Healthy Mums Healthy Children

Report on the health of pregnant women and children 2011/12

NHS Greater Glasgow and Clyde

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Children and Maternity
Public Health Services

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This report has been prepared by the members of the Children and Maternity work stream, which comprises members of the Public Health Services, Screening and Surveillance and Information Services teams. The group gratefully acknowledges the parents, carers, children, staff and services which contributed to the report. This report describes the ways in which health services were delivered for the population of children and pregnant women resident within the NHS Greater Glasgow and Clyde Board area, and provides a basis for action in order to deliver safe, effective, high quality care in a way which seeks to reduce inequalities in health.

ABBREVIATIONS

ALE	Average Life Expectancy
BMI	Body Mass Index
cf.	compared with
CH(C)P	Community Health (and Care) Partnership
CHS-PS	Child Health Surveillance - Pre-School
CHS-S	Child Health Surveillance - School
CO	Carbon Monoxide
CPP	Community Planning Partnership
ED	Emergency Department
FASD	Fetal Alcohol Spectrum Disorder
GBV	Gender Based Violence
HIV	Human Immunodeficiency Virus
HPI	Health Plan Indicator
HPV	Human Papilloma Virus
ICD	International Classification of Diseases
IMR	Infant Mortality Rate
LACYP	Looked After Children and Young People
MCADD	Medium Chain Acyl-Coenzyme A Dehydrogenase Deficiency
MMR	Measles, Mumps and Rubella
MOH	Major Obstetric Haemorrhage
NHSGGC	NHS Greater Glasgow and Clyde
NK	Not Known
NRS (GROS)	National Registers of Scotland (previously General Register Office of Scotland)
PKU	Phenylketonuria
PNBS	Pregnancy and Newborn Screening
RTA	Road Traffic Accident
SAPE	Small Area Population Estimates
SDR	Standardised Discharge Ratio
SIMD	Scottish Index of Multiple Deprivation
SMR01/02	Scottish Morbidity Record
SSRI	Selective Serotonin Reuptake Inhibitor
SWHMR	Scottish Woman Held Maternity Record (SWHMR)

EXECUTIVE SUMMARY

The main finding of this report is that social disadvantage is a key determinant of health outcomes and processes, underlining the central importance of ensuring that health services do their part to tackle inequalities associated with child and family poverty. In addition, there is evidence of variation across Community Health (and Care) Partnership areas which cannot be explained by poverty. This variation is likely to arise as a result of different approaches to policy or practice, including recording of health information. Such variation should be minimised as it has the potential to widen inequalities and makes the interpretation of surveillance data difficult. The Healthy Children Programme is outlined as the service response to tackling child poverty and reducing variation across services.

Demographics

268,198 children aged 0 to 19 were resident in the NHS Greater Glasgow and Clyde Board area during 2011. Socioeconomic disadvantage was the major determinant affecting the health of pregnant women, children and young people. The majority of pregnancies and the majority of the child and youth population live in areas which were more disadvantaged than the Scottish average and this influences their health and life course. Overall, one in seven young people received key benefits between the ages of 16 and 24.

There were 18,173 pregnancies in NHS Greater Glasgow and Clyde (NHSGGC). Of these, 13,790 (75.8%) resulted in live births, 82 (0.04%) still births and 4,301 (23.6%) were lost before the 24th week of gestation. Pregnancies, stillbirths and other pregnancy losses were all influenced by social disadvantage.

The highest proportion of women at first contact with maternity services was in the 30-34 age-group with only 6% being under 20 years old. Older women tended to be more affluent than younger women.

77.5% of mothers had UK ancestry; 7.2% had Indian, Pakistani or Bangladeshi ancestry, and 4.4% had Mediterranean, Albanian, Czech or Polish origin. Women from Afro-Caribbean or from Mediterranean, Albanian, Czech and Polish origins were most likely to live in the most disadvantaged areas of the population.

Life expectancy at birth in the local authority areas within NHSGGC was generally lower than the Scottish average (77 for males and 81.3 for females), varying from a low of 71.2 for males and 77.6 for females in Glasgow City to a high of 78.8 for males and 82.7 for females in East Dunbartonshire. Again, socioeconomic disadvantage was the main influence on life expectancy, with the gap in life expectancy between the most and least affluent males being 14.5 years and a gap for females of 9.6 years.

5,530 children and young people were looked after by local authorities. Overall, the rate of being looked after was 20.6 per 1,000 children, but this varied by local authority.

The Child Protection Registrations rate for 2012 varied from 1.2 per 1,000 children in East Dunbartonshire to 4.3 per 1,000 in Glasgow City, compared to a Scottish rate of 3.0 per 1,000.

Maternal Health

Maternal Screening
There was a high level of uptake in screening for communicable diseases in pregnancy, resulting in the identification of illness which required treatment or the opportunity for immunisation.

71.6% of women participated in screening for Down's syndrome and other congenital anomalies, resulting in the identification of 484 women at higher risk. 407 women underwent amniocentesis and 93 women underwent chorionic villus biopsy. These processes identified 28 and 18 chromosomal anomalies respectively. Fetal anomaly scanning had an uptake of 66%. 140 potential anomalies were identified of which 71 were confirmed. Overall, 316 cases of congenital anomaly were recorded for the period 2011/12, including live births, stillbirths and terminations.

Gender-based violence in pregnancy
There were 280 new disclosures of gender-based violence in pregnant women recorded during 2011/12.

Maternal Smoking and Alcohol
Of those women consenting to the recording of information on their smoking behaviour, 17% were active smokers at booking within maternity services. This varied from 27% in the most disadvantaged group to 3% in the most affluent. Less than 1% of women admitted to actively drinking at booking, however 12% overall were either not asked or did not have this recorded at booking. The proportion without recorded alcohol status was higher in more disadvantaged women.

Maternal Mental Health
There was very limited information on maternal mental health needs during pregnancy or in the postnatal period. Around 17.3% of women who booked and who had an electronic referral, had a recorded mental health need in their previous medical history, with around 12.4% having an active diagnosis of depression at the time of referral. These figures are likely to be an underestimate. Maternal mental health is a major determinant of children's health and outcomes and more should be done to routinely collect information of antenatal and postnatal maternal mental health needs.

Maternal Obesity
Around 21.3% of all pregnant women who had their BMI recorded at booking were obese, with 30.4% being overweight. Around 9% of women did not have their BMI recorded at booking.

Teenage Pregnancy
Although disadvantage is a major factor in teenage pregnancy, the rates were falling for all groups of women over time.

Pregnancy Outcomes
75.8% of pregnancies resulted in a live birth, with 0.04% resulting in stillbirth and a further 23.6% resulting in loss through miscarriage or termination. Termination rates were highly influenced by social disadvantage, suggesting that much can be gained in the realm of prevention to reduce unwanted pregnancy.

Delivery Methods
54.1% of births were spontaneous deliveries; 31.9% were delivered via Caesarean section; and a further 14% were delivered through other instrumental methods such as Ventouse or forceps. There has been a doubling in Caesarean section rates over the past ten years. The trend over time is far greater than the effect of deprivation, suggesting that changes in society, perception of risk and professional's approach to risk management are the most likely drivers.

Deaths and serious illness in pregnancy
Death in pregnancy is fortunately a rare event. Major illness is still uncommon with all three maternity hospitals having major illness rates in pregnancy which are similar to the rate for Scotland (7.3 per 1,000 live births). Major Obstetric Haemorrhage (MOH) was the commonest major illness. National guidance suggests that all Boards should ensure comprehensive reporting of all major illnesses and recommends quality improvement tasks to prevent and manage the risks of MOH.

Child Health

Prematurity and Birth Weight
6.2% of births were born prematurely. 5.8% of births weighed less than 2,500g. Both issues were profoundly affected by social disadvantage. Prematurity and low birth weight are associated with poorer health in childhood and in later life.

Infant Feeding
Only 22.7% of babies born in 2011/12 were exclusively breastfed. This figure is known to be affected by culture and by social disadvantage, with the rate in the most affluent group being 37.6% and in the most disadvantaged groups the rate was 14.4%.

Screening
98.1% of new babies underwent bloodspot screening in order to identify uncommon conditions amenable to early preventative treatment.

The uptake of newborn hearing screening was high at 98.3%, with 1.3% being referred on for further investigation by audiology.

Only 77.5% of eligible pre-school children underwent vision screening, of which 24.4% required further investigation. Early vision correction preschool is an important determinant of achievement at school and in later life. The uptake of pre-school vision screening was profoundly affected by social disadvantage and more work must be done across health, early education professionals and services to improve this uptake and reduce inequalities for children.

P7 vision screening identified 1,170 children with vision defects, of which 263 were severe enough to require further assessment and correction, usually by an optometrist. The audit covered 70% of eligible children and this suggests that overall 14.3% of P7 pupils have vision problems and that for 3.2% these were significant enough to require further assessment.

Sleeping Position
94.8% of babies were reported to be sleeping on their back at the 6 to 8 week check. This is the safest position to reduce the risk of cot death. Two per cent were sleeping on their sides, and a further 3.7% were sleeping on their front (or prone). These sleeping positions are associated with higher risk of cot death. The unsafe sleeping positions were most likely to happen in areas of social disadvantage. There were also marked variations across CH(C)Ps. More must be done to reduce this avoidable risk.

Exposure to smoke
14.1% of babies were being exposed to second-hand (passive) smoke at two weeks. Exposure to smoke is a significant risk for cot death and an important cause of illness in babies and children. There was significant variation in exposure by levels of social disadvantage and variation in recording across areas. More must be done to reduce this avoidable risk factor for illness and death in children.

Parental Concerns
At two weeks, 7.6% of parents reported concerns around the health and development of their child. This was higher in more affluent groups. At the 6-8 weeks review, 5.6% of parents had concerns, and again, this was higher in more affluent groups. At the 24 months review, (a targeted contact for those already identified as needing more support) there were parental concerns in 15.7% of children reviewed. This review was skewed towards those in greater disadvantage and so there was no higher rate amongst the more affluent group at this contact.

Across all three time points of child health surveillance there were significant differences in the recording of concerns across areas, suggesting differences in organisational policy or professional practice. This approach must be harmonised to improve the quality of surveillance data and to reduce inequalities in the approach by health services.

Child Development
At the 6-8 weeks review children have their movement (gross motor), communication and social behaviour assessed.

Movement was assessed as normal in 94.7% of all children. Children in more disadvantaged areas were more likely to have movement assessed as abnormal or doubtful.

Communication was assessed as normal for 9.8% of the eligible population of children; and 0.5% were assessed as abnormal or doubtful. 2.7% of assessments were incomplete and this varied by CH(C)P area.

Social behaviour was assessed as normal for 95.4% of the eligible children, with 1.1% having needs identified, and a further 2.5% having incomplete assessments, with this figure varying across CH(C)P areas.

Health Plan Indicator (HPI)
A child's HPI is allocated within the first six months of life and can be modified thereafter. It is a measure of the need for ongoing support from Children and Family Teams.

At two weeks, 10% of children were allocated as Core; 37% Additional; and 4.2% Intensive, with a further 48.4% being Unassigned. This is consistent with policy which states that Health Visitors should allocate as soon as they have sufficient evidence to safely do so, but that this should take place in all cases by 24 weeks of life.

At the 6–8 weeks review 38.1% of children were allocated as Core; 38.2% were Additional; and 4.9% were Intensive, with a further 18.9% Unassigned.

At the 24 months review (a targeted contact for around 29% of children), 34.6% of children were assessed as Core; 53.1% were Additional; and 11.4% were Intensive, with only 0.9% being Unassigned. This is in keeping with a targeted contact.

There was very significant variation in the allocation of HPI across areas, independent of the impact of social disadvantage, suggesting variations in policy or practice. This should be harmonised to reduce inequalities and improve the quality of surveillance data.

Immunisation
Immunisation is an important public health intervention. The uptake of primary immunisation, MMR and HPV vaccinations was high across NHSGGC, with levels comparable to the Scottish uptake rates.

Oral Health
Registration with a dental practitioner for 0-2 year olds was only 48.1% overall. For children aged 3-5 years this rose to 89.2%. Levels varied widely by CH(C)P, suggesting variation in policy or practice across areas. 63.2% of P1 children had no signs of dental decay. There was considerable variation by social disadvantage and by area. This level fell to 49.4% of P7 pupils**.** The Childsmile prevention programme showed evidence of targeting across some areas, but there was a very high level of incomplete recording (49.9% overall). There was evidence of significant variation in either policy or practice across CH(C)P areas which risk the creation of oral health inequalities.

Childhood Obesity
14.8% of all children with a height and weight recorded were overweight or obese (8.9% overweight and 594% obese). 7.6% of all children had no height or weight in Primary 1 recorded and this was very variable across CH(C)P areas.

Unintentional Injury
2,358 hospital admissions took place in 2011/12 due to unintentional injury. The overall admission rate was 8.7 per 1,000 children aged 0-19. Social disadvantage and age band were the main drivers of unintentional injury. When standardised to allow comparison against the Scottish rate all local authorities were similar to the Scottish rate with the exception of East Renfrewshire where the rate was significantly lower.

Emergency Department Attendances and Admissions
Attendance rates across all age-bands was higher than the Scottish rates, but admission rates were broadly similar, suggesting that parental behaviour is a major driver of attendance. This issue requires further focussed work.

Childhood Hospitalisations
Overall childhood hospitalisation rates have been rising since 2004/5 and reached 105 per 1,000 for 0-19 year olds per year in 2011/12. The commonest diagnoses were gastrointestinal, respiratory and unintentional injury.

Child Deaths
Deaths in childhood are fortunately rare and deaths in childhood in all age bands are decreasing. However, deaths during the first year of life (Infant Mortality Rate or IMR) was 4.1 per 1,000 live births per year for the rolling three year period ending March 2012. This compares with a Scottish IMR of 3.7 per 1,000. IMR is influenced by maternal smoking, addictions and nutrition.

The Scottish Government's Early Years Collaboratives have set an aim of reducing IMR and stillbirth (which has similar causal factors) by 15% by 2015. Collaboratives are the responsibility of Community Planning Partnerships (CPPs). The focus to reduce IMR must be on tackling smoking and addictions in the antenatal and postnatal periods.

1. INTRODUCTION

Healthy mums are more likely to give birth to and raise healthy children. This central tenet underpins public health policy and practice. This report has been developed in order to improve the health of pregnant women and children. The report uses routinely available health service activity data for the period April 2011 to March 2012 to describe healthcare use and outcomes for children and young people aged 0-19, and pregnant women living within the Greater Glasgow and Clyde NHS Board area. The data focuses on electronic data collected across the antenatal period and during the first five years of life, reflecting the health service's lead on maternal and child health and development.

The structure and governance of services which support pregnant women and children is complex and this report seeks to support the Board in delivering high quality, efficient care whilst limiting the impact of health inequalities. Views are sought on the overall structure of the report and how it can be improved to support governance processes.

2. DEMOGRAPHICS AND WIDER DETERMINANTS OF MATERNAL AND CHILD HEALTH IN NHS GREATER GLASGOW AND CLYDE

Demographics

In 2011 NHSGGC was home to over 1.2 million people, of which more than a quarter of a million were under 19 years of age. The breakdown of children and young people within NHSGGC and its localities is shown in Table 1.

Table 1 NHSGGC population and selected subgroups: school populations and key benefit claimants

Sector/ CH(C)P	Total population estimate	Population: aged 0-19 years (in brackets: % of total population)	Population: aged 0-15 years	Population: aged 16-19 years	Primary school population (Year 2012)	Secondary school population (Year 2012)	Percentage of population aged 16-24 claiming key benefits
NHSGGC	1, 210, 254	268, 193 (22.2%)	208, 647 (17.2%)	59, 546 (4.9%)	83, 270	66, 751	14.4%
Glasgow North	101, 548	22, 950 (22.6%)	17, 161 (16.9%)	5, 789 (5.7%)	6, 558	5, 075	16.9%
Glasgow East	126, 542	27, 181 (21.5%)	21, 284 (16.8%)	5, 897 (4.7%)	8, 444	6, 802	18.6%
Glasgow West	147, 964	27, 717 (18.7%)	20, 330 (13.7%)	7, 387 (5.0%)	7, 545	5, 690	9.5%
Glasgow South East	104, 986	22, 366 (21.3%)	18, 110 (17.2%)	4, 256 (4.1%)	6, 933	5, 098	15.1%
Glasgow South West	117, 790	26, 922 (22.9%)	21, 202 (18%)	5, 720 (4.9%)	8, 603	6, 695	17.1%
West Dunbartonshire	90, 360	20, 634 (22.8%)	16, 093 (17.8%)	4, 541 (5.0%)	6, 807	5, 307	19.2%
East Dunbartonshire	104, 570	23, 985 (22.9%)	18, 529 (17.7%)	5, 456 (5.2%)	7, 311	6, 521	8.9%
Inverclyde	79, 220	17, 498 (22.0%)	13, 657 (17.2%)	3, 841 (4.8%)	5, 404	4, 643	15.8%
Renfrewshire	170, 650	38, 419 (22.5%)	30, 222 (17.7%)	8, 197 (4.8%)	12, 316	10, 238	15.7%
East Renfrewshire	89, 850	22, 515 (25.1%)	17, 637 (19.6%)	4, 878 (5.4%)	7, 320	6, 274	8.3%

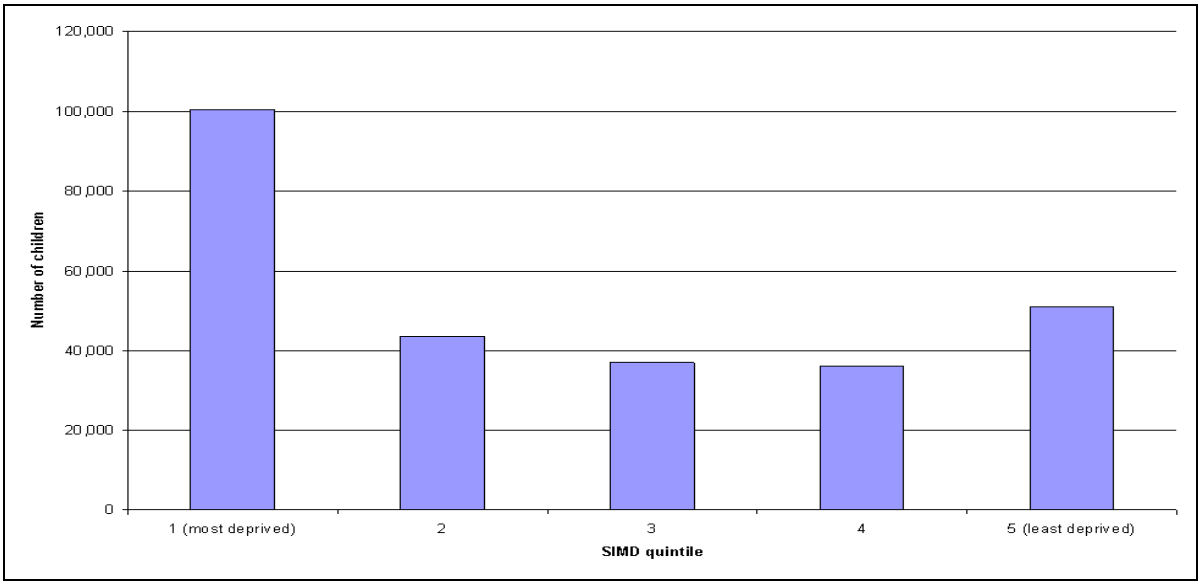
Source: Scottish Neighbourhood Statistics 2013 Area Profile Reports 2011-2012
http://www.sns.gov.uk/Reports/AreaProfile.aspx

Of the localities within NHSGGC, East Renfrewshire has the highest proportion of children with a quarter (25.1%) of its population aged 0-19 years whilst Glasgow West has the lowest proportion of children aged 0-19 years (18.7%).

Figure 1 shows the breakdown of resident 0-19 year olds by age band and by disadvantage, where group 1 is most disadvantaged and 5 is most affluent (see

appendix Table A1 for source data). Overall, 37% of the population were in the most disadvantaged group, this level being almost twice the percentage living in these circumstances for Scotland as a whole. Children in the age band 0-4 were most likely to be living in disadvantaged circumstances and children of this age were less likely to be in the most affluent group in comparison with other age bands. The proportion of children in the most affluent group increases with age band. This is likely to be related to the fact that family poverty is most acute in families with young children due to the impact of childcare.

Figure 1 NHSGGC population of children by SIMD quintile of deprivation



Source: SAPE 2011

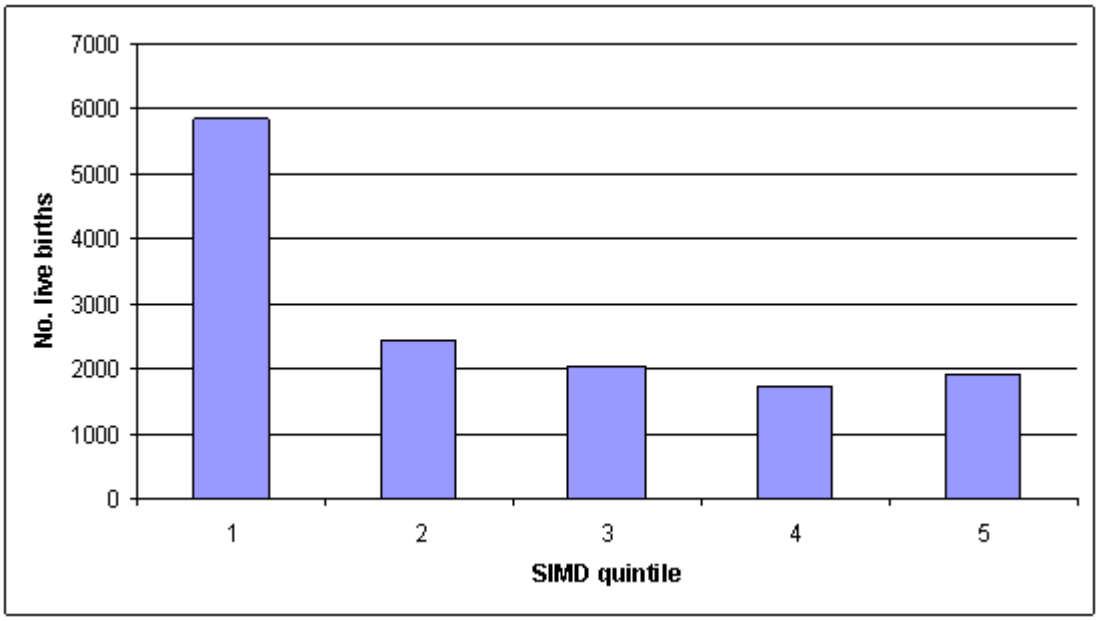
Approximately, one in seven young people aged 16-24 in NHSGGC were claiming key benefits (14.4%). There is considerable variation across NHSGGC in terms of the prevalence of young people claiming benefits. Almost one in five young people in Glasgow East and West Dunbartonshire were claiming key benefits compared to less than one in ten in East Renfrewshire and East Dunbartonshire.

Demographics – pregnancies and outcomes

During the year 2011-2012 there were 18,173 pregnancies in NHS Greater Glasgow and Clyde. Of those, 13,790 (75.8%) resulted in live births, 82 (0.04%) still births and 4,301 (23.6%) were lost before the 24th week of gestation.

The majority of births were to women living in circumstances more disadvantaged than the Scottish average (see Figure 2).

Figure 2 Live births to NHSGGC residents by SIMD quintile of deprivation 2011-12



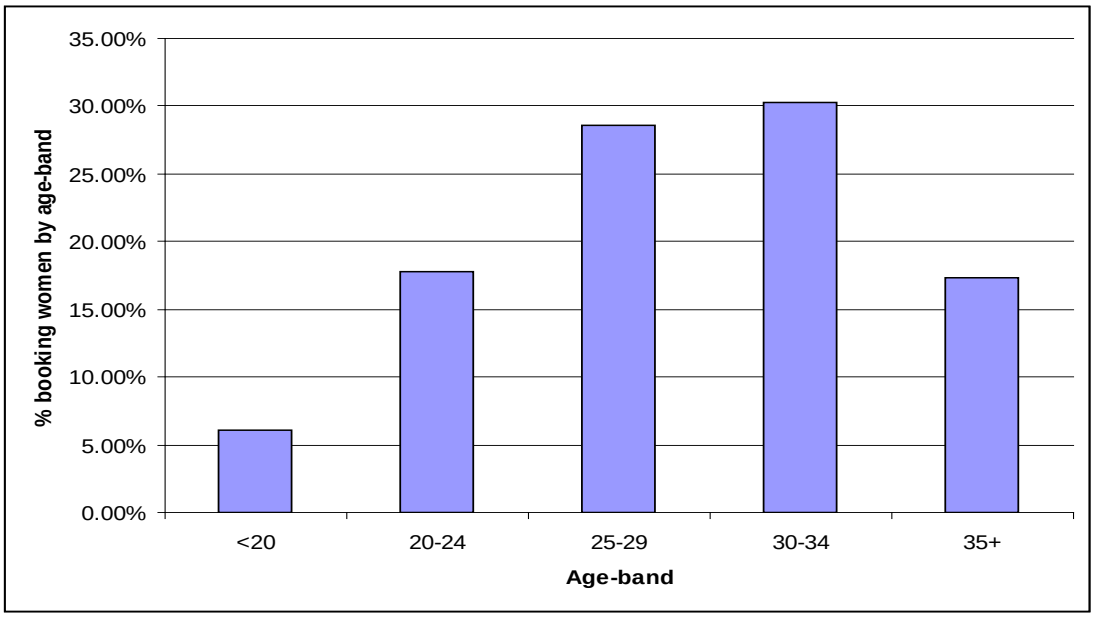
Source: Scottish Morbidity Record (SMR02) April 2011- March 2012

Overall, the highest proportion of women were in the age group 30-34 at the time of booking (30.3%), with only 6% being under 20 years. The overall breakdown by age band is shown in Figure 2a. In general, more women in older age bands tended to book at the Southern General Hub and more women in younger age bands booked at the Royal Alexandra Hospital and the Princess Royal Maternity (see Table A1a of the appendix). An analysis by socioeconomic deprivation status shows a trend towards older births in more affluent women. Whilst births below the age of 20 were uncommon, they were more likely in more disadvantaged groups (see Figure 2b). These trends explained the pattern of age at booking across the CH(C)P areas (see Table A1b of the appendix).

