2017

Public Health - NHS Greater Glasgow & Clyde

Dr Lynda Fenton

[GLASGOW CITY: HOW ACTIVE ARE WE?]

A profile of levels of physical activity in Glasgow City, and the services and spaces that support active living.

1

Executive summary	3
Key findings	4
Recommendations	6
Glasgow City – how active are we?	7
Methods	10
Table 1: Summary of indicator outcomes	11
Background: the people of Glasgow	13
Overall physical activity	14
Whole school approach to physical activity	18
Transport systems which prioritise active travel	23
Urban design – equitable and safe	28
Sport for all	33
Integration of physical activity into primary care	38
Conclusion	41
Appendix 1: Active Scotland Outcomes Framework Glasgow chart	45
Appendix 2: Summary of relevant policy and strategy commitments	47
Appendix 3: Indicators, data sources, alternatives and national indicators	56
References	60

Executive summary

Background

Using the human body to move, whether it is for fun, sport, work, or to get around, is beneficial for individuals, communities and the wider environment. Active individuals experience greater mental and physical well-being; sport and walking generate social interactions and can help build social cohesion; whilst making more of our journeys by active means can reduce traffic, air pollution and emissions.

The benefits of increasing physical activity were recognised nationally in the 2014 implementation plan "A More Active Scotland". Within Glasgow there are a number of strategies that contain important commitments relevant to physical activity, including the City Development Plan, the Strategic Plan for Cycling, and the Play strategy, and there is a desire to develop a physical activity legacy from the upcoming 2018 European Championships. Realising our ambition for an active, healthy population means understanding who is active, what activities people undertake, and how well our city is currently providing the services and spaces that will support active lives.

Profile aim

This profile aims to increase our understanding of how active people in Glasgow are, what differences there are between population groups, and how much people engage with different types of activity. It allows us to take an objective overview of how well our city supports active living, and identify priorities for action in the future. Finally, the profile can be repeated over time to allow us to monitor intermediate outcomes that we are confident will, over time, contribute to a more active population.

Profile structure and content

There are 29 indicators covering behavioural and infrastructure/service outcomes in the following topic areas:

- 1. Overall physical activity and inactivity
- 4. Urban planning and design
- 2. Whole school approaches to physical activity
- 5. Sport for all

3. Transport systems

6. Integration of physical activity into primary care

These topic areas were selected based upon the Toronto Charter, which identified "7 best investments for physical activity". Ensuring we are getting these things right offers the clearest route to increasing population physical activity.

Indicator data are drawn from national and local survey data, and reported service output information. For each indicator we have, where the data are available, explored comparisons with the national level, trends over time, and whether there are important inequalities.

- ✓ Encouraging findings
- Concerning findings

Overall physical activity

- ✓ Levels of physical activity are similar in Glasgow City to the overall levels in Scotland: 63% of adults and 74% of children meet the recommended levels of activity.
- Nearly 1 in 4 adults and 1 in 10 children have very low levels of activity.
- Women, older people, those with a long-term condition, and those living in more deprived areas are less likely to meet physical activity recommendations; these inequalities reflect the national picture. Nationally, it has been found that people from ethnic minorities are also less likely to achieve the recommended activity levels.
- ✓ Among children there is no pattern in activity with socio-economic deprivation.
- Girls are less likely to be active than boys, and there are high levels of inactivity among girls aged 13-15 years old.

Whole School Approach

- √ 99% of schools provide the recommended curricular PE sessions, and the Active Schools
 programme is providing out-of–school sports opportunities for nearly half of children.
- ❖ 55% of children usually use active means to get to school, which is higher than the Scotland level, but there has been a consistent decline in the proportion of primary school children who walk to school, and an increase in being driven to school.
- ❖ 42% of children here engage in daily active play, significantly lower than in Scotland overall (49%); both nationally and in Glasgow children are less likely to play actively on school days.

Transport systems

- ✓ People in Glasgow are more likely to walk, cycle or use public transport to get around than in other areas of Scotland.
- Increases in active travel have not been matched by reductions in motorised transport.
- ✓ There has been investment in cycling infrastructure and programmes, and an increase in the proportion of streets with a 20mph limit.

Urban design

- People in Glasgow are less likely to live close to greenspace, and are less likely to feel safe walking in their neighbourhood after dark, than in other areas of Scotland.
- ❖ People are less likely to make use of their local greenspace than across Scotland.

- The rate of pedestrians injured by motor-vehicles has fallen considerably, but remains significantly higher than the national level.
- ❖ Those living in the most deprived areas are least likely to report living close to greenspace, 1 in 5 feel unsafe walking in their neighbourhood after dark, and they are most likely to be involved in a pedestrian road-traffic accident.

Sport for all

- Adults participate in sport less than in other areas, and there are significant inequalities in sport participation.
- ✓ Recreational walking participation is equal to the national level, has increased and has much lower levels of inequality in participation than sport for women and older people.
- Children in Glasgow have equal participation in sports to the national level, but those living in more deprived areas are less likely to participate.
- ✓ People in Glasgow make more use of local authority sports and leisure facilities than in other areas, and there is equal use by women and men, and by those from ethnic minorities.
- Only 17% of those with a household income less than £10,000 use local authority sports and leisure facilities, compared with 47% of those whose income is >£40,000.

Integration into primary health care

- ✓ There were high levels of attainment of the care standard to assess and provide physical activity advice to patients with high blood pressure.
- ✓ There is an exercise referral scheme in place in NHSGGC, with attendances proportionately reflecting the population levels of inactive groups.
- There has been a decline in referrals to the exercise referral scheme, and lower referral rates in Glasgow City than some other areas.

Recommendations

- To engage with the wide range of partners and use a common strategic direction to drive implementation of evidence-based actions to increase physical activity.
- To prioritise making our city a walking city and build upon already high levels of walking for transport and recreation. Reshaping our city to favour active travel can increase levels of physical activity and help address health inequalities. Recreational walking is an activity undertaken by the majority of the population, and which appears to appeal to a broad spectrum of people.
- To prioritise active play by children, including informal active play and sport participation. Active play for children is vital not only for physical activity, but for well-being and development. Our children should have the opportunity, encouragement and space to play actively every day. We must continue to develop our understanding of the barriers to play and sport, including among girls and those living in deprived areas.

Glasgow City – how active are we?

"It is about using the body that we have in the way it was designed, which is to walk often, run sometimes, and move in ways where we physically exert ourselves regularly whether that is at work, at home, in transport to and from places, or during leisure time in our daily lives." (1)Das and Horton p.189

Using the human body to move, whether it is for fun, sport, work, or to get around, is beneficial for individuals' health, for communities and for the wider environment. Active individuals experience greater mental and physical wellbeing; sport and walking generate social interactions and can help build social cohesion; whilst making more of our journeys by active means can reduce traffic, air pollution and emissions (1,(2).

Globally, physical inactivity ranks fourth as a risk factor for death, and it is estimated that 6% to 10% of cases of coronary heart disease, breast cancer, colon cancer, and type 2 diabetes are attributable to inactivity(2). Such diseases impact on the individual affected, and also have a societal impact in terms of health and care service use, and the costs of lost productivity. We know that Glasgow City has significantly higher rates of early death from coronary heart disease and cancer than the rest of Scotland(3), and that there are persistent socio-economic inequalities in health.

The importance of physical activity was recognised at national level in 2014 with the publication of the implementation plan "A More Active Scotland" (4). This identified settings for action that reflect the 2010 International Toronto Charter for physical activity, which called for "greater political commitment and community action to achieve physical activity for all" (5). To support this call a summary of the "7 best investments for physical activity" was published, based on a review of the available evidence, these are shown in Box 1(6). Within Glasgow there are a number of strategies that contain important commitments relevant to physical activity, including the City Development Plan (7), the Strategic Plan for Cycling (8), the Traffic and Road Safety Plan (9) and the Play strategy (10). A summary of relevant policy and strategy commitments at national and local level is contained in appendix 2.

- 1. Whole of school programs that prioritise regular active PE, that provide environments that support play, that provide support for active travel and which engage staff, parents, students and the wider community.
- 2. Transport systems that prioritise walking, cycling and public transport
- Urban design regulations and infrastructure that provide for equitable and safe access
 for recreational physical activity, and recreational and transport-related walking and
 cycling across the life course.
- 4. Physical activity and disease prevention integrated into primary health care systems
- 5. Public education, including mass media to raise awareness and change social norms on physical activity.
- 6. Community-wide programs involving multiple settings and sectors and that mobilize and integrate community engagement and resources
- 7. Sports systems and programs that promote 'sport for all' and encourage participation across the life span

The Active Scotland Outcomes Framework is a set of indicators that supports the delivery of the Scottish Government vision of a more active Scotland. Local authority level data on these outcomes have now been released, with benchmarking against the Scottish average ((11) see appendix 1). An assessment of children's physical activity is made at national level in the Active Kids report card(12).

This profile aims to develop such approaches at local level to further our understanding of how active we are in Glasgow City, and how conducive our city is to physical activity. This will support us in identifying how we can support our population to be more active, and if there are particular approaches that are likely to be beneficial. It can serve as a monitoring tool, with measures repeatable over time to detect trends. Finally the profile highlights potential areas of work and approaches which are most likely to be successful in increasing population levels of physical activity.

Determining how active we are as a population can be a challenge. Measurement of overall activity largely relies on what people report themselves doing and definitions have varied in the past. We should also be realistic about the changes we can expect to see in overall levels of physical activity. Improvements will be incremental, and will take time to be reliably detectable in population level

data. By employing intermediate indicators of both behaviour and infrastructure this profile can help us to understand the components of, and contributors, to overall physical activity.

Data have been gathered from routine sources across five of the "7 best investment" areas (schools, transport systems, urban design, sport for all and integration of physical activity in primary care - see table 1). It has been more challenging to develop numerical indicators around public education or community-wide programmes. Given this it is important, when interpreting findings, to remember that education, communication and community engagement will be vital components of any efforts to increase physical activity.

Having hosted the Commonwealth Games in 2014, Glasgow now looks forward to being co-host of the 2018 European Championships. There are a number of existing and proposed legacy outcomes for the Glasgow 2014 Commonwealth Games and Glasgow 2018 European Championships that overlap with this profile; where this occurs we have sought to align the sources used to support comparability. The methods of indicator selection for the profile are outlined below, and detail about the data sources employed is provided in appendix 3, including identification of where there is overlap with Active Scotland and Legacy outcomes.

By exploring how active we are across a range of topics which are known to be important for overall physical activity we can start to understand some of the detail about who is active and how. The profile is structured around evidence-based areas of action, and as such should serve as a prompt to consider where and how we need to take action to increase activity. This is a tool to help us reflect on our performance as a city in working together to make a place which is safe, attractive and accessible to move around and play in.

Methods

Indicator selection

Indicators were selected to reflect as closely as possible the '7 best investments' outlined in box 1. Measures were identified to reflect both current behaviour across a range of activities, and the presence and functioning of infrastructure and services to support physical activity. Where appropriate indicators could not be identified there are suggested areas for additional data gathering or presentation presented in appendix 3.

Assessment of sources

Data sources were assessed for reliability and validity for our population, and we aimed to use sources that are accessible, and measures that are reproducible in order that the profile can be repeated.

Sample size

In order that the group sampled in our geographical area was sufficiently large to permit analysis, several years of survey data were combined; details are given under each indicator, and in appendix 3.

Assessment of difference

Where a difference is reported in the profile, this represents a statistically significant difference (at a 95% confidence level) between the proportions observed in the groups being compared.

Interpreting associations

Where associations are reported this does not imply that one thing causes the other. There are likely to be many mediating or confounding factors in any given relationship, and the finding here of an association should serve as a prompt to explore these in more detail.

