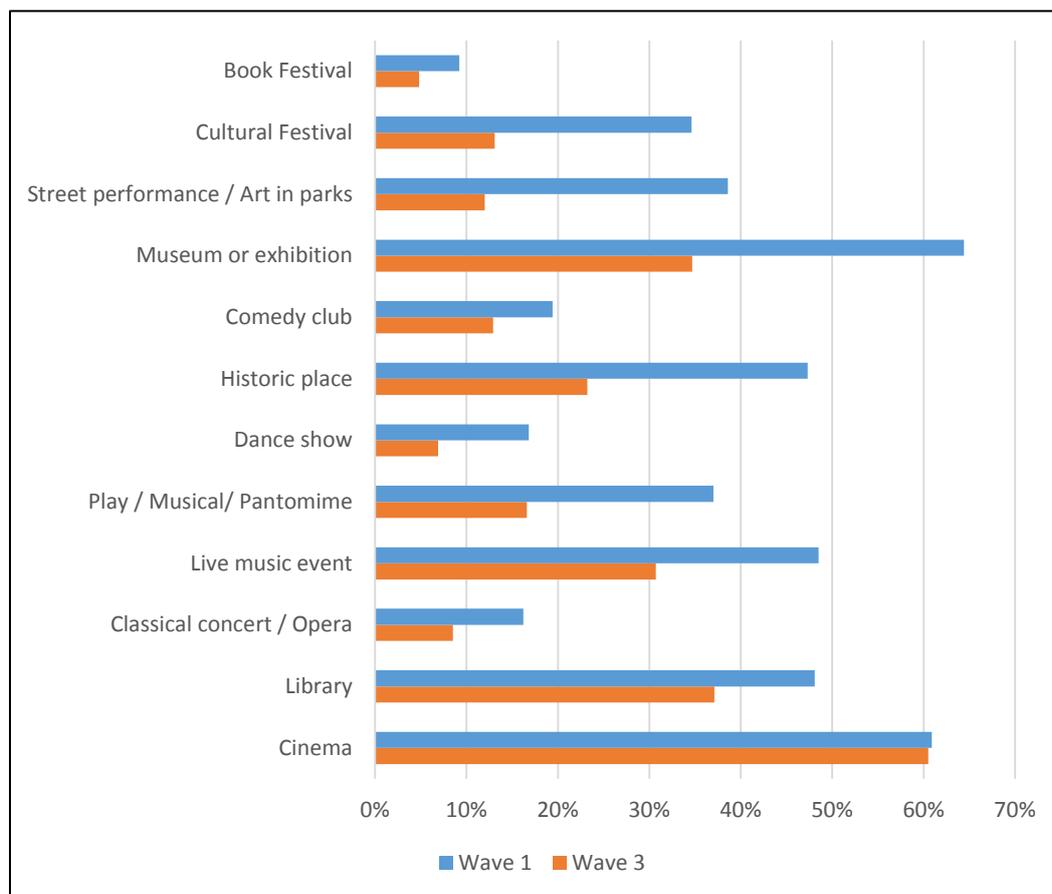
The GoWell East survey tracks a selection of cultural attendance indicators monitoring the percentage of the sample who have been to any of a number of events or places in the previous 12 months, as shown in Figure 43.

In 2016 we found that the two most widespread cultural activities were going to the cinema (61%) and using a library (37%). Both of these figures compare favourably with the wider Glasgow figures and the measures for Scotland as a whole. The Scottish Household Survey 2015 shows that 58% of Glaswegians went to the cinema in the last 12 months compared with 57% in Scotland. Museums and galleries also proved popular with 35% of the GoWell East sample attending them once or more over the last year. This figure is much lower compared with Glasgow (71%) and lower than Scotland overall (52%).

