Greater Glasgow & Clyde NHS Board **Board Paper No.13/22**

Adult Health & Well Being Survey Trends Report 1999-2011

Report of the Director of Public Health

The purpose of this report is to provide a summary of the key trends from 1999-2011 this allows us to monitor changes across the area, within CH(C)P's, between our most deprived areas and other areas and between age groups and gender.

The Board is asked to note the key results from the 2011 survey:

1. There has been a **modest but steady decline in smoking** since the survey began. This decline has been most marked in the most deprived areas.

2. There has been a **dramatic reduction in the proportion of respondents exposed to environmental tobacco smoke**. The ban in smoking in public places must have made an impact in this area.

3. **The proportion of respondents that exceeded the recommended limits for alcohol in the previous week has reduced**. This corresponds to a decrease in alcohol related death and a decrease in alcohol related admissions seen in routinely collected hospital and death data.

4. There has been **no change in the proportion of respondents that meet the physical activity target.**

5. There has been an **increase in the proportion of respondents that eat 5 portions of fruit and vegetables a day.** The gap between the most deprived areas and other areas whilst still present is starting to close.

6. There has been an **increase in the proportion of respondents that have a positive perception of quality of life**.

7. There has been **an increase in the proportion of respondents that have a positive perception of their local area as a place to live.**

8. **The proportion of respondents that feel safe in their own home has increased**. There is no longer a difference in this aspect of health and wellbeing between the bottom 15% areas and other areas.

9. **The proportion of respondents with no educational qualifications has decreased**. This may be due to the changes in the range of qualifications available and increased flexibility in which to gain educational qualifications.

10. There is **a persistent gap between the most deprived areas and other areas in the proportion of respondents who would be able to meet unexpected bills** of £20; £100 or £1000.

A range of reports from the 2011 survey are available on the link below including the main findings report
http://www.phru.net/rande/Web%20Pages/Health%20and%20Wellbeing.aspx

NHS Greater Glasgow and Clyde
2011 Health and Wellbeing Survey

An explanation of Findings and Trends 1999-2011
A report for the Board

June 2013

1 Summary

The purpose of this report is to provide a summary of the key trends emerging from the NHS Greater Glasgow and Clyde Health and Wellbeing surveys (1999- 2011). The survey is a robust and yet flexible tool which is used to monitor changes across the area, within CH(C)P's, between our most deprived areas and other areas and between age groups and gender. The top 10 messages emerging from the latest survey are:

1. There has been a **modest but steady decline in smoking** since the survey began. This decline has been most marked in the most deprived areas.

2. There has been a **dramatic reduction in the proportion of respondents exposed to environmental tobacco smoke**. The ban in smoking in public places must have made an impact in this area.

3. **The proportion of respondents that exceeded the recommended limits for alcohol in the previous week has reduced**. This corresponds to a decrease in alcohol related death and a decrease in alcohol related admissions seen in routinely collected hospital and death data.

4. There has been **no change in the proportion of respondents that meet the physical activity target.**

5. There has been an **increase in the proportion of respondents that eat 5 portions of fruit and vegetables a day.** The gap between the most deprived areas and other areas whilst still present is starting to close.

6. There has been an **increase in the proportion of respondents that have a positive perception of quality of life**.

7. There has been **an increase in the proportion of respondents that have a positive perception of their local area as a place to live.**

8. **The proportion of respondents that feel safe in their own home has increased**. There is no longer a difference in this aspect of health and wellbeing between the bottom 15% areas and other areas.

9. **The proportion of respondents with no educational qualifications has decreased**. This may be due to the changes in the range of qualifications available and increased flexibility in which to gain educational qualifications.

10. There is **a persistent gap between the most deprived areas and other areas in the proportion of respondents who would be able to meet unexpected bills** of £20; £100 or £1000.

The top 10 messages demonstrate areas where improvements have been made and also areas of continuing challenge. The report that follows offers some explanation for these (and other) observations and highlights areas where we need to improve practice and policy.

2 An explanation of the trends observed in NHSGG

The trends focus on NHSGG in order to exploit the data going back to 1999 to the fullest. NHSGG represents a very close proxy measure for NHSGGC.

Health Behaviours

The Scottish Government has set targets for certain health behaviours. They include the recommendation to:

- Brush teeth at least twice a day
- Not to smoke
- For a man to consume less than 21 units of alcohol in a week and a women to consume less than 14 units of alcohol in week
- To take at least 30 minutes of moderate exercise on 5 or more days of the week
- To consume at least 5 portions of fruit or vegetables in a day

Each of these targets are explored in the health and wellbeing survey.

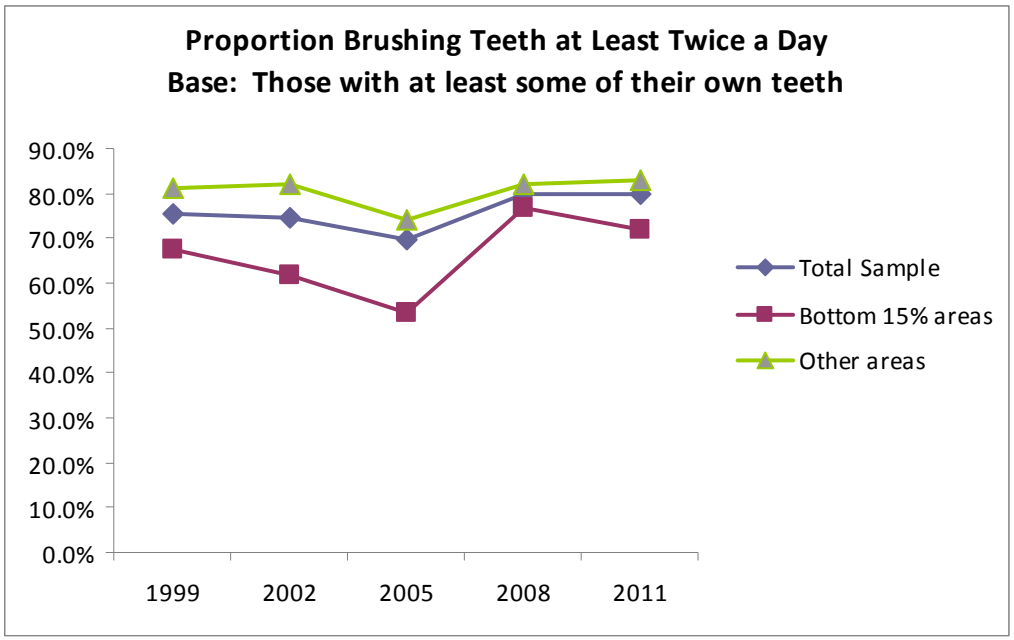
Tooth brushing

No change in the proportion of adults that brush their teeth twice a day

The national target is to brush teeth twice a day. The proportion of respondents that met this target has varied over time, with a decline between 1999 – 2005, a sharp increase in 2008 and a further decline in 2011. This pattern is mirrored in the bottom 15% areas and other areas. However, overall there is no discernable trend in this target with around three quarters of respondents brushing their teeth twice a day.

There is a consistent difference between the bottom 15% areas and other areas. With a smaller proportion of respondents in the bottom 15% areas brushing their teeth twice a day. This is reflected in the poorer dental health record in these areas. More work should be done to explore the barriers to brushing teeth twice a day particularly in the bottom 15% areas. That said, failing to meet the tooth brushing target is an issue in other areas too, as almost 1 in 5 respondents in other areas do not manage to brush their teeth twice a day.

Figure 1:



Tooth brushing varies by age and gender

Patterns in tooth brushing vary by age and gender. Those in the youngest age groups (16 – 44) were most likely (over 80%) to brush their teeth twice a day; whereas those aged 45+ were least likely (73%) to meet the target. Women are more likely to brush their teeth twice a day than men (85% vs 74%).

Key message for public health

The general message is that despite efforts to improve the culture of tooth brushing by offering programmes in nurseries and primary schools, providing free toothbrushes and paste, improvements have not been discernable at a population level. More effective ways of delivering this public health message should be developed across the health board area in order to improve the proportion of our adults that brush their teeth twice a day.

Smoking

The proportion of adults who smoke is reducing

Smoking remains the single most common cause of preventable ill health (NHSGGC, 2012[1]). Recent legislation to ban smoking in public places has made a measurable difference to health as can be seen from the decline in smoking related disease (Mackay, et al., 2010[2]; Millet, et al., 2013[3]). It is of note that smoking has made a steady decline in all areas of the board since the survey began in 1999. In 2011 the lowest levels of smoking were observed. However, there are important differences between the bottom 15% areas and other areas. With respondents from the bottom 15% areas consistently more likely to smoke than respondents living in other areas.