Maternal ethnicity is recorded as part of the pregnancy and newborn screening process. For mothers resident in NHSGGC booking during the year 2011/12, 77.5% had a UK ancestry. 7.2% were of Indian, Pakistani or Bangladeshi origin, and 4.4% were of Mediterranean, Albanian, Czech or Polish ancestry. Ancestry was not recorded for 3.2% of mothers. The highest proportion of mothers of Indian, Pakistani or Bangladeshi origin booked at the Southern General Hub (12.67% of all bookers) and this was also true for the group comprising Mediterranean, Albanian, Czech and Polish ancestry (5.39%). Women of Afro Caribbean and Chinese/other Asian origin were most likely to book at the Princess Royal Maternity (4.17% and 3.3% of bookers at this site respectively).

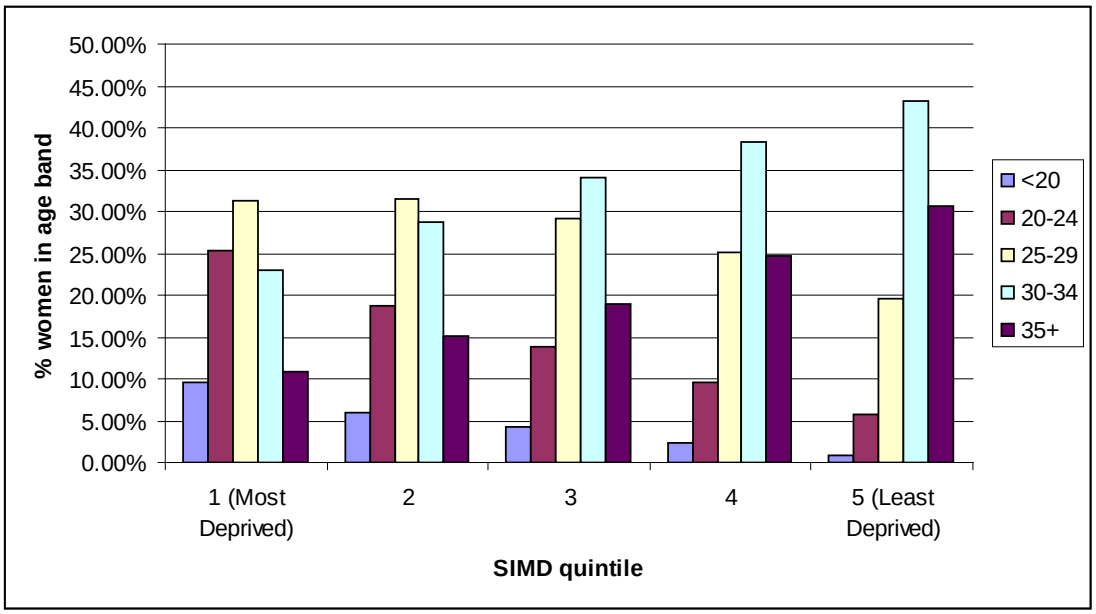
The data is found in Table A1c of the appendix. The detailed ancestry information by CH(C)P area is found in Table A1d of the appendix.

Table 2a Percentage of women by age-band at booking for the year 2011/12



Source: PNBS, March 2013

Figure 2b Percentage of women by age-band at booking and SIMD(2012) quintile of socioeconomic deprivation



Source: PNBS, March 2013

When analysed by socioeconomic quintile of deprivation, ethnicity group E (Mediterranean, Albanian, Czech and Polish) and group A (Afro Caribbean) were most prevalent in the most disadvantaged quintile of the population, representing 4.1% and 6.2 % of mothers in quintile one respectively. In contrast, group B (Indian, Pakistani and Bangladeshi) mothers were spread across quintiles 2, 3 and 4. Mothers of UK ancestry were most prevalent in the most affluent group (quintile 5). This pattern is in keeping with that expected with the most recent waves of immigration being in the lowest socioeconomic tier whilst earlier migrant groups have moved into areas of greater affluence. The data can be found in Table A1d of the appendix.

Looked After Children and Child Protection

High levels of socioeconomic disadvantage are associated with higher levels of vulnerability in children and families. In such situations, children are more likely to need the involvement of social work services, to be looked after by agencies (Looked After Children and Young People – LACYP) and in the most extreme circumstances, to be on the local authority's Child Protection Register.

Looked After Children and Young People (LACYP)

In all local authority areas with the exception of Glasgow City LACYP are most likely to be at home with their parents. In Glasgow City LACYP were more likely to be looked after by friends/relatives and are least likely to be placed in residential accommodation. The highest number of LACYP was in Glasgow City (3,740) and the lowest in East Dunbartonshire (162). When these figures are expressed as rates (number of LACYP per 1,000 resident 0-19 year olds), the Board average was 20.62 per 1,000. The highest rate was in Glasgow City at 29.41 per 1,000 and the lowest in East Dunbartonshire at 6.75 per 1,000. This is shown in Table 2.

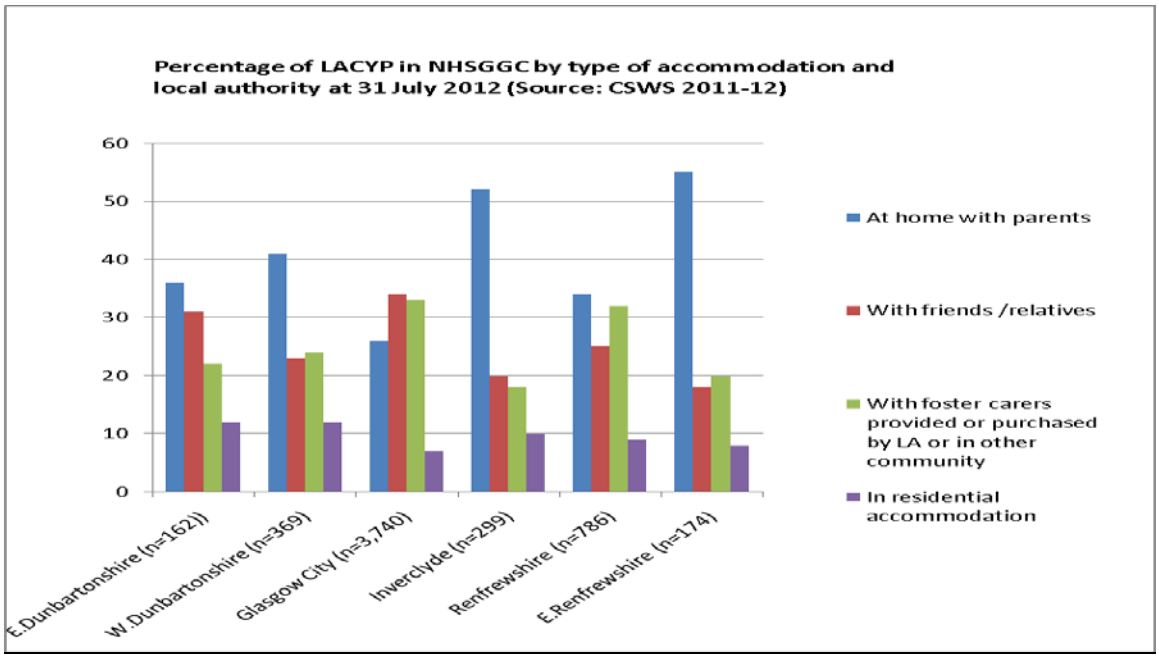
Table 2 Numbers and rates of LACYP by local authority/CH(C)P – Community Health (and Care) Partnerships for the year 2011/12 Rates calculated using mid 2011 population estimates 0-19

CH(C)P	No. LACYP	0-19 population	LACYP Rate per 1,000
East Dunbartonshire	162	23,987	6.75
East Renfrewshire	174	22,067	7.88
Glasgow City	3,740	127,165	29.41
Inverclyde	299	17,495	17.09
Renfrewshire	786	38,412	20.46
West Dunbartonshire	369	20,633	17.88
Other	*	18,364	*
NHSGGC	5,530	268,123	20.62*
*Please note that the Board rate does not include the areas of North and South Lanarkshire as the data was not available for small areas within CH(C)Ps.			

Source: Children's Social Work Statistics Scotland, 2011-12

LACYP can be at home with their parents; with friends and families (so called kinship carers); with foster carers; or in residential homes. The proportions across the local authorities is shown in Figure 3.

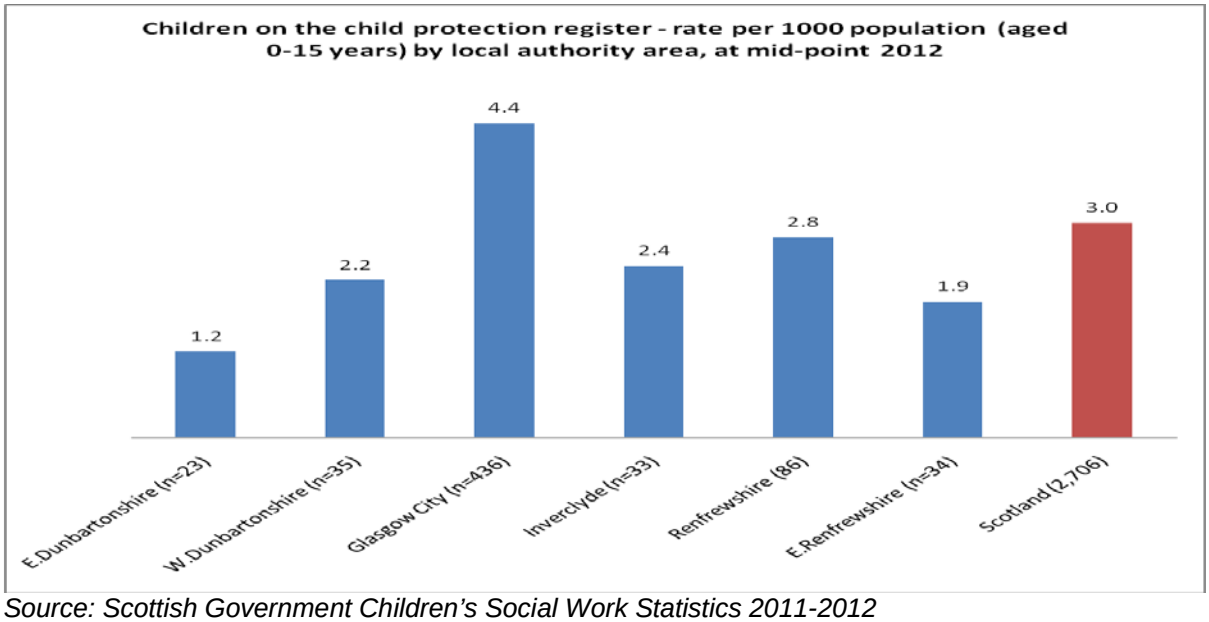
Figure 3



Child Protection

The rate per 1,000 of children on the Child Protection Register in Glasgow City was higher than other NHSGGC local authority areas (4.4 per 1,000) and numbers represent 16% of the national figure. All other local authorities in NHSGGC fall below the national rate. This is shown in Figure 4.

Figure 4



Source: Scottish Government Children's Social Work Statistics 2011-2012

Demographics – life expectancy by CH(C)P

For most local authority areas within NHSGGC (with the exception of East Renfrewshire and East Dunbartonshire), both male and female life expectancy at birth falls short of the Scottish average (77 years: males; 81.3 years: females). Female life expectancy is consistently higher than male life expectancy irrespective of local authority area.

The highest life expectancy overall was in East Dunbartonshire (78.7 and 82.7 for males and females respectively) and the lowest overall was in Glasgow City (71.2 and 77.6 for males and females respectively).

Socioeconomic disadvantage has a profound impact on life expectancy. If we compare the highest life expectancy in men (79.8 in East Dunbartonshire) and the lowest in men (65.3 in Glasgow City), this accounts for a 14.5 year difference. For women the difference between the highest life expectancy in the most affluent areas and the lowest in the most disadvantaged is 9.6 years (highest East Dunbartonshire at 83.8 and the lowest in Glasgow City at 74.2). The largest discrepancy in life expectancy within a given gender and CH(C)P - Community Health (and Care) Partnership was between males living in the most and least disadvantaged areas of Renfrewshire (approximately 10 years). This is shown In Table 3.

Table 3 Life Expectancy at birth for NHSGGC residents by CH(C)P

Locality	Gender					
	Males			Females		
	Average life expectancy (ALE)	ALE: 15% most disadvantaged	ALE: 85% least disadvantaged	Average life expectancy (ALE)	ALE: 15% most disadvantaged	ALE: 85% least disadvantaged
Scotland	77.0 yrs	N/A	N/A	81.3 yrs	N/A	N/A
Glasgow City	71.2 yrs	65.3 yrs	72.3 yrs	77.6 yrs	74.2 yrs	78.2 yrs
Inverclyde	72.8 yrs	67.1 yrs	73.7 yrs	78.9 yrs	75.4 yrs	79.5 yrs
Renfrewshire	73.8 yrs	65.9 yrs	75.1 yrs	79.2 yrs	74.5 yrs	79.9 yrs
East Renfrewshire	77.9 yrs	71.9 yrs	79.1 yrs	82.3 yrs	78.4 yrs	83.0 yrs
West Dunbartonshire	73.1 yrs	73.4 yrs	76.7 yrs	78.2 yrs	76.9 yrs	80.2 yrs
East Dunbartonshire	78.7 yrs	72.4 yrs	79.8 yrs	82.7 yrs	77.6 yrs	83.8 yrs

Source: General Register Office for Scotland. Life expectancy in Scottish Council Areas split by deprivation (2006-2010)

3. MATERNITY

3.1 Prenatal screening

The purpose of prenatal screening is to identify couples at risk of having a child with a haemoglobinopathy, Down's syndrome or a congenital anomaly in order to provide them with information upon which they can base their reproductive choices; and to identify women with communicable disease in order to ensure the best outcomes for women and their partners and to reduce the chance of transmission to the child.

15,086 women were eligible for haemoglobinopathy screening in 2011/12, and the uptake was 82.7% overall, varying from a high of 99.6% at Royal Alexandra Hospital to 69.9% at the Princess Royal Maternity. Data on the number of fetuses at risk and the number of carriers are not available for 2011/12.

16,249 women were eligible for communicable disease screening in 2011/12. The diseases tested included HIV, Hepatitis B, Rubella and Syphilis. The uptake of these individual tests is shown in Table 4.

Table 4 Uptake rates for communicable disease testing in pregnancy

Test	Uptake (%)
HIV	98.76
Hepatitis B	99.03
Rubella	99.69
Syphilis	99.10

Source: NHS Greater Glasgow and Clyde Public Health Screening Programmes Annual Report 2011/12

This resulted in the detection of 20 women with HIV (of which 13 were already known to services); 72 women infected by Hepatitis B virus (of which 38 were previously known); 747 women without immunity to rubella; and seven women with syphilis.

Screening for Down's syndrome and other congenital anomalies involves a combination of blood and ultrasound tests. The uptake of the tests is highly influenced by women's individual beliefs. Overall, 71.6% of women underwent first or second trimester screening for Down's syndrome. This identified 484 women at higher risk of Down's syndrome and 186 women at higher risk of other congenital anomalies (including spina bifida). Of these, 407 elected to proceed to amniocentesis. This includes some women who did not take part in biochemical or ultrasound screening. Of these, 28 chromosomal anomalies were confirmed. 93 women elected to undergo chorionic villus biopsy, which provides chromosomal analysis at an earlier stage in the pregnancy.

As before, this includes some women who did not take part in the screening programme. 18 chromosomal anomalies were identified.

Fetal anomaly scanning in the second trimester had an overall uptake of 66%, varying from 58.7% at the Southern General Hospital to 78.4% at the Royal Alexandra Hospital. 140 possible anomalies were identified by scan or which 71 were confirmed.

Overall, between April 2011 and March 2012, there were 316 cases of congenital anomaly recorded as part of routine congenital anomaly surveillance (as of November 2012). These data include live and stillbirth as well as terminations. The commonest anomalies were chromosomal (74, 23.4%) and cardiac/circulatory disorders (42, 13.3%).

More information on the prenatal screening programmes can be found in the NHS Greater Glasgow and Clyde Public Health Screening Programmes Annual Report 2011/12 (1).

3.2 Gender-based violence in pregnancy

Figures from the GBV Resource Unit are reliant on a process of interagency information sharing involving police, social work and a range of health professionals. They represent women who disclosed experience of gender based violence either voluntarily or as a result of an incident. It is reasonable to assume that the figures noted here do not include all women who experience any form of gender based violence while pregnant.

According to the Gender Based Violence (GBV) Resource Unit: Child Protection Domestic Abuse & Pregnancy data between April 2011–March 2012 there were 280 new cases of disclosure of pregnant women experiencing gender based violence:

- 242 new cases related to current abuse, 30 related to past abuse and three were unknown
- 132 women were aged between 16-25 years
- 119 women were aged between 25-35 years
- 25 women were aged 35 years or over

In addition,

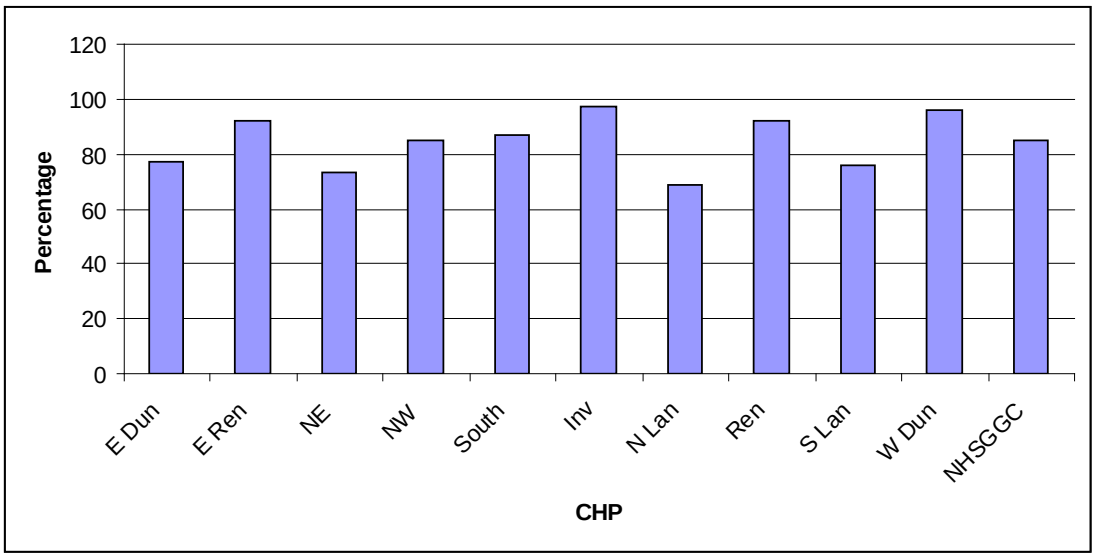
- 166 women were of ≤20 weeks gestation when they disclosed
- 58 women were of 21-29 weeks gestation when they disclosed
- 31 women were of ≥30 weeks gestation when they disclosed
- Six women disclosed postnatally

A number of women experienced multiple types of abuse simultaneously (emotional, physical, sexual or financial).

3.3 Smoking in pregnancy

Women are routinely asked for consent to undergo carbon monoxide (CO) testing at booking to explore their exposure to smoke. Raised levels of CO can help staff to explore levels of smoking or exposure to second-hand smoke which are both harmful to mum and baby. Overall 85% of women booking agreed to CO testing and had their smoking status recorded. The highest level of participation was in Inverclyde (97%) and lowest in North Lanarkshire (69%). This is shown in Figure 5.

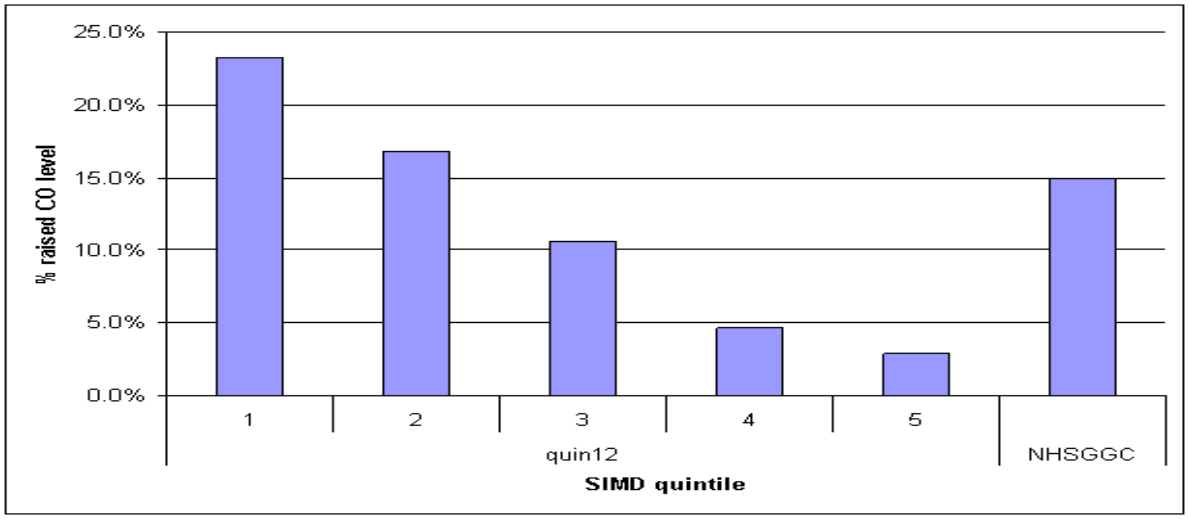
Figure 5 Percentage of women consenting to carbon monoxide testing to establish exposure to cigarette smoke by CH(C)P of residence



Source: PNBS, September 2013

Of those who consented to CO testing, 15% had CO levels of five parts per million or greater, consistent with significant exposure to smoking. The proportion of women with high CO was markedly affected by poverty, with the most disadvantaged group having raised levels in 23.2% of those consenting compared to just 2.9% of those in the most affluent groups - suggesting a ten-fold gradient in exposure to smoking associated with the impact of poverty (see Figure 6).

Figure 6 Percentage of women with high carbon monoxide levels by SIMD quintile 2011/12



Source: PNBS, September 2013

Geography also had an impact on levels of exposure to smoke. The highest proportion of women with raised CO levels was in Inverclyde (21.9%) and the lowest in East Renfrewshire (8.1%) as shown in Table 5. It should be noted that there was uneven consent to participate in CO testing. The variation in consent by level of disadvantage ranged from 83% in the most disadvantaged to 88% in the most affluent - a difference of 5%. The difference by geography was greater than this level, suggesting that additional factors such as local organisation were a greater source of variation.

Table 5 Percentage of consenting women with a raised carbon monoxide level at booking by CH(C)P of residence, 2011/12

CH(C)P	% high CO
East Dunbartonshire	8.6
East Renfrewhshire	8.1
Glasgow North East	15.0
Glasgow North West	14.4
Glasgow South	13.6
Inverclyde	21.9
North Lanarkshire	13.5
Renfrewshire	17.0
South Lanarkshire	17.0
West Dunbartonshire	20.4
NHSGGC	15.0

Source: PNBS, September 2013

Of those who had smoking status recorded electronically 74% described themselves as non-smokers, with 9% being ex-smokers and 17% being active

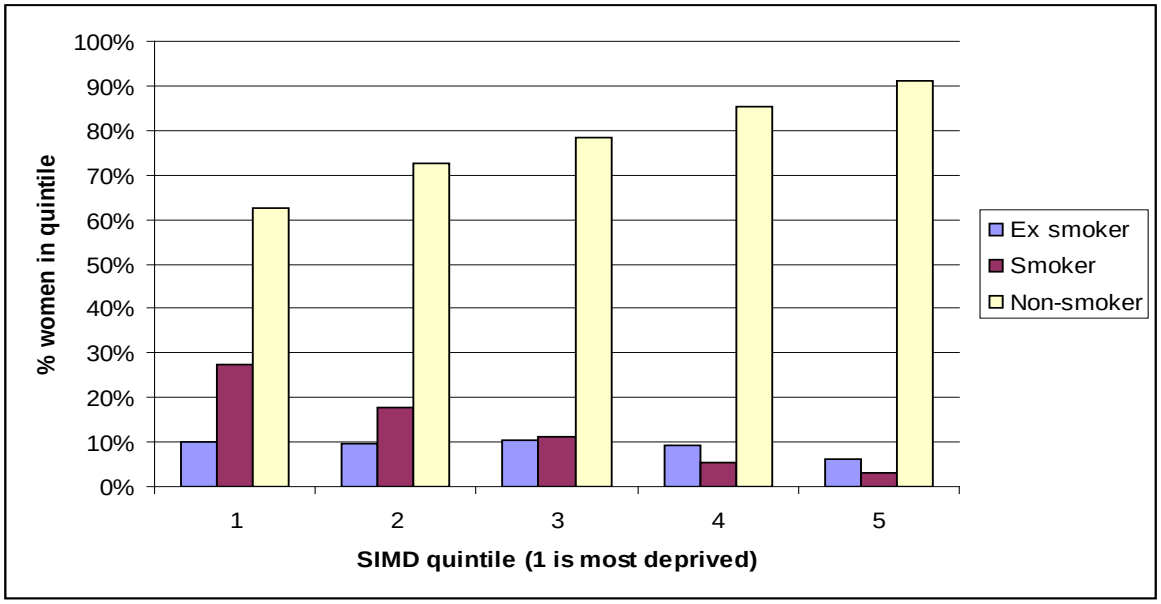
smokers. There was a marked social gradient with women in the most disadvantaged group being most likely to describe themselves as smoking (27%) whilst those in the most affluent group were least likely to smoke (3%). This is shown in Figure 7.