Limitations

When exploring differences between population groups the available sample size is in some cases too small to permit analysis. The need to aggregate several years' data for many outcomes means that tracking trends at city level will take some time. For some indicators sources were not identified at city-level, and data were used instead from the Scottish Health Survey, and presented at Health Board level (Greater Glasgow and Clyde). Whilst Glasgow City forms a significant portion of this population, there is variation between the local authority areas that should be recognised when interpreting these findings.

Tabl	e 1: Summary of indicator outcomes				Glasgow trend	
No	Indicator Glas	_	Scotland	30 yrs	5 yrs	
•	Overall physical activity			yı3	yı	
1	Adults' activity - % achieving recommended 150 mins per week	63 9	% 63%		(
2	Inactive adults - % less than 30 mins activity per week	22			· ←	
3	Children's activity - % achieving recommended 60mins per day	74			· (
4	Inactive children - % less than 30 mins activity per day	9 %			· ←	
	Whole school approach	<i>,</i>	0 1070			
5	Travel to school - % children who usually walk/cycle/scoot	559	6 50%	4	1	
6	Provision of PE - % schools providing recommended amount of Physical Education	999		•	*	
7	Doing school PE - % of secondary school children who do school PE at least twice a week	74				
8	Out-of-school activities - % of pupils who participate in Active Schools,	47 9			1	
	and sessions per participant	19.				
9	Active play - % of children who play actively for at least 30mins per day	42 9	% 49%		1	
10	Links between school and community - % of schools with a link to a local sports club,	95 9			←	
10	and links per school	5.4	9.3		`	
	Transport systems					
4.4	Active commuting - % of adults who walk/cycle	24 9	% 18%			
11	or use public transport to get to work	279	6 15%	\	1	
12	Walking for transport - % of adults who walked at least ¼ mile in the past week, for transport	70 9	% 67%		1	
13	Cycle traffic volume – daily journeys to/from city centre	9,6 6	8		1	
14	Safe streets - % streets with a 20mph limit	179	%		1	
15	Cycling investment - % of local authority transport budget invested in cycling	3.8% 2.8			1	
	Cycle infrastructure – km of cycle routes and ratio to road length		l.			
16					1	
	and ratio to road length	0.1				
17	Road traffic volume – million vehicle km travelled on local authority roads per year	2,0 5	6		1	
	Urban design					
18	Greenspace access - % who report living within 5min walk of greenspace	59 9	% 64%			
19	Use of greenspace - % who report using their local greenspace at least once per week.	39 9	% 45%			
20	Access to play areas - % parents report there are areas for play in their neighbourhood	87 9	% 89%			
21	Community safety for play - % parents who feel there is somewhere safe for their children to play in the local area with 2-3 friends.	719	% 80%			
22	Safe streets at night - % adults feel safe walking in their local area after dark	81 9	% 87%		1	
23	Safe streets – annual pedestrian road casualty numbers and rate per 1,000 population	398 0.5		4	1	
	Sport for all					
24	Adults' sport - % participated in the past 4 weeks	44 9	% 47%	\		
25	Recreational walking - % walked at least 30mins for leisure in the past 4 weeks	63 9	% 65%	1	1	
26	Children's sport - % participated in the past week	66 9	% 67%		←	

27	Use of leisure facilities - % used local authority sports and leisure facilities at least once in the past month.					27%		
Integration of physical activity into primary care								
28	Assessment of physical activity - % patients with high blood pressure were assessed for levels of physical activity							↑
29	Use of support for behaviour change – referrals to Live Active exercise referral scheme per 1,000 population 4.7							4
KE Y	Glasgow level significantly worse than Scotland	Glasgow level significantly better than Scotland	No comparable data available	↔ No chang	e Inc	↑ reased	Decrease d	

Background: the people of Glasgow

Population

- In 2015 the population of Glasgow City was 606,340.
- 52% are women and 48% men the same as Scotland.
- A larger proportion of the population are in younger age groups, compared with Scotland (see Figure 1). The median age is 37 for women and 35 for men, 5 years younger than Scotland.
- 12% of the population are from an ethnic minority group, compared with 4% in Scotland overall.
- 23% of people live with a limiting long-term condition, compared with 20% nationally.



Figure 1: Age structure of population, Glasgow City and Scotland, Census 2011

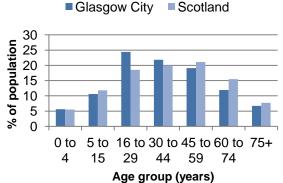
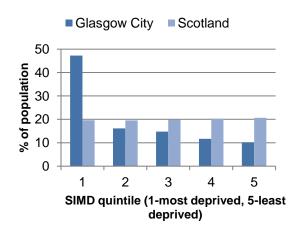


Figure 2: Population distribution by SIMD 2016 quintiles, Glasgow City and Scotland

Poverty and deprivation

- Glasgow City contains a disproportionate number of the most deprived areas of Scotland; 47% of people in live in the most deprived areas (SIMD quintile 1) (see Figure 2).
- One in five of the population are income deprived (21%), a significantly higher proportion than across Scotland (13%).
- Glasgow City has 29% of children living in poverty, the largest proportion of any Scottish Local authority, and significantly higher than the Scottish level of 17%.



Transport options

- In Glasgow half of households don't own or have access to the use of a car, compared with 29% nationally.
- Only 21% of household have a bicycle available for use by adults, compared with 35% nationally.

Overall physical activity

The 2011 UK recommendations state that adults should do at least 150 minutes of moderate physical activity per week, in bouts of at least 10 minutes duration, or 75 minutes of vigorous activity. Children are recommended to do 60 minutes of moderate to vigorous activity every day(13). These thresholds reflect the evidence of the levels of activity that are required to gain the health benefits of activity, in particular to prevent diseases such as type 2 diabetes, heart disease and cancer.

The indicators

The selected indicators show the proportion of the population whose reported activities meet the guidelines, and also the proportion that has very low levels of activity. The data used are from the Scottish Health Survey, and are therefore shown at health board level (Greater Glasgow and Clyde).

Summary of findings

Comparison: Levels of physical activity are similar in Greater Glasgow and Clyde to the overall levels in Scotland: 63% of adults and 74% of children meet the recommended levels of activity, whilst nearly 1 in 4 adults and 1 in 10 children have very low levels of activity.

Trend: There is no clear change in overall levels of physical activity over the past 9 years.

Inequality: Among adults' women, older people, people from a poorer socioeconomic background and those with a disability or long-term condition are less likely to meet physical activity recommendations. At national level people from an ethnic minority are also less likely to meet recommendations. Among children activity levels peak at age 7-9 years. By age 13-15 years there is a significant difference in activity levels between boys and girls, and there are high levels of inactivity among teenage girls. There is no socio-economic gradient in children's overall physical activity.

Discussion

The achievement of similar levels of physical activity in Glasgow to Scotland is notable, especially given the high levels of socio-economic deprivation in the City. The city population is younger than that across Scotland, which is likely to contribute to this achievement, given the reduction in activity that is observed with age. The patterning of inequality in activity appears reflects that seen at national level.

- 1. Active adults: 63% of adults in Greater Glasgow and Clyde do at least 150 minutes of activity per week.
- 2. Inactive adults: 23% of adults in Greater Glasgow and Clyde do less than 30 minutes activity per week.

Source: Scottish Health Survey 2012/13/14/15 combined

Comparison: These levels are not significantly different from those seen across Scotland as a whole. **Trend**: There is no significant trend in the overall proportion of the GGC population meeting the 2011 guidelines over the past 4 years, or in the proportion meeting the pre-2011 guidelines since 2008. There is no significant trend in the proportion of the GGC population who are inactive since 2008.

Inequality: The groups who are less likely to be active and the patterns of inequality are similar to those observed nationally (14)

- 68% of men meet the recommendations, a significantly higher proportion than in women (58%), whilst 1 in 4 women are inactive, compared with 1 in 5 men (20%) (see Figure 3).
- The proportion of people meeting recommendations reduces with age, with a similar pattern seen in Glasgow and Scotland (see Figure 4).
- People who live in more socio-economically deprived areas are less likely to meet recommendations: 55% of those living in the most deprived areas (SIMD1) meet recommendations compared with 70% in less deprived areas (SIMD 3, 4, 5).
- Only 42% of people with a limiting longstanding illness meet the recommendations, compared with 73% of people without a limiting long term condition.
- Previous analysis of national level data by ethnic group found that those identifying as Pakistani were significantly less likely to meet the pre-2011 recommendations (27%) compared with the national average (38%) (14), the sample size was too small to repeat this analysis at city level.

Figure 3: Proportion of people in Greater Glasgow and Clyde by level of activity according to 2011 recommendations, by gender, Scottish Health Survey 2012/13/14/15

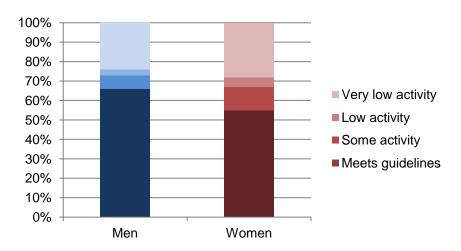
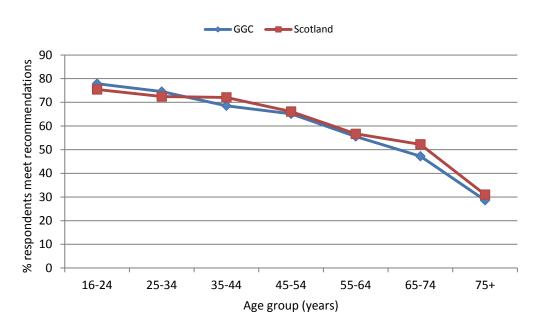


Figure 4: Proportion of people meeting 2011 physical activity recommendations by age, Greater Glasgow and Clyde, Scottish Health Survey 2012/13/14



- 3. Active children: 74% of children in GGC do at least 60 minutes activity every day.
- 4. Inactive children: 9% of children in GGC do less than 30 minutes activity per day.

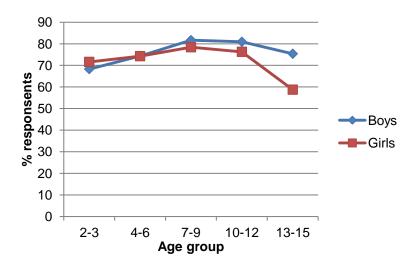
Source: Scottish Health Survey 2011/12/13/14/15 combined

Comparison: These levels are not significantly different from those seen across Scotland as a whole.

Trend: There is no statistically significant trend in the proportion of children in GGC meeting recommendations, or in those who are inactive, since 2010.

- Girls are less likely to meet recommendations that boys, and we can see this difference
 appearing in those aged under 10 years (see Figure 5). This difference is statistically significant in
 the 13-15 year age group, and this finding reflects the pattern seen nationally (14).
- Differences in physical activity by socio-economic status are not seen in childhood.
- National data show that children from ethnic minority groups are less likely to meet recommendations (14).

Figure 5: Proportion of girls and boys meeting 2011 physical activity recommendations, Greater Glasgow and Clyde, Scottish Health Survey 2011/12/13/14/15



Whole school approach to physical activity

A whole school approach to physical activity includes the provision of high quality physical education within the curriculum, and the development of programmes and environments that support informal active play and out-of- school sports. It refers to having schools where active travel is a safe, attractive and accessible option. The whole school approach also encompasses integration into the wider community, with engagement of community members to support school physical activity, and use of the school as a place which encourages activity for all(6).

Evidence and potential benefits

Physical activity is important for the physical health and well-being of our young people(15), and there is additional research which shows that being active in the school day can support concentration and conduct in the classroom(16). Evidence collated in the NICE guideline on physical activity for children and young people highlights a number of interventions with the potential to increase or maintain physical activity, including support for active travel through cycle facilities and walking buses, availability of the school estate for play, informal active play in the school day and interventions that engage both school and family(17).