Overall adult engagement in cultural events has reduced since wave 1 where 88% reported taking part in any of the activities listed; this figure dropped to 75% by wave 3 of the survey. When cinema attendance is removed from the analysis 86% of adults engaged in at least one of the remaining activities at wave 1 compared with 63% at wave 3. The Scottish Household Survey 2015 gives the higher rate of 81% for overall participation in Glasgow (74% excluding cinema) and 82% for Scotland (75% excluding cinema), so cultural attendance is slightly lower in the study area than across Glasgow as a whole. It is also the case that the decline in cultural attendance among participants in the east end contrasts with a slight increase in cultural attendance in the most deprived areas across Scotland over a similar period (2012-2016). However, the rate of cultural attendance among adults in the study area in 2016 is, at 63%, similar to that recorded for adults in deprived areas in Scotland in 2015 (62%)³².

³² Scotland's People Annual Report: Results from the 2015 Scottish Household Survey Table 13.3, p.243. Edinburgh: Scottish Government.

Figure 43: Cultural attendance among adults (%).



p = .888 – Cinema

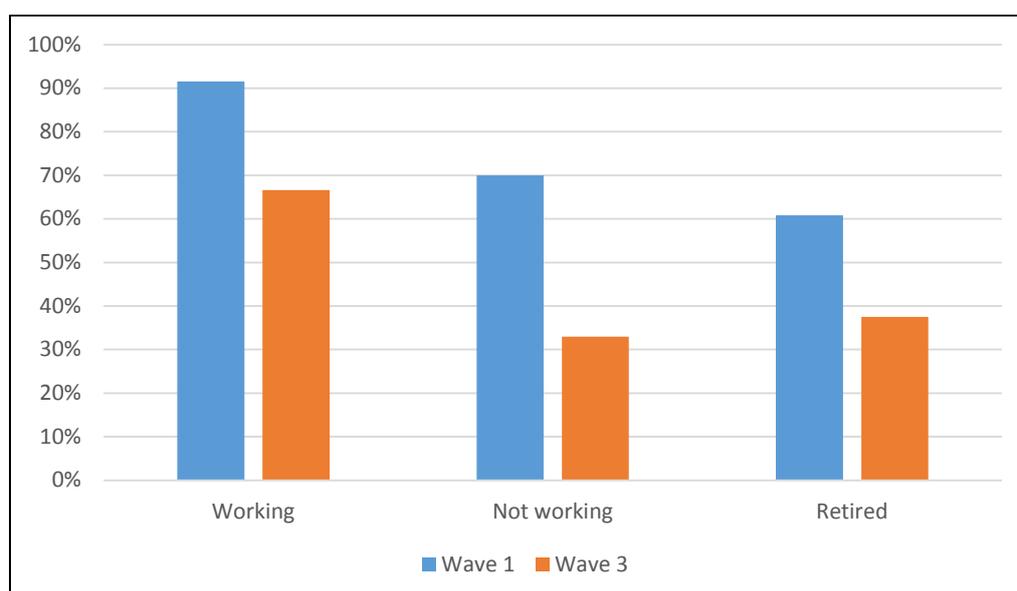
p < .001 – all other activities

Source: GoWell East

When separating free cultural venues (libraries, museums, street performances and cultural festivals) from paid venues (the remainder) we found that the drop in attendance was greater for the former than the latter: from 79% to 54% for free venues and from 81% to 67% for paid venues. This may indicate that factors other than cost, such as the supply of cultural events, may have played a part in the fall in attendance, if for example there had been more public performances and festivals in 2012 than in 2016, but we do not have data on the supply-side of cultural activity to assess this.

Looking further at changes in cultural attendance at free venues by employment status (Figure 44) we see that the drop in attendance is relatively less for those in work than for those not working (where the drop is greatest) or retired. This may indicate a general weakening of social participation among those out of work and who are not otherwise engaged with society through their employment.

Figure 44: Attended a free cultural event in last 12 months by employment status.