The highest proportion of active smokers was in Inverclyde (24%) with the lowest proportion being in East Renfrewshire (8%). The detailed data by CH(C)P - Community Health (and Care) Partnership is found at Table A2 in the appendix.

The smoking status data and CO data at CH(C)P should be interpreted cautiously due to differences in consenting patterns. It is likely that the recording of smoking status was more complete in the paper-based clinical record.

839 women were seen by smoking cessation services during the antenatal period. Of these, 297 (or 35%) were not smoking after four weeks follow up.

Figure 7 Self-reported smoking status at booking by socioeconomic quintile for the year 2011/12 (SIMD 2012)



Source: PNBS, September 2013

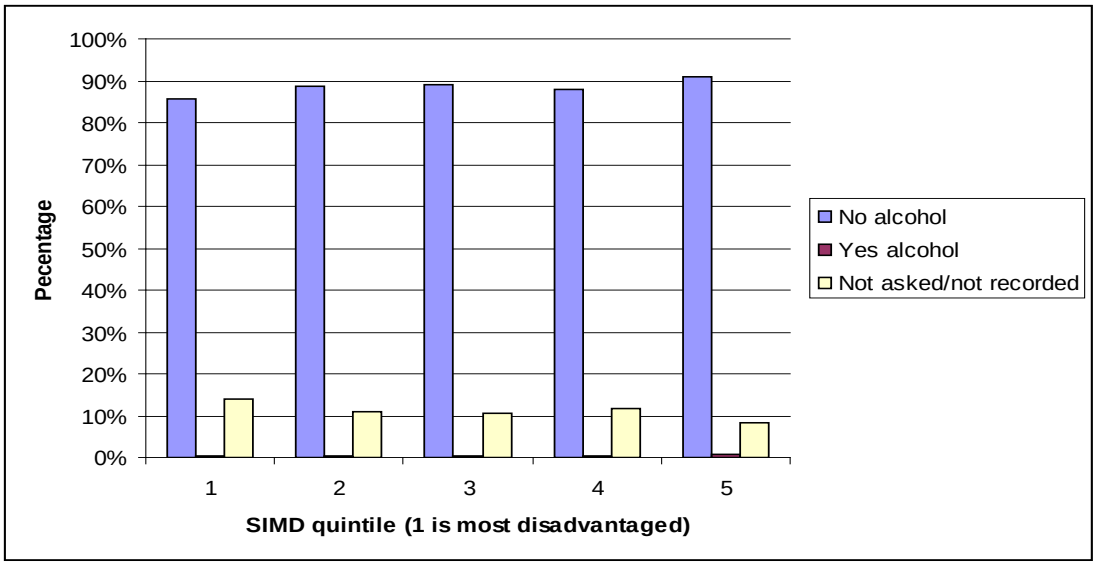
3.4 Alcohol in pregnancy

Alcohol can cause significant health problems for pregnant women, and conditions such as Fetal Alcohol Spectrum Disorder (FASD) in their babies. Every woman should be asked about current alcohol consumption at their booking visit. 88% of women had a recorded answer to this question. For the remaining 12% either the question was not asked or not recorded.

Overall, 87.5% of women reported not drinking at the time of asking. There was a gradient by socioeconomic status, with 85% of women in the most disadvantaged group being abstinent, rising to 91% of those in the most affluent group. There was no apparent social trend to those who reported drinking (between 0.5% and 1%). There was a clear trend towards women in more disadvantaged social groups not being asked or not having their alcohol status recorded (12% overall). For the most affluent, the information was not recorded for 8% but this rose to 14% for those in the most disadvantaged group. This is shown in Figure 8.

An analysis by CH(C)P - Community Health (and Care) Partnership - is shown in Table A3 of the appendix. The highest levels of abstinence were reported in Inverclyde (94%). The areas with the greatest numbers with unknown or unrecorded drinking status were North Lanarkshire (25%) followed by North East Glasgow (21%).

Figure 8 Recorded response to questions about drinking at booking by quintile of socioeconomic deprivation (SIMD 2012)



Source: PNBS, 2012

Of the 0.5% of women (77) recorded as drinking in pregnancy, 44% (34) were not considered to require an Alcohol Brief Intervention. 34% (26) had a completed intervention, but for 15 women (19%) it was not known if an intervention had taken place. There was a strong social gradient in the recording of outcomes with the majority of those with incomplete information being from the most disadvantaged group. It may be that recording was more complete in the Scottish Woman Held Maternity Record (SWHMR).

3.5 Mental health needs in pregnancy

Maternal mental health is widely considered to be an important determinant of a child's outcomes. There is very little information on antenatal mental health. Electronic referrals from GPs to maternity services were examined for evidence of a prior or current diagnosis of mental health needs; or evidence of a prior or current prescription for classes of medicines known to be used mainly or exclusively in the treatment of mental health needs. Whilst this does not represent comprehensive data, it is reported to establish the scale of lifetime prevalence of mental health needs in the population of pregnant women.

Of the 13,276 electronic referrals in pregnancy during 2011/12 (source: SCI Gateway Referrals), there were a total of 2,303 pregnant women with a current or prior history of mental illness, suggesting a life-prevalence of mental health needs of 17.3% to the point of referral. Of these 2,303 women, 1,650 (12.4%) had a current diagnosis of depression and 156 had a current or prior diagnosis of postnatal depression. 386 had a history of self harming and 107 had other forms of mental illness (classified as miscellaneous).

352 pregnant women were currently on or had recently received medication for mental illness. 47 were currently receiving medication for their mental illness and 305 had recently received medication for their mental illness. The most common type of medication taken by pregnant women was SSRIs (Selective Serotonin Reuptake Inhibitors) with 36 women currently taking the medication and 248 having recently taken them.

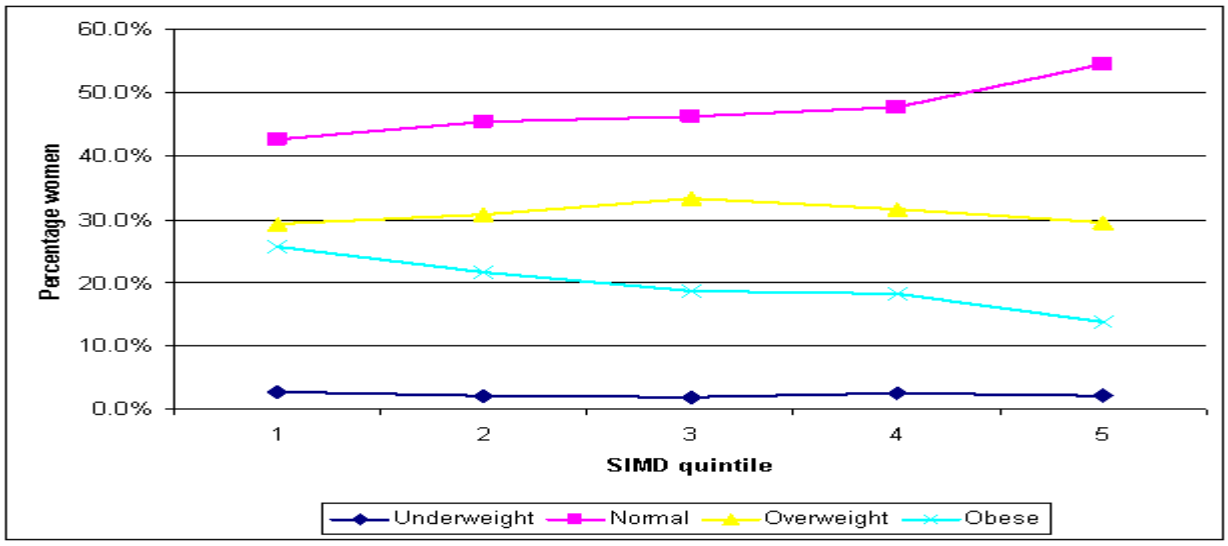
This method of estimating the prevalence of mental health needs is imperfect and relies upon analysis of text-based elements of the referral. It is suggested that referral pathways should urgently improve the recording and sharing of mental health needs information in the antenatal period in order to improve outcomes for mothers and children.

3.6 Obesity in pregnancy

Women receiving antenatal care have their height and weight recorded and their Body Mass Index (BMI) calculated at the booking visit. Women were classified as being of normal weight, underweight, overweight or obese. During 2011/12, 91% of women had their BMI recorded. There was no relationship between socioeconomic deprivation and the recording of BMI, however, the lowest levels of BMI recording took place in North Lanarkshire (21% of women had no recorded BMI) with only 1% of women not having a BMI recorded in Inverclyde. 54% of women with BMI recorded were either overweight or obese.

46% of women for whom BMI was calculated had a normal BMI. There was a relationship between normal weight and socioeconomic status, and a relationship between obesity and socioeconomic status. Obesity accounted for 21.3% of recordings overall, but this was highest in the most disadvantaged section of the population (25.6%) and lowest in the most affluent (13.9%). Conversely, normal BMI, which accounted for 46% of the recordings overall, was commonest in the most affluent (54.4%) compared with only 42.5% in the most disadvantaged group. Only 2% of BMIs were underweight (with no social gradient). These findings are shown in Figure 9, and at Table A4 of the appendix. Please note that the data by CHP shows percentages of total booking women, not of those who had a BMI recorded.

Figure 9 BMI by socioeconomic quintile (SIMD 2012)



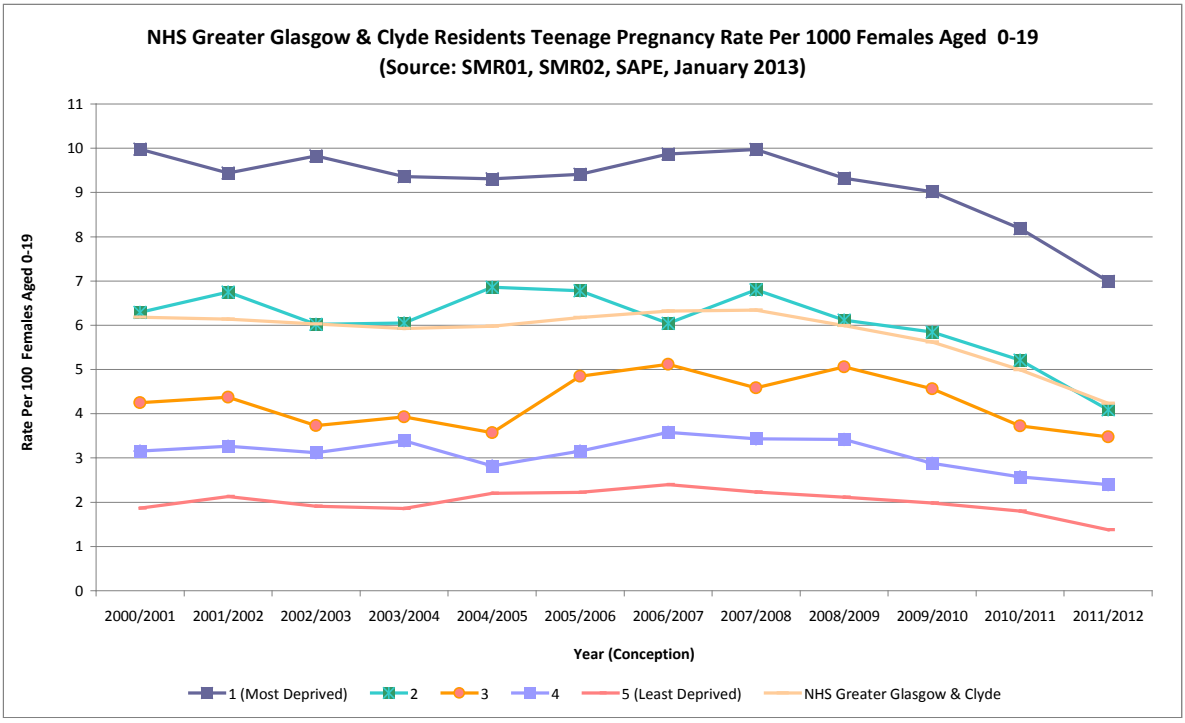
Source: PNBS, 2012

Normal weight was commonest in East Renfrewshire (49%) and least common in North Lanarkshire (33%). Overweight was commonest in West Dunbartonshire and least common in Glasgow North East (32% and 23% respectively) and obesity levels were highest in West Dunbartonshire and lowest in East Dunbartonshire (26% and 16% respectively).

3.7 Teenage pregnancy

Teenage pregnancy rates in NHSGGC have fallen since 2008/9 and the rate in 2011/12 was 3.5 per 1,000 females aged below 20 years. Whilst this reflects falling rates in all socioeconomic groups, see Figure 10, there is a marked socioeconomic effect with the highest rate being in the most disadvantaged group of the population (7.0 per 1,000) and the lowest rate being in the most affluent group (1.4 per 1,000). The trends in teenage pregnancy are shown in Figure 10.

Figure 10 Teenage pregnancy rates per 1,000 females aged 0-19 for NHSGGC residents



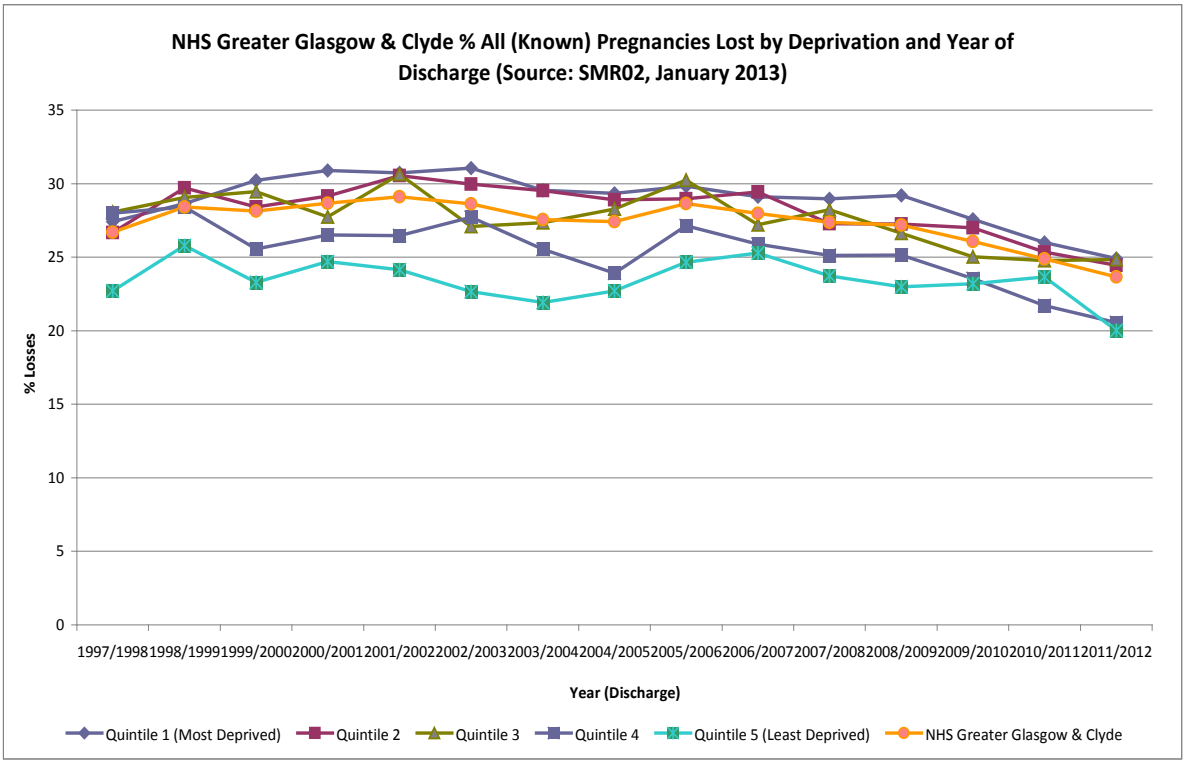
Source: Scottish Morbidity Record (SMR01 and SMR02) April 2011-March 2012

3.8 Outcomes of pregnancy

Pregnancies known to healthcare can be classified into three broad outcomes: live birth; stillbirth (death after 24 weeks 6 days of gestation); or loss (miscarriage or termination). During 2011/12 there were 18,173 pregnancies recorded through healthcare information. A higher number of pregnancies were found in the most disadvantaged group of women, with 42% of pregnancies occurring in the most disadvantaged 20% of women. By comparison, only 13% of all pregnancies occurred in the most affluent 20% of pregnant women.

The 18,173 recorded pregnancies resulted in 13,790 live births (75.8%); 82 stillbirths (0.04%); and 4,301 losses before the 24 weeks of gestation (23.6%). Stillbirth rates and losses were higher in more disadvantaged groups. The losses were highest, 24.9%, in quintile 1 (most disadvantaged) compared to 20% in quintile 5 (most affluent), see Figure 11.

Figure 11 Pregnancy losses by quintile of socioeconomic deprivation and year



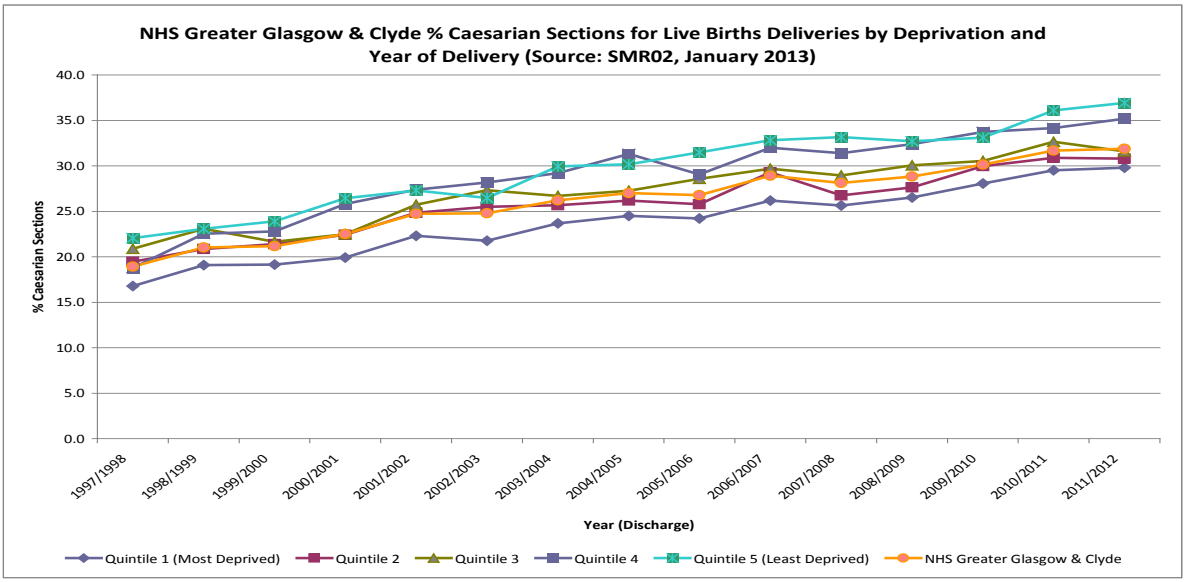
Source: Scottish Morbidity Record (SMR02)

There was little evidence of differences in recorded miscarriage rates across socioeconomic groups, but termination rates were significantly higher in the most disadvantaged group (16.3 per 1,000 women aged 15-44) compared to 7.6 per 1,000 women in the most affluent group.

3.9 Delivery methods

Deliveries were classified as spontaneous, Caesarean section, or other (which included forceps delivery, Ventouse (vacuum cup), or breech delivery). In 2011/12, 54.1% of deliveries were spontaneous, with Caesarean sections accounting for 31.9% and 14% of deliveries being 'other'. The method of delivery varied by time and there was some evidence that socioeconomic impact affected method of delivery, see Figure 12 below.

Figure 12 Percentage of Caesarean sections for live births by quintile of deprivation and year for NHSGGC residents



Source: Scottish Morbidity Record (SMR02) April 2011-March 2012

The figure shows that the Caesarean section rate has increased from 18.9% of all deliveries during 1997/98 to 31.9% in 2011/12. 14% of the Caesarean sections were recorded as elective with the remaining 17.9% being performed for emergencies. Over the period 1997/99 to 2011/12 there was a significant increase in both elective and emergency Caesarean section rates.

In addition, there are differences in the Caesarean section rates between women within socioeconomic groups, with those in most disadvantaged circumstances having a rate of 29.8% in 2011/12, and those in the most affluent group having a rate of 36.9%. There was little variation in emergency Caesarean section rates by socioeconomic group, but a marked variation in elective rates. During 2011/12 the rates varied from 12% in the most disadvantaged group to 18.9% in the most affluent group.

The trend to higher Caesarean section rates in more affluent sections of the population could be explained by a combination of later maternal age, and impact of choice, however the overall increase in emergency Caesarean section rates across the period suggests changes in professional behaviour and risk management.

3.10 Deaths and serious illness in pregnancy

Maternal Deaths

Deaths in pregnancy are fortunately rare events. The number of maternal deaths in NHSGGC residents for the year 2011/12 cannot be reported as it might identify individuals. The most recently reported national data on maternal deaths comes from the 2011 Confidential Enquiry into Maternal Deaths, which covers the period 2006-2008 (2). The overall death rate in pregnancy was 11.62 per 100,000 pregnancies, of which 4.67 per 100,000 were directly attributable to pregnancy, whilst in the remainder pregnancy was an indirect factor in the mother's death. Deprivation remains a significant factor in maternal deaths. Although the actual risk of death in pregnancy was very small, overall, women living in the most disadvantaged group were 70% more likely to die than those in the most affluent group, with indirect deaths, resulting from other illnesses, being the main cause.

The Enquiry made a large number of recommendations, with the top ten being listed in Table 6.

Table 6 Saving Mothers' Lives: top ten priority themes for action (1)

Number	Theme
1	Pre-pregnancy counselling
2	Provision of professional interpretation services
3	Communication and referrals systems concerning pregnant women
4	Women with severe medical conditions require immediate, appropriate multidisciplinary care
5	All clinical staff require regular written, auditable training on the management of obstetric emergencies
6	Specialist clinical care: identifying and managing very sick women
7	Treating systolic hypertension (above 150mmHg) is urgent
8	Genital tract infection
9	Ensuring local review processes for all maternal deaths
10	Ensuring specialist pathology and autopsy services in cases of maternal death

Serious illness in pregnancy

Serious illness in pregnancy is voluntarily reported to Healthcare Improvement Scotland which compiles the Scottish Confidential Audit of Severe Maternal Morbidity (3). Rates of major illness in pregnancy for NHSGGC cannot be calculated from the reported information, however, rates from the three obstetric hubs were available. For Scotland overall, the rate of reporting for major illness was 7.3 per 1,000 live births in the year 2011. In NHSGGC the reported rates were: 6.4 per 1,000 in the Southern General Hospital; 7.2 per 1,000 in the Royal Alexandra Hospital and 8.3 per 1,000 in the Princess Royal Maternity. Despite the variation in these rates, the NHSGGC hospitals were not statistically different from the Scottish rate, reflecting the small numbers involved.

The main cause of major illness across Scotland was Major Obstetric Haemorrhage (MOH), where a woman loses more than a litre of blood during delivery. For Scotland, the rate was 5.93 per 1,000 live births. In NHSGGC the rates of MOH were: 5.6 per 1,000 at the Royal Alexandra Hospital; 6.1 per 1,000 at the Southern General Hospital and 7.3 per 1,000 at the Princess Royal Maternity. Whilst none of these rates were significantly different from the national rate in statistical terms, the Princess Royal Maternity's rate reached a threshold requiring careful local review of potential explanations. Disadvantage is an important factor in MOH. Alternative explanations include differences in the level of case reporting across centres; or differences in antenatal risk assessment.