The indicators

The selected indicators cover travel to school, provision of and participation in PE within the curriculum, and informal active play. Out-of-school sport is measured by participation in the Active Schools programme, and school-club links are shown as a way of assessing engagement between school and community. Wider sports participation by children is considered in the section on Sport for all.

Summary of findings

Just over half of children in Glasgow usually walk, cycle or scoot to school. This is a slightly higher proportion than the rest of Scotland; however there has been a significant reduction in walking to school in the long and short term, particularly among primary school children. There has also been an increase in being driven to school in Glasgow that is not seen nationally. Nearly all schools are providing the recommended levels of physical education, and three-quarters of secondary pupils participate in PE at least twice week. The Active schools programme has facilitated nearly half of pupils participating in out-of-school activities, and has fostered links with local sports clubs in most schools. There are, however, persistent gender inequalities in children's' activity, with girls less likely to participate in school PE and out-of-school activities.

Levels of active play are lower than the national average in Glasgow, with just 4 out of 10 children playing actively for half an hour every day.

5. Travel to school: 55% of pupils usually use active means (walk/cycle/scoot) to get to school

Source: Hands Up Survey 2015

Comparison: Levels in Glasgow are significantly higher than Scotland (50%). This is due to a higher proportion of children walking, there are lower levels of cycling in Glasgow, and equivalent levels of scooting. The proportion of children who are driven to school (28%) is higher than that seen nationally (22%), see Figure 6.

Trend: The proportion of children who walk to school in Glasgow has declined from 56% in 2008 to 50% in 2015. An increase in the levels of cycling and scooting has contributed to this, but there has also been an increase in the proportion of children being driven to school, see Figure 7. Nationally, there has been a significant decline in the proportion of children who walk to school over the past 30 years, from around 70% in 1985 (18).

- The proportion who walk to school is now equal in primary and secondary school, at 50%. This represents a significant decline for primary school children, from 58% in 2008, but an increase among secondary pupils from 46%.
- Previous analysis has found that there is wide variation in levels of walking between primary schools in Glasgow, ranging from 5% to 96% (18).

Figure 6: Usual mode to travel to school (primary and secondary), Scotland and Glasgow City, Hands Up Survey 2015.

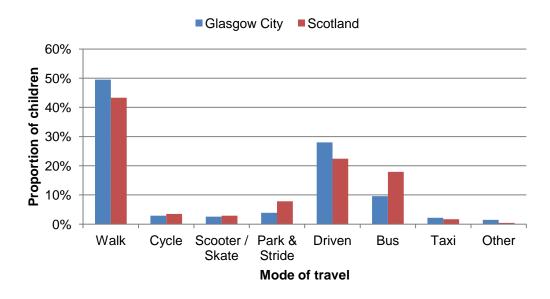
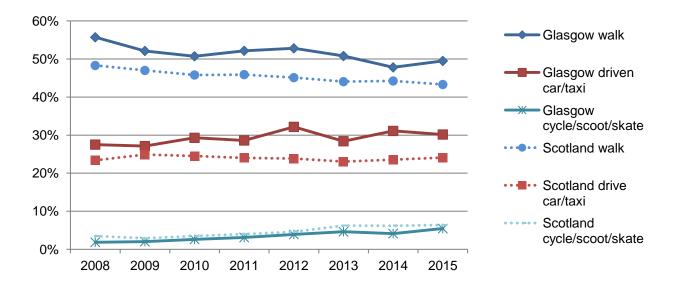


Figure 7: Usual mode of travel to school, Glasgow City and Scotland, Hands up Scotland Survey 2008-2015



6. Provision of school PE: 99% of schools provided the recommended amount of PE in 2016.

Source: Healthy Living Survey 2016

7. Participation in school PE: 74 % of secondary school pupils participate in school PE at least twice a week.

Source: Glasgow City Schools Health and Wellbeing survey 2014/15

Comparison: Across Scotland 99% of primary schools provide the recommended 120 minutes PE per week, and 95% of secondary schools provide 100 minutes per week, compared with 99% of primary and 100% of secondary schools in Glasgow.

No national comparison data are available for PE participation.

Trend: There has been some fluctuation in PE provision between years recently, but no clear trend, and attainment of this standard has been high.

- 78% of boys participate in school PE at least twice a week, compared with 70% of girls.
- Participation in school PE declines with age; 94% of 11-13 year olds participate twice a week,
 69% of 14-16 year olds and just 25% of 17-18 year olds.
- There is no significant difference in participation in school PE by socioeconomic deprivation (as measured by proportion of children entitled to free school meals).

8. Out-of-school hours sports: 47% of the school roll participated in Active schools activity sessions, with an average of 19.7 sessions per participant (631,955 sessions)

Source: Glasgow City Active Schools report 2015/16

Comparison: The proportion of the school roll participating in Active Schools is higher in Glasgow City than that seen across Scotland (43%), but the average number of sessions per participant was lower than the Scottish average of 22.6 (6,547,634 total sessions).

Trend: The proportion of the school roll participating has increased from 46% in 2013.

Inequality:

- 49% of the overall school roll are female; girls constitute 45% of distinct participants in Glasgow Active Schools, and account for 45% of the individual sessions attended.
- The proportion of session attendances made by girls declines markedly in the S4 year, from 47% in primary school, to 45% in S1-3, to 32% in S4-6.
- The peak age of participation in Active Schools is P6.
- There are no data on participation by level of deprivation.

9. Informal active play: 42% of children aged 2-12 years in Greater Glasgow and Clyde participate in at least 30 minutes active play every day.

Source: Scottish Health Survey 2012/13/14

Comparison: Levels of active play are significantly lower in Glasgow and Clyde than the overall Scotland level of 49%.

Trend: Levels of active play have increased both nationally and locally compared with those reported in 2008/09.

- Children in GGC are more likely to engage in some active play every day at the weekend (68%) than in the school week (54%), this is the same as the national pattern. 15% of children in GGC did not engage in active play on any day of the school week.
- There is no clear patterning of active play by socioeconomic deprivation.
- There is no significant difference by gender.

10. Links between school and community that support physical activity: 95% of schools in Glasgow have a link with a local sports club, with a total of 1,065 links.

Source: Glasgow City Active Schools report 2015/16

Comparison: The proportion of schools with a link is comparable to the Scotland-wide level of 97% (2450/2522). The average number of links per school in Glasgow is 5.4, lower than the Scottish average level of 9.3 links per school.

Trend: The number of links has not changed significantly in the past 3 years.

Transport systems which prioritise active travel

Active travel refers to walking and cycling for transport reasons, for example to get to work, school or the shops. Prioritising these modes of transport, alongside public transport, means developing appropriate infrastructure, running effective promotional programmes, and making active travel a central consideration in decisions about land use(6). Achieving reductions in the use of cars may also require approaches that make driving a less attractive option.

Evidence and potential benefits

There is evidence that transport planning and urban design can influence levels of active travel in cities(19). Increasing active travel is a sustainable method of improving levels of physical activity with consequent positive effects on physical and mental health. If motorised-vehicle use is reduced then there are also indirect positive impacts on health and the environment, through improved air quality, reduced emissions, reduced noise and road danger(19). Making active means of travel our priority also has the potential to make our city a more equitable place to live. Those living in more deprived areas are less likely to have access to a car, and hence depend on active and public transport, but are more likely to suffer adverse affects of vehicle transport, such as being hit by a car whilst walking(19–21).

The indicators

The selected indicators provide data on how people usually travel to work or education and the extent to which people walk for transport in general. Local data have been used to assess changes in cycling activity, and relevant infrastructure developments. Finally, overall road traffic volume is included to assess whether improvements in active travel are also accompanied by reductions in motorised-vehicle use.

Summary of findings

People in Glasgow are more likely to walk, cycle or take public transport to get around than in the rest of Scotland, with nearly 1 in 4 usually walking or cycling to work. There had been a gradual increase in active travel in recent years, but this has not been accompanied by significant reductions in car journeys. There has been progress on infrastructure to support active travel and safe streets in recent years, with an increase in 20mph limit coverage and investment in cycle infrastructure. The scale of these infrastructure changes, however, is both smaller than other cities, and remains dwarfed by the commitment of both space and resource to motorised transport.

Discussion

Half the population of Glasgow don't have access to a car, and are therefore dependent on active means and public transport to get around. The relatively high levels of active travel and public transport use are likely to reflect a combination of the urban environment, lower car ownership and investment in infrastructure seen in Glasgow City. The encouraging trend of increasing active travel needs to be matched by reductions in motorised travel, if the health benefits of reduced air pollution and an improved urban environment are to be realised.

11. Active commuting: 24 % of adults usually walk/cycle to get to work or education, and a further 27% of people use the bus or train.

Source: Scottish Household Survey 2012/13/14 combined.

Comparison: The level of active travel is significantly higher in Glasgow than Scotland, where 18% of people walk or cycle to work (see Figure 8). This is due to higher levels of walking in Glasgow; the proportion of people who cycle is the same (2%). Public transport use is also higher in Glasgow, being just 15% in the rest of Scotland.

Trend: The trend in travel over the past 40 years is defined by the rise in car use, and single-person car use, and the decline of walking and use of public transport(22).

In Glasgow City since 2000 there is a suggestion that active travel has been increasing, however it appears that this has been accompanied by reductions in use of public transport rather than falling car use (see Figure 9).

Inequality: Driving is the most common mode of travel to work in all except the most deprived quintile (see Figure 10). Those living in the most deprived areas are the least likely to drive to work and the most likely to use public transport. Cycling is more common amongst those living in the least deprived areas. There is less variation in the proportion of people walking to work, with between 19-26% of people walking across all deprivation quintiles.

Figure 8: % adults who usually walk/cycle or use bus/train to commute to work/education, Glasgow City and Scotland, Scottish Household Survey, 2012/13/14

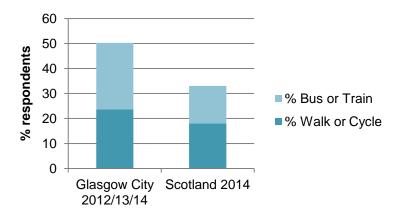


Figure 9: Usual mode of travel to work/education, Glasgow City, Scottish Household Survey, 1999-2014.

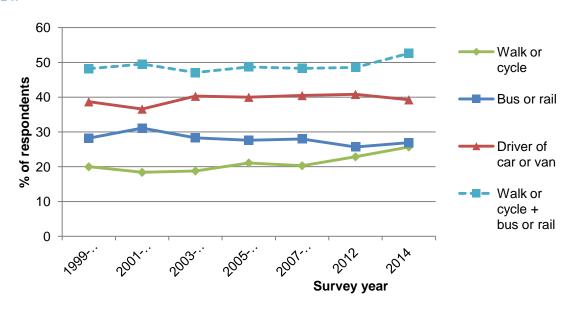
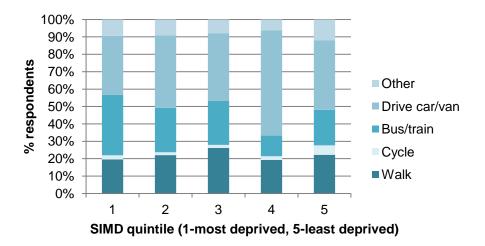


Figure 10: Adults usual mode of travel to work/education, Glasgow City, by SIMD, Scottish Household Survey 2012/13/14.



12. Walking for transport: 70% of people in Glasgow made a journey on foot of at least ¼ mile in the past week, for transport reasons.

Source: Scottish Household Survey 2013/14 combined.

Comparison: This is significantly higher than the Scottish level of 67%.

Trend: Reported walking for transport has increased from 60% in 2008/2009.

13. Cycle traffic volume: there were 9,686 cycle journeys per day to and from Glasgow City centre (cordon count Sept. 2016).