Working $p < .001$

Not working $p < .001$

Retired $p < .001$

Cultural participation

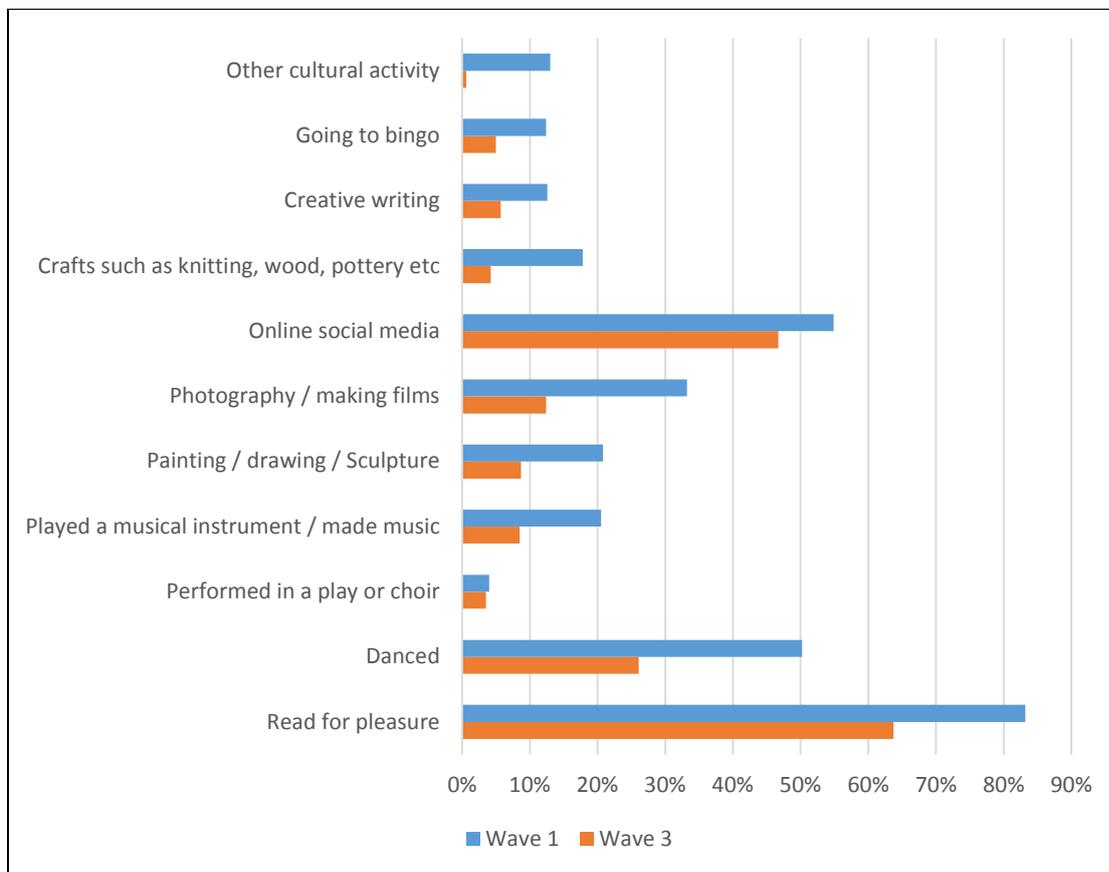
Participants were also asked about their participation in cultural activity over the last 12 months. A list of activities were provided from dancing and singing in a choir to more sedentary activities such as crafting or bingo, as shown in Figure 45, and respondents were asked how often they had done them in the past 12 months.

In 2016 we found that reading was the most popular cultural participation activity among the GoWell East sample, 64% of participants reported they had read for pleasure on more than one occasion in the last year. Forty-seven percent of participants said they had used online social networks over the last 12 months and a further 26% reported dancing during the same period. The percentage of GoWell East participants reading for pleasure compares favourably with the figure for Glasgow (63%) but is slightly lower than the Scotland wide figure of 69%. Over a quarter of our sample reported dancing over the last 12 months which is higher than both the figure for Glasgow (16%) and Scotland (14%).