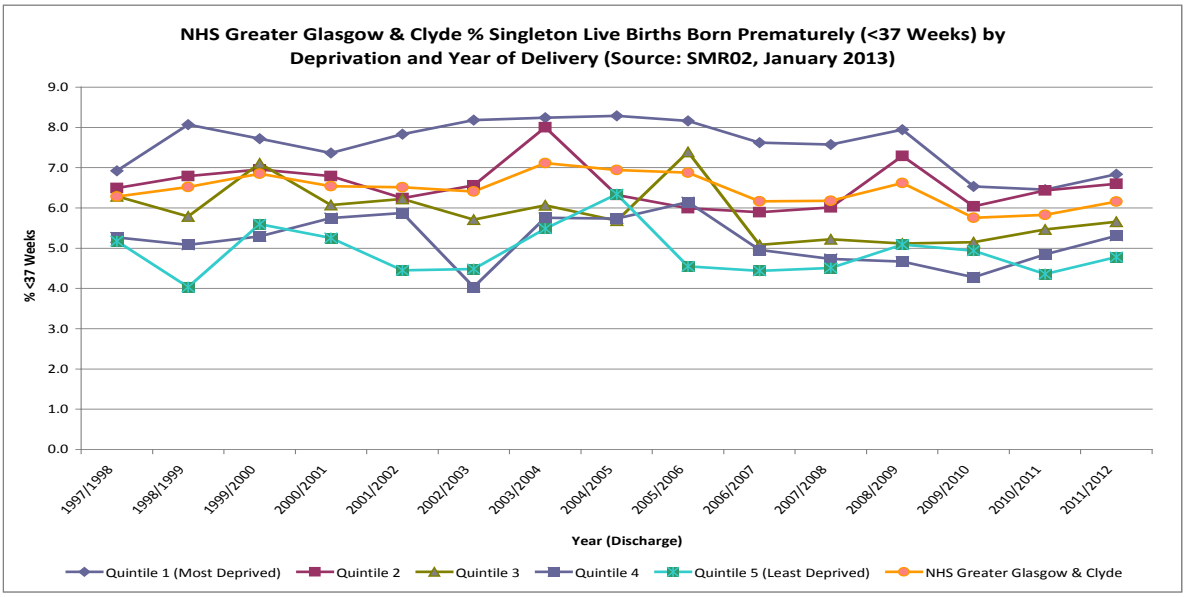
The report recommends that in addition to the enhanced local scrutiny at the Princess Royal Maternity, that all Boards should attempt to standardise the reporting of major obstetric illness, so that this does not complicate comparisons of rates, and that units should review: their policy and practice around antenatal risk assessment; resuscitation and monitoring in cases of MOH; the amount of blood cross matched and the use of uncross matched blood; the drugs used to treat a major cause of MOH (uterine atony); and the importance of ensuring that consultant staff are involved in the management of MOH.

4 CHILDREN

4.1 Prematurity

The prematurity rate (birth prior to 37 weeks of gestation) in 2011/12 was 6.2%. There has been no significant change in prematurity over the period 1997/98 to 2011/12. Prematurity is closely associated with socioeconomic deprivation. During 2011/12 the highest rate of prematurity was in the most disadvantaged fifth group of the population (6.8%) with the lowest level being found in the most affluent group (4.8%). The impact of time and socioeconomic deprivation are shown in Figure 13.

Figure 13 Premature singleton births by quintile of deprivation and year of birth for NHSGGC residents



Source: Scottish Morbidity Record SMR02,2011/2012, extracted January 2013

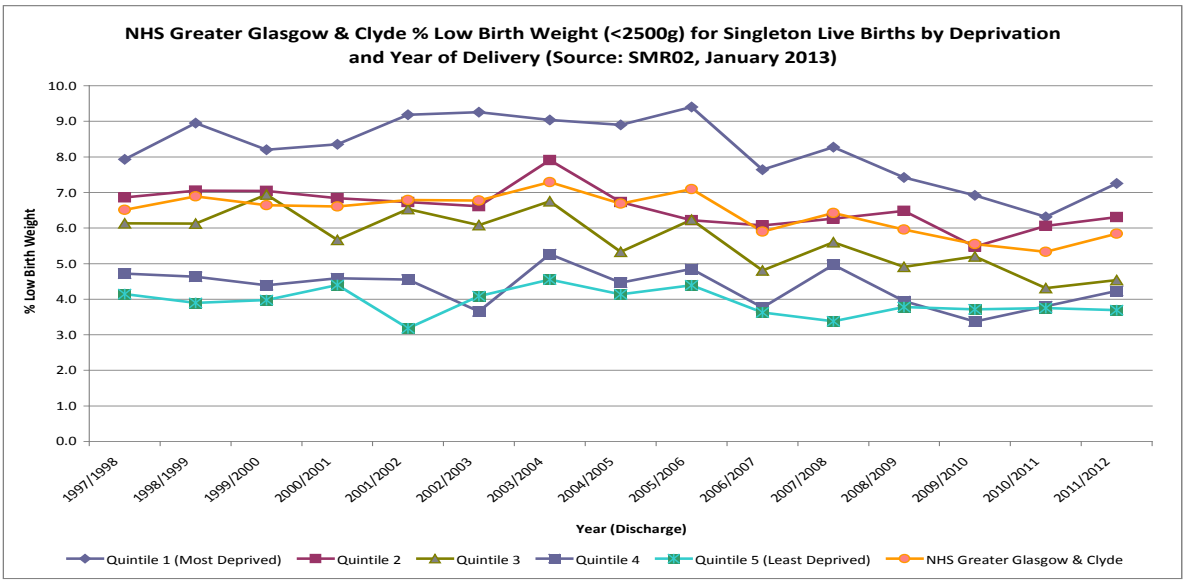
During 2011/12, prematurity occurred least frequently in East Dunbartonshire (4.1%) and most frequently in Glasgow North East (7%). The data per CH(C)P is set out in Table A5 of the appendix.

4.2 Birth weight

Birth weight has a profound effect on health in adult life with smaller babies having higher chances of chronic diseases such as high blood pressure, type II diabetes, heart disease and stroke in later adult life. Birth weights are classified as being above or below 2.5kg (five and a half pounds) and in 2011/12, 5.8% of births to NHS Greater Glasgow and Clyde residents were of low birth weight.

There has been relatively little change in this rate since 1997/98. The main influence on birth weight is socioeconomic deprivation, with rates in the most disadvantaged being 7.3% in comparison with only 3.7% in the most affluent. The trends and the impact of deprivation are shown in Figure 14.

Figure 14 Percentage low birth weight singleton live births (less than 2,500g) to NHSGGC residents by year and quintile of socioeconomic deprivation



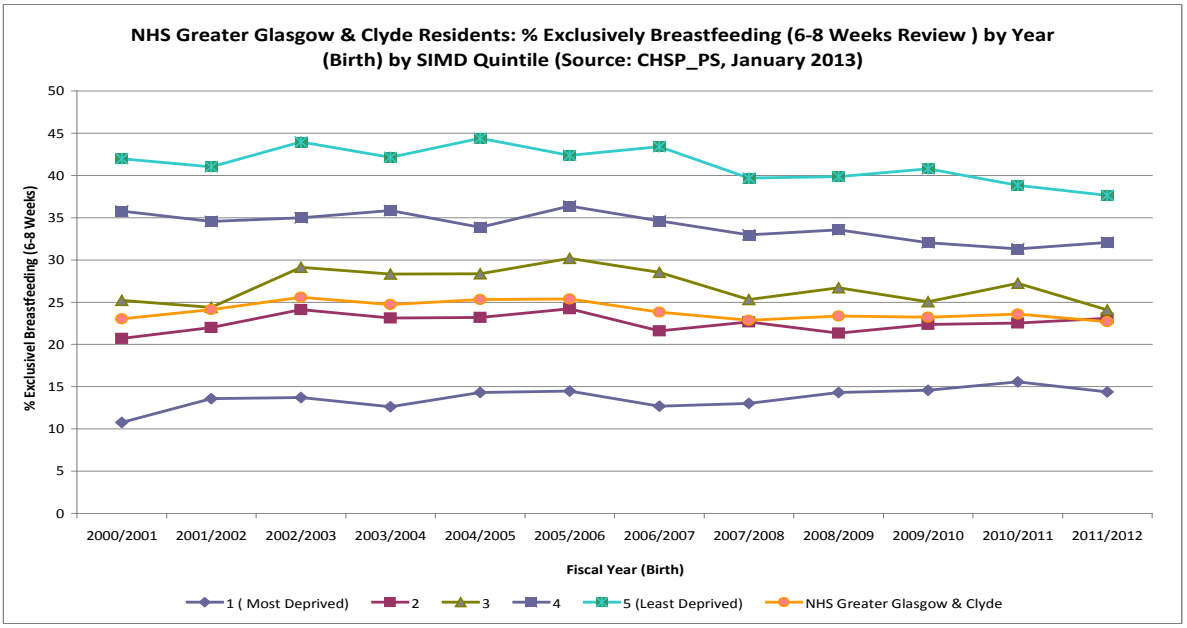
Source: SMR02,2011-2012, extracted January 2013

The highest levels of low birth weight in 2011/12 were found in Glasgow North East and in Inverclyde (6.7%) and the lowest levels were found in East Renfrewshire (3.2%). The data by CH(C)P can be found in Table A6 of the appendix.

4.3 Infant feeding

Breastfeeding is associated with better health outcomes for babies and for mums. Breastfeeding rates are influenced by culture and beliefs, socioeconomic deprivation and access to high quality services. Breastfeeding rates in NHSGGC have been static since 2000/01. During 2011/12, the overall exclusive breastfeeding rate at the 6-8 weeks health visitor review was 22.7%. Socioeconomic status has a marked impact on breastfeeding rates. During 2011/12, the highest exclusive breastfeeding rates were found in the most affluent group of the population (37.6%) with the lowest levels being found in the most disadvantaged group (14.4%). This is shown in Figure 15. The overall trend has changed little over the past ten years, however, there has been some overall improvement in exclusive breastfeeding rates within the most disadvantaged group (up from 10% in 2000/1 to 15% in 2011/12) and a drop in the most affluent group (from 42% in 2000/1 to 37% in 2011/12).

Figure 15 Exclusive breastfeeding rates at the 6-8 weeks review for NHSGGC residents by socioeconomic quintile and year of birth



Source: Child Health Surveillance Programme - Pre School (CHS-PS) 2011-2012, extracted January 2013

In terms of breastfeeding by CH(C)P - Community Health (and Care) Partnership population, see Table A7 in appendix, the highest level of exclusive breastfeeding was found in East Renfrewshire (34.3%) and the lowest in Glasgow North East (14.6%).

4.4 Newborn bloodspot screening

Bloodspot screening aims to identify cases of phenylketonuria (PKU), congenital hypothyroidism, cystic fibrosis, sickle cell haemoglobinopathy and Medium Chain Acyl-Coenzyme A Dehydrogenase Deficiency (MCADD) as soon after birth as possible, in order to reduce the impact of these diseases on normal growth and development. The bloodspot sample is usually taken on day five following birth.

During 2011/12, a total of 14,128 babies were eligible for this screening programme, and of these 13,856 were screened (98.1%). From these, nine cases of congenital hypothyroidism were identified and eight cases of cystic fibrosis. The numbers of those diagnosed with phenylketonuria, MCADD or PKU were too low to report due to disclosure restrictions.

More information on the prenatal screening programmes can be found in the NHS Greater Glasgow and Clyde Screening Programmes Annual Report 2011/12.

4.5 Newborn hearing screening

Newborn hearing screening is designed to identify children with profound hearing impairments as soon after birth as possible. Early identification of those with hearing needs allows treatment and supportive social and educational measures to be introduced at the earliest opportunity, ensuring better outcomes for children and their families.

During 2011/12, 14,227 babies were eligible for the hearing screening programme. Of these, 98.3% were screened. There is a very slight inequalities gradient, with the highest uptake being in the most affluent group of the population (98.8%) in comparison with uptake between 98.0 and 98.1 in the most disadvantaged 60% of the population.

Of the children screened, 1,373 (9.8%) required a second stage test, with 183 (1.3%) being referred to audiology for more comprehensive diagnosis. This resulted in 26 children being identified with bilateral sensorineural hearing loss (due to nerve conduction problems); 17 with unilateral sensorineural hearing loss, and 36 with conductive loss (problems with the middle ear).

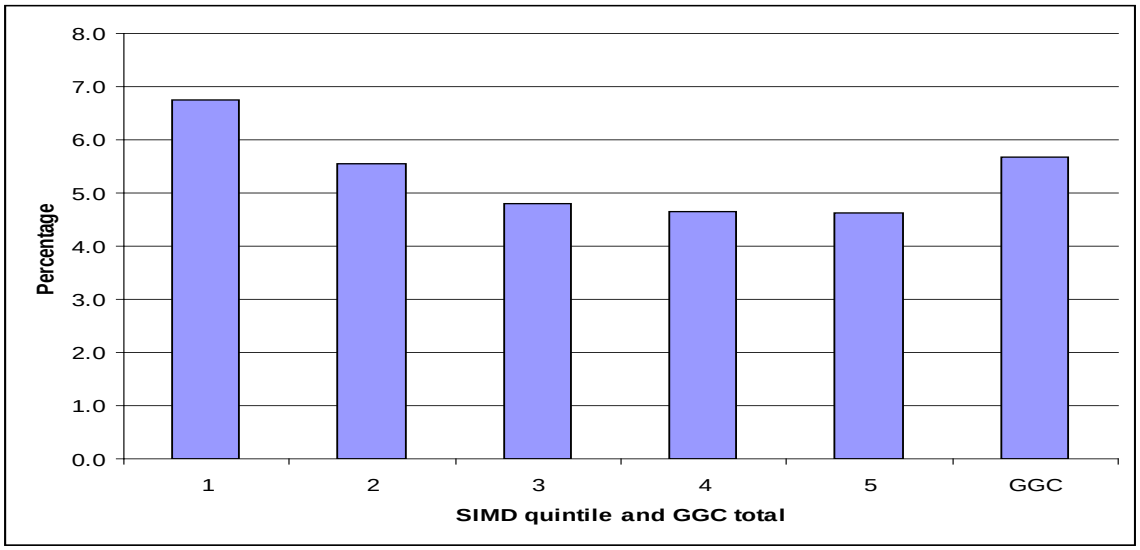
More information on the prenatal screening programmes can be found in the NHS Greater Glasgow and Clyde Public Health Screening Programmes Annual Report 2011/12.

4.6 Sleeping position

Sleeping position for infants is crucially related to risk of cot death, with supine position (lying on the back) being safest. Prone position (lying on the front) or on the side are both associated with higher risk of death from cot death. Whilst health improvement programmes have reinforced the role of sleeping position, national data has shown a widening of inequalities in terms of both sleeping position and resulting cot deaths which are now more confined to disadvantaged groups. Information on sleeping position was recorded at the 6-8 weeks review. Overall, 94.3% of babies seen at the review were sleeping in the supine, low-risk position, with 2% sleeping on their sides, and a further 3.7% sleeping prone.

Analysis by socioeconomic deprivation showed the expected gradient with higher proportions of prone and side sleeping was found in the most disadvantaged group of the population (6.8%) and the lowest was in the most affluent section (4.6%). These figures compare with an overall percentage of 5.7% across the board for combined prone or side sleeping position (see Figure 16)

Figure 16 Percentage of NHSGGC babies at 2 week review with unsafe sleeping position (prone or side) by SIMD quintile of deprivation for 2011



Source: CHS-PS 2011/12

By CH(C)P, the highest levels of unsafe sleeping position was in Glasgow North East (10.8%) and the highest levels of safe sleeping position was in Renfrewshire and Inverclyde (96.7% of infants). These figures are shown in Table A8 of the appendix. Again, the variation between geographies is greater than the variation by disadvantage, suggesting a role for local governance and practice.

4.7 Exposure to second-hand smoke (passive smoking)

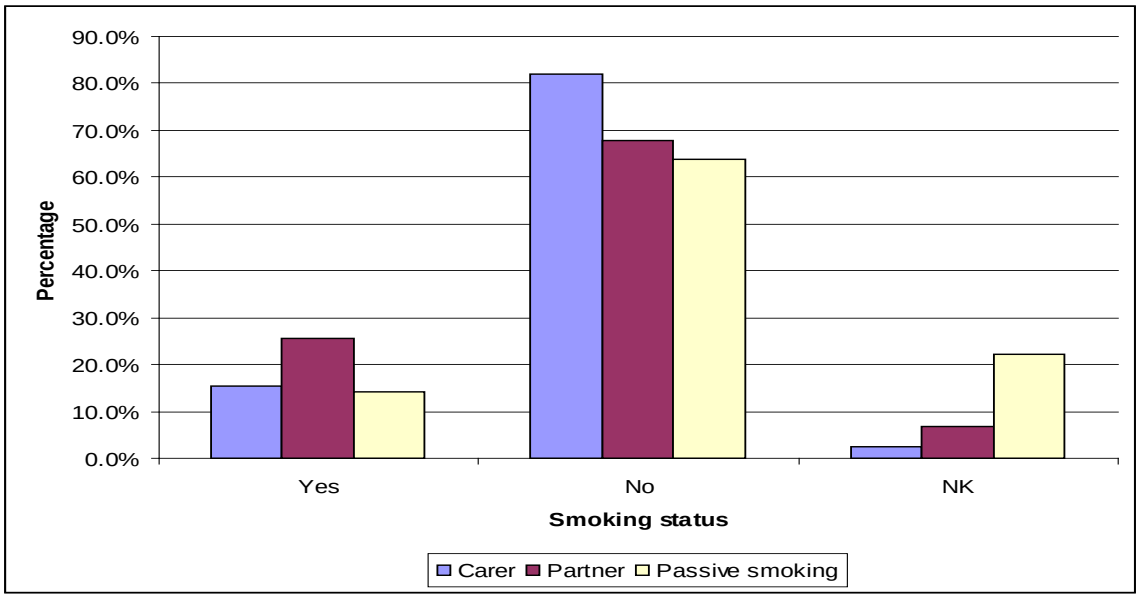
Exposure to smoke is a significant cause of illness in young children. In particular it increases the risk of cot death, pneumonia and other respiratory infections, middle ear infections, wheezing and asthma, and the risk of bacterial meningitis(4). Data on exposure to smoking is recorded at the first visit by Health Visitors Data is collected on smoking status of the main carer, their partner and then on the actual exposure of the child to smoking by adults, which could include the parents or others.

For children having their first visit during 2011/12, 14.1% were exposed to passive (second-hand) smoking. This was highest in North East Glasgow (19.2%) and lowest in East Renfrewshire (6.5%). 22.2% of contacts recorded this field as not known, so it is possible that levels of exposure to passive smoking could have been higher. Overall, 15.5% of main carers were smoking at the time of the first visit. This was highest in West Dunbartonshire (21.2%) and lowest in East Renfrewshire (7%). In addition, at least 25.7% of partners were active smokers overall with a high of 30.4% in Inverclyde and a low of 13.8% in East Renfrewshire.

The fact that exposure to second-hand smoke (passive smoke) was lower than the proportion of carers who were smoking suggests that some carers had made

attempts to reduce the impact of their smoking on their child. However, around one in seven children across NHSGGC were exposed to smoke at birth. The Royal College of Physicians has estimated that a large proportion of death, illness and hospitalisation in children could be avoided by reducing their exposure to second-hand or passive smoke. The overall responses for NHSGGC are shown in Figure 17. Data by CH(C)P - Community Health (and Care) Partnership can be found in Table A9 of the appendix.

Figure 17 Parent and their partner's smoking status and overall exposure of children to smoking at the two week contact for NHSGGC residents, for year 2011/12



Source: CHS-PS 2011/12, extracted May 2013

4.8 Child surveillance concerns

The Child Health Surveillance system records parent/carer concerns or needs identified for the child and family at reviews. The first set point at which these are recorded is at the Health Visitor's first review around ten days of life. Concerns identified include feeding, weight, appearance, crying, sleeping and illness. Overall, 1,014 children had one or more concerns/needs recorded, representing 7.6% of the population overall. The majority of children with concerns had only one concern recorded (689), and this number reduced to less than five children who had concerns on all six areas coded. This data is summarized in Table 10 of the appendix.

There was a very limited socioeconomic gradient, with concerns being more likely to be recorded in the most affluent group (8.1%) in comparison with the most disadvantaged (7.1%). Within CH(C)Ps, the highest proportions of children with concerns were recorded in the NHSGGC part of North Lanarkshire, but there were also high proportions in East Dunbartonshire and in Inverclyde suggesting that different practice was in place in these areas for the recording of concerns. This data can be found in Table A11 of the appendix.

For those children undergoing the 6-8 weeks review, 5.6% had concerns recorded. At this review additional concerns around behaviour, hearing, eyes and movement are added to those areas already covered in the first visit (see above). Feeding remained the commonest recorded concern overall. Again, the majority of concerns were single (566) with only eight children having concerns in each of the ten recorded areas. See Table A12 of the appendix.

As with the first review, there was little evidence of a socioeconomic gradient around concerns at 6-8 weeks. The same pattern of higher recording of concerns was seen in North Lanarkshire, Inverclyde and East Dunbartonshire, see Table A13.

The 24 month assessment was carried out on children known to require Additional or Intensive support from Health Visiting teams on the basis of a comprehensive assessment in the first months of life. Just over 4,000 (approximately 30%) of children in NHSGGC had a 24 months review in 2011/12. Of these, 636 (15.7% of those reviewed) had recorded concerns. In addition to the 10 concern areas already mentioned, an additional two: speech and growth, are added at this review. As before, the majority (440) had only one concern noted with less than five children having concerns in all 12 areas. Overall, 15.8% of those reviewed had concerns recorded. This most likely reflects the targeted nature of this review. There was little evidence of a socioeconomic gradient around this proportion, and the recorded levels of concern was highest in Glasgow City, with a similar pattern in Inverclyde and West Dunbartonshire. This data can be found in Tables A14 and A15 of the appendix.

4.9 Child development at 6-8 weeks

All children are invited to participate in the national child health surveillance scheme. This scheme involves a health visitor review at 10 days after birth and then again between 6-8 weeks of life. At each of these points health visitors assess the child and their home environment to establish that children are growing and developing normally and to identify any needs which may have arisen. Reports on the first visit reviews and 6-8 weeks reviews interrogate data held on children currently resident in NHSGGC.

This means that this report will include some children who have migrated into NHGGC, but whose review would have taken place elsewhere, and will not include some children who have migrated out of the area since reviews were completed. In particular, this makes it difficult to attribute issues around uptake of the review to specific Boards. This problem has now been addressed and future versions of this annual report will take account of residency at the time of the review.

12,774 6-8 weeks reviews were performed during 2011/12, for the 13,987 live-births. It was not possible to calculate uptake given the limitations around residency data mentioned above, however, the proportions of contacts taking place in each socioeconomic group match well with the proportions of births in each group. Future reports will address this issue in a more robust manner.

Movement (gross motor) development

Of the 12,774 6-8 weeks reviews performed, 94.7% of children had normal gross motor development, suggesting that muscle movement and tone were assessed as normal. A further 2.1% were doubtful or abnormal and a further 3.2% were incomplete. There was evidence of a very slight trend towards higher abnormal/doubtful outcomes for more disadvantaged groups of the population (2.5% in quintile 1 versus 1.2% in quintile 5), but no clear evidence of inequality influencing the proportions of incomplete exams. The highest number of abnormal or doubtful findings for gross motor was in Glasgow North East (3%) and the lowest was in East Renfrewshire (1.2%). The highest level of incomplete exams was in the NHSGGC part of North Lanarkshire and Glasgow South (4.1%) and the lowest in Inverclyde (1.6%). The data for gross motor findings at the 6-8 weeks review can be found in Table A16 of the appendix.

Communication development

At the 6-8 weeks review, 96.8% of children were assessed as having normal communication; 0.5% as abnormal or doubtful; and 2.7% were incomplete. There was no clear trend in terms of socioeconomic inequalities within the data. The highest proportion of abnormal/doubtful results was recorded in Glasgow East (0.7%) and the lowest in the NHSGGC part of North Lanarkshire. The highest level of incomplete exams were in Glasgow City and the lowest level in Inverclyde. The data is included in Table A17 of the appendix.

Social and behavioural development

At the 6-8 weeks review, social and behavioural needs are classified as either normal (no needs), abnormal/doubtful, or incomplete, (where this had not been assessed as part of the review). According to the CHS-Pre School system, 95.4% of children had normal social/behavioural development at the 6-8 weeks review, 3.5% were incomplete, and 1.1% had needs (classified as abnormal or doubtful). Socioeconomic deprivation had no impact on the levels of completion of assessment or the levels of needs identified.

Analysis by CH(C)P - Community Health (and Care) Partnership shows that the area with most incomplete data on social and behavioural assessment was

Glasgow South (4.8%). The most complete data was found in Inverclyde (only 1.3% incomplete).

The highest levels of normal assessment were reported in Inverclyde (98%) and the lowest was in Glasgow South (93.6%). Glasgow South also had the highest levels of abnormal or doubtful social/behavioural development (1.6%) compared to a low of 0.7% in Inverclyde. This data can be found in Table A18 of the appendix.

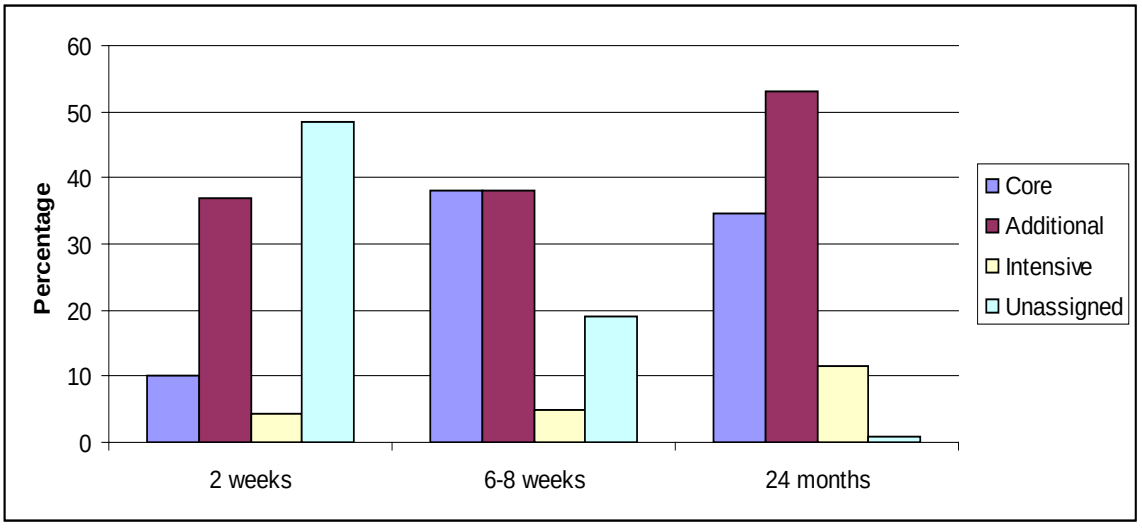
4.10 Health Plan Indicator (HPI)

All children who consent to Health Visitor involvement/child health surveillance are assessed to establish their Health Plan Indicator (HPI). The HPI is a measure of their need and it is used to identify those children who have the capacity to benefit from enhanced input from Health Visiting teams. Children are classified as Core (C); Additional (A); or Intensive (I). Most children will have HPI assigned by 24 weeks of life, although many will be assigned sooner. Where HPI has not been assigned, children are recorded as Unassigned (U).