Source: Glasgow City Council Cordon Count Sept. 2016

Trend: This represents an 86% increase in the number of journeys from 5,214 in 2009.

Comparison of trend: The trend of increased cycle traffic has been observed in other areas. Edinburgh City reports an increase of 11% in cycle journeys between 2013 and 2014 (23), in the same year the Glasgow cordon count data reveals an increase of 10%.

14. Provision of safer streets for walking and cycling: 17% of unclassified streets in Glasgow City are mandatory 20mph zones (253km).

Source: Land and Environmental Services, Glasgow City Council

Comparison: In 2016 Edinburgh City reported 33% of roads having a 20mph limit, with this planned to increase to 77% in 2017 (23).

Trend: There has been a recent increase in 20mph zones; only 4% of Glasgow City roads had a 20mph limit in 2011.

Inequality: the distribution of 20mph limits by area-level deprivation has not been explored.

15. Investment in cycling: in 2013/14, 3.8% of local council transport budget was invested in cycling, and there was a total spend on cycling of 510p per person.

Source: Spokes Annual Cycle Funding Survey 2013/14

Comparison: This is higher than the overall Scotland level of 2.8% and 356p/person, but lower than other urban areas (Edinburgh City 7.5%, Aberdeen City 10.4%).

Trend: Investment has increased over time from 1.3% and spending of 183p/person in 2008/09.

16. Provision of cycle infrastructure: there are 315.5 km of cycle routes in Glasgow

Source: Land and Environmental Services, Glasgow City Council

Comparison: The ratio to overall local authority roads (1804km) is 0.17, meaning that there is 170m of cycle route for every 1,000m of local authority road. In Edinburgh there are 309km cycleway, 220m for every 1,000m of road.

Trend: There has been a 5km increase in the length of cycleway since 2016, and notably an additional 2.3km of segregated cycleway.

Inequality: the distribution of cycleway has not been explored by area-level deprivation. 76% of reported cycleway is off-road and includes paths and tracks. Within 70km of on-road infrastructure there is 6.5km of segregated cycleway.

17. Overall traffic volume: 2,065 million vehicle kilometres were travelled on Glasgow's local authority roads in 2014.

Source: Scottish Transport Statistics 2015

Trend: This represents a slight decrease of 2.4% since 2004

Comparison: Across Scotland there was a 4.1% increase in traffic volume on local authority roads over the same time period. Other urban areas, however, have also seen reductions in traffic on local authority roads (Edinburgh -2.6%, Aberdeen -1.4%).

Urban design - equitable and safe

Urban design refers to the way we organise and develop our city. The concept encompasses the transport system, the accessibility of greenspace, and the density and distribution of homes, employment and services.

Evidence and potential benefits

Urban design can influence a range of health outcomes through facilitating healthy behaviours, such as walking, reducing harmful exposures, such as air pollution, and promoting the social and economic connections that allow people to flourish(24).

Eight urban planning and design features have been identified, across which action is required to develop a healthy, sustainable city for the future (see Box 2)(19).

Box 2: Urban planning and design features necessary for healthy cities (adapted from Giles-Corti et al.p.3 (19)

- 1. Destination accessibility employment, services and facilities are accessible
- 2. Distribution of employment employment opportunities distributed across city
- 3. Demand management make driving less attractive, and public transport more attractive
- 4. Design improve connectivity and walkability
- 5. Density sufficient residential density to support businesses and transport
- 6. Distance to public transport high frequency public transport close to homes
- 7. Diversity develop mixed-use areas, with residential, commercial, public and recreational spaces
- 8. Desirability neighbourhoods and public transport options that are safe and accessible.

The indicators

The selected indicators measure people's access to green spaces and play areas, and the extent to which people use their local greenspace. Perceptions of safetly are assessed through the community safety for play and walking measures. Finally, pedestrian casualty numbers are included as an indicator of how safe it is to walk in our city. Indicators relating to active travel are considered in that section.

Summary

People in Glasgow report poorer access to and lower use of local greenspace than across Scotland; 6 out of 10 people report living within 5 minutes walk of greenspace, and 4 out of 10 report using this space at least once per week.

Children in Glasgow have similar overall access to play areas as those in the rest of Scotland, with 87% having somewhere to play in their neighbourhood. Nearly three-quarters of parents feel it is safe for their children to go out and play with their friends. There is, however, less good access to

some types of play area than in other areas, and a quarter of parents report the provision of safe play areas as a concern.

There are issues with both perceptions of safety on our streets, and with road safety in terms of pedestrian casualties. Whilst the majority of people (83%) in all areas of the city feel safe walking in their neighbourhood after dark, this is significantly lower level than across Scotland as a whole. Very substantial reductions have been made in pedestrian road casualties, but it is concerning that rates remain higher in Glasgow, and that there are marked socioeconomic inequalities in the likelihood of injury on the road.

Overall there is a picture of the impact of socioeconomic deprivation on how safe people are and how safe they feel moving around their local area. Those in the most deprived areas are the most likely to be injured by a car whilst walking, feel least safe walking in their area after dark, and are most concerned about the availability of safe areas to play.

18. Access to greenspace: 59% of people in Glasgow report that they live within 5 minutes walk of a greenspace.

Source: Scottish Household Survey 2012/13/14

Comparison: This is significantly lower than the Scotland level of 68%; for all urban areas in Scotland the level is 64%.

Trend: No trend data available due to change in survey question.

- Reported access to greenspace is lower in more deprived areas, and those on low incomes also report living further from greenspace. Among people with a net household income of less than £15,000, 53% live within 5 minute walk of public greenspace, compared with 66% of those with a household income of more than £30,000.
- Objective measures of children's access to greenspace are presented in the Understanding Glasgow Children's and Young people's profiles (25). These reveal high levels of variation between neighbourhoods, with 80% of children in Glasgow living within 400m of greenspace, but as ranging from as low as 46% in some areas, up to 97%.

19. Use of greenspace: 39% of people in Glasgow report using their local greenspace at least once per week.

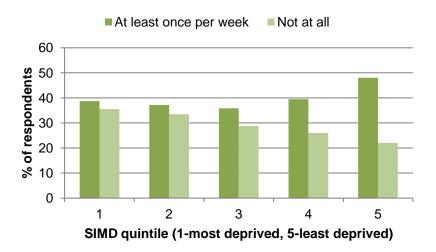
Source: Scottish Household Survey 2012/13/14

Comparison: This is significantly lower than the reported use across Scotland (45%) and across urban areas (46%).

Trend: No trend data available due to change in survey question.

Inequality: Those living in the most deprived areas most likely to never use their local greenspace (see Figure 11).

Figure 11: frequency of reported use of local greenspace, Glasgow City, by SIMD 2012, Scottish Household Survey 2013+2014



20. Access to play areas: 87% of parents of children aged 6-12 years report that there is at least one of the following areas for play in their neighbourhood: park, playground, field, sports pitch, woods or access to the school playground.

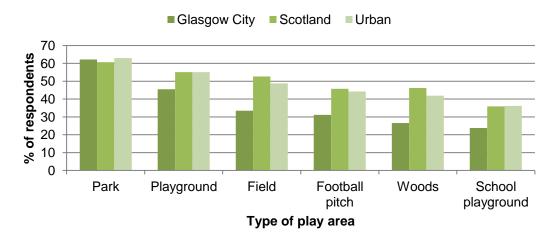
Source: Scottish Household Survey 2012/13/14

Comparison: This overall measure is not significantly different from the Scotland level of 89%. This overall measure assesses access to any one or more of these play areas, however there are differences when looking at particular types of play area. The most common area for people to have access to in their neighbourhood is a park, with similar levels in Glasgow and Scotland. Reported access to all other types of play area is significantly lower in Glasgow than the rest of Scotland, even when we compare only with urban areas (see Figure 12).

Trend: There are insufficient years of data using this question to explore trends.

Inequality: The relationship between access to play areas and deprivation is not entirely clear. The numbers available from the Scottish Household Survey are too small to permit analysis. Previous research suggests that there is no inequality in the distribution of children's playparks, but this study did not assess the quality of facilities(26).

Figure 12: % of parents reporting access to these areas for play in their neighbourhood, Scottish Household Survey 2012+2014; Glasgow City, Scotland and large urban areas.



21. Community safety for play: 71 % of parents (children aged 6-12 years) feel there is somewhere safe for their children to play in the local area with 2-3 friends.

Source: Scottish Household Survey 2012/13/14

Comparison: This is not significantly different to the Scotland level of 80%.

Trend: There are insufficient years of data using this question to explore trends.

Inequality: The Glasgow City Health and Wellbeing survey (2014) found that just under one in four (23%) Glasgow residents felt that the lack of available safe play spaces was a problem in their area. Those in the most deprived areas were significantly more likely (33%) to be concerned about the availability of play spaces than those in the least deprived (16%).

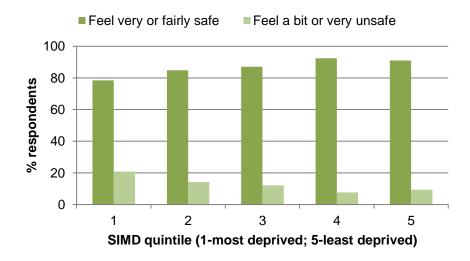
22. Safe streets at night: 83% of adults in Glasgow feel safe walking alone in their neighbourhood after dark.

Source: Scottish Household Survey 2012/13/14

Comparison: This is significantly lower than the Scotland level of 89%.

Inequality: There is a marked socioeconomic gradient in perceptions of neighbourhood safety, with one in five people who live in the most deprived areas feeling a bit or very unsafe walking alone after dark, compared with less than one in ten in the least deprived areas (see Figure 13).

Figure 13: Perceptions of how safe it is to walk alone in the neighbourhood after dark, Glasgow City, by SIMD, Scottish Household Survey 2012/13/14.



23. Safe streets for walking: in 2015 there were 398 pedestrians injured in collisions on roads in Glasgow city; 0.58 casualties per 1,000 population.

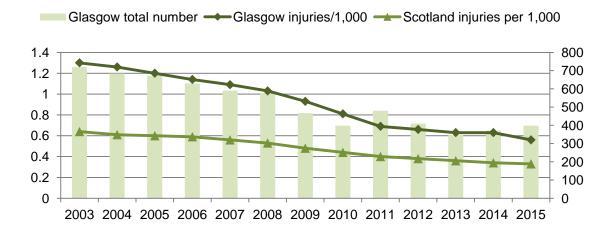
Source: Transport Scotland, reported road casualties 2015 (Stats 19)

Comparison: This is significantly higher than the Scotland level of 0.32 casualties per 1,000.

Trend: The rate of pedestrian casualties in Glasgow City has halved since 2005, although the decline appears to have slowed since 2011 (see Figure 14).

Inequality: Those living in the most deprived areas are most likely to be pedestrian casualties: a report found that in 2009-2013 children in the most deprived areas were 3.2 times more likely to be pedestrian casualties than those in the least deprived areas, and adults 2.4 times more likely(21).

Figure 14: Pedestrian casualties (police reports) per 1,000 population in Glasgow and Scotland (3 year rolling averages), and total numbers injured in Glasgow (read to right axis). Stats-19 2003-2015.



Sport for all

There are well recognised inequalities in sport participation (27); ensuring that the benefits of sport are accessible for all is the drive behind this 'best investment' and indicator group. Sport for all requires the availability of a range of activities that appeal to different sectors of the population, and the reduction of social and financial barriers to participation. Programmes and organisations can work to improve motivation, and enjoyable physical activity should be an explicit priority of sports initiatives(6).