[1] NHSGGC (2012) http://teams.staffnet.ggc.scot.nhs.uk/teams/Acute/ClinSvsReview/default.aspx

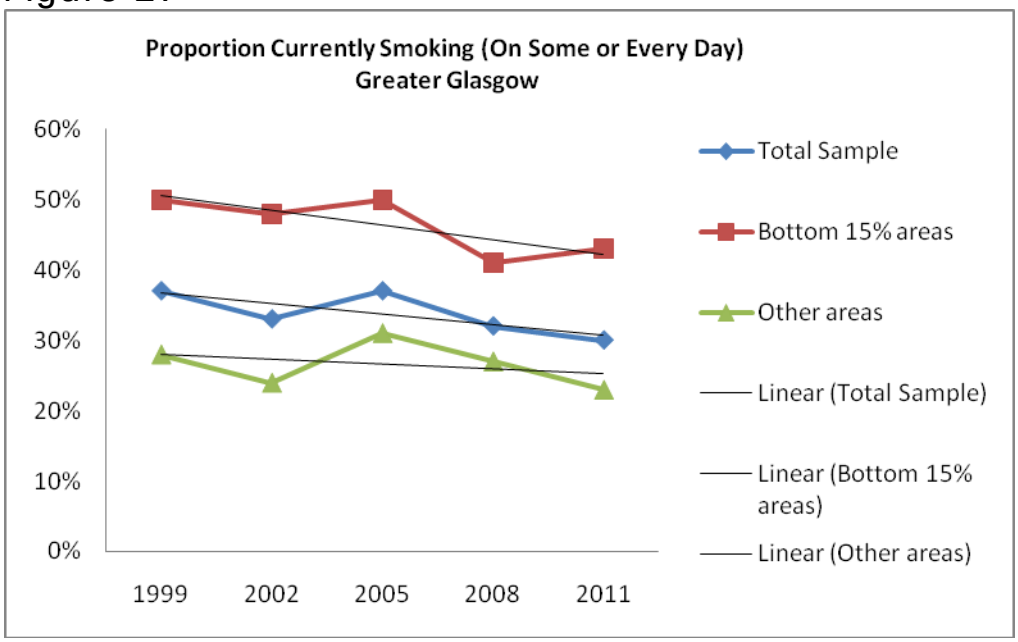
[2] Mackay, D., Haw, S., Ayres, JG., Fischbacher, C., Pell, JP.. (2010) Smoke-free legislation and hospitalisations for childhood asthma. **New England Journal of Medicine** 363 p1139-1145

[3] Millet, C., et al (2013) Hospital admissions for childhood asthma after smokefree legislation in England **Paediatrics** 131 p 1 - 7

The graph (figure 2) demonstrates a slight reduction in the gap between the bottom 15% areas and other areas but considerable variation remains. In the bottom 15% areas the prevalence of smoking today exceeds the prevalence of smoking in other areas in 1999 – suggesting the bottom 15% areas lag behind other areas by over 10 years in this health behaviour.

Smoking is declining more quickly in the bottom 15% areas. However, if current trajectories continue it will be another 20 years before smoking levels in the bottom 15% areas are equal to those in other areas.

Figure 2:



Smoking varies by age and gender

Smoking varies by age and gender. Those aged 45 – 54 are most likely to smoke (34% of respondents in this age group are smokers), whilst those aged 75+ were least likely to be smokers (16% of respondents in this age group are smokers). Men are more likely than women to be smokers (32% vs 26%).

Over half of our smokers in the 55 – 64 age group are heavily addicted (smoke 20+ cigarettes a day)

We explored the proportion of smokers who are heavily addicted. These are smokers who use 20 or more cigarettes in a day. We know from work elsewhere that heavily addicted smokers are less willing to quit and more likely to be unsuccessful in a quit attempt. The proportion of heavily addicted smokers varies by age group. Smokers in the 55 – 64 age groups were most likely to be heavily addicted (57%) whereas smokers in the 16 – 24 age group were least likely to be heavily addicted (18%).

Many of our smokers are willing to quit

Our findings confirm work elsewhere in that just 23% of heavily addicted respondents were willing to quit, whereas, 41% of other smokers were willing to quit. If all of those smokers willing to quit could be converted into quitters our smoking rates would fall dramatically. Our smoking cessation services have a role in achieving this, however, healthy public policy is most likely to achieve a substantial reduction in smoking.

Key message for public health

The reduction in the proportion of smokers should be congratulated. However, further improvements are required, particularly in the bottom 15% areas where the proportion of smokers is highest. Work is required at all levels including public policy on pricing, and availability; ensuring our smoking cessation services are the best they can be; promoting and enhancing our local work on smoke free homes; developing smoke free cultures in our schools, workplaces and communities.

Environmental tobacco smoke

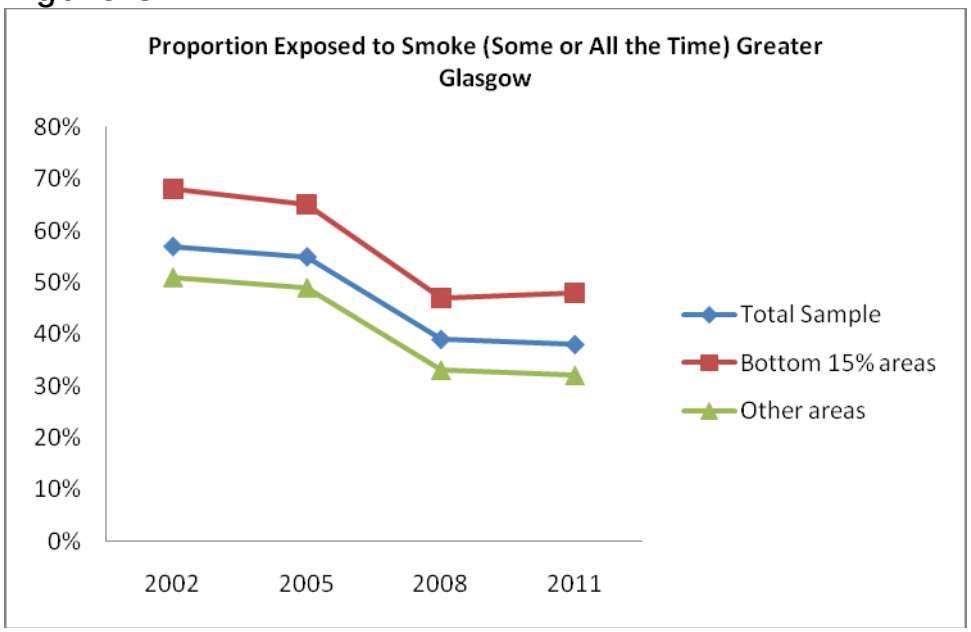
Exposure to environmental tobacco smoke has reduced.

The survey explored the prevalence of exposure to environmental tobacco smoke. It is encouraging that there has been great reduction in the proportion of adults that are exposed to environmental tobacco smoke. This change is illustrated when we note that in 2002 the majority of the population were

exposed some or all of the time, whereas, by 2011 a minority were exposed. The ban in smoking in public places is very likely to have made a contribution to this. It is expected that the introduction of plain packaging, the change to regulations regarding the display of tobacco may contribute to further reductions in this area.

There is a marked reduction in exposure to environmental tobacco smoke in both the bottom 15% areas and other areas, however, despite these improvements the gap between the two areas has persisted. The proportion of adults exposed to environmental tobacco smoke in the bottom 15% areas in 2011 is similar to levels observed in other areas in 2005. This suggests the bottom 15% areas lag behind the other areas by some 6 years in this aspect of health behaviour. Supplementary measures are likely to be required to enable those living in the bottom 15% areas to enjoy the same levels of smoke free air as those seen in least deprived areas.

Figure 3:



N.B. data was not collected on exposure to environmental smoke in 1999

Exposure to environmental tobacco smoke varies by age and gender

Exposure to environmental tobacco smoke varied by age and gender. Those respondents in the 45 – 54 age group were most likely to be exposed (27%) with those in the 75 and over age group least likely to be exposed (11%). Men were more likely than women to be exposed to environmental tobacco smoke (25% vs 20%).

Key messages for public health

It is encouraging that the proportion of our residents exposed to environmental tobacco smoke has reduced. However, our most deprived areas lag behind other areas considerably. Public health policy on pricing and availability coupled with local action on encouraging smoke free environments and cessation are most likely to yield further improvements in this area.