HPI at the 2 weeks review

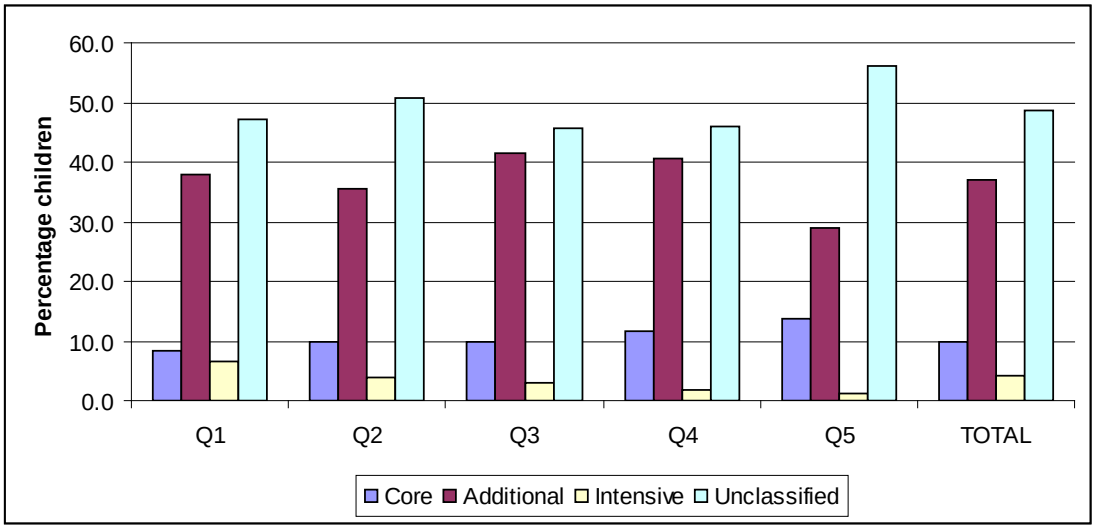
At the Health Visitor's first visit (two weeks), 10% of children were assigned to the Core category; 37% were recorded as Additional; 4.2% were Intensive; and a further 48.4% were Unassigned. This pattern is in keeping with the need for Health Visitors to assess children and their carers' needs. This is shown in Figure 18. Overall, there was a trend towards a higher proportion of children in the most disadvantaged areas being assigned Intensive or Additional in comparison with the most affluent groups, and in addition, the more disadvantaged group were therefore less likely to be Core or Unassigned at this stage. This is shown in Figure 19.

Figure 18 HPI category at 2 weeks review, 6-8 weeks review and for a smaller group at the 24 months review (NHSGGC residents at time of data extract)



Source: CHS-PS May 2013

Figure 19 Percentage of children assigned to Core, Additional, Intensive, or Unassigned categories at the two week review by SIMD quintile (NHSGGC residents at time of data extract)



Source: CHS-PS May 2013

By CH(C)Ps, the lowest percentage of children assigned as Core at two weeks was found in North Lanarkshire (2.4%) and the highest was in South Lanarkshire (16.3%). The lowest level of Additional allocation was in East Dunbartonshire (15.3%) and the highest in North Lanarkshire (88.4%). The level of Intensives varied from a low of 1.1% in East Renfrewshire to a high of 6.2% in Glasgow North East. The Unassigned group varied from a low of 8.4% in North Lanarkshire to a high of 79.1% in East Dunbartonshire.

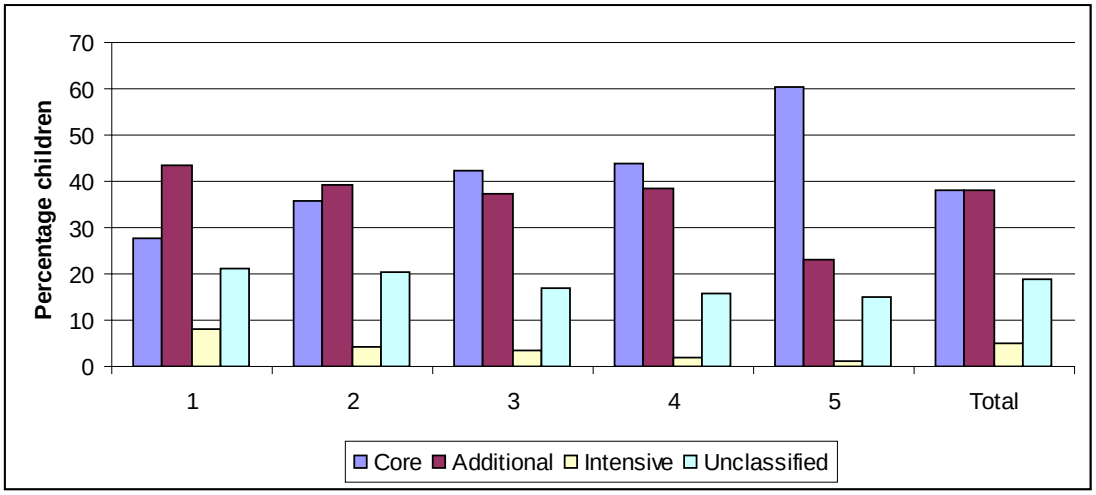
These figures suggest that although social determinants affect the levels of Additional and Intensive children, that local practice around assigning HPI varies widely. The figures suggest that areas such as North Lanarkshire routinely use the Additional category during assessment, and that others such as East Dunbartonshire retain the Unassigned category during the 0-6 months assessment. The data can be found in Table A19 of the appendix.

HPI at 6-8 weeks review

For the cohort assessed at the 6-8 weeks review, 38.1% were assessed as Core; 38.2% were Additional; 4.9% were Intensive and 18.9% were still Unassigned. Again, this pattern fits with current practice. The impact of deprivation is shown in Figure 20 which shows a trend towards earlier assignment of HPI for the more disadvantaged groups and a trend towards higher proportions of Intensives and Additionals in the more disadvantaged and a trend towards higher proportions of Core in the more affluent groups.

The levels of Core status at the 6-8 weeks review varied from a low of 7.9% in North Lanarkshire to a high of 60.5% in Renfrewshire. Additionals varied from 22% in East Dunbartonshire to 83.1% in North Lanarkshire. The lowest level of Intensives was found in North Lanarkshire (0.4%) and the highest levels in Glasgow North East (7.1%). Unassigned levels varied from 8% in Renfrewshire to 27.1% in Glasgow North East. This is shown in Table A20 of the appendix.

Figure 20 Percentage of children assigned to Core, Additional, Intensive, or Unassigned categories at the 6-8 weeks review by SIMD quintile (NHSGGC residents at time of data extract)



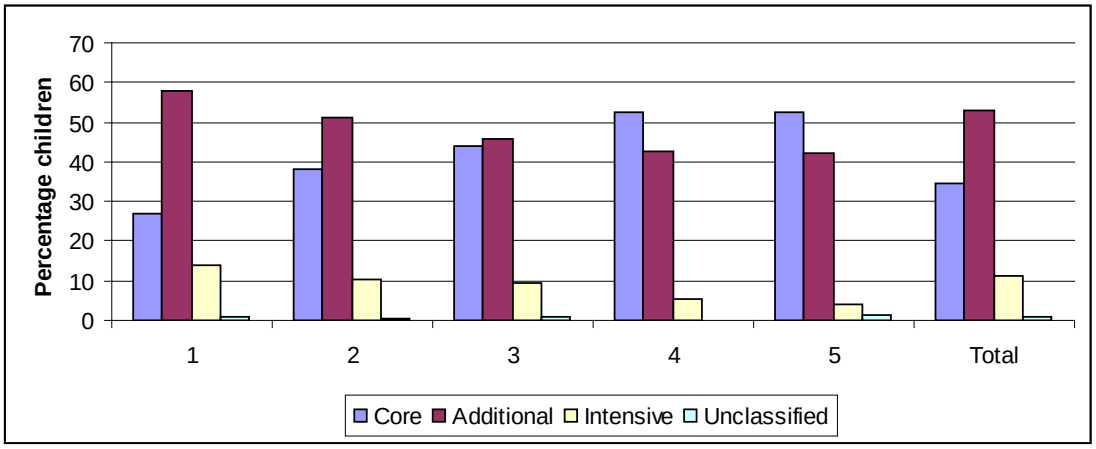
Source: CHS-PS, May 2013

HPI status at the 24 months review

The 24 months review was used for children with existing additional needs. Just over 4,000 children received the 24 months review. For reasons explained previously, it is difficult to establish residency at the time of the review, however, this number represents around a third of the total cohort of children resident in NHSGGC. At this review, 34.6% of children were assigned to Core status; with 53.1% being Additional; 11.4% Intensive; and only 0.9% being Unassigned following the review. It is considered unlikely that the 34.6% of children in the Core category were previously Additional or Intensive, and this suggests that in some areas the 24 months review was still being used for the review of Core children.

There was a clear trend towards higher proportions of Intensives and Additionals in more disadvantaged areas and a trend towards higher numbers of Core children in more affluent areas, even allowing for the more targeted nature of this review, see Figure 21.

Figure 21 Percentage of children assigned to Core, Additional, Intensive, or Unassigned categories at the 24 months review by SIMD quintile (NHSGGC residents at time of data extract)



Source: CHS-P,S May 2013

By CH(C)Ps, the levels of Core status varied from 30.1% in Glasgow North West and Glasgow South to 50% in North Lanarkshire. Additional levels varied from 44.9% in Inverclyde to 56.6% in Glasgow South; and Intensives varied from 4.5% in North Lanarkshire to 15.8% in West Dunbartonshire. Unassigned levels varied from 0% in West and East Dunbartonshire and North and South Lanarkshire to 1.8% in Glasgow South. As with the 6-8 weeks and the first visit reviews, the variation across CH(C)Ps suggests that although social determinants play some factor in the distribution, the influence of local practice is a major determinant of HPI allocation, see Table A21.

As already mentioned above, there was a strong relationship between HPI and socioeconomic status. When analysed by HPI category at the 2 weeks review, 65.1% of all Intensives were found in the most disadvantaged group, with it dropping to only 4% of those in the most affluent group.

This impact is in part explained by the large proportion of children living in the poorest and most affluent groups. When proportions of Intensives were compared *within* each group (which allows for differences in numbers in each group), 6.6% of children in quintile 1 were Intensive in comparison with 1.1% of those in quintile 5 (most affluent).

Similarly, although 42% of Additionals were in the most disadvantaged group, and only 12% in the most affluent, once comparisons within SIMD groups allowed for differences in numbers, the differences were again smaller: 38% in the most disadvantaged in comparison with 28.9% in the most affluent groups. After allowing for within group comparisons, 8.3% of children in the most disadvantaged group were classified as Core in comparison with 13.8% in the most affluent. There was little evidence of an inequalities gradient in those Unassigned (47% in the most disadvantaged compared to 56% in the most affluent).

This data suggests that the strongest relationship exists between Intensive classification and socioeconomic status (six-fold higher in the most disadvantaged groups) and that there is a similar, though less strong, relationship with Additionals (more than three-fold higher), with the opposite relationship being true of Core children, who were more likely to be from the most affluent group in comparison with the most disadvantaged (13.8% versus 8.3%).

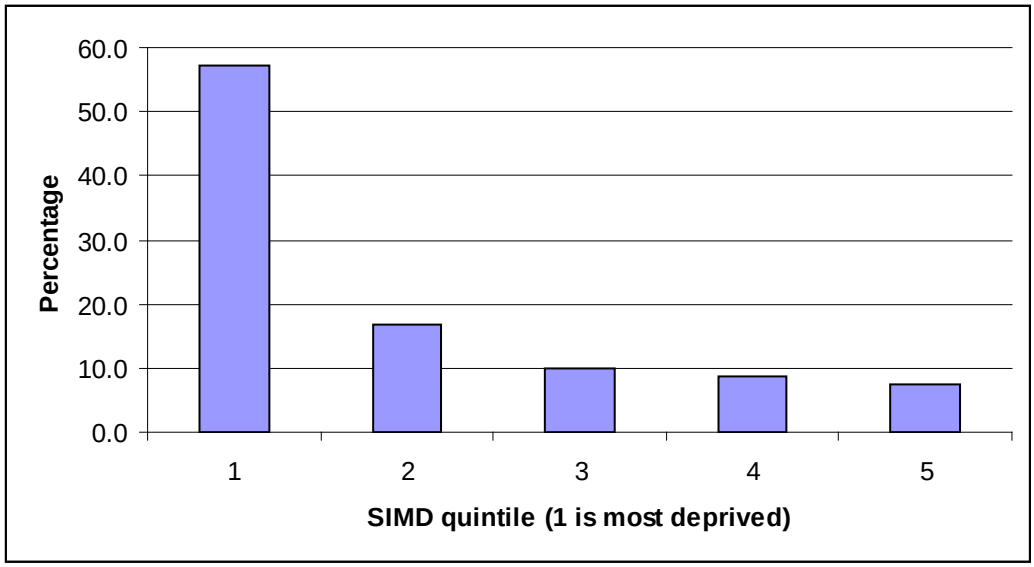
At the 6-8 weeks review, the proportion of all Intensives in the most disadvantaged group was 7.9% compared to 1.3% in the most affluent, again a six-fold difference. For Additionals the difference was 43.3% versus 23.1% (a 1.8-fold difference in favour of higher levels in the most disadvantaged) and as before, the opposite finding was shown with Core status which was twice as common in the most affluent group than in the most disadvantaged (60.4% versus 27.6%). The proportion of Unassigned children was somewhat higher in the most disadvantaged (21.2% versus 15.2%).

At the 24 months review, the proportions of Intensive children varied from 11.4% in the most disadvantaged to 3.9% in the most affluent (a 3.6-fold variation). Similarly, there was a 1.4-fold variation in the proportions of Additionals (58.1% in the most disadvantaged compared to 42.3% in the most affluent). As previously, the reverse relationship was observed for Core children, with a two-fold gradient in favour of higher levels in the most affluent (52.6% cf. 26.9%). There was little variation in the proportions of Unassigned children (1.1% in the most disadvantaged compared to 1.3% in the most affluent). The persistence of the socioeconomic gradient within this targeted group suggests that there is some form of selection underpinning the choice of children seen at the review.

4.11 24 months review

At 24 months, a proportion of children with additional needs received a targeted child health review. In 2011/12 there were 4,028 such reviews. For reasons already given, the precise uptake of the review cannot be calculated from the Child Health Surveillance Programme - Pre-School System (CHSP-PS), however approximately 29% of children aged 24 months received a review in 2011/12. There was a strong relationship between socioeconomic deprivation and the review, with over 57% of 24 months reviews taking place in the most disadvantaged group and less than 8% taking place in the most affluent group, see Figure 22.

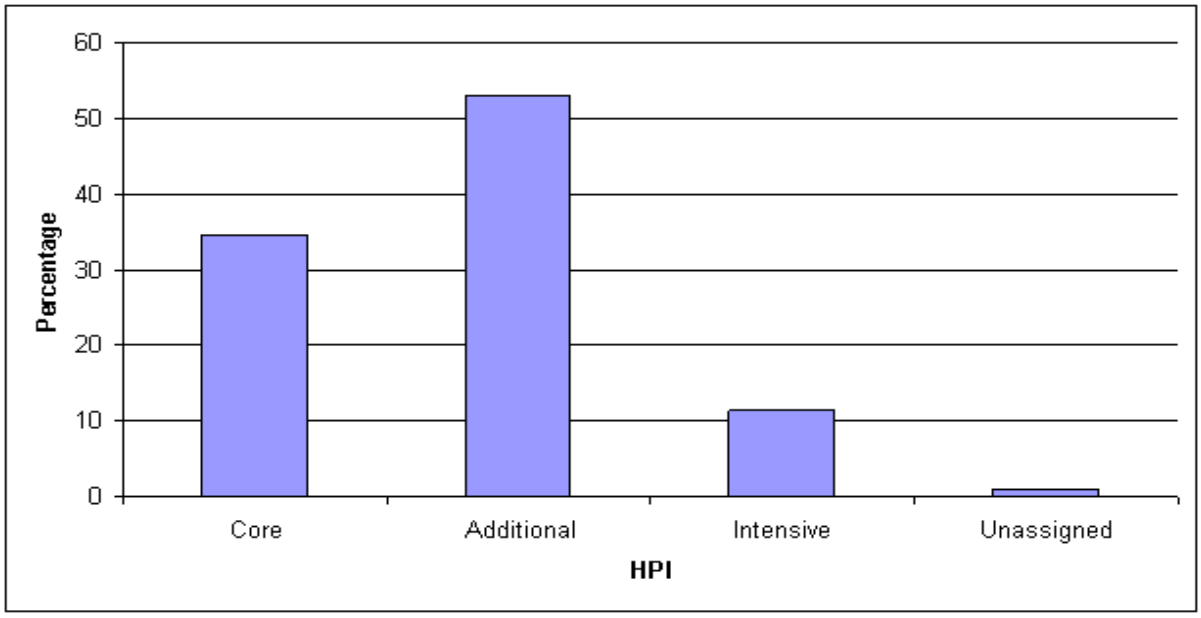
Figure 22 Percentage of 24 month reviews by SIMD quintile of deprivation 2011/12 (NHSGGC residents at time of data extract)



Source: CHS-PS May 2013

Overall, 60% in NHSGGC are classified as Core, with 31% being Additional and 9% being Intensive. At this review, 34.6% of children seen were classified as Core, 53.1% were Additional, 11.4% were Intensive and 0.9% had an unknown HPI. This suggests that although there is some evidence of targeting at this review, many Core children were still being reviewed. This is shown in Figure 23.

Figure 23 Percentage of 24 month reviews by HPI category for NHSGGC residents 2011/12 (NHSGGC residents at time of data extract)



Source: CHS-PS, 2013

At CH(C)P level, the highest percentage of 24 month reviews in Core children took place in North Lanarkshire and Inverclyde (50% and 46.5% respectively) and the lowest percentage in Glasgow North West and South at 30.1%. This data can be found in Table A21 of the appendix.

4.12 Immunisation

Immunisation against infectious diseases has been one of the most effective public health interventions in improving the health of children and their families. Primary immunisation (immunisation against diphtheria, tetanus, polio, meningitis group C, and haemophilus influenzae type B) is measured at 12 months of age. For the year ending December 2011, the uptake rate was comparable to that for Scotland. At 24 months of age, the uptake of Measles Mumps and Rubella vaccine (first dose) was 93.5%, in line with the Scottish uptake of 94%. The uptake of the booster vaccines for haemophilus influenzae (Hib) and meningitis type C (MenC) were 94.7% and 93.6%.

At five years, the uptake of MMR (first dose) was 96.2% and the uptake of the second dose of MMR was 87.9%, again comparable to national rates.

The immunisation uptake rates for the HPV vaccine (Human Papilloma Virus) were comparable with the Scottish rates. The HPV vaccine has been delivered to a group of females of secondary school age in Scotland in order to reduce the incidence of cervical cancer.

Further details on immunisation uptake can be found in the Director of Public Health's Childhood Immunisation and Staff Flu Vaccination Programme (Board Paper No. 12/43).

4.13 Oral health

Oral health is an important element of child wellbeing. Dental decay is a preventable condition and success in tackling dental decay can be seen as a more general barometer of health improvement activity across children. A number of HEAT targets have been developed to drive oral health improvement in children and several national programmes are in place to deliver preventative support and to measure the dental outcomes for children.

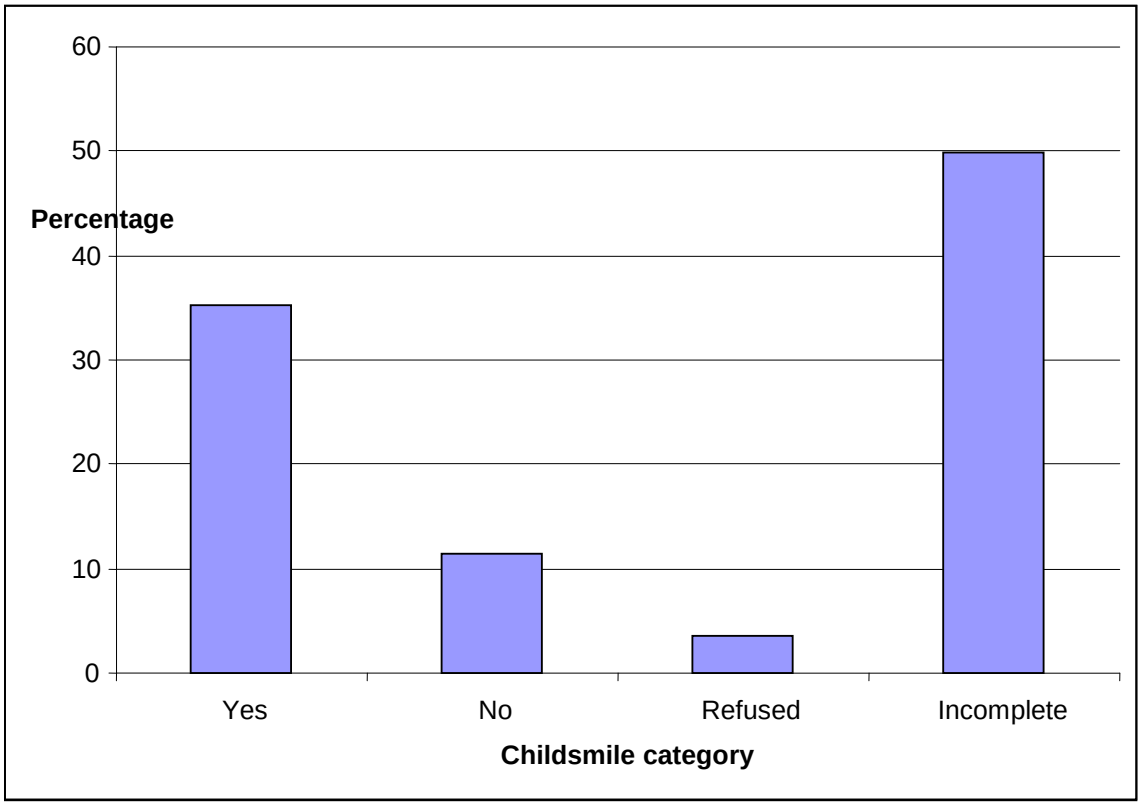
The HEAT targets for oral health improvement in children include:

- that more than 80% of all 3 to 5 year old children should be registered with an NHS dentist by 2010/11; and
- that at least 60% of 3 and 4 year olds in each SIMD quintile of deprivation should have fluoride varnishing applied twice a year by March 2014.

Childsmile is a national programme designed to improve the oral and general health of children in Scotland, and reduce inequalities, both in dental health and access to dental services. The programme has a number of elements: provision of dental packs to every child up to five years of age; Dental Health Support Workers working with families to improve oral health and register their child with a Dental Practitioner. An additional element involves the application of fluoride varnish within educational establishments for children aged three and above.

Childsmile status is recorded at 6-8 weeks by Health Visitors. In 2012 the possible recording outcomes were: Yes (intervention completed); No (no Childsmile intervention completed); refused; or recording incomplete. Overall, 34.9% of infants had a Childsmile intervention; 11.5% had no Childsmile intervention; 3.3% had refused; and in 50.2% the field was incomplete. This is shown in Figure 24.