Evidence and potential benefits

Participation in sport can contribute to meeting physical activity recommendations, with the associated benefits for physical health. There is also evidence that sport has the potential to enhance mental and emotional well-being, and can play a role in reducing anti-social behaviour and crime. Such benefits, however, are not an automatic consequence of sports participation, but are dependent on the type of sports programme, and the experiences they generate for participants(28).

The indicators

The selected indicators identify the proportion of adults and children who have recently participated in sport, as well as the participation of adults in recreational walking. An overall assessment of use of local authority sports and leisure facilities is included here. Where possible indicators are assessed for evidence of inequality by gender, age, ethnicity, presence of a limiting long-term condition and socio-economic deprivation.

Summary of findings

Just under half of adults participate in sport in Glasgow, with levels of participation significantly lower than the rest of Scotland. Nearly two-thirds of adults walk for recreation, with levels similar in Glasgow and Scotland overall, and there has been an increase in recreational walking.

There are a number of inequalities in participation, which are seen at both national and local level, that hamper our ability to say that there is 'sport for all' in Glasgow City. Women, older people, and those with a limiting long-term condition are less likely to participate in sport than others. Those living in the most deprived areas have lower levels of participation in sport, both as children and adults, and lower levels of recreational walking. Recreational walking has a more equal uptake by gender and age than sport.

Our local authority leisure facilities are used by a greater proportion of the population than in other areas, and also provide services that are used equally by men and women, and by those from white and ethnic minority backgrounds. However, those with low incomes and older people are less likely to regularly use our local authority sports and leisure facilities.

24. Adult participation in sport: 44% of adults had participated in sport in the 4 weeks preceding the survey.

Source: Scottish Household Survey 2012/13/14

Comparison: This is significantly lower that the Scotland level of 47%.

Trend: There is no clear trend in the 5 years of data available from the Scottish Household Survey. Longer-term data from Sport Scotland suggest that nationally there was a slight decline in sports participation over time, from 52% in 1994 to 46% in 2008 (29). These data also show that the decline was more marked among women than men.

- There are marked inequalities in sports participation by age, gender, deprivation, and long-term condition (see Figure 16) in Glasgow, which reflect patterns seen more widely across Scotland(14,27).
- The differences seen by ethnicity were not statistically significant, but the sample size was small.
- The pattern of reduction of participation in sport and recreational walking with age is similar in Glasgow City and Scotland; however, it is notable that this reduction appears to happen at a younger age in Glasgow City (see Figure 15). Thus those aged 46-55 in Glasgow have similar sports participation levels (40%) as those 10 years older across the whole of Scotland.

Figure 15: Participation in sport and recreational walking by age, Scotland and Glasgow City, Scottish Household Survey 2012/13/14

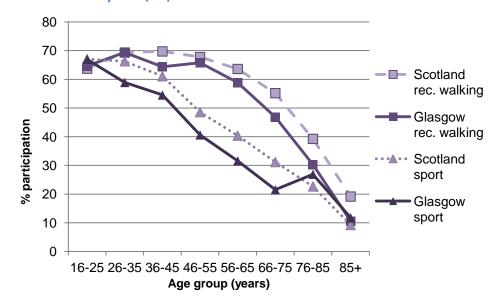
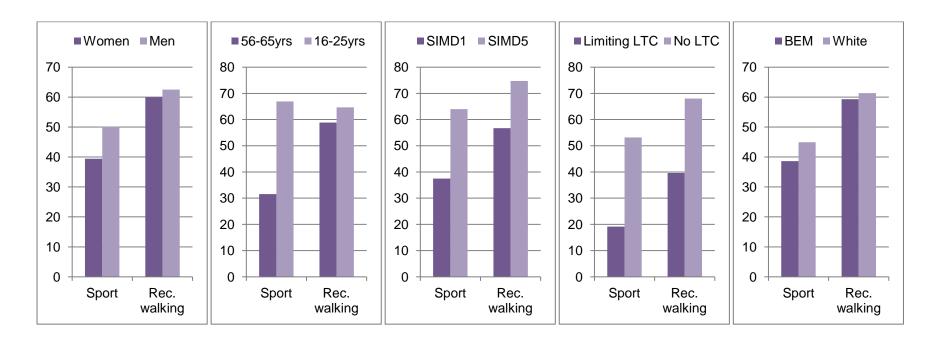


Figure 16: Participation in sport and recreational walking, Glasgow City, by gender, age group, deprivation (SIMD), limiting long-term condition (LTC), and ethnicity, Scottish Household Survey 2012/13/14



Notes: SIMD 1 – most deprived, SIMD 5 – least deprived, LTC – long-term condition, BEM – black or other ethnic minority

25. Recreational walking: 63% of adults walked at least 30mins for leisure in the past 4 weeks.

Source: Scottish Household Survey 2013/14/15 combined

Comparison: This is not significantly different from the Scotland level of 65%.

Trend: Levels of recreational walking have increased over time, with reported participation in Glasgow in 2007/08 of 47%.

Inequality: Inequalities in participation by gender, ethnicity and age are lower for recreational walking than they are for sport, but participation in recreational walking is lower in more deprived areas, and for those with limiting long-term conditions (see Figure 16).

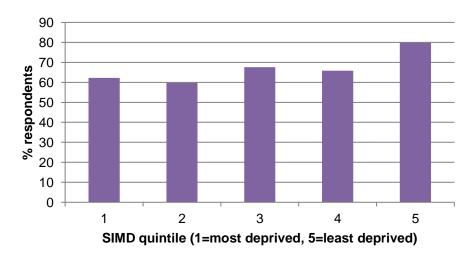
26. Child sport participation: 66% of children aged 2-15 years in Greater Glasgow and Clyde had participated in sport in the week preceding survey.

Source: Scottish Health Survey 2012/13/14 combined

Comparison: This is not significantly different to the Scotland level of 67%. **Inequality**:

- Sports participation is significantly higher amongst those in the least deprived areas (80%) than in the most deprived (62%) (see Figure 17).
- Participation in sport peaks at age 7-9 years (78%) after which it begins to decline, reaching 61 % at 13-15 years.
- There was not a statistically significant difference in participation by gender.

Figure 17: Child sport participation in the past week, by SIMD 2012, Greater Glasgow and Clyde, Scottish Health Survey 2012/13/14 combined.



29. Use of local leisure facilities: 30% of adults used local authority sports and leisure facilities at least once in the month preceding survey.

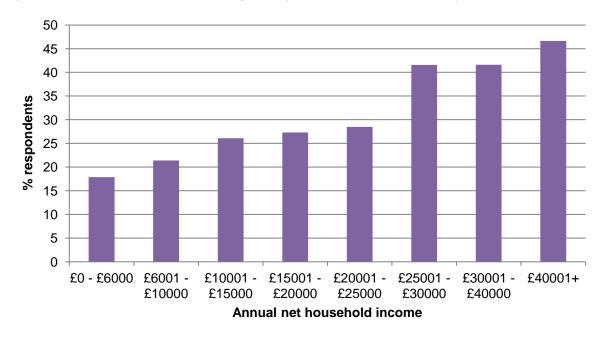
Source: Scottish Household Survey 2012/13/14 combined

Comparison: Use of leisure facilities is significantly higher in Glasgow than the Scotland level of 27%. **Trend**: There are insufficient years of data with this question to explore trends. Overall attendances at local authority leisure facilities are a standard performance indicator for local government. Within Glasgow these increased year-on-year between 2010 and 2014, but attendances have declined in the past 2 years(30).

Inequality:

- Women are as likely as men to use facilities at least once a month (30%), and there is no significant difference in the frequency of reported use.
- Ethnic minorities are as likely to use facilities (29%) as those who are white (30%).
- Use remains at around 40% among those aged 16-45 years, and then declines quite steeply with age.
- No significant differences in use were observed by area-level deprivation (SIMD), however
 household income shows a clear association with use (see Figure 18). Just 18% of those in the
 lowest income groups use facilities once per month, compared with 47% in the highest income
 group.

Figure 18: % of adults who use local authority sports and leisure facilities at least once per month, by annual net household income, Glasgow City, Scottish Household Survey 2014.



Integration of physical activity into primary care

Integration of physical activity into primary care means developing our services so that inactivity is appropriately recognised and acted upon within as a risk factor for many health conditions. Levels of activity should be assessed as part of disease prevention, and there should be access through health care services to brief interventions and community-based support to facilitate behaviour change(6).

Evidence and potential benefits

Using contacts with primary care services to promote physical activity has the potential to reach those sectors of the population where there is the highest prevalence of inactivity, such as older people and those with long-term conditions. There is evidence that brief advice delivered in primary care can increase levels of self-reported physical activity(31). Exercise referral schemes allow primary care practitioners to refer patients for assessment and activities to increase their levels of physical activity. There is great diversity in exactly what such programmes consist of, and as such the evidence on them is mixed. Current guidance suggests that they are most likely to be effective if they incorporate individual behaviour change approaches, and are used for inactive people with existing health conditions or additional risk factors(32).

The indicators

Indicator 28 looks at whether physical activity levels for patients with high blood pressure (hypertension) are assessed and provided advice in primary health care using a validated tool (the Scottish-Physical Activity Screening Questionnaire - Scot-PASQ). Indicator 29 uses locally collected service data on the NHS Greater Glasgow and Clyde exercise referral scheme, Live Active. This allows us to assess the degree to which primary care practitioners are using this community-based support for behaviour change.

Summary

Nearly all patients with high blood pressure have their levels of physical activity assessed as part their management and disease prevention. It is not clear; however, to what extent this is representative of the wider approach to assessing physical activity in primary care. There is an exercise referral scheme, Live Active, in place across NHS Greater Glasgow and Clyde which provides access to evidence-based behaviour change interventions for people with low activity. Primary care practitioners are referring many patients from those groups who are less likely to be active, which provides evidence that the potential benefits of activity are being recognised within health care. Referral numbers are relatively low in Glasgow City and have fallen across GGC in recent years.

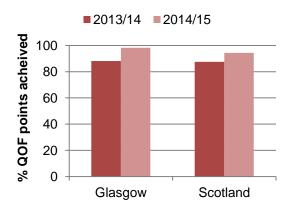
30. Assessment of physical activity in non-communicable disease prevention: 98% of patients with hypertension received physical activity assessment and advice utilising the Scot-PASQ.

Source: ISD Scotland, Quality and Outcomes Framework data

Comparison: Across Scotland there was 94% attainment of this standard.

Trend: Attainment in Glasgow increased from 88% in 2013/14 (see Figure 19).

Figure 19: Percentage of QOF points achieved for CVD-PP03(S) - physical activity advice for those with hypertension



31. Use of community-based support for behaviour change: in 2015/16 there were 4.7 referrals to Glasgow Life Live Active per 1,000 adult population (2,407 referrals).

Source: Live Active service data, NHS Greater Glasgow and Clyde

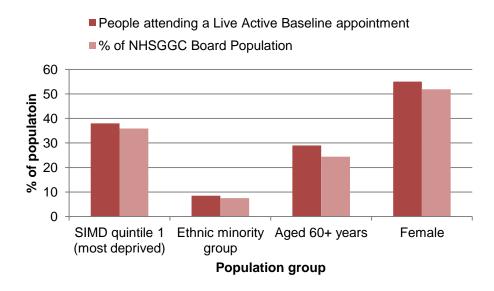
Comparison: Across Greater Glasgow and Clyde (GGC) there is an average of 5.7 referrals per 1,000 adults, ranging from 4.2 to 11.2 between local authorities.

Trend: The trend over time shows falling referral numbers since 2012/13, when in Glasgow City there were 3,776 referrals; 7.5 referrals per 1,000. The same pattern is seen across GGC where referrals were 7.8 per 1,000 in 2012/13.

Inequality:

- Referrals to the service are received from 95% of General Practices in Glasgow City, but referral
 rates are highly variable between practices.
- Women, older people, those from an ethnic minority and those in the most deprived areas are
 at least proportionately represented among first attendances, compared with the base
 population (see Figure 20).