Alcohol

The proportion of respondents who drink to excess has moderately declined

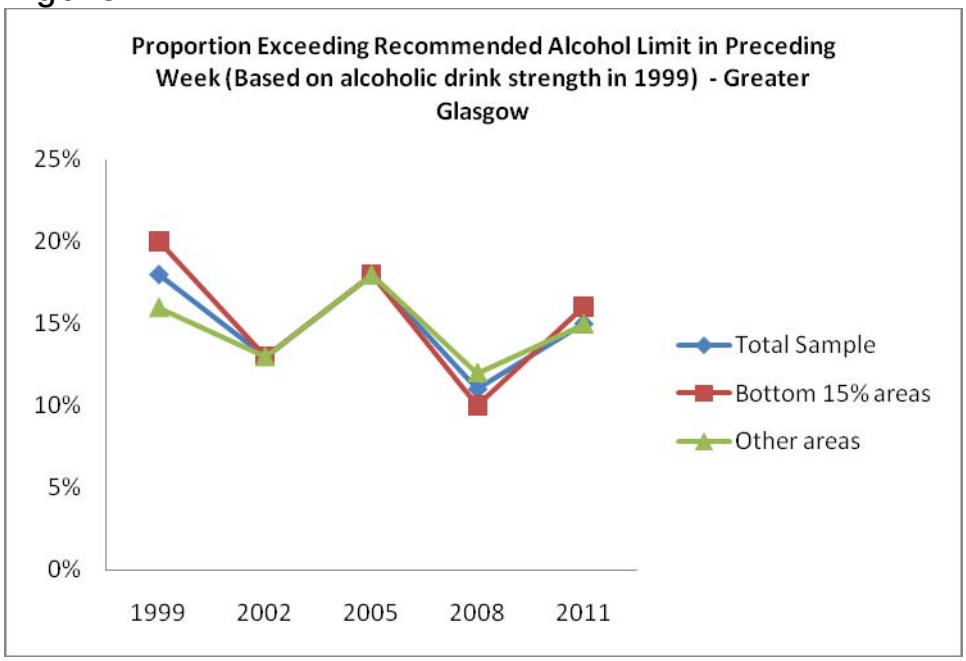
Just over one in five (22%) respondents said they never drank alcohol. Those in the least deprived areas were most likely to drink alcohol at least once a week. Drinking alcohol varied by age and gender with those in the 35 – 44 age group most likely to drink alcohol and men more likely than women to drink alcohol.

Those respondents who had drunk an alcoholic drink in the last 7 days were asked to complete a drink diary. The drink diary asked about the volume and type of alcoholic drink consumed on each day of the week. In this way, the units of alcohol consumed on each day and over the course of the week could be calculated.

Figure 4 below represents the proportion of the population who exceed the weekly recommendations (ie for a woman to drink no more than 14 units of alcohol in a week and for a man to drink no more than 21 units of alcohol in a week). The underlying trends are difficult to interpret as there is variation in the proportion of respondents that consume over the recommended amount in each survey. There is evidence of a slight decline in

the overall NHSGG proportion exceeding the weekly target which is driven mainly by a reduction in the most deprived areas. Over the course of the surveys the gap between the bottom 15% and other areas has all but disappeared. This corresponds with the decrease in alcohol related deaths seen in the old NHSGG area over the last decade; in 2005 there were 500 alcohol related deaths recorded falling to 484 in 2008 and 401 in 2010.(Information Services analysis of GRO death registrations).

Figure 4:



Alcohol continues to be a significant contributor to harm due to the number of deaths and other negative social consequences associated with its use. Evidence from elsewhere (eg Herta et al., 2008[4]) suggests alcohol pricing will influence consumption. It is likely that a minimum price per unit of alcohol will contribute towards a reduction in the amount of alcohol consumed and therefore reduce the number of deaths and negative social consequences associated with its use.

Excess alcohol use varies by age and gender

The proportion of respondents that had drunk to excess the previous week varied by age and gender. Those in the 16 – 24 age group were most likely to drink to excess (20%) and those in

[4] Herta, K et al (2008) Changes in alcohol related mortality and its socio-economic difference after a large reduction in alcohol prices. A natural experiment based on register data. **American Journal of Epidemiology**

the 75 plus age group were least likely to drink to excess (3%). Men were more likely than women to drink to excess (21% vs 9%).

Key message for public health

It is encouraging the proportion of our population who drink to excess on a weekly basis has moderately declined. Alcohol continues to be responsible for a significant number of deaths and hospital admissions. In addition alcohol is associated with a range of anti-social behaviour. Minimum pricing of alcohol is likely to reduce consumption further.

Physical activity

No change in the proportion of adults that meet the physical activity target

The Scottish Government recommends adults take at least 30 minutes of moderate physical activity on 5 or more days of the week. The proportion of respondents that achieve this target has remained stubbornly around the 50% mark for the last 11 years. That said the gap between the bottom 15% areas and other areas has disappeared. The changes that have occurred between each survey are difficult to interpret as there has been a lot of variability in this aspect of health.

Table 1: Proportion Meeting the Physical Activity Target of 30 Minutes of Moderate Physical Activity on Five or More Days Per Week
Base: **All Greater Glasgow**

	Total Sample	Bottom 15% areas	Other areas
1999	48.0%	41.6%	53.0%
2002	52.4%	54.6%	51.0%
2005	50.4%	55.3%	47.8%
2008	35.5%	29.6%	39.1%
2011	52.6%	52.3%	52.7%

NHSGGC supports a range of approaches to encourage physical activity including partnership working with Glasgow Life and local authority partners; Live Active (the largest exercise referral scheme in the UK) and a series of high profile events such as the Great Scottish Run; the women's 10k; the Commonwealth Games. There have also been improvements in the sports facilities available across the area since the survey began in 1999. However, the cumulative effect of these developments have not been detected at population level. Evaluation of individual initiatives reveal some areas that require further development. For example, the Great Scottish Run has yet to attract wide spread inclusion of people living in the bottom 15% areas (Whyte, 2012[5]); Live Active has relatively higher attrition from the bottom 15% areas and those from a BME background. If initiatives can successfully respond to this evidence there may be an opportunity to improve physical activity levels across the area.

Physical activity varies by age but not gender

The proportion of respondents that met the physical activity target varied by age, with those in the 25 – 34 year age group most likely to meet the target (63%) and those in the 75+ age group least likely to meet the target (28%). There was no difference between men and women and the likelihood of meeting the target.

Key message for public health

It is disappointing that the proportion of adults who meet the physical activity target remains around 50% despite improvements in the sporting infrastructure, high profile events and the largest exercise referral scheme in the UK operating in our area. Building physical activity into our everyday lives through more active travel and more active past-times is essential to promote the health of our population. Current work which is exploring the barriers to physical activity in the segments of the population that are least active may yield positive results in the medium term.

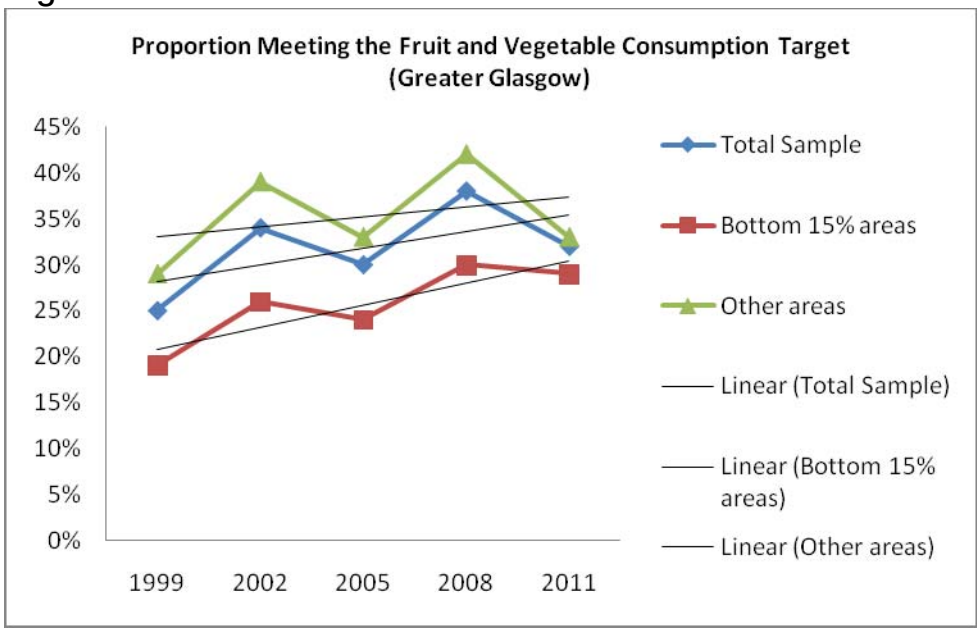
[5] Whyte, B (2012) Who run's in Glasgow. http://www.gcph.co.uk/publications

Fruit and Vegetable consumption

More people are eating 5-a-day

Overall, the proportion of respondents meeting the fruit and vegetable target has increased over time. The increase has been greatest in the bottom 15% areas. This has led to a narrowing of the gap between the most deprived and other areas. There is still room for improvement with overall less than a third of respondents managing to consume the recommended 5 portions of fruit and vegetables in a day.