Figure 24 Childsmile status recorded at the 6-8 weeks Health Visitor review (NHSGGC residents at time of data extract)



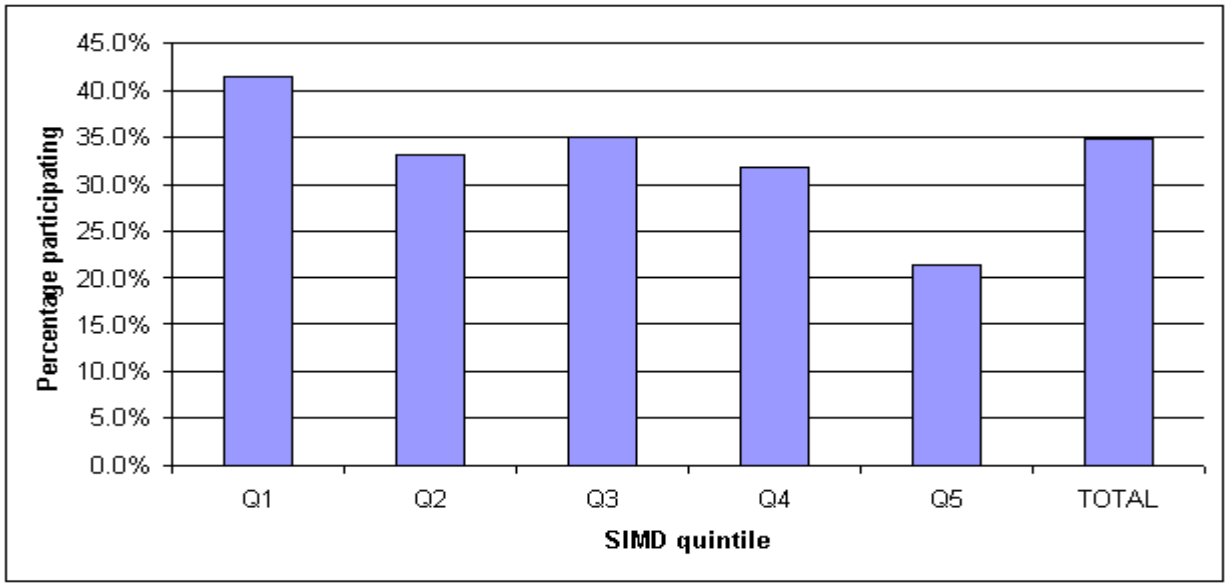
Source: CHS-PS, September 2013

There was clear evidence of targeting of the intervention towards those in greatest socioeconomic deprivation, with 41.4% of children in quintile 1 (most disadvantaged) recorded as having taken part, and only 21.4% in quintile 5 (most affluent). This is shown in Figure 25

The highest uptake of the intervention was in the North Lanarkshire part of NHSGGC, followed by Inverclyde (61.5% and 57% respectively). There was very wide variability in uptake and recording suggesting a lack of area-wide agreement to the intervention, with uptake rates as low as 2.5% in West Dunbartonshire.

Table A22 in the appendix shows current Childsmile reviews at 6-8 weeks for all areas.

Figure 25 Uptake of Childsmile intervention at 6-8 weeks review by SIMD quintile (NHSGGC residents at time of data extract)



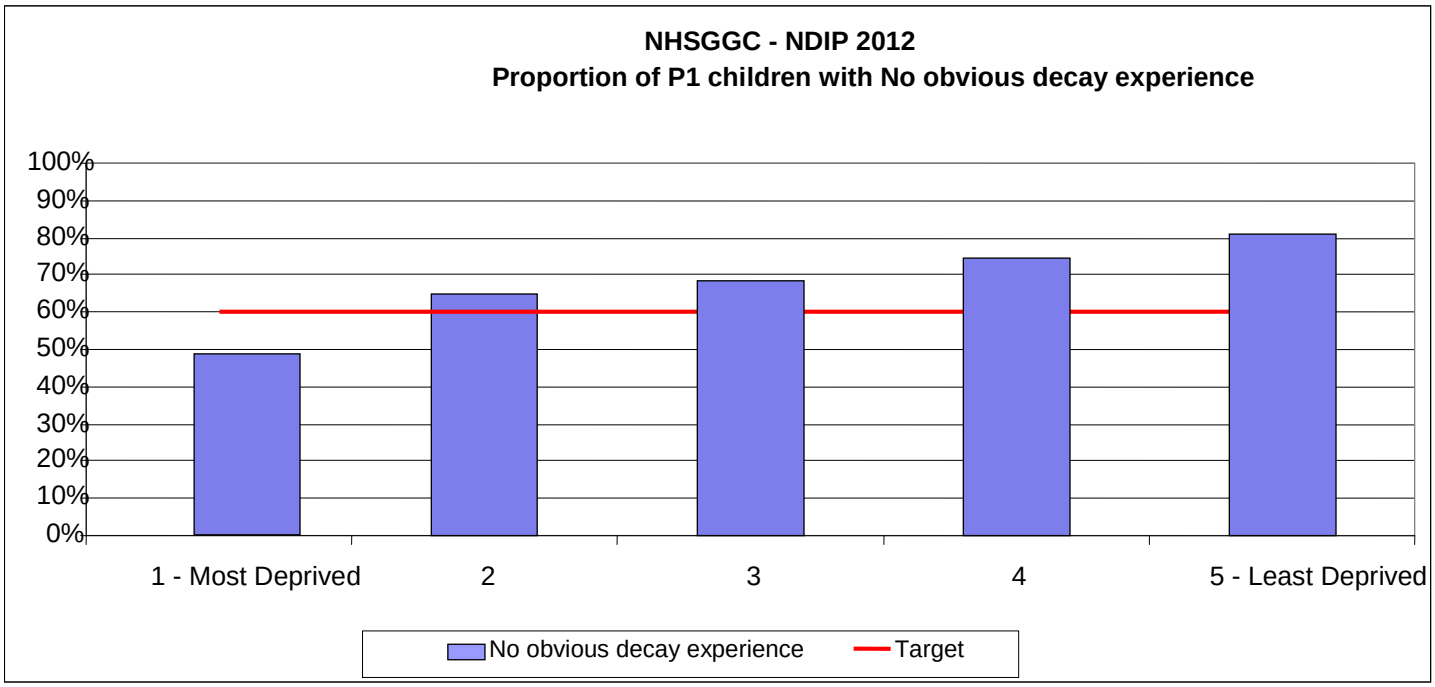
Source: CHS-PS, September 2013

National Dental Inspection Programme (NDIP) 2012

The NDIP inspects a sample of children in P1 and P7 across local authority schools. Each NHS Board is required to identify the number of Local Authority (LA) schools needed to obtain a representative sample of a given size from their P1 population. The sample sizes used provide adequate numbers to allow meaningful comparisons between NHS Boards. Whole classes are selected to simplify the process for schools while ensuring that results reflect the P7 population in Scotland.

Of the 4,801 children examined, the percentage of P1 children with no obvious decay experience in 2012 was 63.8% across NHSGGC. This ranged from 48.74% in the most disadvantaged areas to 80.74% in the least disadvantaged areas. This can be seen in Figure 26 and demonstrates that the HEAT target has not yet been met within NHSGGC. East Dunbartonshire had the highest percentage of those with no obvious decay at 80.4%, compared to the lowest at 57.2% in Glasgow City. This data for CH(C)Ps is shown in Table A23 of the appendix.

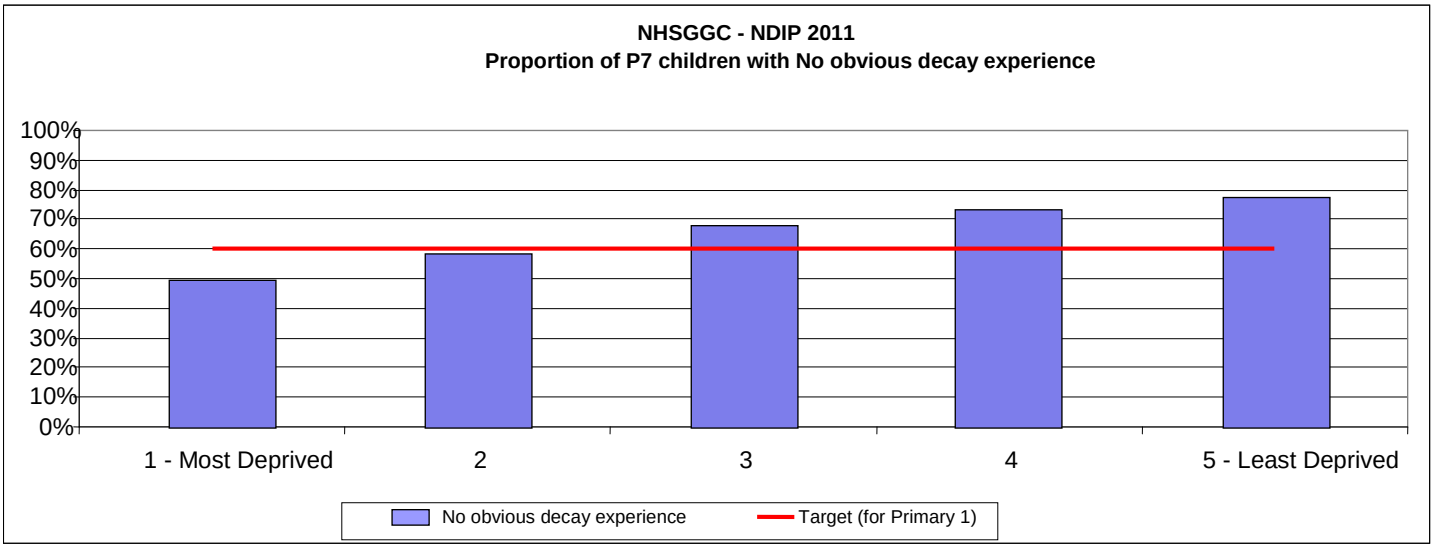
Figure 26 Proportions of P1 children with no obvious dental decay in NHSGGC residents by SIMD quintile of deprivation



Source NDIP 2011

Of the 4,069 children examined in P7, the percentage of children with no obvious decay experience in 2012 was 60.7% across NHSGGC. This ranged from 49.4% in the most disadvantaged areas to 77.6% in the least disadvantaged areas (see Figure 27). East Dunbartonshire had the highest proportion of children at P7 without signs of decay (72.6%) with Glasgow City again being the lowest at 55.3%. The data for each area can be found in Table A24 of the appendix.

Figure 27 Proportion of P7 children without signs of decay by SIMD quintile in 2012



Source NDIP 2011

Dental Registration
In NHSGGC the percentage of 0-2 year olds registered with a Dental Practitioner on 31 March 2012 was 45.9%. This varied from 58.3% in Inverclyde to just 34.3% in West Dunbartonshire. This data is found in Table A25 of the appendix. For 3-5 year olds, the overall Board level of registrations was 89.2%. This varied from a high of 94.8% in Glasgow South East, to 85.2% in West Dunbartonshire. This data can be found in Table A26 of the appendix.

4.14 Preschool vision screening

Vision problems are an important issue which can affect child development and achievement across the life course. The commonest problem is squint (or strabismus) which, if not corrected before age seven can result in permanent vision problems.

NHSGGC operates a nursery-based vision screening programme to identify and correct vision problems in the preschool period. All children between four and five are eligible for screening. In 2011/12, 14,425 children were eligible for preschool vision screening. 11,191 (77.5%) of the eligible population were screened, and 2,733 were referred for further follow up.

The highest proportion of children screened that were referred for further investigation was in Glasgow North West (33.4%) and Glasgow North East and West Dunbartonshire (27.7%) and the lowest was 17.3% in Renfrewshire and 16.3% in East Renfrewshire.

The highest uptake was found in the most affluent areas (86.1% and 85.5% in East Dunbartonshire and East Renfrewshire respectively) with the lowest uptake in the most disadvantaged areas (69% in Glasgow North East). The uptake is shown in Table 7.

This finding has important implications for action across localities in order to optimise uptake and improve children's vision ahead of school entry. Further details can be accessed in the NHSGGC Public Health Screening Programmes Annual Report 2011/12.

Table 7 Percentage uptake of Preschool Vision screening by CH(C)P Community Health (and Care) Partnership of residence

Community Health (and Care) Partnership	% uptake
East Dunbartonshire	86.1
East Renfrewshire	85.5
Glasgow North East	69.0
Glasgow North West	73.1
Glasgow South	74.5
Inverclyde	83.0
North Lanarkshire	82.1
Renfrewshire	81.8
South Lanarkshire	82.0
West Dunbartonshire	80.9
Not known	74.4
Total NHSGGC	**77.6**

Source: NHSGGC Screening Annual Report, 2011/12

4.15 Childhood obesity

Heights and weights are collected with parental consent at entry to primary school. The highest level of height and weight recording in P1 pupils was found in Inverclyde (98.5% of all P1 pupils had a record) and the lowest level was in Glasgow South (85%). The data for each CH(C)P - Community Health (and Care) Partnership is found in Table A27 of the appendix.

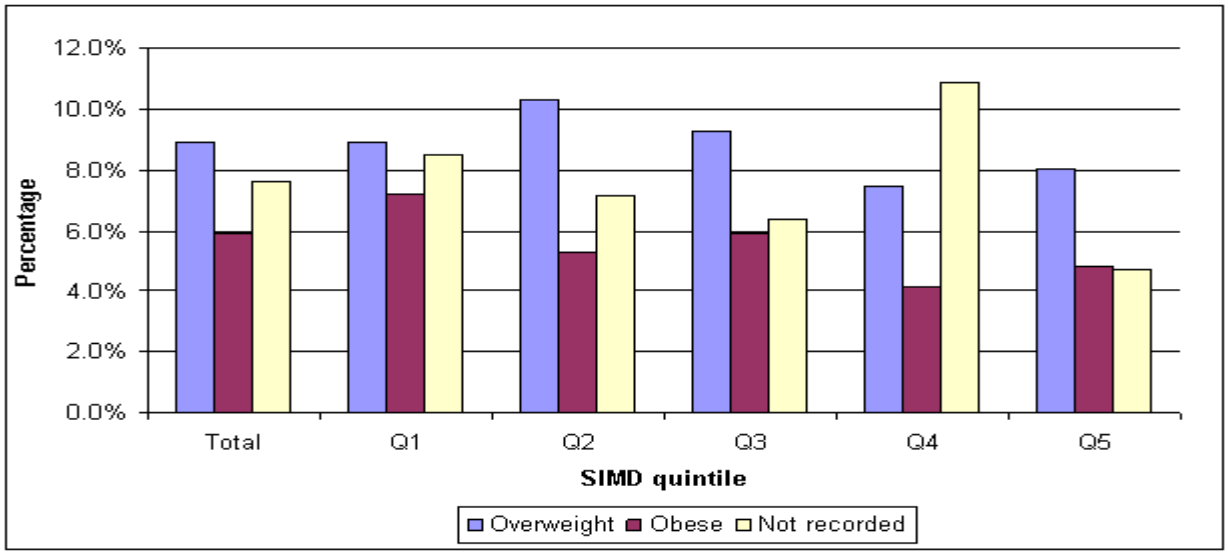
Obesity in children is assessed by calculating BMI (a measure of weight in kilogrammes divided by eight in metres squared). To take account of different growth trajectories, this must then be plotted against centiles. Children with a BMI on or above the 91st centile (where 91 out of 100 average children would be below this levels) but below the 98th centile are described as overweight. Obesity is classified as those whose weight is on or above the 98th centile.

Across NHSGGC as a whole, 14.8% of children with a recorded BMI were overweight or obese: 8.9% were overweight and 5.9% were obese. Overall, 7.6% of children did not have a BMI recorded, although this varied, with the highest level of complete recording being in Inverclyde (98.5%) and the lowest in Glasgow South (85%).

This may influence the interpretation of the findings. There was evidence of a mild socioeconomic gradient around being overweight or obese with the highest levels of being overweight or obese found in the most disadvantaged group (8.1% and 6.6% respectively in SIMD quintile 1), falling to 6.7% and 3.6% respectively in the second most affluent group.

Overall the highest levels of being overweight were found in North Lanarkshire (10.7%) and the lowest level in East Renfrewshire (7.7%). The highest levels of obesity were found in Glasgow North East (7.7%) and the lowest in East Dunbartonshire (4.1%). Taking overweight and obesity together, the highest levels were found in Glasgow North East (17.6%) and the lowest in East Dunbartonshire (11.9%), see Figure 28.

Figure 28 Obesity and overweight status - P1 pupils by SIMD quintile 2011-12 (NHSGGC residents at time of data extract)



Source: CHS-S, 2012

4.16 Primary 7 vision screening

Vision screening is still in place across NHSGGC schools as prior audit work has established that a significant proportion of children are identified who would benefit from glasses to improve their vision and so increase their ability to learn and achieve.

In 2011 clinical effectiveness received audit returns from 70% of schools. The overall uptake of screening cannot be calculated as there was no return from 30% of schools.

From the P7 Clinical Audit returns received, with an eligible population of 8411, 96.9% (8,156) were screened. 1,303 pupils (16%) already had glasses. Overall, 263 (3.2%) of those screened had major defects in vision which required further assessment and 907 (11%) had minor defects, giving a total yield of 1,170 (14.3%) with defects.

4.17 Unintentional (preventable) injury

Preventing injury is an important priority as it is a major cause of illness, hospital attendance and admission in children. Unintentional injury (sometimes referred to as preventable injury) resulted in 2,358 hospital admissions for children and young people aged 0-19, resident in NHSGGC during the period April 2011 to March 2012. Of these, 1,799 were in persons aged below 15 years and a further 559 were in those aged 15-19. Unintentional injury can be classified as those caused by Road Traffic Accidents (RTAs), those which occur in the home, with the remainder described as 'other'. For the year 2011/12, the largest grouping were 'other' injuries (1,382, 58.6%), followed by injuries in the home (787, 33.35%) then injuries due to RTA (189, 8.0%).

The crude rates (per 1,000 population 0-19) for unintentional (preventable) injury was 8.79 per 1,000 for NHSGGC overall, varying from a high of 9.95 per 1,000 in Inverclyde to a low of 7.02 per 1,000 in North and South Lanarkshire areas.

The rate for RTAs was 0.7 per 1,000 resident 0-19 year olds for NHSGGC as a whole. This varied from 0.89 per 1,000 in Glasgow City to 0.38 in East Dunbartonshire.

The rate for injuries in the home overall was 2.94 per 1,000, with the highest level being in 3.3 per 1,000 in West Dunbartonshire and the lowest 2.11 per 1,000 in Inverclyde.

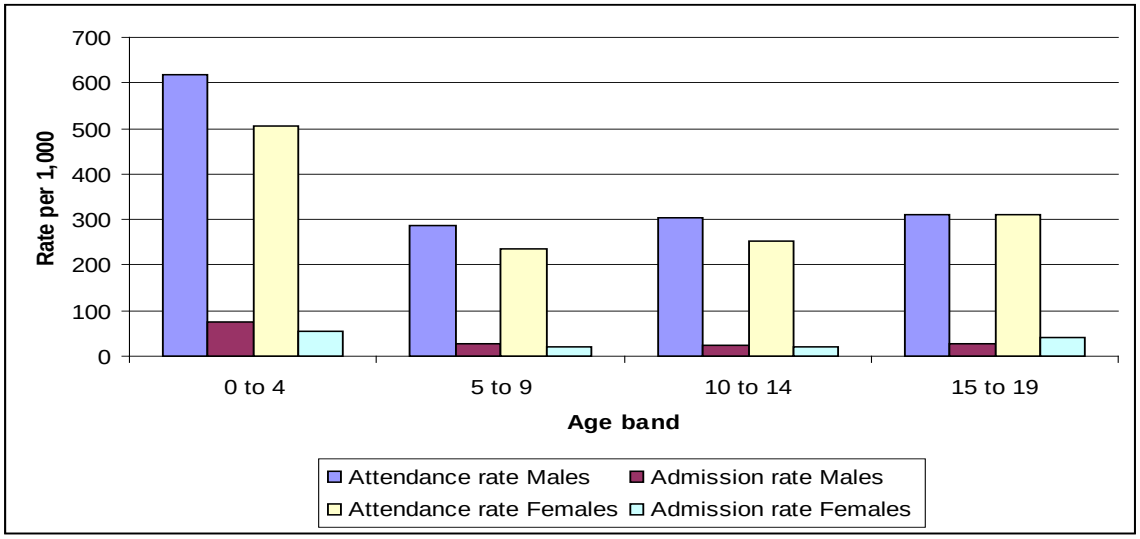
The rate for 'other' preventable injuries (not RTAs nor in the home) was 5.15 per 1,000, varying from 7.14 per 1,000 in Inverclyde, to a low of 3.98 per 1,000 in North and South Lanarkshire. The numbers of injuries and rates are found in Table A28 of the appendix.

Overall, the Standardised Discharge Rates for those under 15 years of age (which takes account of age and deprivation, with the Scottish average being set to 100) varied from 93.6 in Inverclyde to 108.8 in Renfrewshire. It should be borne in mind that the small numbers involved mean that there is no statistically significant difference between these rates and the Scottish average with the exception of East Renfrewshire, which is significantly lower than the Scottish average (see confidence intervals in Table A29).

4.18 Emergency Department attendances and admissions

The attendance rate at Emergency Departments varied by age band and gender, with the highest attendances being in males aged 0-4 years (617 per 1,000). The lowest attendance rate was in females aged 10-14 at 253 per 1,000. The admission rate was highest in males aged 0-4 (74 per 1,000) and the lowest admission rate was in females aged 10-14 at 20 per 1,000. The percentage of those attending A&E who were admitted varied from a high of 13.2% of females aged 15-19 to a low of 8% of males aged 10-14. The rates are shown in Figure 29.

Figure 29 The attendance and admission rates per 1,000 resident population for males and females in NHSGGC for the period April 2011 to March 2012



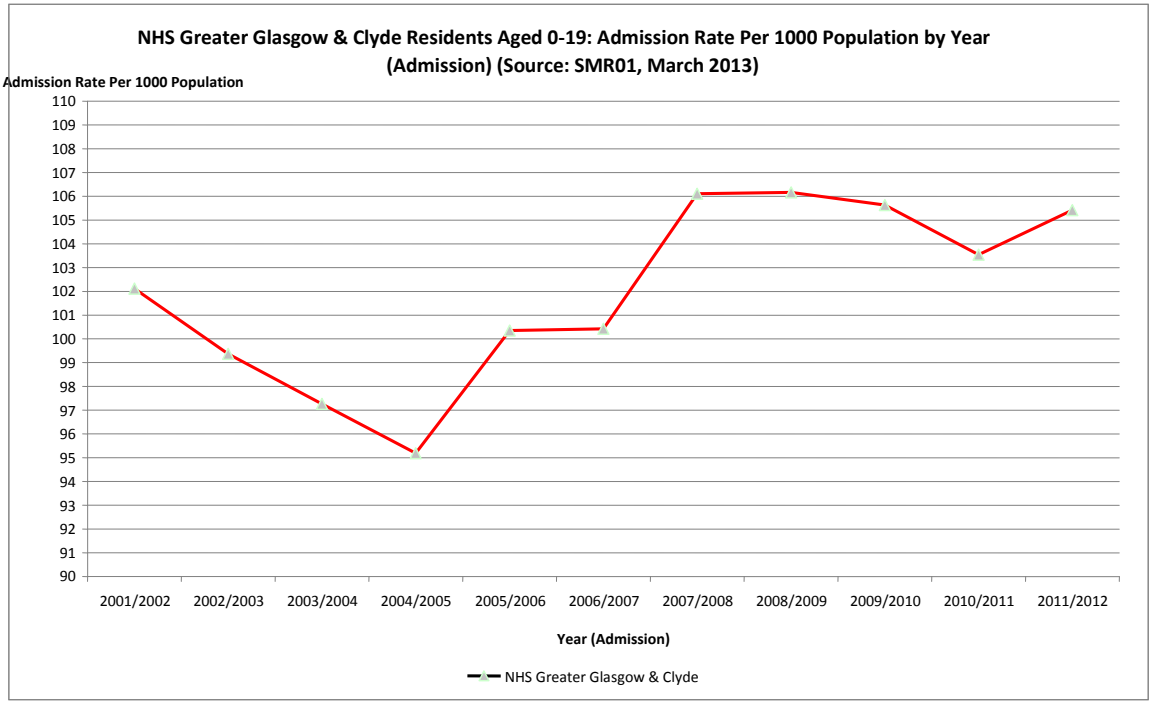
Source: Data courtesy of ISD (A&E returns from local patient information systems)

By comparison the attendance rates for Scotland were lower for each age group, but the overall admission rates were similar, suggesting a higher number of attendances in NHSGGC which could be managed in a different manner. It should be borne in mind that these rates do not account for the impact of socioeconomic disadvantage or ethnicity and these factors are likely to be driving the higher attendance rates in NHSGGC. The data for NHSGGC and Scotland are in Table A30 of the appendix.

4.19 Childhood hospitalisations

The overall admission rate was 105.4 per 1,000 resident population aged 0-19. The rate is shown for the period 2001/02 showing a variability in the rate between 95 and 106 per 1,000 (see Figure 30).