Cultural participation overall among adults in the GoWell East sample has decreased since wave 1 of the survey; dropping from 94% to 80% by wave 3. However the 80% participation at 2016 is higher than the comparable figure for Glasgow (73%) and similar to the Scotland-wide measure (79%). It is worth noting that when we remove reading, social networking and bingo from our measure the overall participation rate drops to 75% at wave 1 and 37% at wave 3. The drop in cultural participation among adults in the east end over time is in contrast to a slight increase in participation among adults living in the most deprived areas across Scotland over a similar time period (2012-2015). The rate of cultural participation in the study area on our narrower measure, at 37% in 2016, is slightly lower than the rate recorded for adults in deprived areas in Scotland in 2015 on a similar measure which also excludes reading, at 42%³³.

³³ Scotland's People Annual Report: Results from the 2015 Scottish Household Survey Table 13.7, p.254. Edinburgh: Scottish Government.

Figure 45: Cultural participation among adults (%).



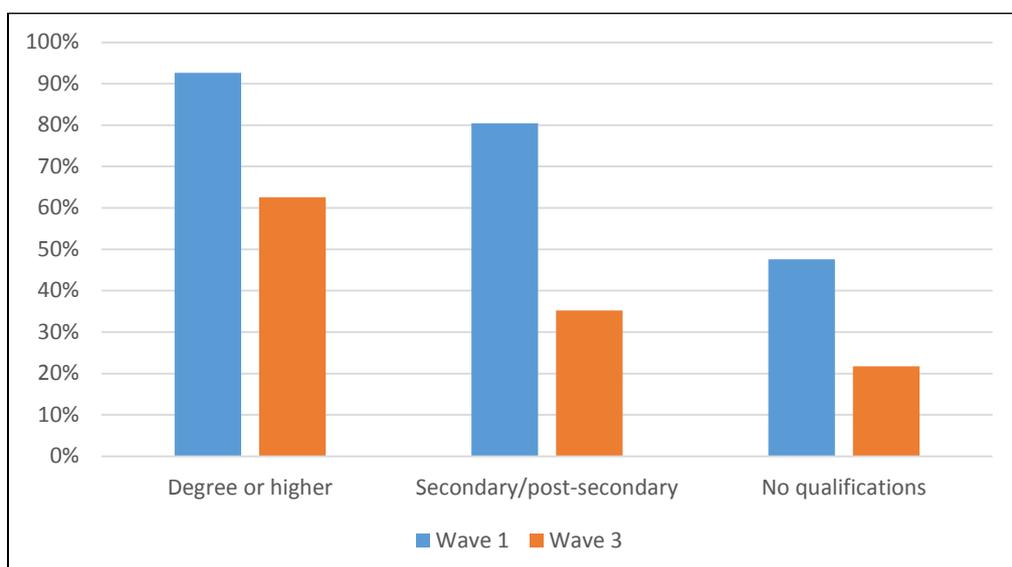
p = .639 – Performed in a play or choir

p < .001 – all other activities

Source: GoWell East

In further analysis we looked at the change in cultural participation by the respondent’s level of education and their employment status. As Figure 46 shows, cultural participation (excluding reading and use of social media) fell among all education groups, but by a relatively greater amount from wave 1 to wave 3 among those with secondary/post-secondary or no qualifications than among those with a degree.

Figure 46: Cultural participation (excluding reading and social media use) by educational attainment.