Figure 20: Comparison of attendances at Live Active baseline appointment and NHSGGC population, by population group, NHS Greater Glasgow and Clyde, 2015-16.



Conclusion

This profile has brought together a wide range of data to inform a broad overview of physical activity and active infrastructure in Glasgow City. Overall levels of physical activity, and inactivity, among adults and children, are similar in Glasgow City to Scotland as a whole. There had not, however, been a detectable change in the level of physical activity over the past decade, and there are persistent inequalities in levels of activity. We should also not restrict our ambition in relation to physical activity, comparing internationally there are many countries with higher levels of physical activity than Scotland. As a city we can seek to exceed the national average and lead the way in increasing physical activity to improve the health and wellbeing of our population.

Within our schools there is near universal provision of the recommended curricular PE sessions, and the Active Schools programme is providing out-of-school sports opportunities and supporting links between schools and the wider community. It is concerning, however, that there is an ongoing decline in the proportion of children, particularly of primary school age, who walk to school. Furthermore children in Glasgow are less likely to regularly play actively than those across Scotland. These data suggest that many of our children are missing out on the opportunity to build fun physical activity into their daily lives as a norm.

People in Glasgow are more likely to walk, cycle or use public transport to get around than in other areas of Scotland. This is likely to reflect lower car ownership here, the urban environment, and also investment in active travel promotion and infrastructure. There has been investment in cycling and progress in developing the 20mph zones that make active travel both safer and more appealing. Yet driving is still the most common way for people to get to work, and whilst pedestrian casualty rates have reduced considerably, but they remain high compared with other areas. Reductions in motorised travel will be necessary if we are to realise benefits of improved air quality, road safety and more equitably meet the needs of those who do not have access to a car.

The finding that people in Glasgow report less good access to greenspace than other areas may come as a surprise to many, given the excellent greenspace available in some areas of the city. It suggests that attention should be paid to both the distribution and quality of our greenspaces if we are to realise the potential health benefits they offer. The work done for the Understanding Glasgow Children and Young People's profiles reveals the variability in children's access to greenspace at neighbourhood level. One factor associated with greenspace access and use is area-level deprivation, with those living in the most deprived areas less likely to report living close to

greenspace, and are less likely to use their local greenspace. Similarly safety for walking also varies with deprivation. 1 in 5 people in the most deprived areas don't feel safe walking in their neighbourhood after dark, and pedestrian casualty rates are highest in the most deprived areas. These are the same areas where people are more likely to be restricted in their transport choices to walking and public transport, due to low car and bike ownership.

Levels of adult sport participation are lower in Glasgow City than across Scotland, and there are marked inequalities in who participates, with women, older people, those with a long-term condition and those living in more deprived areas less likely to participate in sport. Given the high proportion of our population who live in socio-economically deprived areas, lower levels of participation by this group is likely to play a significant role in the overall level of sport participation in the city. It is concerning, therefore, that although the overall level of sport participation in children is similar to the national level, we can already see a socio-economic differential in participation among children. Recreational walking appears to be an activity that currently has a broader appeal, with lower levels of inequality for women and older people, although they persist for those living in deprived areas and with a limiting long-term condition. Similarly our local authority leisure facilities are well-used relative to the rest of Scotland, and use is equal by gender and ethnicity. There is, however, a clear gradient in use by household income, with just 17% of those from low income households making use of leisure services.

The available data suggest good levels of assessment of physical activity in primary health care among patients with high blood pressure; however it is not clear the extent to which this represents the overall approach within health services. There is an established exercise referral scheme from health care, which uses the recommended behaviour-change approach. There is evidence that this service reaches many of the groups less likely to meet activity recommendations. Recent falls in referral rates, however, suggest an ongoing need to raise awareness of the importance of physical activity among health professionals.

Reflecting back on the "7 best investments" around which this profile is structured, we can see that there are areas where current investment and action is delivering benefits. It is also possible to highlight opportunities for where improvement is likely to contribute to increases in activity. Around the whole school approach to physical activity we can seek to reverse the decline in active travel to school. To do this will also require further prioritising walking and cycling within our transport system. Making active travel safer, through, for example, the extension of 20mph zones and

cycleways can facilitate greater physical activity through transport. Other elements of our urban environment can also be made more conducive to physical activity; equitable access to greenspace and safe play areas can support walking for leisure, and active play. In aiming to provide opportunities for "sport for all" we must continue to address the socioeconomic inequality in children's sport participation. Within health care there is a need to build on work to mainstream the importance of physical activity for disease prevention, and ensure a range of activity opportunities for both staff and patients.

We need to increase our levels of physical activity across the population if we are to realise the health and well-being benefits it offers, and avoid the harms of inactivity. There is the potential to develop our city into a place where physical activity is the norm for all people within their daily lives, and where we have schools, streets, spaces and services that support this. There are positive commitments on many of these individual topics in our city. Working together across a range of sectors to realise these commitments offers a potentially beneficial way of working. Taking a community-wide approach, engaging a range of partners and integrating policies and action across an area has been found to be more effective for increasing physical activity than an individual programme approach.

From the evidence underpinning this profile, and the data presented here, we suggest three initial areas for action:

- 1. To engage with the wide range of partners and use a common strategic direction to drive implementation of evidence-based actions to increase physical activity.
- **2.** To prioritise making our city a walking city and build upon already high levels of walking for transport and recreation. Reshaping our city to favour active travel can increase levels of physical activity and help address health inequalities. Recreational walking is an activity undertaken by the majority of the population, and which appears to appeal to a broad spectrum of people. Suggested actions that would support this include:
 - Widespread implementation of 20mph speed limits to improve road safety and make walking more appealing.
 - Ensuring the availability of safe walking routes to school, and the promotion of walking through schemes such as walking buses.
 - Ensure that the distribution and quality of greenspace provides accessible, safe and attractive local areas for recreational walking.

- Planning decisions should consider connectivity and walkability, and be able to demonstrate how this has informed decision-making.
- Further development of volunteer-led recreational walks and community-based approaches to enhance engagement.
- Further develop the role of health care services in signposting and referring to walking opportunities.
- Additional data sources should be explored to inform this process, along with supporting evidence for interventions and evaluation.
- **3. To prioritise active play by children**, including informal active play and sport participation. Active play for children is vital not only for physical activity, but for well-being and development. Our children should have the opportunity, encouragement and space to play actively every day. We must continue to develop our understanding of the barriers to play and sport, including among girls and those living in deprived areas. Suggested actions that would support this include:
 - Ensure that the distribution and quality of play areas provides accessible, safe and attractive local areas for active play.
 - Ensure that schools are supporting active play both within the school day and beyond through the provision of attractive indoor and outdoor environments that encourage active play, promotion of play and making facilities available for use out of school hours.
 - Widespread implementation of 20mph speed limits to improve road safety and make outdoor play and walking to play areas safer and more appealing.
 - Further development of programmes to support parents and carers in developing,
 supporting and encouraging active play.

"Researchers, research funders, and practitioners and policymakers in culture, education, health, leisure, planning, and transport, and civil society as a whole, all have a role. We should embrace the challenge of taking action to a higher level, aligning physical activity and health objectives with broader social, environmental, and sustainable development goals." (Reis 2016 (33))

Appendix 1: Active Scotland Outcomes Framework Glasgow chart

Glasgow comparison chart for the Active Scotland Outcomes Framework

Indicators broken down by Health Board

	Indicator	Weighted count	Greater Glasgow and Clyde proportion	Scotland average	Scotland Health Board lowest	Scotland range	Scotland Health Board highest
1	Percentage of active adults	1828	63	63	59	•	66
2	Percentage of active children	654	74	74	63	C	84
3	Percentage of inactive adults ^a	668	23	21	27ª	•	17 ^a
4	Percentage of inactive childrena*						
5	Children's active play	301	42	49	42	•	65
6	Sports participation - children	593	66	67	60		81

For inactivity indicators, large values are on the left and small values on the right to reflect that better performance is indicated by smaller numbers.
 * Base too small to calculate significance.

These indicators are based on data from the 2012-13-14 Scottish Health Surveys. Therefore, the Scotland average may differ slightly from the latest single year figure published on the Active Scotland Outcomes Framework

Indicators broken down by Local Authority or Police Division

	Indicator	Weighted count	Glasgow proportion	Scotland average	Scotland Local Authority lowest	Scotland range	Scotland Local authority highest
7	Recreational walking participation in adults	1405	63	65	55	•	83
8	Frequency of active participation	842	49	48	33	•	70
9	Active recreation in older people	192	52	57	44	•	73
10	Attendance at leisure facilities	664	30	30	23		44
11	Active travel to school	208	52	53	18	C	67
12	Satisfaction with leisure facilities	1097	49	53	37	•	87
13	Greenspace accessibility	1322	59	68	52	•	89
14	Adult active travel	775	70	67	39	•	86
15	Community safety for play	105	71	80	61	•	100
16	Safety of neighbourhood for walking	988	69	74	65	•	89
17	Active volunteering workforce*						
18	Sports participation - adults	1087	49	52	41		62

			Primary	schools		Secondary Schools			
		Glasgow proportion	Scotland Local Authority lowest	Scotland average	Scotland Local Authority highest	Scotland avera		Scotland average	Scotland Local Authority highest
19	PE provision	99	80	99	100	93	57	93	100

These indicators are based on data from the 2013-14 Scottish Household Surveys. Therefore, the Scotland average may differ slightly from the latest single year figure published on the Active Scotland Outcomes Framework. The exceptions are: Indicators 14 and 15 uses the 2014 Scottish Household Survey, Indicator 16 uses the 2014-2015 Scottish Crime and Justice Survey and is based on Police Division boundaries, Indicator 19 uses the 2015 Healthy Living Survey.



With thanks to the West Midlands Public Health Observatory for the spine chart template.

Appendix 2: Summary of relevant policy and strategy commitments

Title	Author	Year	Level	Relevant	Key relevant commitments
				Topic Areas	
A More Active	Scottish	2014	National	School	By 2019
Scotland	Government				>Education staff have the appropriate knowledge and skills to promote increased
					physical activity
					> All places of learning can demonstrate the use of their estate and green space for
					physical activity
					> All places of learning can demonstrate that pupils, students and staff have increased
					levels of physical activity
					By 2024
					>Children and young people, and those who teach them, will be more physically active
				Active travel	By 2019
					> More children and students use active travel to get to their places of learning
					> More people use active travel for work
					> More people use active travel for leisure
					By 2024
					> Active travel as the norm for short, everyday journeys
				Urban	By 2019
				design	> The NWS, CAPS and Designing Streets will be implemented
					> 20 mph zones will be widely introduced in residential and shopping areas
					> Urban and rural environments will be designed to increase physical activity
					By 2024
					> Better designed environments that encourage physical activity

				Sport for all	By 2019
					>More children will have opportunities for active and outdoor play
A More Active					> The coach and volunteer workforce will have the knowledge and skills to promote
Scotland cont.					increased physical activity
					> All Community Sports Hubs will be in place (signposting both inactive and active
					people on how to be more active) with at least 50% in schools
					> There will be an increase in grass-roots participation in sport by all
					By 2024
					>More children will routinely take part in play, sport, or other forms of active
					recreation > More adults will routinely take part in sport, or other forms of active
					recreation
				Integration	By 2019
				into primary	>The National Physical Activity Pathway will be embedded in all appropriate clinical
				care	settings across the healthcare system
					> Hospitals will routinely support patients and staff to be more physically active
					> New links will be forged between the health system and the community, enabling
					signposting to local opportunities
					> Integrated care services will routinely take account of physical activity
					By 2024
					>More people will be physically active as a result of interventions by health and care
					services, resulting in fewer people requiring treatment
National	Scottish	2014	National	School	19. More students and staff (nursery, primary, secondary, college and university)
walking	Government				should be enabled to walk to, from and during their learning day with more access to
strategy	COSLA				outdoor learning spaces
				Active Travel	20. Reduce greenhouse gas emissions from everyday short journeys through
					promotion and facilitation of everyday walking for short journeys
					21. Make Scotland's roads safer for pedestrians and other users.