Figure 5



There are a range of healthy eating initiatives in operation across the board area including food co-ops; the Big Eat In (encouraging uptake of school meals); weight management services and healthy eating programmes. The weight management service is currently undergoing a review. Some community based programmes, such as food co-ops have had positive evaluation, however, they are small scale and their contribution to health gain has not been detected at population level.

Eating 5-a-day varies by age and gender

The proportion of respondents that met the fruit and vegetable consumption target varied by age and gender. Those in the 25 –

34 age group were most likely to meet the target (35%) and those in the 75+ age group were least likely to meet the target (26%). Women more likely than men to meet the target (35% vs 30%).

Key public health message

It is encouraging that we have seen improvements in the proportion of adults that consume 5-a-day. There is room for more improvement as less than a third of our adults eat 5-a-day. Some of our healthy eating initiatives have evaluated positively, however, the role of major retailers in shaping our purchase and consumption of fruit and vegetables should not be ignored.

Clustering of unhealthy behaviours

A recent paper by Buck and Frosini for the Kings Fund[6] compared data from the English Health Survey for years 2003 and 2008 and explored the co-occurrence of 3 or more unhealthy behaviours over time. They discovered a reduction in the proportion of respondents who have 3 or more unhealthy behaviours, the reduction was least marked in the most deprived areas and most marked in the least deprived areas. The NHSGGC health and wellbeing survey can be used to explore changes in clustering of unhealthy behaviours across a wider time span, using a larger sample size and focused on a more precise geographical area. We used similar unhealthy behaviours to Buck and Frosini which are:

- being a current smoker;
- not meeting the physical activity target of at least 30 minutes of moderate exercise on 5 or more days of the week;
- not eating 5 portions of fruit or vegetables per day as a marker for unhealthy diet;
- consuming more than the recommended amount of alcohol in a week (which is 14 units for a woman or 21 units for a man).

[6] Buck, D., Frosini, F.. (2012) Clustering of unhealthy behaviours over time. Implications for Policy and Practice. Kings Fund.

There has been a slight decline in clustering of unhealthy behaviours

Table 2 below reveals that overall, across Greater Glasgow there is a slight decline in the proportion of respondents that exhibit 3 or more unhealthy behaviours; those living in the bottom 15% areas exhibit a moderate decline in the proportion of respondents that exhibit 3 or more unhealthy behaviours and there was no change in the other areas in the proportion of respondents that exhibit three of more unhealthy behaviours. The individual behaviours that are driving these overall changes have been discussed in the earlier sections of this report.

Table 2: Proportion of respondents that exhibit 3 or more unhealthy behaviours
Base: **All Greater Glasgow**

	Total Sample	Bottom 15% areas	Other areas
1999	26.2%	35.7%	18.8%
2002	20.4%	27.2%	16.4%
2005	26.0%	29.7%	24.1%
2008	22.8%	27.8%	19.7%
2011	22.2%	30.0%	17.6%

Unlike the English survey, the decline in unhealthy behaviours has been strongest in the most deprived areas, however, the change is modest. The health and wellbeing survey will be explored further in the coming months to identify other changes in NHSGG and discuss why they may be different to the English health survey.

Use of health services

Respondents were asked about their use of health services over the previous year. The results reveal a decline in the use of the GP and an unclear picture in the use of Accident and Emergency services (A&E).

Use of GP

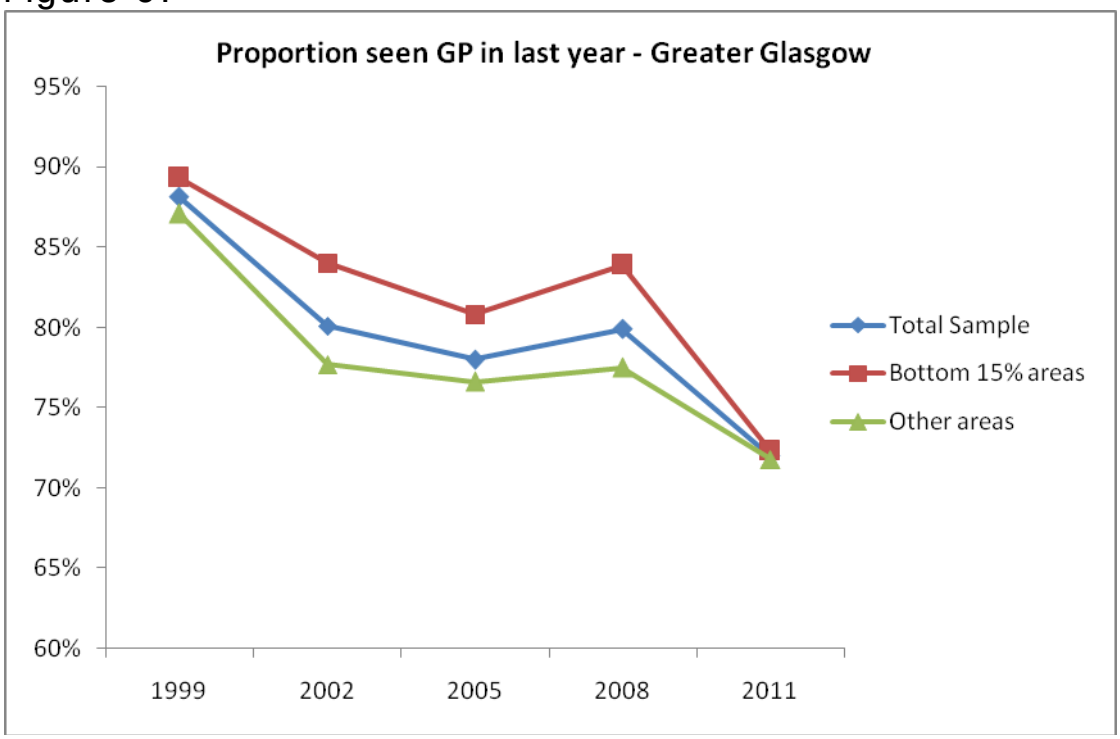
There has been a decline in proportion of adults who have seen a GP in the last year

There has been an overall decline in the proportion of respondents who have seen a GP in the last year. This was seen in the bottom 15% areas and the other areas. The decline has been steepest in the bottom 15% areas so that the gap between the most and least deprived areas has closed.

There are several potential reasons for this change. Firstly, the question asks about use of the GP specifically rather than any member of the primary care team. Since 1999 there have been a range of new roles introduced into the primary care team, most notably the health care assistant role. This decline may reflect a change in skill mix of the primary care team and patients using the range of professional skills offered through the practice.

Secondly, an increase in the self care agenda may mean that respondents are more likely to be managing minor conditions themselves rather than attending the GP. In addition there may be an increase in the proportion of respondents who are using the community pharmacist as a first port of call for health advice.

Figure 6:



Use of the GP varies by age and gender

As expected, the proportion of respondents that have seen a GP in the last year varies by age, with those in the 75+ age group most likely to have seen a GP (91%) and those in the 16 – 24 age group least likely (62%). Use of the GP also varies by gender with women more likely to have seen a GP in the last year than men (80% vs 67%).

Key messages for public health

It is encouraging that use of the GP had declined; however, with our ageing population demand for health care is likely to grow. More inexpensive alternatives to the GP are developing such as the minor ailments service offered by community pharmacists.

Use of A&E

No change in the proportion of adults who have used A&E in the last year

The underlying trend for use of A&E reflects no change in the proportion of adults that used this service over the previous years. Use of A&E between 1999 and 2005 has remained stable,

however, a sharp decline was observed in 2008 followed by a sharp increase in 2011. The dip in 2008 is likely to be an artefact of the survey such as that described in Appendix 2 rather than a real change.