Figure 30

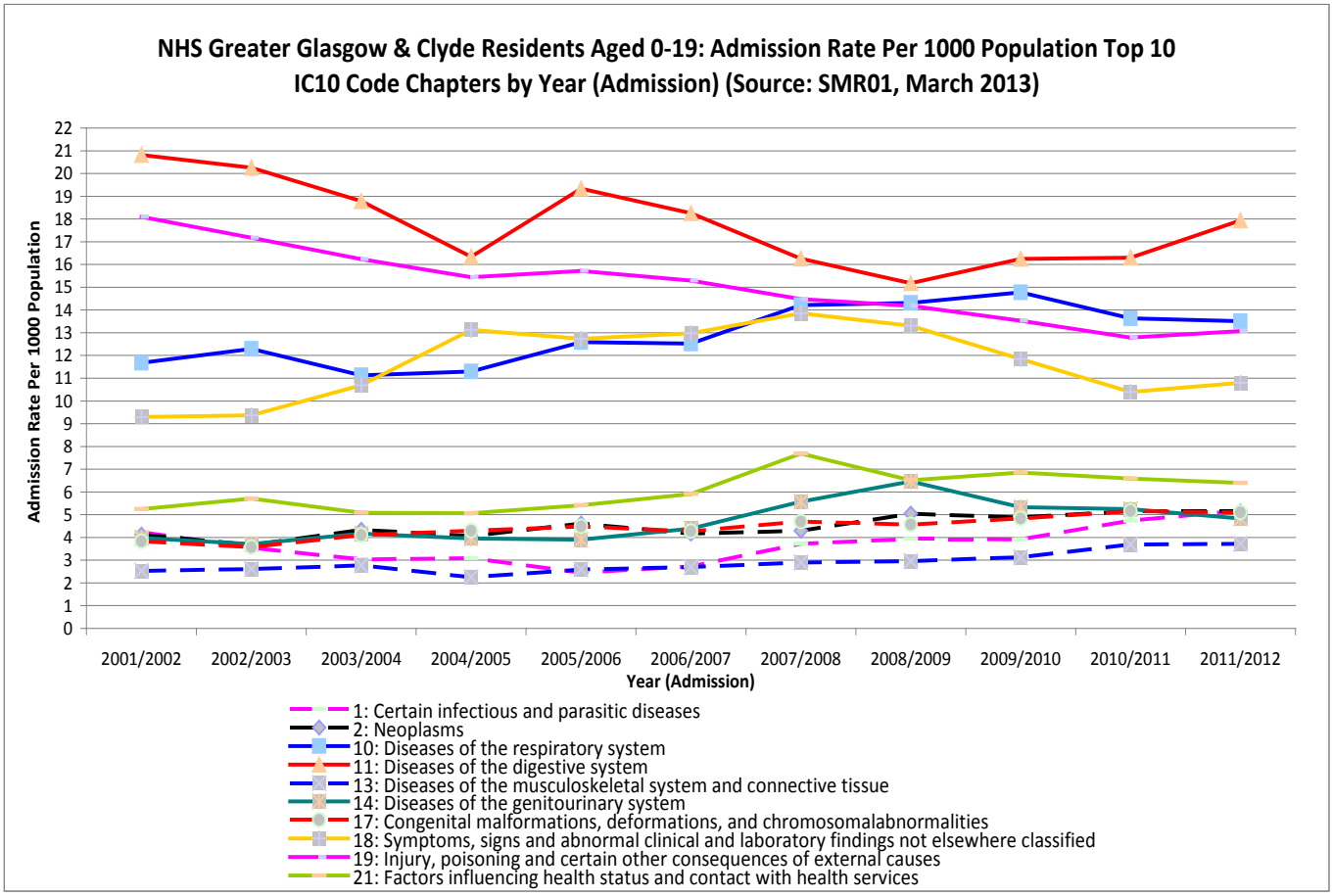


Source: Scottish Morbidity Record (SMR01) April 2011-March 2012

Admissions to hospital can be classified according to the broad chapter of the International Classification of Diseases (ICD version 10). Overall, the commonest illness class resulting in admissions was disorders of the digestive system, at an overall rate of 17.9 per 1,000 children 0-19 years. This was followed by respiratory problems (13.5 per 1,000) and preventable (unintentional) injuries (13.1 per 1,000).

For younger children (aged 0-4 years) the commonest causes included digestive system disorders, but infections were an important cause of admission at 14.6 admissions per 1,000 residents. Trends in the admission drivers since 2001/2 are shown in Figure 31.

Figure 31



4.20 Child deaths

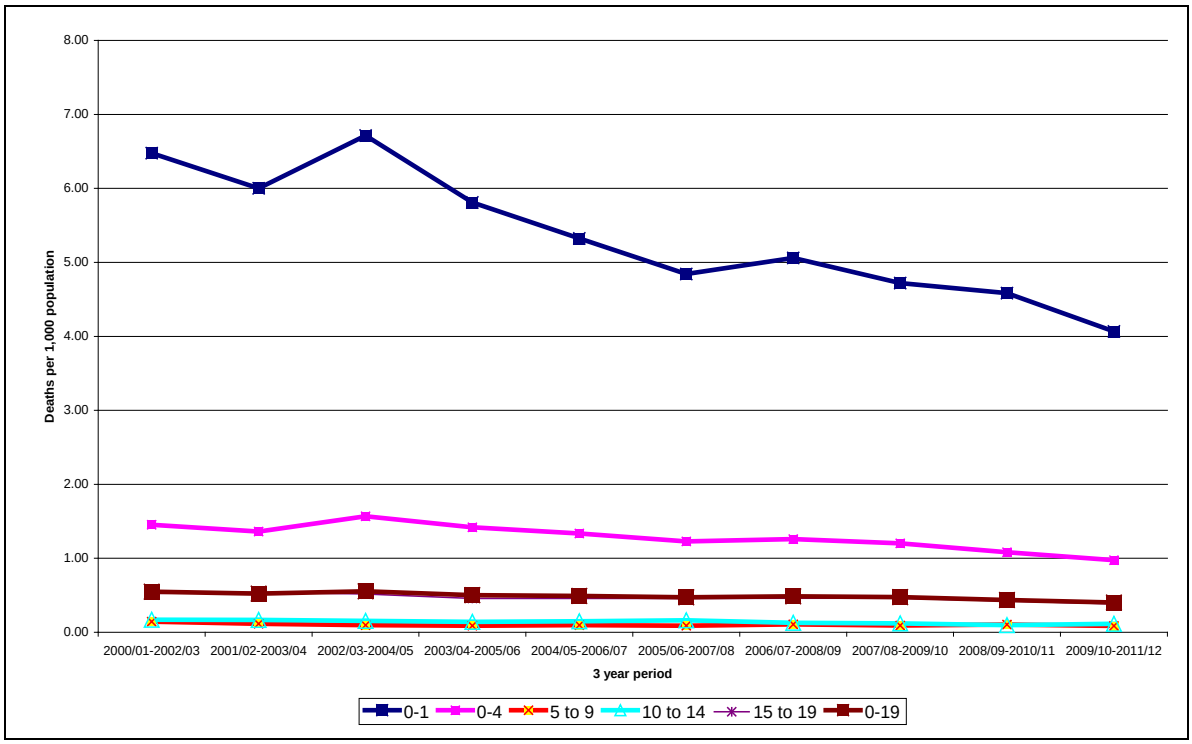
Child deaths are fortunately rare occurrences. In NHSGGC the death rate for the three year period ending March 2012 was 0.4 per 1,000 residents, down from a rate of 0.55 per 1,000 for the three year period 2000/01- to 2002/03. Child deaths, although rare, are most likely in the first year of life (the so called Infant Mortality Rate or IMR) followed by the rate in 0-4 year olds which was 0.97 per 1,000 for the period ending March 2012. The lowest mortality rates are in the age band 5-9 and this then increases as children become more independent, raising to 0.11 per 1,000 in 10-14 year olds, and again to 0.39 per 1,000 for 15-19 year olds.

Infant Mortality Rate

The most recently published Infant Mortality Rate for Scotland is for 2010 and it was 3.7 per 1,000 live births. As the population of NHSGGC is far smaller than that of Scotland, rates are calculated across three year periods which move forward by one year at a time, e.g. 2001 to 2003, followed by 2002 to 2004 etc. The Infant Mortality Rate (IMR) for NHSGGC was 4.1 per 1,000 live births for the period 2009/10 to 2011/12.

This had shown a sustained fall since 2002/2003 -2004/2005 when it was 6.6 per 1,000. This trend is shown in Figure 32 and in Table A31 of the appendix. There have also been more modest falls in death rates for all other age bands over the same period.

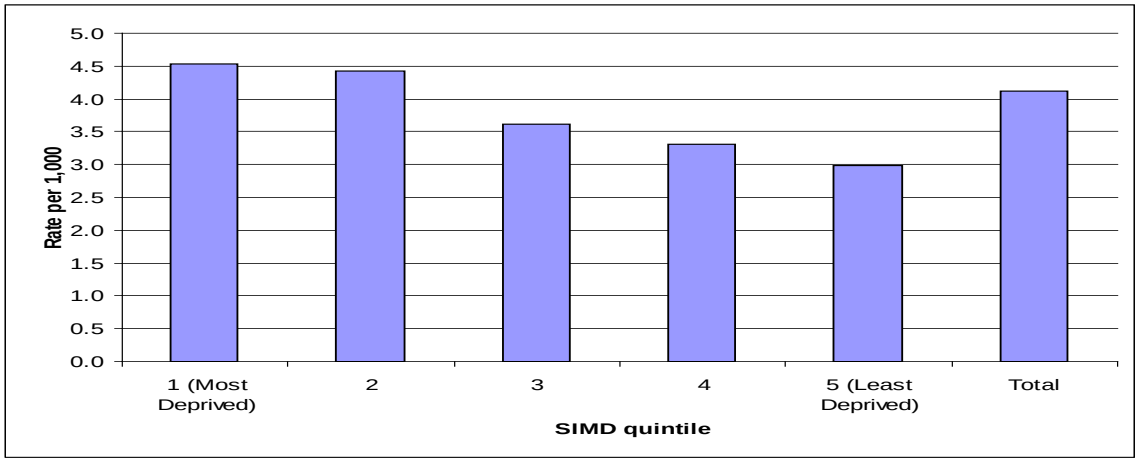
Figure 32 Trends in three year rolling mortality rates by age band for NHSGGC residents aged 0-19 for the period 2000/01 to 2011/12



Source: NRS, August 2013

The Scottish Government have expressed a desire to reduce the Infant Mortality Rate by 15% by 2015. The major issues which impact upon infant mortality in Scotland include smoking, addictions, nutrition and these are all influenced by poverty. There is a significant gradient by socioeconomic deprivation in the IMR which varies from 4.5 per 1,000 in the most disadvantaged group to 3.0 per 1,000 in the most affluent (see Figure 33).

Figure 33 IMR in NHSGGC by SIMD quintile for the three year period ending March 2012



Source: NRS, 2013

It should be remembered that the main driver of IMR are factors associated with poverty, such as addiction, nutrition and smoking. IMRs and age band mortality rates have been included in Table A31 of the appendix.

5. DISCUSSION

Maternal and Child Poverty

Maternal and Child Poverty is a significant determinant of health outcome, health behaviour or service response in the areas such as infant mortality, antenatal smoking and postnatal exposure to smoke, cot death, oral health, maternal and child obesity and life expectancy. The public sector has a long history of making efforts to tackle health inequalities through single and multiagency approaches which identify those in greatest need and provide additional support in order to attempt to equalise health outcomes. In most cases services cannot on their own achieve this aim, but can act to reduce the impact of inequalities. The reasons why inequalities are so intractable are unclear, but include difficulties with targeting, material poverty and failure of engagement.

Identifying those who would benefit most from additional assistance is difficult. Almost all children and families could benefit from some support, but identifying those who could benefit most from additional, finite resources is challenging. Marmot and others have suggested that attempts to identify a core group for additional support (targeting) risks stigmatising those in the group as well as disadvantaging those with needs just below the level agreed for the target group, potentially widening inequalities within the population (5). Instead, they suggest that public services must move from a two-level model: universal and targeted, to a more proportionate or progressive model which matches increasing need with increasing intervention. They believe that this approach would have the advantage of reducing the creation of inadvertent inequalities and reducing stigma.

The second barrier to success is the issue of poverty itself. Whilst disadvantage can be associated with unhealthy choices, the link between material poverty (in terms of income, housing, safety and nutrition) and health is far stronger. Therefore whilst children continue to be brought up in income-disadvantaged households, there is a limit to the impact which the health service can have on health. Given the Institute for Fiscal Studies projections of increasing levels of child poverty between 2009 and 2015, it is possible that health inequalities will rise within children and pregnant women (6). Nevertheless, interventions such as Healthier, Wealthier Children which encourages health staff to support disadvantaged families with children to claim financial support provides a method for the public sector to tackle structural issues around child poverty. The public sector also has a role in reporting inequalities in health and creating evidence to support changes which would bring about a healthy and equal society.

Engagement of families with services is another barrier to reducing inequalities. Historically, health staff have approached child health problems in a deficits approach: what is missing, not provided, or incorrect about the current situation or the family's approach. Whilst there is a need for staff to identify deficits, this approach can be intimidating for parents and carers and can make it more difficult for families to actively engage with the changes needed to improve health and life circumstances.

Strengths-based approaches to intervention such as those seen in the Family Nurse Partnership (7) take account of deficits, but build on parents/carers' strengths in order to bring about changes. It may be that these approaches can be incorporated into all children and families staff training programmes in order to bring about a strengths-based proportionate service.

Perinatal Mental Health

The data presented in section 3.5 on mental health needs in pregnancy provides an incomplete snapshot of mental health needs for a proportion of pregnant women, however it is not comprehensive. There is a wealth of research demonstrating the strong link between maternal mental health and childhood social and behavioural outcomes. Research suggests that across Scotland, up to one third of women experience mental health needs at some point in the four years following the birth of their child. Women with mental health needs were more likely to have children with social and behavioural development problems, and the longer the maternal need persisted, the more likely the developmental problem in their child (8). Given the needs of the population of mothers in NHSGGC, it is likely that mental health needs and the resulting developmental problem are more common than is true at the level of Scotland as a whole.

Improving mental health in pregnant women, infants and children involves actions set out in the Scottish Government's The Mental Health of Children & Young People: A Framework for Promotion, Prevention, and Care (9). The development of policy into the Early Years Framework (10) provides an opportunity not only to intervene in the lives of children through the public sector, but to identify risk factors in the antenatal period in order to intervene prior to birth.

Currently there is some assessment of antenatal mental health needs by midwives, and of postnatal depression by Health Visitors. However there is no systematic collection of this data in a way which would allow the scale of mental health needs to be assessed comprehensively within NHSGGC. The very small number of women with severe or enduring mental health needs receive the care they require, but little is known about those with mild or moderate needs which are likely to be far greater in number and which may pose a greater public health problem and an opportunity for services to improve outcomes for women and their children. Given these facts, it is important that routine information on this sensitive area should be shared in order to improve outcomes for individuals and collected as surveillance to allow the extent of the problem to be identified and tackled through the development of services. Work should be undertaken between maternity services, GPs, mental health partnerships and anti stigma partnerships to promote routine, systematic information sharing around perinatal mental health needs.

Unexplained Variation

There are significant variations in assessment/intervention or prevention and its recording across CH(C)P geographies which are not explained by differences in population or socioeconomic status. The authors considered a number of ways of accounting for socioeconomic status but this did not appear to explain all of the variation. This variation may result from local variations in policy or practice, including the recording of health information. Such unexplained variation should be reduced as it risks the creation of geographic inequalities in access to assessment or intervention, and in turn, inequalities in health outcomes for children and families.

6. RESPONDING TO POVERTY AND VARIATION

Background

Given the clear evidence of the impact of child poverty, and significant levels of unexplained variation in service activity across geographies, the Board created the Healthy Children Programme with the aim of configuring services for children in a way which improved outcomes for children through a greater focus on standardised methods of assessment and by ensuring access to evidence-informed interventions is proportionate to need across all areas. This section of the report describes the service approach taken and suggests ongoing work being undertaken in order to advance this agenda.

In addition to the challenges of child poverty and unexplained variation, Scottish Government policy has resulted in the draft Children and Young People Bill which has been designed to embed a National Practice Model (11). The draft Children and Young People Bill committed to legislation for all children and young people from birth up to leaving school to have access to a Named Person; supported by a single planning process for those children and young people who could benefit from the involvement of a range of services. The guidance states that the Named Person is an employee in either health or education who acts as the first point of contact for children and families and that they will be the co-ordinator of support for children. This role will be undertaken by different professionals:

- During pregnancy and early period following birth – Midwife
- After ten days following birth – Health Visitor
- Primary school age – Head Teacher or designated staff member
- Secondary school age – Senior Staff member

Organisations employing the named person will be responsible for the delivery of the role through statute. The Bill also enshrines the GIRFEC (Getting It Right For Every Child) National Practice Model, underpinned by a multi-agency definition of wellbeing which should underpin health, education and social care planning and activity with children and their families.

NHSGGC established the Healthy Children Programme. The purpose of the programme was to improve outcomes for all children and reduce inequalities through focussing on models of care which would shift Children's Services to earlier detection of needs and early intervention. The programme ensured that Scottish Government requirements were met by:

- Embedding GIRFEC in the practice of Children and Family Teams by ensuring that there is a consistency of approach on assessment and care planning and early intervention across partnerships
- Establishing the Health Visitor as the Named Person for all children from 10 days to school-entry
- Redesigning the Health Plan Indicator to have two categories (Core and Additional) rather than the current three (Core, Additional and Intensive).
- Ensuring that a child with needs categorised as “Core” is offered the full range of our universal services and those categorised as “Additional” receive appropriate interventions from health and partners agencies
- Ensuring that there are clear pathways from the assessment to evidence based interventions across health, education, voluntary agencies and social services, and
- Ensuring that key health improvement messages and programmes are promoted by health visitors and school nurses.

The approaches taken will help teams to deliver proportionate universalism: matching high quality assessments of need to the single and multi-agency interventions required to improve outcomes for children and their families and reduce health inequalities.

Assessment, care planning and early intervention

The implementation of a standardised approach to assessment and care planning, with a focus on earlier intervention is the central aim of the programme of change. The National Practice Model is seen as the central lever for creating this change across services, and significant work has focused on specifying the model in order to ensure that it is implemented in a way which improves consistency across the system.

The Model is underpinned by a standardised assessment and care planning process which will promote consistent collection and sharing of data across health services and multi-agency partners. This model has been underpinned by a focus on agreeing the content of universal activity received by every child, and the scope of interventions for children and families with additional needs. The assessment and care planning process also integrates the multi-agency National Risk Assessment Framework, using agreed tools to measure and share assessments of risk between different agencies (12).

The model has been developed in conjunction with all local authorities throughout NHSGGC, so that the same GIRFEC framework informs their assessment and care planning arrangements. This will allow for a common language and process for the creation of the single child's plan when required. In addition, the introduction of EmisWeb, as the single electronic patient record for NHSGGC Community Children's services will allow for more accurate and timely information sharing across community, acute services and other agencies.

Redesigning the workforce

Following the Health Visitor review in 2008, Children and Family (C&F) Teams were established across NHSGGC to support children from the age of 0–19 in order to provide both a universal service for all children and a targeted service for vulnerable children and their families. The Healthy Children Programme developed evidence which included the views of staff, a comprehensive staff survey and work through projects such as Releasing Time to Care (RTTC). This work concluded that the redesign of work across Children and Family Teams was central to achieving better outcomes for children and reducing variation. This has resulted in a plan to create a consistent skill mix of nursing, support and administration staff within each locality. This in turn facilitates a consistent model for assessment, planning and intervention and assists the implementation of the Named Person role across those working with children aged 0-5. The model also strengthens managerial and professional supervision arrangements. The recruitment of additional support staff to children and family teams will allow for a more consistent delivery of universal programmes of support, targeted interventions such as parenting and communication and administrative tasks allowing health visitors to be released to target our most vulnerable children.

The Universal Pathway

In order to tackle variations in the provision of services to children and families with no additional needs, the Healthy Children Programme developed a Universal Pathway which standardised the health inputs such as assessment, health improvement and immunisation which could be expected for all children from birth to school entry. This work also specified the staff groups involved in order to ensure that all staff groups were operating in a more consistent, efficient and effective manner. By specifying the extent of universal activity the process provided a clearer distinction between universal and additional support, allowing more effective provision for those with additional needs. Each family with a child under five will receive in total 26 hours of Children and Family Team input over the course of the Universal Child Health Pathway (0-5 years).

NHSGGC is now in its third year of implementing its parenting framework, the key components of which are delivery of the positive parenting programme Triple P and use of the Solihull approach to promote attachment. Experience to date shows a large number of parents have accessed Triple P (over 25,000) and for those parents who complete the programme there are measurable benefits in parental wellbeing and child behaviour. The challenges are to ensure good reach of the programme across all socio-economic groups, support for parents to participate and ensuring robust data collection on outcomes. We are currently planning the next phase of the framework with more staff with dedicated time for delivery and improved methods of data collection.

Addressing vulnerability

Child and family vulnerability includes a number of interconnected variables such as poverty, behaviour, opportunity, and culture. A number of reports of child protection arrangements have identified the significant numbers of children living in difficult circumstances, having needs which would benefit from intervention, but who are not engaged with child protection systems. Reviews of significant cases within the child protection system underline the need for staff to assess the material circumstances of children and to be aware of the pervasive impact which parents' mental health needs and addictions can have on children's outcomes.

No single pathway could be developed to respond to the diversity of individual needs, however the Healthy Children Programme has used the National Practice Model to identify the interventions which had the strongest evidence-base for improving child outcomes. Given the needs of the NHSGGC population and an analysis of the evidence-base, the most promising interventions identified included parenting support and within this, a focus on children's development of language and communication skills. In addition, research literature supports the use of strengths-based approaches which engage with families and build their confidence to improve the child's circumstances. These approaches have been supported by the Parenting Support Framework and by the development of staff training around strengths-based working in the new National Practice Model. We estimate that that the input of Health Visitor time for the most vulnerable families is likely to be on average four times that of families with no additional needs**.**

Specialist services for children

The changes set out have focussed on strengthening universal services for children. This has an impact on specialist children's services and these in turn have been influenced by the need to take a public health perspective on the needs of children and families.

Mental health issues for children are a significant challenge. 10% of children experience mental health difficulties rising to 45% of children who are Looked After or Accommodated. Child and Adolescent Mental Health Services in NHSGGC have been redesigned to respond to this challenge in a consistent manner. The redesign has effectively doubled the capacity of the teams and brought waiting times down significantly below the national target.

Mind the Gaps (ref) documented the significant numbers of vulnerable children in NHSGGC experiencing the impact of poverty, addiction and inequality. Such factors lead to substantial difficulties for both children and their families and add to the experience of complex disabilities. Community Paediatric Services are being redesigned to much more explicitly target this vulnerability with the establishment of nurse-led teams.

Nurses within the teams will have a number of discrete responsibilities such as the annual health check of children with disabilities, of children who are 'Looked After' with access to single or multi disciplinary interventions by AHP staff, Community Paediatricians or partners. Community Paediatric teams will adopt a more public health approach to vulnerability ensuring that systems and processes to effectively respond to vulnerability within a locality are in place. Ensuring an effective interface between the Healthy Children Programme will be critical to the redesign.

Clinical Services Review

The Clinical Services Review has outlined a more connected landscape for children's services. The core of this vision is the creation of community hubs which can bring together GPs, community children's services and acute services in a more comprehensive and sustainable manner. This approach will contribute to focussing and integrating care into community settings and will support and facilitate the entire health service on providing high quality, efficient care. The issues of standardising approaches to assessment, information sharing and intervention and the need to link with other agencies is central to this approach. An additional focus consistent with the need to improve outcomes for children is the need to improve transition planning for those transferring to adult services.

Maternity Services

Maternity services provide care for a wide variety of women, varying by age and disadvantage, some of whom have significant existing medical needs. The levels of illness attributable to pregnancy remain low, however issues around major illness and the prevention of maternal deaths have been addressed through service clinical governance processes.

The recently established Healthy Mums, Healthy Babies Programme is an attempt to improve outcomes for women and babies and to reduce variation across services, ensuring earlier antenatal booking, effective assessment and management of risk and seamless transfer of women and babies into community services following delivery. The programme has a focus on assessment and care planning using the GIRFEC National Practice Model. A joint single-system approach to early information sharing between acute and community colleagues based on the National Practice Model is being developed. This approach will ensure additional support for vulnerable women in pregnancy and in the postnatal period through formal coordinated communication between midwives and health visitors. This will ensure information sharing and intelligence gathering through the Named Person and Lead Professional and will also encourage liaison with GP and other staff groups, standardising practice.

Ongoing work

The same principles of service redesign to develop a workforce model for school age children has been progressed. The number of School Nursing staff is significantly lower than the number of Health Visitors. This reflects Health's lead

on the preschool period (as the Named Person) and the increased role for Education after school entry. Despite this fact, around 40% of all children in NHSGGC are Additional or Intensive and they continue to have additional needs at school. The school age population is much larger than the preschool population. Therefore, there is an important continuing role for School Nurses to support children of school age. The School Nurse Review has concluded that the implementation of the revised assessment and care planning framework and the delivery of interventions to vulnerable children will require a substantial investment in order to deliver the National Practice Model in a consistent manner across geographies.

In addition to the Healthy Children Programme, a parallel Healthy Mums, Healthy Babies Programme has been created to reshape the care of pregnant women using similar principles. This programme has significant overlap in terms of staff and approaches and is led by Women and Children's Services.

Whilst there is substantial integration of activity across services for children, the recent Health and Social Care Integration Bill will inevitably create structural change. The Healthy Children and Healthy Mums, Healthy Babies Programmes will have a central role in articulating and measuring the outcomes that we seek for pregnant women and children, and in specifying the elements of services which must be consistently delivered across the Board area in order to prevent variations which might result in widening inequalities.

Investing in Children

The Board has supported the Healthy Children Programme by investing an additional £2.45 million over the years 2013 to 2015 in order to implement the new models and pathways created by the Healthy Children Programme.

REFERENCES

(1) NHS Greater Glasgow and Clyde Public Health Screening Programmes Annual Report 1 April 2011 to 31 March 2012. Available from www.nhsggc.org.uk/phsu

(2) Centre for Maternal and Child Enquiries (CMACE). Saving Mothers' Lives: reviewing maternal deaths to make motherhood safer: 2006–08. The Eighth Report on Confidential Enquiries into Maternal Deaths in the United Kingdom. BJOG 2011;118(Suppl. 1):1–203.

(3) Scottish Confidential Audit of Severe Maternal Morbidity: reducing avoidable harm, 2013. Healthcare Improvement Scotland: Edinburgh.

(4) Royal College of Physicians, London. *Passive smoking in children; a report of the Royal College of Physicians,* 2010. RCP; London.

(5) The Marmot Report: Fair Society, Healthy Lives, 2010. The Marmot Report: London.

(6) Brewer M, Browne J and Joyce R. Child and working-age poverty 2010-2020, 2011. Institute for Fiscal Studies and the Joseph Rowntrees Foundation: London.