National walking strategy cont.				Urban Design	15. Review progress and consider further action required to ensure that all households in Scotland's urban areas are no more than 5 minutes walk from publically accessible and attractive greenspace or local path network 16 The provision of easy grade paths across the public estates should be increased (urban and rural) 17. High-quality walking (and cycling) networks across local authority area should be created (on a par with roads development, repair and maintenance) and existing routes promoted effectively 22. Strengthen training and other resources for practitioners in paths and greenspace design, construction, maintenance and management 24. Increase the perception of security for walking environments (e.g. via landscape/public realm design and maintenance)
				Integration into primary care	11. Health and Care Service providers should proactively facilitate walking opportunities within their delivery programmes e.g. GP referral
Raising the bar	sportscotland	2015	National	School	"A positive sporting experience in schools, colleges and universities is key to building young people's competence and confidence in sport and for building solid foundations for lifelong participation. A strong connection between the people working in schools, colleges and universities, local clubs, and governing bodies of sport are a key aspect of the system. The role of the school, college and university estate in providing places for sport must continue to be a priority for all partners."
				Sport for All	"Sports clubs play a key role in delivering sporting opportunities within communities and helping aspiring young participants and athletes develop and learn. Community environments also offer less competitive, more recreational opportunities to a wide range of people, that can sometimes be a springboard to more organised participation. In all cases, it is important that people experience world class environments and support in whatever way they participate." "Ensuring that sport is accessible to people, recognising that both inequality and discrimination exist in sport. Widening access means understanding and addressing the needs of people who share the protected characteristics, as well as the complexities associated with socio-economic disadvantage, and the exclusion that can be experienced in some rural parts of Scotland."

Play strategy	Scottish Government	2013	National	School	"Most children and young people will spend around 1500 hours of their life in their school playgrounds; for many this will be more than in any other outdoor play setting. School grounds are also places where children and young people can take an active role in developing and looking after their play spaces, building a sense of ownership and active participation. In some areas school playgrounds are accessible out of school hours to the wider community, providing thousands of extra hours of play opportunities for children and young people. There is a need to build on these successes so that regular free play becomes a reality for all children and young people in every nursery and school, particularly outdoors, embracing play in all weathers and ensuring ongoing maintenance and stewardship of outdoor play spaces."
				Urban Design	"The type of environments available for play have a major impact on the nature of that play so careful consideration should be given to the planning and design of public spaces and particularly for communities within the built environment. Children and young people should have access to play spaces, whether they are park areas or informal spaces where they choose to play." "There should be clean, safe and welcoming spaces for children and young people to play and gather where they are not considered a nuisance by others in their communities." "Outdoor play opportunities are needed at all ages and stages as a frequent part of family life."
National Transport strategy	Scottish Government	2016	National	Active Travel & Urban design	 Promote social inclusion by connecting remote and disadvantaged communities and increasing the accessibility of the transport network; Protect our environment and improve health by building and investing in public transport and other types of efficient and sustainable transport which minimise emissions and consumption of resources and energy; Improve safety of journeys by reducing accidents and enhancing the personal safety of pedestrians, drivers, passengers and staff; and Improve integration by making journey planning and ticketing easier and working to ensure smooth connection between different forms of transport
Cycling Action Plan for Scotland	Transport Scotland	2017	National	School	7. Continue to support the 3 levels of the UK national standard Bikeability cycle training programme to encourage e 100% of schools participating to deliver training, provide access to cycles and secure parking to increase cycling at all levels.

Cycling Action Plan for Scotland cont.				Active Travel Urban Design	 Continue to deliver and maintain high quality, local infrastructure to encourage people to choose active travel for short journeys Encourage and support the implementation of 20 mph streets/zones in communities across Scotland to improve road safety and encourage walking and cycling for everyday journeys. Encourage and support all 7 Scottish cities to develop and publish a Bike Life report by the end of 2018, led by Sustrans Scotland taking the learning and experience from the City of Edinburgh Council in developing its Bike Life Report published in 2015. Continue to promote a national training programme on cycling design and best practice to planners, designers and engineers, through the delivery of accredited modules such as Making Cycling Mainstream, and promote the use of planning policy - Designing Streets and Smarter Choices, Smarter Places good practice.
A long-term vision for active travel in Scotland 2030	Transport Scotland	2014	National	Active travel Urban design	Vision: "Scotland's communities are shaped around people, with walking or cycling the most popular choice for shorter everyday journeys. This helps people make healthy living choices and assists in delivering places that are happier, more inclusive and equal, and more prosperous. Travelling by foot or cycle, or with a personal mobility aid such as a mobility scooter, is a realistic option for all local journeys as individuals. People are confident to walk and cycle more often and they value and use their local transport networks (streets, roads and path networks), which offer safe, high quality, realistic and predictable journey options for active travel."
Building better schools	Scottish Government COSLA	2009	National	School	Objective 9: Schools which best serve their communities "Further develop the concept of the school as a 'community hub' – where the school accommodates and supports provision of a range of community services, eg health, community education, sport, recreation, social and cultural activity etc."
Designing streets	Scottish Government	2010	National	Active Travel	Street user hierarchy should consider pedestrians first and private motor vehicles last. Street design should be inclusive, providing for all people regardless of age or ability Public transport planning should be considered at an early stage in the design process. Street design should provide good connectivity for all modes of movement and for all groups of street users respecting diversity and inclusion.

Scottish Planning Policy	Scottish Government	2014	National	Urban Design Active travel and Urban design	Street layouts should be configured to allow walkable access to local amenities for all street users Streets should allow for and encourage social interaction 273. The spatial strategies set out in plans should support development in locations that allow walkable access to local amenities and are also accessible by cycling and public transport. Plans should identify active travel networks and promote opportunities for travel by more sustainable modes in the following order of priority: walking, cycling, public transport, cars. The aim is to promote development which maximises the extent to which its travel demands are met first through walking, then cycling, then public transport and finally through use of private cars. Plans should facilitate integration between transport modes.
Health promoting health service	Chief Medical Officer	2015	National	Urban design Integration into primary health care	Staff Health: To improve staff health and reduce staff absence Encourage and support physical activity and active travel Hospital Environment: To create an environment where healthier choices are the easy choice Develop and enhance therapeutic NHS estate green spaces Promote physical activity opportunities in and around NHS grounds Person-centred Care: To integrate prevention into clinical care and improve health outcomes Encourage Physical Activity and Active Travel
Low Carbon Scotland: Meeting the Emissions Reduction Targets 2010-	Scottish Government	2011	National	Active Travel	By 2020: at least 10% of all journeys made by bicycle Widening travel choices: more intense delivery of travel planning for schools, households and businesses; improved cycling and walking infrastructure; encouraging the formation of more car clubs; encouraging improved, more efficient local buses and taxis; and further mode shift of freight from road to rail or water where appropriate.
2022				Urban Design	Reducing the need to travel: the creation of mixed use "community hubs" in smaller settlements to reduce the distances people need to travel for work and other purposes.

Glasgow City Development Plan	Glasgow City Council	2016	Local	Active Travel	 Reduce non-essential car journeys by restricting parking and designing roads and streets that are pedestrian and cycle friendly. Minimise the impact of strategic road infrastructure on local movement networks. Repair or replace walking and cycling connections that have been lost through vehicular dominated design Promote town centres to be the focus for public transport networks by encouraging more people to visit and spend time there, by supporting a range of shops, services and community facilities, as well as increasing nearby population. Improve opportunities for movement within neighbourhoods and to the network of centres and business locations by active travel and public transport. Support employment in sustainable locations
				Design Sport for All	 Deliver environments that support healthy lifestyles, reduce harm to health and contribute to well being across the life course. Increase access to open space and the green network and improve its quality. Ensure that new development is in locations that are accessible by sustainable means, or that can be made more accessible and therefore, sustainable. Define and safeguard a robust and defensible green belt and direct new development and regeneration towards brownfield land. Ensure that people in existing communities have access to the open spaces they need, and create new spaces and green infrastructure in new development areas. Encourage the provision of accessible community facilities to support
Glasgow's Strategic Plan for Cycling 2010-2020	Glasgow City Council	2011	Local	School	neighbourhood living. We will give priority to sustainable modes at new schools. We will work with pupils, parents and teachers to improve the environment around existing schools. We will continue to provide Bikeability training in schools and expand this to ASL schools (where appropriate). We will seek to include Bikeability/ cycling within the school curriculum.
Glasgow's Strategic Plan for Cycling 2010-2020 cont.				Active Travel	Continue to design and implement new routes and facilities using Cycling By Design as the minimum standard. Implement an ongoing monitoring programme for delivery and maintenance of the network. We will continue to implement 20mph zones.

				Urban Design	All relevant major investment decisions and infrastructure projects will support active travel. Wherever appropriate, we will require new development to contribute to the creation of a cycle- friendly environment.
Glasgow City Council Traffic and Road Safety Plan to 2020	Glasgow City Council		Local	School	To improve road safety within the school zone through education and where necessary engineering interventions. To explore the creation of school safe zones during 2014. To develop and introduce online school travel plan. We will encourage schools to use road safety resources and help support their projects and initiatives as part of the road safety action plan. Schools will be encouraged to deliver Bikeability level 1 and level 2 on-road, with support from volunteers in the community.
				Active Travel	To deliver Phase 4 of the [mandatory 20mph] project and to continue to review the zones on an annual basis. Our Road Safety Unit will engage with schools to help reduce the number of road casualties involving children, in every ward in Glasgow. Road safety will be delivered, using a community-wide approach. To continue to support active travel and liaise with local and national agencies to improve the health and wellbeing of our children.
Glasgow City Centre Strategy and Action Plan 2014–19	Glasgow City Council	2014	Local	Active Travel	Improve connectivity in and around the city centre: through the creation, maintenance and improvement of walking and cycling infrastructure, the introduction of wider pavements and shared surfaces, more cycle storage facilities and hire bike options at transport hubs.
				Urban Design	Identify and invest in Integrated Green Infrastructure.

Growing a Healthier Glasgow. A	Glasgow Health Commission,	2012	Local	Overall	Rec.1: The city's partners should have a key goal at the heart of all their thinking for Glasgow: to be a child-friendly city . Rec. 20: Overarching all of the above should be a clear emphasis on tackling inequalities .
Report and Recommendati ons of the Glasgow Health	Glasgow City Council			Active Travel	Rec.6: The introduction of mandatory 20mph zones in residential areas, especially those near schools. Rec.7: A greater emphasis on safe, active and sustainable modes of transport as the main features of the city's future transport growth.
commission				Urban design	Rec. 8: Further support for Green Travel Plans. These are plans which employers make with their staff to try to optimise the use of active and sustainable transport to and from work and during the working day. Planning guidance should be adopted to require developers to include such considerations in their proposals. Rec. 12: Enhancing the role of health considerations in planning decisions. The Health Commission believes that there are real opportunities for planning and associated professionals to include health as a much more explicit aspect of their role. This includes, for instance, a focus on play areas, access to greenspace, and ensuring that walking is a key means of getting about.
				Sport for All	Rec. 2: The city can make changes in the use of its resources to reduce inequalities and promote health. - the Health Commission recommends that further work is undertaken to engage current non-users with Glasgow's cultural, sporting and leisure facilities and services, and to support the sustained use of these resources.