Table 3: Proportion Been to A&E in the Last Year
Base: **All Greater Glasgow**

	Total Sample	Bottom 15% areas	Other areas
1999	14.5%	12.4%	16.0%
2002	14.9%	16.8%	13.7%
2005	14.4%	18.8%	12.1%
2008	8.3%	9.3%	7.8%
2011	12.6%	11.8%	14.0%

When the results are explored in more detail the pattern between the bottom 15% areas and other areas varies. In the bottom 15% areas an increase in use of A&E services had been observed between 1999 and 2005, followed by a steep decline in 2008 and a corresponding increase in 2011. Whereas, in the other areas there had been a declining trend in use of A&E between 1999 and 2008 followed by a sharp increase in 2011.

The survey asks about use of other services such as the community pharmacist and out of hours GP service (GEMS), however, these questions were introduced in 2008. Sufficient trend information is not available to explore use in alternative services as a possible explanation for changing patterns of use of A&E or GP.

There is little difference in the use of A&E by age or gender.

Key message for public health

There are pressures on our A&E services. Innovative methods of reducing demand in this area should be explored in an attempt to contain costs.

Social health

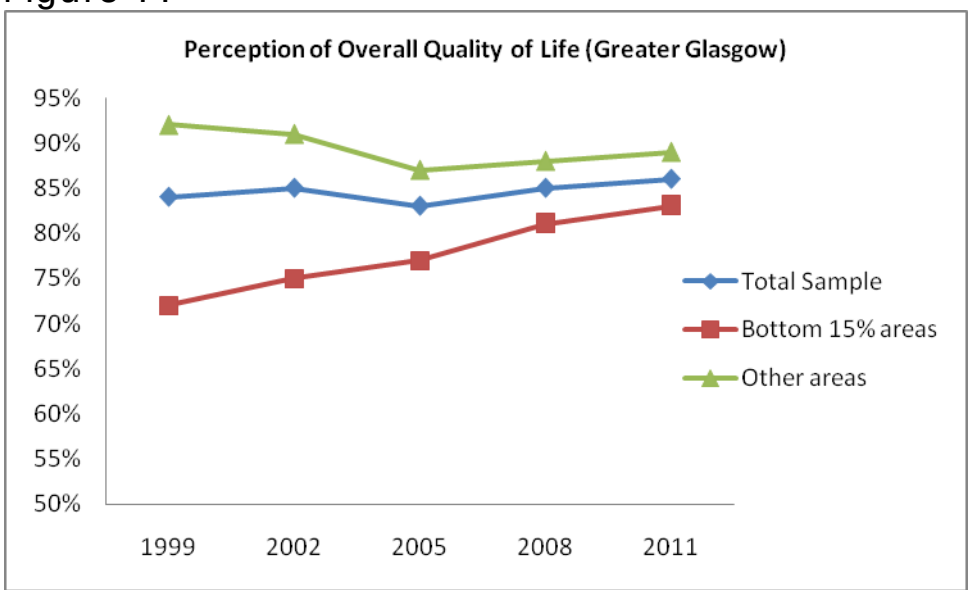
Health is influenced not only by access to health services and health behaviours but also by the social and economic environment in which we live. Some of these aspects of health are explored in the health and wellbeing survey including: quality of life; perception of isolation and satisfaction with neighbourhood. The underlying trends in each of these areas has been positive. The reasons for this change are unclear but are likely to include the succession of regeneration projects which have improved housing, improved sporting facilities associated with the developments for the Commonwealth Games and improvements associated with the Healthy Living Centre Programme such as Crown Point Leisure complex, improved cultural and arts spaces through developments co-ordinated by Glasgow Life such as the integrated facility at the Bridge in Easterhouse, the Civic Realm in Pollok and modernisation of museums such as Kelvingrove and the Transport Museums.

Quality of Life

Perception of quality of life has improved

Overall there has been a gradual improvement in perception of quality of life since the survey began in 1999. However, the overall picture masks more positive improvement in the bottom 15% areas coupled with relatively little change in other areas. This has lead to a substantial narrowing of the gap between the most deprived and other areas as Figure 7 illustrates.

Figure 7:



Perception of quality of life varies by age

The proportion of respondents with a positive perception of quality of life varies by age group. Those in the 16-24 age were most likely to have a positive perception (88%), whereas, those in the 75+ age group were least likely to have a positive perception (77%). There was no difference between men and women.

Key public health message

It is encouraging the perception of quality of life has improved particularly in the most deprived areas. We cannot underestimate the importance of place in improving health and should continue to integrate learning from place based research such as Go Well.

Isolation

The proportion of respondents who felt isolated from family and friends has reduced.

There has been an overall reduction in the proportion of respondents who felt isolated from friends and family. This reduction has been most marked in the bottom 15% areas; further analysis shows that the rate in the most deprived areas

has been decreasing at approximately four times the rate of other areas. As a result the gap between the bottom 15% areas and other areas that we observed when the survey began in 1999 has now disappeared.

Table 4: Proportion Isolated from Family and Friends
Base: **All Greater Glasgow**

	Total Sample	Bottom 15% areas	Other areas
1999	17.5%	23.9%	12.5%
2002	14.7%	19.5%	11.8%
2005	8.2%	7.5%	8.6%
2008	8.4%	9.1%	8.0%
2011	10.0%	10.7%	9.5%

There was no variation by age or gender

There was no difference by age group or gender in the proportion of respondents that felt isolated from family and friends.

Key public health message
It is encouraging that gains have been made in this area and highlights the importance of social connectedness in health and well being.

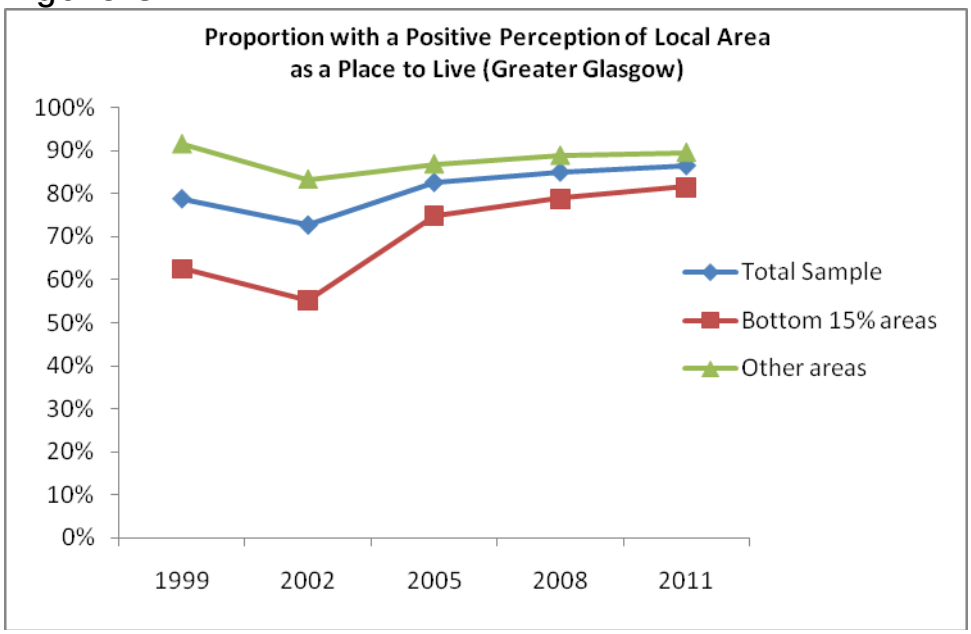
Positive perception of local area

Respondents feel more positive about their local areas as a place to live

There is a strong underlying upward trend in the proportion of respondents who have a positive perception of their local areas as a place to live. However, this masks differences between the bottom 15% areas and other areas. The bottom 15% areas have had large increases in the proportion of respondents who are positive about their areas as a place to live, whereas, other areas

have seen little change . These changes have led to a substantial closing of the gap between the bottom 15% areas and other areas.

Figure 8:



There was no variation by age and gender

There is little difference between age groups or gender in this aspect of the survey.

Key public health message

It is encouraging that improvements have been seen in our most deprived areas. This again reinforces the importance of place in relation health and well being.