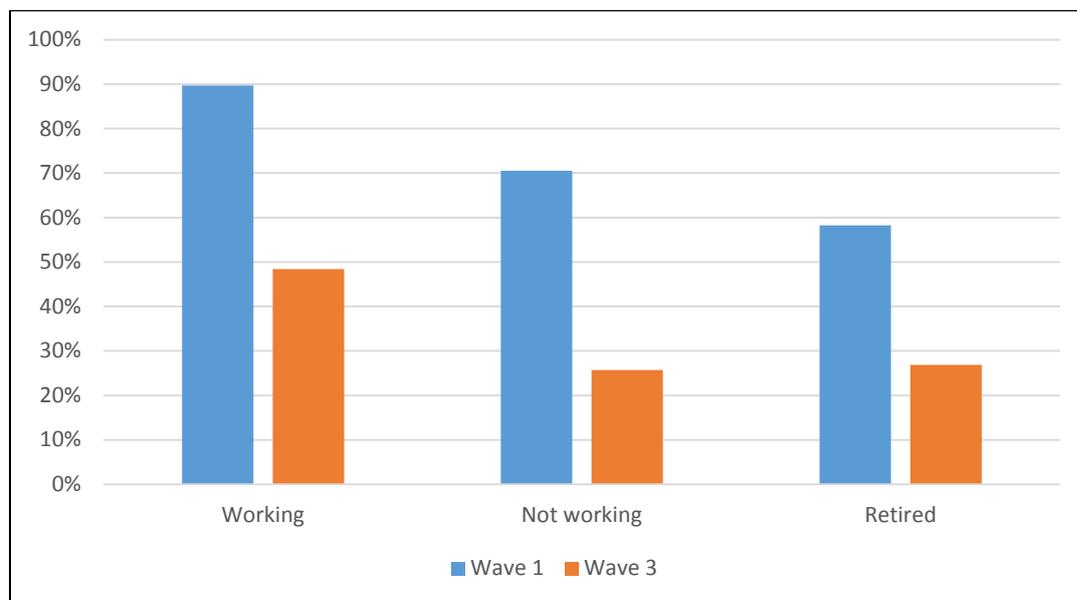
Degree or higher p<.001

Secondary/post-secondary p<.001

No qualifications p<.001

As with cultural attendance, we similarly found that the drop in cultural participation was relatively greatest among those not working, and least among those in employment (Figure 47), again raising the issue of weakening social participation among the out-of-work group.

Figure 47: Cultural participation (excluding reading and social media use) by employment status.



Working p<.001
 Not working p<.001
 Retired p<.001

Summary

Positive attitudes and perceptions towards the CWG have waned a little over time from the pre-Games to the post-Games period, with most indicators declining somewhat. This may be because earlier enthusiasm inevitably fades with time, or it may represent a real shift in attitudes in the light of experience. However, it is worth noting that negative attitudes remained unchanged in the light of the Games experience. Nonetheless, a majority of participants in 2016 were supportive of the Games having been hosted in Glasgow, thought the Games had had a positive impact in the local area, and had engaged with the Games in one way or another at the time. Positive perceptions of the impact of the Games upon the local area were highest among more recent residents, suggesting the possibility that the Games may have helped boost the image or attractiveness of the area for new residents.

One of the explicit legacy aims for the CWG was to increase local pride and it appears from our findings that this has been achieved in relation to the host communities in Glasgow where pride in the local area has increased by nearly a quarter over time in relative terms. This is likely to be the result of a combination of hosting the Games and the associated regeneration activity in the area. Pride in the city of Glasgow remains very high and has increased marginally over time.

The legacy objective of increasing cultural engagement has not achieved the same success in the study area, with overall levels of cultural attendance and participation declining from the pre-Games to the post-Games period. By 2016, the level of cultural attendance (going to cultural events or places) among householders in in the study area was similar to that for adults in deprived areas across Scotland, while the rate of cultural participation (taking part in cultural activities) among householders in the study area was slightly lower than found among adults in deprived areas in general. Thus, the Games-related cultural activities do not appear to have had a lasting effect upon cultural engagement among east end residents.

We cannot tell from the survey the reasons for this lack of impact. Relevant factors might include changes in available cultural opportunities, and/or less awareness of them, since the Games, and the continued effects of static incomes and austerity measures upon households' available resources for cultural engagement. The potential weakening of social participation among those on the lowest incomes is supported by the fact that we found the drop in cultural attendance and in cultural participation to be greatest among those out of work, although there were falls among working adults too.