Appendix 3: Indicators, data sources, alternatives and national indicators

No	Area	Measureme nt topic	Indicator	Data source used	Year(s)	Also an indicator in	Alternative data sources/ notes
1	Overall activity	Adults' activity	% of adults achieving the recommended levels of physical activity (>150mins per week)	Scottish Health Survey	2012/13 /14/15	National indicator Legacy 2014 outcome Active Scotland outcome	Health and well-being survey
2	Overall activity	Inactive adults	% of adults who are inactive (less than 30mins activity per week)	Scottish Health Survey	2012/13 /14/15	Legacy 2014 outcome Active Scotland outcome	Health and well-being survey
3	Overall activity	Children's activity	% of children who achieve the recommended levels of physical activity	Scottish Health Survey	2012/13 /14/15	Legacy 2014 outcome Active Scotland outcome	Schools Health and well-being
4	Overall activity	Inactive children	% of children who are inactive (less than 30mins activity per day)	Scottish Health Survey	2011/12 /13/14/ 15	Legacy 2014 outcome Active Scotland outcome	Schools Health and well-being
5	Whole school approach	Travel to school	% of children who usually walk or cycle to school	Scottish Household Survey	2012/13 /14	Active Scotland outcome	Hands Up Survey
6	Whole school approach	Doing school PE	% of children (11-17 years) who participate in school PE at least twice per week	Schools Health and well-being	2014/15		
7	Whole school approach	Active play	% of children who participate in informal active play for at least 30mins per day	Scottish Health Survey	2012/13 /14	Active Scotland outcome	Scottish Household Survey
8	Whole school approach	Out-of- school sports	% of school pupils who participate in Active Schools sessions, and total participant sessions	Active schools report card	2015/16		

9	Whole school approach	Provision of PE	% of schools providing the recommended amount of Physical Education	Healthy living survey	2016	Active Scotland outcome	
10	Whole school approach	Links between school and community	% of schools with a link with a local sports clubs, and total number of links	Active schools report card	2015/16		
11	Transport systems	Active commuting	% of adults who usually walk or cycle and % who use public transport to get to work/education	Scottish Household Survey	2012/13 /14	National indicator Legacy 2014 outcome	Census
12	Transport systems	Walking for transport	% of adults who walked at least ¼ mile in the past week, for reasons of transport	Scottish Household Survey	2013/14	Active Scotland outcome	
13	Transport systems	Cycle traffic volume	Number of cycle journeys per day to or from the city centre	Glasgow City cordon count	2016		
14	Transport systems	Safe streets for walking and cycling	% of unclassified roads that have a 20mph limit	Glasgow City Council (LES)	2016		
15	Transport systems	Investment in cycling	% of the local authority transport budget invested in cycling	Spokes investment survey	2013/14		
16	Transport systems	Cycle infrastructur e	Total kilometres of cycle routes in the city, and relative to road length	Glasgow City Council	2016		
17	Transport systems	Road traffic volume	Million vehicle km travelled on local authority roads	Transport Scotland	2014		
18	Urban design	Access to greenspace	% of people who report that they live within 5 minutes walk of a greenspace.	Scottish Household Survey	2013/14	National indicator Active Scotland outcome	Understandi ng Glasgow CYP
19	Urban design	Use of greenspace	% of people who report using their local greenspace at least once per week.	Scottish Household Survey	2013/14		

20	Urban design	Access to play areas	% of parents who report that there are areas for play in their neighbourhood.	Scottish Household Survey	2012+1 4		
21	Urban design	Community safety for play	% of parents (children aged 6-12 years) who feel there is somewhere safe for their children to play in the local area with 2-3 friends.	Scottish Household Survey	2012+1 4	Active Scotland outcome	Health and well-being survey
22	Urban design	Safe streets after dark	% of adults who feel safe walking in their local area after dark	Scottish Household Survey	2012/13 /14	Legacy 2014 outcome Active Scotland outcome (use SCJS)	Scottish Crime & Justice Survey, Health and well-being survey
23	Urban design	Safe streets for walking	Number of pedestrians injured in collisions with motor vehicles, and rate per 1,000 population	Reported road casualties (Stats19)	2015		Hospital admissions (ICD10)
24	Sport for all	Adults' sports participation	% adults who participated in sport in the past 4 weeks	Scottish Household Survey	2014	Legacy 2014 outcome Active Scotland outcome	
25	Sport for all	Recreational walking	% adults who walked at least 30mins for leisure in the past 4 weeks	Scottish Household Survey	2012/13 /14	Legacy 2014 outcome Active Scotland outcome	
26	Sport for all	Children's sports participation	% children who participated in sport in the past week	Scottish Health Survey	2012/13 /14	Legacy 2014 outcome Active Scotland outcome	Schools Health and well-being
27	Sport for all	Use of local leisure facilities	% of adults who used local authority sports and leisure facilities at least once in the past month.	Scottish Household Survey	2012/13 /14	Active Scotland outcome	

28	Primary care	Assessment of physical activity in disease prevention	% of patients with high blood pressure who were assessed for levels of physical activity	Quality Outcomes Framework	2014/15
29	Primary care	Use of community-based support for behaviour change	Referrals to the Live Active exercise referral scheme per 1,000 population	NHSGGC service monitoring data	2015/16



References

- 1. Das P, Horton R. Rethinking our approach to physical activity. Lancet. 2012;380(9838):189–90.
- 2. Lee IM, Shiroma EJ, Lobelo F, Puska P, Blair SN, Katzmarzyk PT, et al. Effect of physical inactivity on major non-communicable diseases worldwide: An analysis of burden of disease and life expectancy. Lancet. 2012;
- 3. ScotPHO. Health and Wellbeing profile Glasgow City [Internet]. [cited 2017 Feb 2]. Available from: https://scotpho.nhsnss.scot.nhs.uk/scotpho/profileSelectAction.do
- 4. Scottish Government. A More Active Scotland: Building a Legacy from the Commonwealth Games. 2014; Available from: http://www.gov.scot/Resource/0044/00444577.pdf
- 5. International Society for Physical Activity and Health. The Toronto Charter for Physical Activity TOWARD POLITICAL COMMITMENT, POLICY ACTION AND SYSTEMS SUPPORT. 2012;1–6.
- 6. Global Advocacy for Physical Activity (GAPA) the Advocacy Council of the International Society for Physical Activity and Health (ISPAH). NCD Prevention: Investments that Work for Physical Activity. Br J Sport Med. 2012;46:709–16.
- 7. Glasgow City Council. Glasgow City Development Plan [Internet]. 2016. Available from: https://www.glasgow.gov.uk/CHttpHandler.ashx?id=35882&p=0
- 8. Glasgow City Council. Glasgow's Strategic Plan for Cycling 2016-2025. 2011. Available from: https://www.glasgow.gov.uk/CHttpHandler.ashx?id=33403&p=0
- 9. Glasgow City Council Traffic and Road Safety Plan to 2020 3.
- 10. Playing for Real 2 Glasgow's Play Strategy: 2016 2018. Available from: https://www.glasgowlife.org.uk/communities/Documents/Glasgow's%20Play%20Strategy%2 02016-18/Play%20Strategy%202016-18%20with%20appendices.pdf
- 11. Scottish Government. Local Authority Analysis [Internet]. [cited 2017 Jan 20]. Available from: http://www.gov.scot/About/Performance/scotPerforms/partnerstories/Outcomes-Framework/Dashboard/la-analysis
- 12. Reilly J, Hughes A, Johnstone A, McNeill G. Unplug & Play. Active Healthy Kids Scotland Report Card 2016. [Internet]. 2016. Available from: www.activehealthykidsscotland.co.uk
- 13. Department of Health Physical Activity Health Improvement and Protection. Start Active , Stay Active. Report. 2011.
- 14. Cruickshank G, Geyer J, O'Connor N. Active Scotland Outcomes: Indicator Equality Analysis. 2015. Available from: http://www.gov.scot/Publications/2015/11/9439/0
- 15. Janssen I, LeBlanc AG. Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. Int J Behav Nutr Phys Act. 2010;7(1):40.
- 16. Rasberry CN, Lee SM, Robin L, Laris BA, Russell LA, Coyle KK, et al. The association between school-based physical activity, including physical education, and academic performance: A

- systematic review of the literature. Prev Med (Baltim). 2011;52:S10-20.
- 17. National Institute for Health and Care Excellence (NICE). Physical activity for children and young people. 2009;(January). Available from: nice.org.uk/guidance/ph17
- 18. Glasgow Centre for Population Health. Children's travel to school are we moving in the right direction? [Internet]. 2011. Available from: http://www.gcph.co.uk/assets/0000/1126/GCPH_Briefing_Paper29_web_final.pdf
- 19. Giles-Corti B, Vernez-Moudon A, Reis R, Turrell G, Dannenberg AL, Badland H, et al. City planning and population health: a global challenge. Lancet. 2016;
- 20. Dorling D. 20MPH SPEED LIMITS FOR CARS IN RESIDENTIAL AREAS, BY SHOPS AND SCHOOLS. In: "If you could do one thing.." Nine local actions to reduce health inequalities [Internet]. 2014 [cited 2017 Jan 17]. p. 44–61. Available from: http://www.britac.ac.uk/sites/default/files/Danny Dorling 20mph Speed Limits for Cars in Residential Areas%2C by Shops and Schools.pdf
- 21. Whyte B, Waugh C. Trends in pedestrian and cyclist road casualties in Scotland [Internet]. 2015. Available from: http://www.gcph.co.uk/assets/0000/5206/Pedestrian_and_cyclist_casualties_analysis_FINAL .pdf
- 22. Whyte B. Are trends in adult active travel moving in the right direction? 2011. Available from: http://www.gcph.co.uk/assets/0000/1125/GCPH Briefing Paper28 web final.pdf
- 23. Sustrans. Bike Life Edinburgh 2015. Available from: http://www.sustrans.org.uk/sites/default/files/bike_life_edinburgh_2015.pdf
- 24. Goenka S, Andersen LB. Urban design and transport to promote healthy lives. Lancet. 2016;
- 25. Understanding Glasgow. Overview | The Glasgow Indicators Project [Internet]. [cited 2017 Jan 19]. Available from: http://www.understandingglasgow.com/indicators/population/overview
- 26. Lamb KE, Ferguson NS, Wang Y, Ogilvie D, Ellaway A. Distribution of physical activity facilities in Scotland by small area measures of deprivation and urbanicity. Int J Behav Nutr Phys Act [Internet]. 2010;7(September):76. Available from: http://www.ijbnpa.org/content/7/1/76
- 27. Research Scotland. Equality and Sport Research [Internet]. 2016 [cited 2017 Jan 17]. Available from: https://sportscotland.org.uk/media-imported/1886385/equality-and-sport-research-final-report.pdf
- 28. Coalter F. The social benefits of sport [Internet]. 2013 [cited 2017 Jan 17]. Available from: https://sportscotland.org.uk/documents/publications/social benefits of sport final.pdf
- 29. sportscotland. Sports Participation in Scotland 2008. Available from: https://sportscotland.org.uk/documents/participation/sports_participation_in_scotland_200 8_research_digest_july_2010.pdf
- 30. Local Government Benchmarking Framework. Indicators Culture and Leisure Services [Internet]. [cited 2017 Mar 2]. Available from: http://www.improvementservice.org.uk/benchmarking/cultureleisure.html
- 31. Jelley S, Lake A. Physical activity: brief advice for adults in primary care. NICE Guideline Public

- Health 44. 2013;(May):63.
- 32. NICE Guideline Public Health 54. Physical activity: exercise referral schemes. 2014;(September).
- 33. Reis RS, Salvo D, Ogilvie D, Lambert E V., Goenka S, Brownson RC. Scaling up physical activity interventions worldwide: stepping up to larger and smarter approaches to get people moving. Lancet [Internet]. 2016;388(10051):1337–48. Available from: http://dx.doi.org/10.1016/S0140-6736(16)30728-0