Safety

Feelings of safety can be an important determinant of behaviour. If people do not feel safe using public transport or walking in their own area it can limit their propensity to leave their home, exercise and/or contribute socially and economically which in turn can influence their physical and mental health. We measure three aspects of safety in the survey: perception of safety in one's own home; feeling safe using public transport and feelings

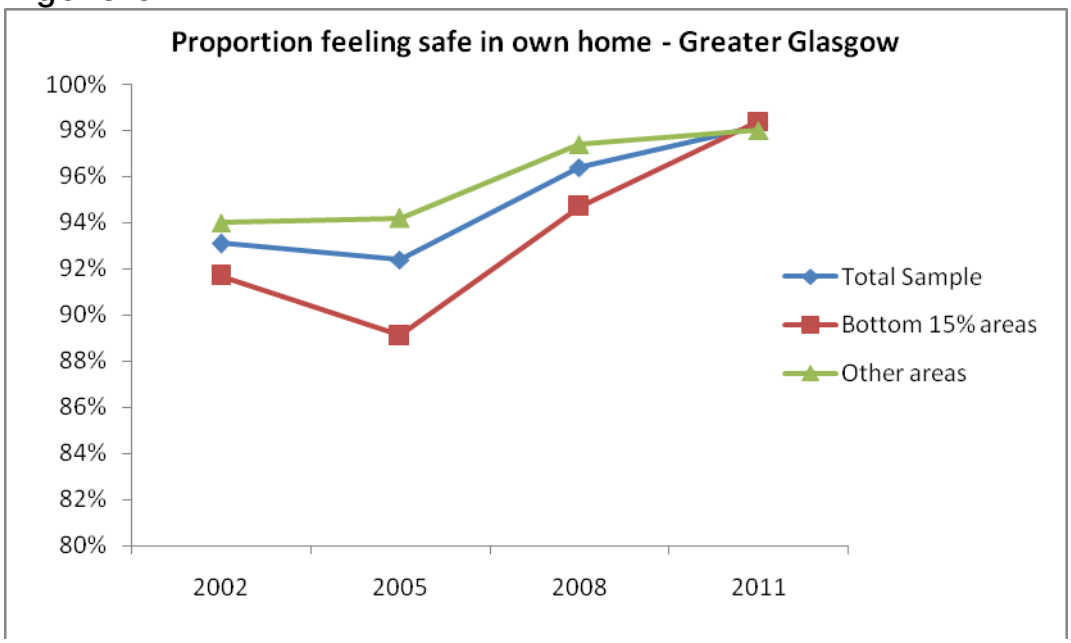
of safety when walking in the local area even after dark. There have been improvements in each of these areas since the survey began in 1999. The causal factors for these improvements are unclear but they have occurred at the same time as Strathclyde Police has developed an integrated approach to tackling its 4 priority areas of Public Protection; Violence and Antisocial Behaviour; Roads and Serious Crime. In addition the Violence Reduction Unit which started in Glasgow in 2005 has developed work across the whole nation through a partnership approach to tackling the root cause of violence. Positive initiatives across the area such as public campaigns, taxi marshals and Best Bar None awards may have contributed to improved feelings of safety.

Feeling safe in own home

The proportion of respondents who feel safe in their own home has increased

It is encouraging that the proportion of respondents who feel safe in their own home has increased over time. Further, the gap between the bottom 15% areas and other areas has closed, as the graph below illustrates:

Figure 9:



The proportion of respondents who feel safe using public transport has increased

There have been corresponding improvements in the proportion of respondents who feel safe using public transport. In this area too, the gap between the bottom 15% areas and other areas has closed.

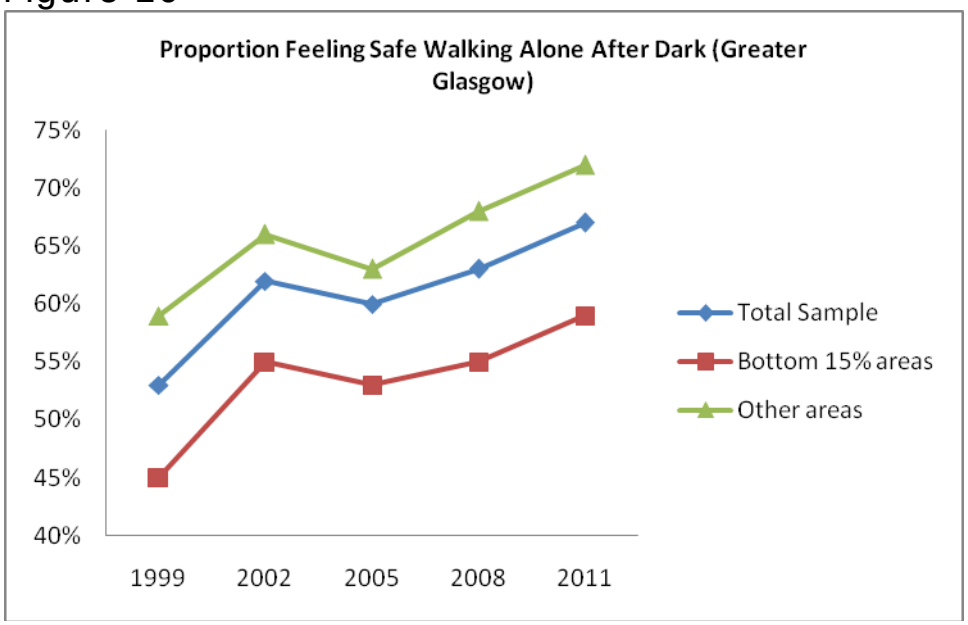
Table 5: Proportion Feeling Safe Using Public Transport
Base: **All Greater Glasgow**

	Total Sample	Bottom 15% areas	Other areas
1999	Not asked		
2002	79.2%	76.3%	80.9%
2005	79.2%	77.2%	75.7%
2008	87.0%	85.9%	87.5%
2011	91.8%	92.3%	91.5%

The proportion of respondents who feel safe walking alone after dark has increased

Lastly, there have been improvements in the proportion of respondents who feel safe walking alone after dark. Improvements in the bottom 15% areas and other areas mirror each other albeit with the most deprived areas starting at a much lower level. However, despite these improvements the gap between the most deprived areas and other areas remain much the same in 2011 as in 1999.

Figure 10



Perception of safety varies by age and gender

It is interesting to note difference between age groups and gender in perception of safety. There are no differences between age groups or gender in the proportion who feel safe in their own home. There are no gender differences in the proportion who feel safe using public transport, however, the oldest age groups (75+) are less likely to feel safe using public transport compared to the youngest age groups (16 – 24; 87% vs 93%). The differences are most stark when the proportion who feel safe walking alone after dark are explored. Men are more likely to feel safe than women (81% compared to 57%); the younger and middle age groups (16 – 24; 35 – 44) are more likely than the older age group (75+) to feel safe (75% vs 39%).

Key public health message

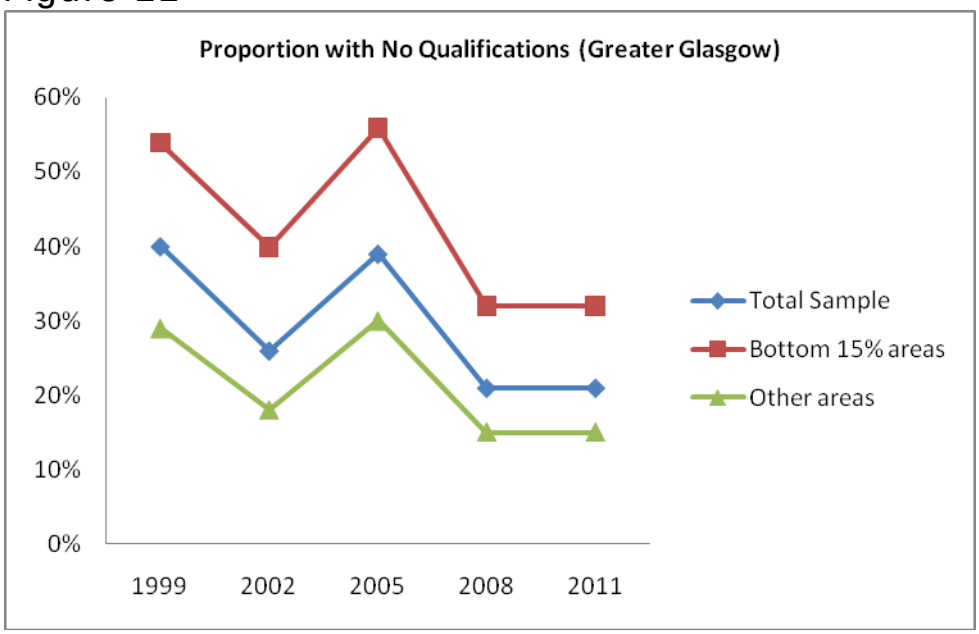
It is encouraging that a greater proportion of our respondents are feeling safe in their communities. This is a building block for improvements in other area such as participation in physical activity, employment, education and social health. It will be interesting to observe if improvements occur in other areas too over the years that follow.