Conclusion

This report presents findings from two cross-sectional household surveys, one of which was carried out in 2012, two years prior to the Glasgow 2014 Commonwealth Games, and a second, conducted in 2016, two years following the Games. In each case, over 1,000 local residents from the host communities around the main east end Games sites participated. While it is not possible to ascertain whether changes over time (positive or negative) are directly attributable to either the Commonwealth Games or associated regeneration activity, this research does allow us to compare the attitudes, experiences and opinions of people living in the area at each time point. We review our findings in each of the legacy domains set by policy-makers, considering the potential relationships to Games- and regeneration-related programmes and activities in the area.

In our prospective assessment of the physical activity legacy, we identified environmental improvements as the most likely pathway for increasing physical activity across the population as a whole, over and above the pathways of sports facilities, social infrastructure and schools³⁴. However, the evidence from our before-and-after comparison is not clear-cut on this issue. Despite perceived improvements in the local environment, overall levels of reported physical activity were lower two years after the Games than two years before. In earlier work, we noted the wide range of pre-Games community sports and physical activity legacy programmes, and their potential to support possible demonstration or festival effects from the Games³⁴. However, we also expressed concern that the funding of such programmes may not be continued at sufficient levels after the Games. Similar enthusiasm for community-based approaches to sport and physical activity has been expressed by the Scottish Parliament Health and Sport Committee as a way of overcoming economic, accessibility and psychological barriers to participation. However, the Committee also noted its concern about reductions in lottery funding and local authority revenue expenditure on sport-related services since the Games³⁵. These factors may partly explain why it does not look as if the Games has inspired higher levels of sports participation and physical activity in the east end, or at least there is no evidence for this from our surveys. Indeed, the numbers of people reporting exercising regularly and regularly visiting parks, green spaces and sports fields have dropped since 2012.

Rates of active travel in the study area continue to increase and remain much higher than city and national rates. While this probably reflects the location and the socioeconomic profile of the resident population as much as anything else, it could also be partly the result of improvements to the local environment and infrastructure for active travel (paths and cycleways), both of which have taken place as part of the regeneration in the area. However, the increase in active travel is nevertheless small across the four-year period studies here.

Alongside the incremental increase in active travel, there has also been a significant increase in rates of regular neighbourhood walking, which can support better physical and mental health for residents. There are two factors related to regeneration activity that may have partly contributed to this. Increased economic activity in the area as a result of the relocation of employers into new premises in the area has notably increased street footfall, which may have given a greater sense of security and encouraged others to walk locally. The improved quality of the local environment has been noticed by residents and this may also have made walking seem more attractive and pleasurable. Thus, in terms of the 'walkability' of the local environment, there have been gains in terms of safety and quality that could have contributed to the increase in walking. It is also possible, though less certain, that there have been related improvements in terms of street connectivity and the density of destinations to walk to.

In terms of the sustainable legacy objectives, we can see some major gains, and some areas where there has been little or no discernible progress. Positive opinions about local neighbourhoods continue to grow, and with increases in the numbers of people who see improvements and are satisfied with their neighbourhoods, the prospects for the sustainable future of the study area in terms of retaining and attracting residents, while avoiding issues of low housing demand that have affected the area in the past, seem good. There appear to have been major gains for local residents in terms of feelings of local empowerment and safety, which are not only good for the reputation and future prospects for the area, but also beneficial for the wellbeing of current residents.

³⁴ Clark J, Kearns A. Pathways to physical activity legacy: Assessing the regeneration potential of multi-sport events using a prospective approach. *Local Economy* 2015;30(8):888-909.

³⁵ Health and Sport Committee. *Sport for Everyone*. Edinburgh: Scottish Parliament; 2017.