Education

A greater proportion of our population have educational qualifications

Education can be a route to employment and out of poverty. For this reason the health and wellbeing survey monitor respondents educational qualifications. It is encouraging that the proportion of respondents with no educational qualifications has reduced since the survey began in 1999. The reduction can be seen in the most deprived areas and other areas, however, there is still a persistent gap with those in the most deprived areas twice as likely to have no educational qualifications as those in other areas.

Figure 11



The overall improvement in the proportion of respondents with qualifications may be due to changes in Scottish Qualifications which have improved access to a range of courses and qualifications throughout the life course, coupled with improving attainment in schools.

Educational qualifications varies by age and gender

The proportion of the population with educational qualifications varies by age with those in the youngest age group (16- 24) most likely to have qualifications (93%) and those in the oldest age group (75+) least likely (50%).

Women more likely than men to have no qualifications (23% vs 18%).

Key public health message

It is encouraging that more of our population have educational qualifications. Qualifications are a route to employment. Employment is associated with routes out of poverty and more positive health.

Financial wellbeing

Two aspects of financial wellbeing were explored in the survey. The proportion of respondents who received all their income from state benefits and the proportion of respondents who would find it difficult to meet unexpected bills of £20; £100 and £1000.

The results in this area are difficult to interpret and may be most strongly influenced by variations in the economic climate, availability of credit, changes to the welfare benefits and taxation system.

All income from state benefits

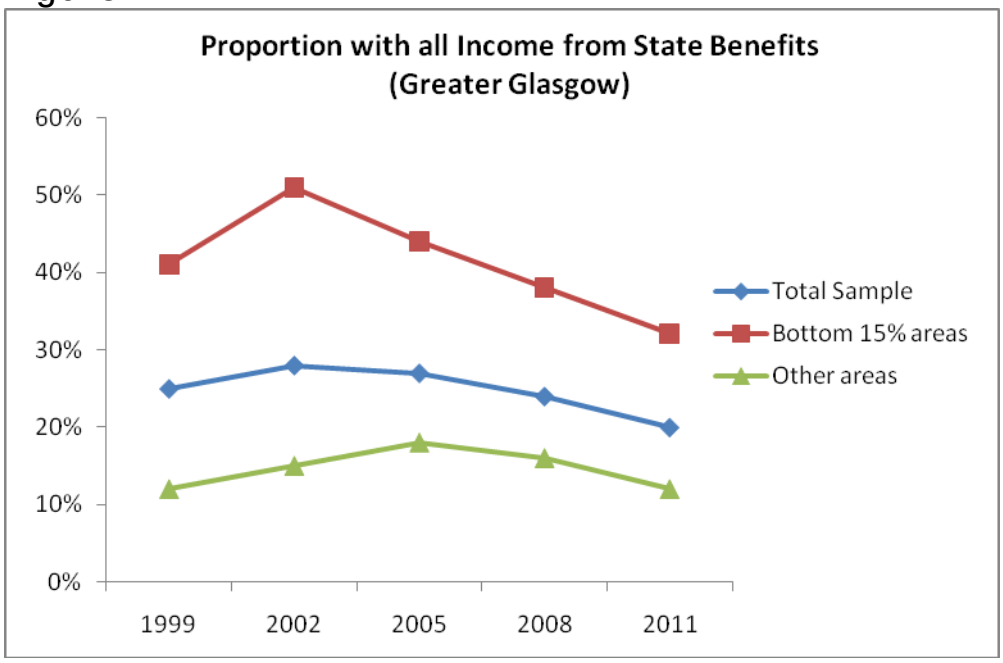
Fewer respondents receive all their income from benefits

The proportion of respondents that receive all their income from state benefits increased from 1999 to 2002 and has since declined to the lowest levels seen since the survey began. One potential reason for this is the increase in part-time work which means respondents are less likely to have all their income from benefits. Initiatives to make work pay may have encouraged respondents to come off benefits and take work. Later age of retirement is also likely to influence the proportion of adults who receive all their income from state benefits. It is likely that fewer people will be able to receive all their income from state benefits

from April 2013 when changes to the welfare benefit system will make it less likely to receive all income from state benefits.

The underlying trend is similar in the bottom 15% areas and other areas, however, those in the most deprived areas are consistently more likely to receive all their income from state benefit. In 2011 this amounted to over one third of respondents in the most deprived areas and just one in ten respondents in the other areas.

Figure 12



All income from benefits varies by age but not gender

There are no differences between men and women in the proportion who receive all their income from state benefits. However, when we explore findings by age group those most likely to receive all their income from state benefits are the 75+ age group.

Difficulties meeting unexpected bills

The survey measures the respondent's perception of the ease with which they can meet unexpected bills of £20; £100 and £1000. The higher the value of the unexpected bill the more likely it is respondents would find it difficult to meet.

Table 6: Proportion Having Difficulties[7] Finding Unexpected Expenses
Base: **All Greater Glasgow**

	Total Sample	Bottom 15% areas	Other areas
Difficulty finding £20			
1999	5.9%	10.2%	2.5%
2002	3.9%	7.5%	1.6%
2005	1.3%	2.1%	1.0%
2008	4.6%	6.5%	3.4%
2011	2.9%	4.9%	1.8%
Difficulty finding £100			
1999	27.9%	42.2%	16.3%
2002	17.7%	34.1%	7.8%
2005	14.6%	25.6%	8.8%
2008	21.8%	32.0%	15.6%
2011	14.9%	25.4%	8.6%
Difficulty finding £1,000			
1999	64.4%	83.4%	49.0%
2002	47.4%	72.9%	32.1%
2005	46.0%	63.5%	36.8%
2008	59.4%	76.3%	49.0%
2011	50.8%	67.8%	40.5%

Trends demonstrate that fewer respondents had been finding it difficult to meet unexpected bills between 1999 and 2005, however, a greater proportion found it difficult to meet unexpected bills in 2008. Interestingly the fieldwork in 2008 took place between August and December and corresponded with the credit crunch where the availability of credit from financial institutions was greatly curtailed. In 2011 we observed a reduction in the proportion of respondents who found it difficult to meet unexpected bills, however, the levels are still above the figure observed in 2005, which may demonstrate the ongoing effect of the recession on financial wellbeing.

[7] 'Impossible' or 'big problem'

There is a persistent gap between the most deprived areas and other areas with a smaller proportion of respondents from the most deprived areas being able to meet unexpected bills of any value. However, as the graphs below show the proportion of those from the most deprived areas experiencing difficulties finding £100 and £1000 has fallen at a faster rate than those from other areas, especially interesting when viewed alongside the decrease in the proportion of those whose who receive all their income from state benefits. This may be due to an increase in alternative money lenders and cash converter stores.

Figure 13:

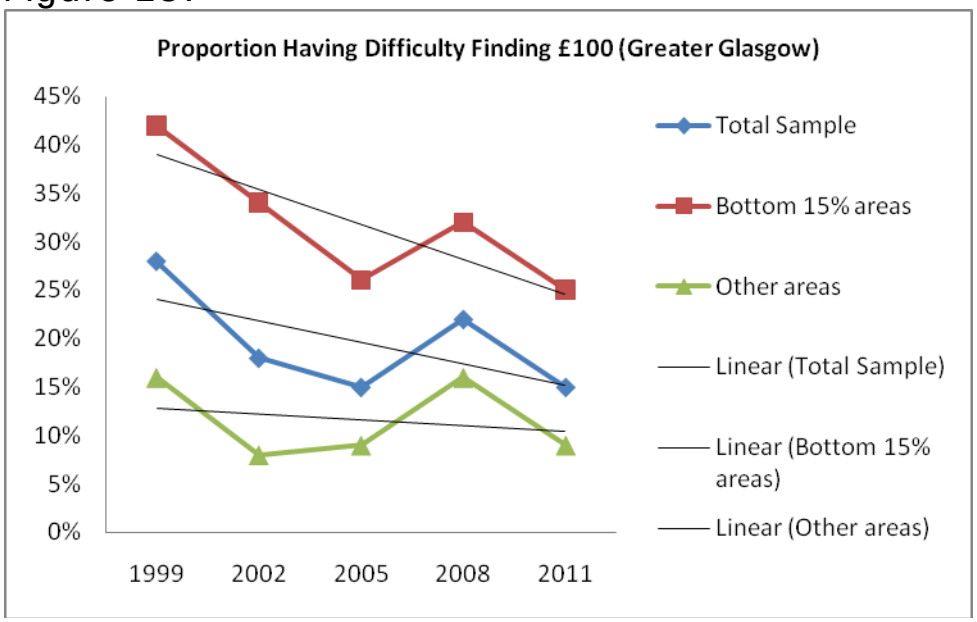
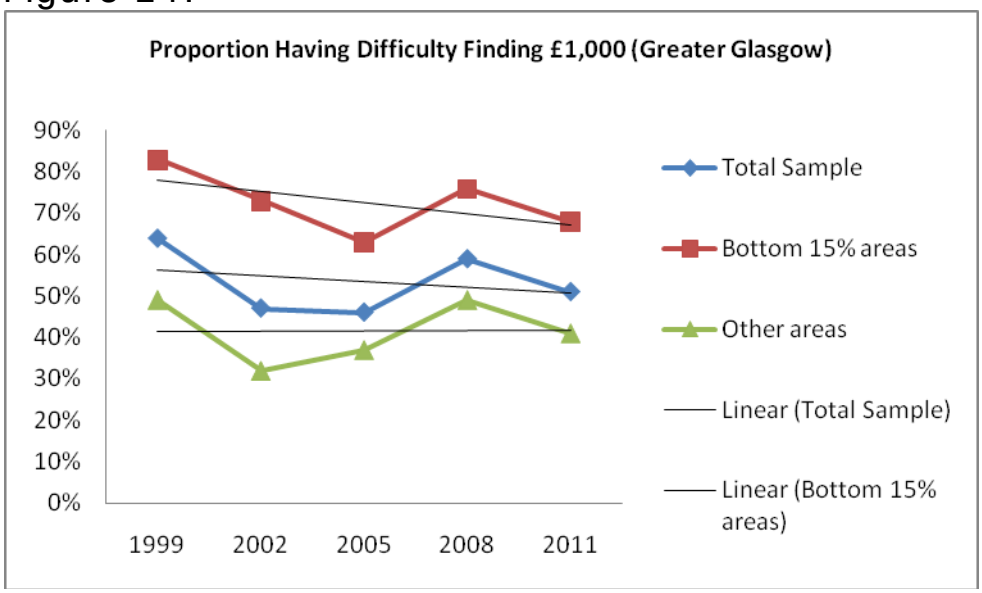


Figure 14:



Key message for public health

There are mixed messages on financial health. Reduction in the proportion of respondents that receive all their income from benefits should be a positive indicator; however, still a substantial proportion of our population would find it difficult to meet unexpected bills. Future surveys will be able to monitor the health and well being impact that recent Welfare Benefits changes has on our population.

3 Conclusions

The aim of this report was to look in more detail at the trends that are emerging from the health and wellbeing survey. In some areas, such as consumption of fruit and vegetables there have been positive improvements; other issues, such as the proportion of respondents that meet the physical activity target have been resistant to change despite improvements in the sporting infrastructure across the area.

Planners can be confident in the quality of the survey due to the range of quality control mechanisms in place; the administration that minimises bias and the good response rate that is achieved each year.

The survey has proved to be a flexible local planning tool that has adapted to changes in the geographical area administered by the former NHSGG; the current NHSGGC and changes in the way deprivation is measured.

Further analysis will be conducted on the survey, particularly around the issue of clustered health behaviours. Each of the CH(C)Ps that have boosts from this survey will have an opportunity to request their own bespoke analysis to ensure the findings are fully exploited for their planning purposes.

The planning of the 2014 survey has begun. All CH(C)Ps are boosting. In addition connections have been made with a range of academic departments in order to advance the knowledge created between studies. With each wave of the survey, the opportunities for further analysis are extended.

The survey team look forward to the opportunities afforded by the 2014 survey.

4 Appendix: Full reports

There are a range of reports emerging from this work which describe the full range of findings in more detail. These can be found at the link below:

For support in interpreting the findings or further analysis of findings please email:

julie.truman@ggc.scot.nhs.uk

5 Appendix: Methods

Sampling Methodology

The Health & Wellbeing surveys provide a snapshot in time of people's perceptions of their general health, physical, mental and emotional wellbeing, lifestyle behaviours, views of their neighbourhood, safety, social cohesion, and personal characteristics such as financial wellbeing and educational attainment. The surveys are cross-sectional not longitudinal i.e. they do not track changes in an individual's responses over time but do track changes in the population mean. Households were selected for inclusion in the surveys by employing a stratified random sample methodology and individuals selected from those households using the next birthday rule. The sample is designed to be representative of the NHSGGC population in terms of age, gender, district council area and deprivation which allows the findings to be generalizable to the Board population. The sample also needed to be of sufficient size to detect statistically significant differences in key indicators between various groups (e.g. age, gender, and deprivation) both within and between the surveys. Sample sizes were set at 2000 in the earlier surveys which increased over time, as the sample was boosted, peaking at 8,278 in 2008. The 2011 sample was 6,101. Large samples yield smaller margins of error which enhance the overall precision of the results: an acceptable margin of error in most survey designs is +/-5%; the margin of error in the Health and Wellbeing surveys is +/-2%. The findings can also be compared over time as the sampling method has been replicated in each survey.

A full description of the sampling methodology can be found in Appendix A of the 2011 Main report via the link below:

http://www.phru.net/rande/Web%20Pages/Health%20and%20Wellbeing.aspx

Several sampling strategies were adopted to reduce the risk of bias. For example, all fieldwork was conducted between August and mid December of each survey year to avoid any confounding effects of seasonality (especially important in avoiding sampling

immediately before and after Christmas as this could bias responses); interviews were conducted face to face to maximize the sample size as postal surveys have a notoriously low response rate, and in order to obtain as wide a spread of views as possible only one person was chosen for interview from each household (other surveys, for example, will attempt to interview multiple informants from each household; individuals who may be more likely to display similar characteristics).

Quality control measures have also been implemented over the course of the surveys to facilitate the smooth running of the fieldwork; before the fieldwork commenced, for example, sampled addresses were checked with local officers to ensure they were not vacant or demolished; GIS mapping was used as the fieldwork progressed to monitor the geographic distribution of the completed interviews, and in 2011 the fieldwork was divided into four waves with addresses within each wave randomly selected so the timing of the interviews were not focused in any one CHCP or geographic location within each wave. The final sample was then compared with the actual population distribution and weightings applied to ensure it was representative as described above.

These various measures have resulted in robust samples with consistently high response rates across the surveys; achieving 69% in 2011 (compared, for example, with the Scottish Health Survey which reported a response rate of 55% in 2010).

The changing geography of the NHS Board area and measures of deprivation

Over the course of the surveys the area served by the NHS Board has changed; in April 2006 NHS Greater Glasgow (NHSGG) was merged with a large part of NHS Argyll & Clyde to form NHSGGC. Trends for NHSGGC are therefore only available for 2008 and 2011. However, other analyses have found little difference between results for NHSGG and the expanded NHSGGC area so although the trends presented here relate to NHSGG they do provide a useful proxy measure for NHSGGC.

The tools used to identify and analyse deprivation have also changed over the course of the surveys; in the earlier surveys

Social Inclusion Partnership areas were used to identify deprivation and more recently the Scottish Index of Multiple Deprivation (SIMD) was used to identify those areas categorized as being in the 15% most deprived in Scotland. These SIMD definitions have been applied to all of our survey years and we present trends for these areas.

Interpreting the trends

To aid the interpretation of these trends results linear regression analyses has been included which show the slope of the trend line. The intention of presenting this measure is to show the overall direction of the trend and allow comparisons of the relative strengths and direction of the trends between the most deprived and other areas. There has, for example, been an overall increase in the proportion of those who meet the target for fruit and vegetable consumption over the course of the surveys (although the figures for individual years have varied), and trends for the 15% and other areas show similar increases with those in the 15% most deprived areas starting at a much lower rate; regression analyses show that the rate of increase in the most deprived areas has been double that of the other areas.

The trends also provide a useful measure of whether the gap between the most deprived and other areas is increasing or decreasing and also shows whether these changes are due more to improvements in one area or a worsening in others: there has been a marked decrease in those exposed to second hand smoke (especially after the introduction of smoke free legislation in 2006), however, the gap between the 15% most deprived and other areas is much the same in 2011 as it was in 2002; respondents reporting a positive perception of their quality of life has improved slightly over the course of the surveys with significant increases reported in the 15% most deprived areas. The gap between the most deprived and other areas has narrowed but part of this narrowing has been due to a decrease in other (less deprived) areas.

6 Acknowledgments

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