There continue, however, to be perceived deficiencies in the care, maintenance and cleanliness of the area, and alongside this a risk that people will perceive a withdrawal of environmental management and services in the post-Games era. Our findings also do not suggest that there has been any significant improvements in sustainable and environmentally friendly behaviours, with several of the relevant indicators showing a decline over time.

Employment rates among adults in the study area have improved over time, with a small number of households directly gaining employment via local regeneration projects. In respect of a flourishing legacy, however, it does not look as if adults in the study area have gained jobs at a faster rate than adults across the city as whole over the same period. The employment rate among householders in the study area remains at around four-fifths the rate for Glasgow, similar to its relative position in 2012. With this in mind, it is of concern that the rate of volunteering in the study area (a potential aid to employability, or a useful alternative to inactivity) has fallen behind over time and now stands at less than half the city-wide rate. Legacy objectives around the expansion of volunteering do not appear to have been achieved in the study area, which may not be surprising given our earlier reporting of low rates of east end volunteering at the time of the Games itself³⁶.

Some, but not all, of the connected legacy objectives are being achieved in the study area. Support for the Games itself, although waning, remains the majority view, which may reflect positive memories of the event itself as well as the dominant view that it impacted positively upon the area. Pride in the local area has risen substantially, which is important for people's feelings of self-esteem and sense of status and progress, all of which support wellbeing. The Connected legacy objectives pertaining to culture do not appear to be progressing: the rate of cultural attendance in the study area has dropped and is now similar to that of other deprived areas across Scotland, and below the city and national rates; the rate of cultural participation in the study area has also dropped and is now below the rate for deprived areas across Scotland.

Several indicators across the study – relating to volunteering, collective leisure pursuits and cultural attendance and participation – suggest a weakening of social participation among those out of work and with low levels of education. Confirming the veracity and establishing the reasons for this general finding on a potential weakening of social participation – for example between lack of interest, the quality or accessibility of opportunities, and lack of money – will be important for the future quality of life of residents. In addition, there are several areas – notably physical activity, volunteering, and cultural attendance and participation – where a drop in the level of activity from 2012 to 2016 could be partly the product of a relatively high baseline level of participation among sample participants in the east end. The latter, in turn, might represent an artefact of the survey itself, or result from a particularly high level of provision of opportunities for participation in the pre-Games period when Games-related projects of a sporting, cultural and volunteering nature were established, albeit not necessarily sustained at the same level after the Games. If this were the case, it might indicate that a strong emphasis on front-loading the legacy effort in the pre-Games or 'pregnancy' phase³⁷, involving not only planning for³⁸ but actually having impacts in this period, runs the risk of undermining the post-Games legacy, where such efforts and provision cannot be maintained and as institutional and policy efforts begin to 'drift' thereafter³⁹. Again, this is an issue worthy of examination in any future multi-sports events with legacy ambitions. The study findings in this respect also suggest that territorial legacies (retained by the host area) are somewhat easier to achieve than personal legacies (to be attained by individuals)⁴⁰.

³⁶ See: *GoWell East: Studying Change in Glasgow's East End. Headline Indicators Report for Wave 2 (2015) in comparison with Wave 1 (2012)*. Glasgow: GoWell; 2015. Available at:

http://www.gowellonline.com/publications/384_gowell_east_headline_indicators_comparison_report.

³⁷ Preuss H. A framework for identifying the legacies of a mega sport event. *Leisure Studies* 2015;34(6):643-644.

³⁸ Minnaert L. Making the Olympics work: interpreting diversity and inclusivity in employment and skills development pre-London 2012. *Contemporary Social Science* 2014;9(2):196-209.

³⁹ Smith A, Fox T. From 'Event-led' to 'Event-themed' Regeneration: The 2002 Commonwealth Games Legacy Programme. *Urban Studies* 2007;44:1125-1143.

⁴⁰ Chappelet JL. *Mega Sporting Event Legacies: A Multifaceted Concept*. Lausanne: University of Lausanne; 2012.