(7) Ormston R and McConville S. Evaluation of the Family Nurse Partnership Programme in NHS Lothian, Scotland. 3rd report: infancy. 2012, Scottish Government and Scottish Centre for Social Research: Edinburgh.

(8) Marryat L and Martin C. *Growing Up in Scotland: Maternal mental health and its impact on child behaviour and development.* 2010, Scottish Government and the Scottish Centre for Social Research: Edinburgh.

(9) The Mental Health of Children & Young People: A Framework for Promotion, Prevention, and Care, 2005. Scottish Government; Edinburgh.

(10) Early Years Framework, 2009. Scottish Government: Edinburgh.

(11) Children and Young People (Scotland) Bill, 2013. Scottish Government: Edinburgh.

(12) Calder MC, McKinnon M, Sneddon R. National Risk Framework to Support the Assessment of Children and Young People, 2012. Scottish Government: Edinburgh.

DATA APPENDIX

Table A1 NHSGGC resident children and young people by age band and SIMD quintile

NHSGGC All	0-4 Years	5-9 Years	10-14 Years	15-19 Years	0-19 Years
1 (most deprived)	28,807	23,674	22,445	25,551	100,477
2	11,654	9,790	9,847	12,189	43,480
3	9,489	8,488	8,763	10,237	36,977
4	8,707	8,533	8,632	10,230	36,102
5 (least deprived)	10,800	12,174	13,590	14,523	51,087
Total	69,457	62,659	63,277	72,730	268,123

Source: SAPE 2011

Table A1a Maternal age-band at booking by maternity hub

Maternity Hub	Maternal Age At Booking Category				
	<20	**20-24**	**25-29**	**30-34**	**35+**
Not Known	6.05%	15.32%	26.61%	31.05%	20.97%
PRM	6.74%	20.83%	28.87%	28.81%	14.76%
RAH	7.28%	18.15%	29.92%	28.87%	15.74%
SGH	4.77%	15.38%	27.66%	32.15%	20.04%
GGC	6.03%	17.83%	28.58%	30.25%	17.30%

Source: PNBS (March 2013)

Table A1b Maternal age-band at booking by CH(C)P area of residence

Community Health (Care) Partnership	Maternal age at booking category					Total
	<20	**20-24**	**25-29**	**30-34**	**35+**	
East Dunbartonshire	3.48%	11.32%	23.29%	38.96%	22.96%	919
East Renfrewshire	2.71%	9.76%	22.67%	38.50%	26.36%	922
Glasgow North East	7.11%	24.43%	30.39%	26.28%	11.78%	2165
Glasgow North West	5.21%	17.94%	28.50%	31.43%	16.92%	2246
Glasgow South	5.91%	18.77%	29.59%	27.92%	17.81%	3048
Inverclyde CHP	7.33%	19.15%	32.26%	26.99%	14.27%	778
North Lanarkshire CHP	6.51%	10.34%	23.75%	35.63%	23.75%	261
Renfrewshire CHP	7.13%	16.73%	28.66%	30.50%	16.93%	2020
South Lanarkshire CHP	5.85%	15.12%	25.82%	34.38%	18.83%	701
West Dunbartonshire CHP	7.98%	18.83%	31.91%	25.79%	15.49%	1078
Total	6.03%	17.83%	28.58%	30.25%	17.30%	14138

Source: PNBS (March 2013)

Table A1c Maternal ancestry/ethnicity for women booking in 2011/12 by booking hub

Ethnic group		PRM	RAH	SGH
A	Afro Caribbean	4.17%	0.74%	1.85%
B	Indian, Pakistani or Bangladeshi	3.70%	1.79%	12.67%
C	Chinese or other Asian	3.36%	0.83%	2.33%
D	North African, South American, Middle Eastern or Other Non European	1.46%	0.59%	1.52%
E	Mediterranean, Albanian, Czech or Polish	4.14%	3.03%	5.39%
F	UK	75.60%	88.72%	72.53%
G	Other European	1.15%	1.45%	1.96%
NR	Not recorded	6.02%	2.69%	1.52%

Source: PNBS (March 2013)

Table A1d Maternal ancestry/ethnicity for women booking in 2011/12 by SIMD quintile of deprivation

Ethnic group	1 (most deprived)	2	3	4	5 (most affluent)	TOTAL
A	4.1%	1.3%	1.3%	0.9%	0.5%	2.3%
B	4.3%	10.8%	8.3%	11.0%	6.9%	7.2%
C	2.7%	2.3%	3.0%	3.1%	3.1%	2.2%
D	1.4%	1.2%	1.4%	1.3%	0.8%	1.3%
E	6.2%	4.0%	4.2%	2.9%	2.1%	4.4%
F	75.8%	76.2%	78.3%	76.8%	83.4%	77.5%
G	1.0%	1.3%	1.7%	2.6%	2.7%	1.6%
NR	4.3%	2.7%	2.3%	3.0%	1.8%	3.2%
TOTAL	5313	2303	1876	1524	1918	12934

Source: PNBS (March 2013)

Table A2 Smoking status for NHSGGC residents at booking by CH(C)P of residence and socioeconomic deprivation quintile (SIMD 2012) period 1 April 2011 to 31 March 2012

CH(C)P		Ex-smoker %					Active smoker %					Non smoker %				
	SIMD quintile	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
East Dun		14	10	12	10	6	36	23	12	7	3	50	67	76	83	91
	Total	**8%**					**10%**					**81%**				
East Ren		9	17	5	7	5	32	26	18	4	2	60	57	77	89	93
	Total	**7%**					**8%**					**85%**				
NE Glas		9	8	8	14	7	24	10	12	6	0	67	82	81	80	93
	Total	**9%**					**20%**					**71%**				
NW Glas		9	12	13	12	8	27	17	6	2	2	64	71	81	86	90
	Total	**10%**					**16%**					**73%**				
Sth Glas		8	7	8	7	3	25	12	10	5	1	67	81	82	88	96
	Total	**7%**					**16%**					**77%**				
Inverclyde		12	8	12	10	5	34	26	17	5	5	54	66	71	85	90
	Total	**10%**					**24%**					**66%**				
North Lan		15	7	8	10	0	18	32	6	7	0	68	61	86	83	100
	Total	**10%**					**12%**					**78%**				
South Lan		10	13	13	7	13	30	21	14	8	2	59	67	74	84	85
	Total	**11%**					**19%**					**70%**				
Ren		14	10	11	9	7	31	23	12	6	6	55	67	77	85	87
	Total	**11%**					**18%**					**71%**				
West Dun		12	12	14	7	3	30	22	13	12	9	57	66	73	81	89
	Total	**12%**					**22%**					**66%**				
NHS GGC		10	10	11	9	6	27	18	11	6	3	63	73	78	85	91
	Total	**9%**					**17%**					**74%**				

Source: PNBS (September 2013)

ALCOHOL

Table A3 Reported drinking behaviour in pregnant women recorded at booking by CH(C)P of residence

Area	% No alcohol	% Drinking	% Not known
East Dunbartonshire	83	0	17
East Renfrewshire	93	0	7
Glasgow North East	79	0	21
Glasgow North West	88	1	11
Glasgow South	89	1	10
Inverclyde	94	0	5
North Lanarkshire	74	1	25
Renfrewshire	92	0	7
South Lanarkshire	83	0	17
West Dunbartonshire	93	0	6
NHSGGC	88	1	12

Source: PNBS, 2012

NHSGGC residents – First Antenatal Appointment 1 April 2011-31 March 2012 - Currently Drinking by CH(C)P - Community Health (and Care) Partnership by SIMD Quintile (2013)

OBESITY IN PREGNANCY

Table A4 Recording of BMI at booking visit by CH(C)P of residence for NHSGGC residents

Area	% Normal	% Overweight	% Obese	% Underweight	% Not recorded
East Dunbartonshire	41	27	16	2	15
East Renfrewshire	49	28	17	1	4
Glasgow North East	38	23	18	2	18
Glasgow North West	46	27	17	2	8
Glasgow South	42	30	19	2	7
Inverclyde	46	28	22	2	1
North Lanarkshire	33	27	18	1	21
Renfrewshire	43	29	23	3	2
South Lanarkshire	36	29	19	2	15
West Dunbartonshire	38	32	26	2	2
NHSGGC	42	28	19	2	9

Source: PNBS (2012)

PREMATURITY

Table A5 Percentage singleton births born prematurely by year and CH(C)P of residence for NHSGGC residents

Year	East Dunbartonshire CHP	East Renfrewshire CHCP	Glasgow North East	Glasgow North West	Glasgow South	Inverclyde CHP	North Lanarkshire CHP	Renfrewshire CHP	South Lanarkshire CHP	West Dunbartonshire CHP	NHS Greater Glasgow and Clyde
1997/1998	5.1	5.0	6.4	7.4	6.5	5.8	11.0	5.6	6.9	6.3	6.3
1998/1999	5.5	4.6	6.9	7.1	6.7	5.9	7.2	7.3	5.7	6.4	6.5
1999/2000	6.0	7.5	7.6	7.1	6.4	5.7	6.0	7.5	5.0	7.1	6.8
2000/2001	4.4	7.3	7.6	6.7	5.8	6.2	6.1	7.4	5.0	7.0	6.5
2001/2002	4.3	5.7	7.1	6.7	6.5	6.4	4.7	7.7	6.8	5.9	6.5
2002/2003	4.5	5.1	7.9	6.7	6.3	6.5	5.0	6.5	5.9	6.6	6.4
2003/2004	6.5	5.5	7.7	7.8	6.5	6.5	4.2	8.1	6.8	7.9	7.1
2004/2005	5.0	6.4	8.6	7.1	6.6	5.8	4.2	6.6	7.1	8.7	6.9
2005/2006	6.5	6.4	9.0	7.4	5.6	7.3	6.9	6.5	5.2	7.2	6.9
2006/2007	4.3	4.7	7.3	6.6	6.5	6.3	6.8	5.8	4.3	6.6	6.2
2007/2008	4.5	4.6	6.9	6.4	6.6	6.3	5.0	5.8	6.5	6.4	6.2
2008/2009	5.6	6.5	7.7	6.8	5.8	5.9	6.1	7.2	5.8	7.6	6.6
2009/2010	3.7	6.0	6.1	5.2	6.1	6.8	5.4	5.8	6.7	5.2	5.8
2010/2011	3.6	4.8	5.9	6.3	5.7	6.3	7.4	6.3	5.6	6.4	5.8
2011/2012	4.1	5.4	7.0	6.0	6.7	4.8	6.0	6.6	5.2	6.5	6.2

Source: SMR02 (January 2013)

BIRTH WEIGHT

Table A6 Percentage of singleton live births under 2,500g for NHSGGC residents by year of birth

Year	East Dunbartonshire CHP	East Renfrewshire CHCP	Glasgow North East	Glasgow North West	Glasgow South	Inverclyde CHP	North Lanarkshire CHP (GGC pt)	Renfrewshire CHP	South Lanarkshire CHP (GGC pt)	West Dunbartonshire CHP	NHS Greater Glasgow and Clyde
1997/1998	5.1	5.4	7.2	7.8	6.9	5.4	10.5	5.5	7.1	5.9	6.5
1998/1999	5.1	5.5	8.0	6.9	8.5	6.7	5.6	6.3	6.9	5.1	6.9
1999/2000	4.3	5.8	7.7	7.4	6.8	4.8	6.0	7.1	4.8	7.5	6.6
2000/2001	4.9	5.1	8.4	8.5	5.9	5.9	4.3	6.0	4.9	7.2	6.6
2001/2002	4.8	5.1	8.7	7.3	6.6	6.2	2.9	6.8	7.7	6.6	6.8
2002/2003	4.2	4.9	8.0	7.2	7.2	6.7	5.0	6.6	6.8	7.2	6.8
2003/2004	5.4	5.5	8.8	7.2	7.6	7.2	5.6	7.0	6.5	8.5	7.3
2004/2005	2.8	5.6	7.9	7.9	7.3	5.9	2.9	6.3	6.2	7.5	6.7
2005/2006	4.8	5.9	8.5	8.2	7.2	7.9	6.0	6.0	5.6	7.5	7.1
2006/2007	2.5	5.0	7.1	6.2	6.2	6.9	4.4	6.3	3.2	6.2	5.9
2007/2008	3.6	4.7	7.2	6.5	7.4	7.0	5.8	6.3	5.8	6.0	6.4
2008/2009	4.5	5.2	7.4	6.5	5.7	5.6	5.3	6.1	4.9	5.6	6.0
2009/2010	3.7	5.0	6.3	5.4	6.3	5.2	2.1	5.3	7.3	4.7	5.5
2010/2011	3.8	4.0	5.5	5.7	5.5	7.0	6.0	5.4	4.2	5.4	5.3
2011/2012	3.5	3.2	6.7	5.8	6.3	6.7	6.0	6.1	5.9	5.6	5.8

Source: SMR02 (January 2013)

BREASTFEEDING

Table A7 Exclusive breastfeeding at the 6-8 week check for NHSGGC residents by SIMD quintile and year

	Birth Year (Fiscal)											
CH(C)P	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
East Dunbartonshire	36.4	29.5	37.0	33.4	34.7	34.3	32.2	30.4	30.2	30.8	29.2	28.0
East Renfrewshire	32.8	35.6	36.1	35.7	37.0	39.0	35.5	34.1	33.7	33.6	32.4	34.3
Glasgow North East	13.1	14.7	16.1	15.8	17.4	17.7	15.6	14.7	16.2	15.9	18.6	14.6
Glasgow North West	27.0	29.7	31.4	30.6	32.7	32.5	30.1	29.0	29.8	31.0	30.9	29.3
Glasgow South	23.3	26.1	26.1	26.2	26.6	27.6	27.3	24.8	25.5	25.9	25.6	25.7
Inverclyde	17.1	19.4	18.2	16.4	19.7	17.8	16.2	15.5	15.4	14.3	15.3	16.4
Renfrewshire	21.6	22.1	23.9	24.9	21.6	21.1	21.9	20.7	20.9	18.6	20.6	20.2
West Dunbartonshire	17.8	18.8	18.5	17.5	17.9	16.9	15.2	15.9	16.0	14.9	13.4	14.8
NHSGGC	23.0	24.1	25.6	24.7	25.3	25.4	23.8	22.9	23.4	23.2	23.6	22.7

Source: CHSP-PS, January 2013

NHSGGC residents - % Exclusively Breastfeeding (6-8 weeks Review) by Year (Birth) by CHP

SLEEPING POSITION AT SIX - EIGHT WEEKS

Table A8 Sleeping position at the 6-8 weeks review by CHP(C) of residence for NHSGGC residents at time of data extract

Sector/CH(C)P	Prone	Side	Supine
	%	%	%
Glasgow North East	9.0	1.7	89.2
Glasgow North West	4.8	1.8	93.5
Glasgow South	2.5	1.9	95.6
Glasgow City Total	**5.1**	**1.8**	**93.1**
West Dunbartonshire	2.1	3.4	94.5
East Dunbartonshire	1.8	1.9	96.3
East Renfrewshire	5.2	2.0	92.8
Inverclyde	0.8	2.5	96.7
Renfrewshire	1.3	2.0	96.7
North Lanarkshire (GGC pt)	0.9	2.7	96.4
South Lanarkshire (GGC pt)	2.8	1.5	95.7
NHSGGC Total	3.7	2.0	94.3

Source CHS-PS 2011/12, extracted May 2013

EXPOSURE TO SECOND HAND SMOKE

Table A9 Exposure to smoking at 2 weeks by CH(C)P of residence for NHSGGC residents at time of data extract

Sector/CH(C)P	Mother/Carer Smoking			Partner Smoking			Passive Smoking		
	Yes	No	N/K	Yes	No	N/K	Yes	No	N/K
Glasgow North East	20.2%	77.1%	2.7%	30.4%	62.3%	7.3%	19.2%	58.6%	22.1%
Glasgow North West	14.3%	80.1%	5.6%	23.6%	66.6%	9.8%	16.3%	62.9%	20.9%
Glasgow South	14.3%	83.7%	2.0%	25.6%	67.9%	6.5%	13.5%	64.3%	22.2%
Glasgow City Total	**16.0%**	**80.7%**	**3.3%**	**26.4%**	**65.9%**	**7.7%**	**16.0%**	**62.2%**	**21.8%**
West Dunbartonshire	21.2%	77.3%	1.5%	33.4%	60.6%	6.0%	9.8%	67.9%	22.4%
East Dunbartonshire	9.0%	88.6%	2.4%	18.4%	77.4%	4.3%	15.9%	68.0%	16.0%
East Renfrewshire	7.0%	90.8%	2.2%	13.8%	77.9%	8.3%	6.5%	63.8%	29.7%
Inverclyde	20.5%	77.6%	1.8%	30.4%	64.1%	5.6%	16.0%	69.5%	14.5%
Renfrewshire	16.1%	82.1%	1.7%	26.7%	68.2%	5.2%	12.6%	60.9%	26.5%
North Lanarkshire (GGC pt)	10.8%	86.9%	2.4%	19.5%	75.3%	5.2%	8.4%	69.3%	22.3%
South Lanarkshire (GGC pt)	14.3%	85.2%	0.5%	25.6%	70.9%	3.5%	12.7%	64.7%	22.6%
NHSGGC Total	**15.5%**	**82.0%**	**2.6%**	**25.7%**	**67.7%**	**6.6%**	**14.1%**	**63.7%**	**22.2%**

Source CHS-PS 2011/12, extracted May 2013

CHILD SURVEILLANCE CONCERNS

Table A10 Number of children with a given number of parent/carer concerns at the 2 weeks review, NHSGGC residents at time of data extract

No. concerns	Total No. Children
1 concern	689
2 concerns	222
3 concerns	79
4 concerns	22
5 or more concerns	8
Total	**1,020**

Source CHS-PS 2011/12, extracted May 2013

Table A11 Proportions of children with parent/carer concerns at the 2 weeks review by SIMD quintile of deprivation and sector of residence, NHSGGC residents at time of data extract

Concerns	SIMD 2012 Quintile					
	Most Disadvantaged				Least Disadvantaged	
Sector/CH(C)P	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Total
	%	%	%	%	%	%
Glasgow North East	5.9%	9.1%	14.0%	12.1%	7.0%	7.4%
Glasgow North West	7.7%	11.5%	5.3%	8.4%	11.4%	8.5%
Glasgow South	5.9%	7.5%	4.7%	5.7%	6.6%	6.2%
Glasgow City Total	**6.4%**	**8.7%**	**6.9%**	**7.8%**	**9.4%**	**7.2%**
West Dunbartonshire	5.3%	2.7%	3.4%	6.8%	5.0%	4.3%
East Dunbartonshire	31.4%	13.8%	11.9%	12.4%	10.7%	12.9%
East Renfrewshire	4.0%	4.8%	4.5%	3.1%	5.2%	4.6%
Inverclyde	16.0%	14.0%	5.9%	13.6%	17.4%	14.2%
Renfrewshire	3.9%	3.7%	2.6%	3.0%	2.6%	3.2%
North Lanarkshire (GG&C pt)	15.4%	17.9%	32.1%	28.6%	20.0%	25.9%
South Lanarkshire (GG&C pt)	8.6%	6.0%	13.5%	9.5%	15.1%	10.1%
NHSGGC Total	**7.1%**	**7.8%**	**7.2%**	**8.8%**	**8.1%**	**7.6%**

Source CHS-PS 2011/12, extracted May 2013
Please note the small numbers of children in some sectors.

Table A12 Number of children with a given number of parent/carer concerns at the 6-8 weeks review, NHSGGC residents at time of data extract

No. concerns	Total No. Children
1 concern	566
2 concerns	112
3 concerns	23
4 concerns	6
5 or more concerns	10
Total	**717**

Source CHS-PS 2011/12, extracted May 2013

Table A13 Proportions of children with parent/carer concerns at the 6-8 weeks review by SIMD quintile of disadvantage and sector of residence, NHSGGC residents at time of data extract

Concerns	SIMD 2012 Quintile					
	Most Disadvantaged				Least Disadvantaged	
Sector/CH(C)P	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Total
	%	%	%	%	%	%
Glasgow North East	4.3%	4.4%	7.2%	7.9%	9.5%	4.9%
Glasgow North West	6.7%	5.3%	4.5%	3.5%	3.2%	5.4%
Glasgow South	5.3%	4.2%	3.3%	3.7%	5.9%	4.6%
Glasgow City Total	5.3%	4.5%	4.5%	4.4%	4.5%	4.9%
West Dunbartonshire	4.7%	6.0%	4.1%	5.6%	2.6%	4.9%
East Dunbartonshire	15.1%	10.8%	8.9%	5.2%	6.3%	7.8%
East Renfrewshire	5.3%	3.7%	4.4%	3.2%	5.7%	4.9%
Inverclyde	11.7%	10.9%	9.1%	11.1%	17.3%	11.7%
Renfrewshire	6.7%	4.4%	3.0%	5.2%	5.6%	5.1%
North Lanarkshire (GGC pt)	16.2%	10.0%	12.2%	7.4%	0.0%	10.7%
South Lanarkshire (GGC pt)	3.0%	7.2%	2.8%	5.7%	5.6%	4.4%
NHSGGC Total	**5.9%**	**5.6%**	**4.8%**	**5.3%**	**5.9%**	**5.6%**

Source CHS-PS 2011/12, extracted May 2013

Table A14 Number of children with a given number of parent/carer concerns at the 24 months review, NHSGGC residents at time of data extract

No. concerns	Total No. Children
1 concern	440
2 concerns	138
3 concerns	44
4 or more concerns	14
Total	**636**

Table A15 Proportions of children with parent/carer concerns at the 24 months review by SIMD quintile of disadvantage and sector of residence, NHSGGC residents at time of data extract

Concerns	SIMD 2012 Quintile					
Sector/CH(C)P	Most Disadvantaged				Least Disadvantaged	
	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Total
Glasgow North East	12.6%	10.9%	12.8%	8.8%	28.6%	12.4%
Glasgow North West	20.6%	20.0%	12.8%	9.5%	21.7%	19.8%
Glasgow South	18.3%	17.4%	19.7%	7.3%	14.3%	17.4%
Glasgow City Total	16.5%	16.0%	16.0%	8.3%	21.0%	16.1%
West Dunbartonshire	16.0%	13.0%	5.9%	16.7%	0.0%	13.3%
East Dunbartonshire	0.0%	17.6%	15.4%	9.1%	20.0%	16.8%
East Renfrewshire	20.5%	15.2%	10.5%	16.7%	20.5%	18.0%
Inverclyde	17.5%	19.4%	8.9%	6.1%	3.3%	14.2%
Renfrewshire	15.9%	13.3%	13.8%	5.4%	11.8%	13.5%
North Lanarkshire (GGC pt)	23.1%	37.5%	16.7%	24.0%	0.0%	23.1%
South Lanarkshire (GGC pt)	18.5%	37.5%	12.9%	12.2%	4.0%	16.9%
NHSGGC Total	**16.7%**	**16.8%**	**13.1%**	**10.6%**	**16.1%**	**15.8%**

Source CHS-PS 2011/12, extracted May 2013

DEVELOPMENT AT 6–8 WEEKS

Table A16 Gross motor development at 6-8 weeks in NHSGGC residents at time of data extract

Area	% Normal	% Abnormal or doubtful	% incomplete
Glasgow North East	93.3	3.0	3.0
Glasgow North West	94.7	2.1	3.2
Glasgow South	93.6	2.3	4.1
West Dunbartonshire	96.3	1.7	2.0
East Dunbartonshire	95.4	1.6	3.0
East Renfrewshire	96.1	1.2	2.7
Inverclyde	97.1	1.3	1.6
Renfrewshire	94.9	2.2	2.9
North Lanarkshire (GGC pt	93.9	2.0	4.1
South Lanarkshire (GGC pt)	95.7	1.5	2.7
NHSGGC	94.7	2.1	3.2

Source CHS-PS 2011/12, extracted May 2013

Table A17 Communication development at 6-8 weeks by CH(C)P in NHSGGC residents at time of data extract

Area	% Normal	% Abnormal or doubtful	% incomplete
Glasgow North East	96.2	0.7	3.1
Glasgow North West	96.5	0.4	3.1
Glasgow South	95.7	0.6	3.7
West Dunbartonshire	97.6	0.6	1.8
East Dunbartonshire	96.8	0.4	2.0
East Renfrewshire	98.4	0.1	1.5
Inverclyde	99.2	0.1	0.7
Renfrewshire	97.1	0.6	2.3
North Lanarkshire (GGC pt)	98.4	0.0	1.6
South Lanarkshire (GGC pt)	97.4	0.3	2.3
NHSGGC	96.8	0.5	2.7

Source CHS-PS 2011/12, extracted May 2013

Table A18 Social and behavioural development at 6-8 weeks in NHSGGC residents at time of data extract

Area	% Normal	% Abnormal or Doubtful	% Incomplete
Glasgow North East	95.6	0.8	3.6
Glasgow North West	95.5	0.9	3.6
Glasgow South	93.6	1.6	4.8
West Dunbartonshire	96.7	1.0	2.3
East Dunbartonshire	95.0	1.3	3.7
East Renfrewshire	97.0	0.9	2.1
Inverclyde	98.0	0.7	1.3
Renfrewshire	94.9	1.4	3.8
North Lanarkshire (GGC pt)	96.3	0.8	2.9
South Lanarkshire(GGC pt)	96.2	1.0	2.9

Source CHS-PS 2011/12, extracted May 2013

HEALTH PLAN INDICATOR

Table A19 Proportions of children assigned to different HPI groups by sectors for NHSGGC residents at 2 weeks review, NHSGGC residents at time of data extract

Sector/CH(C)P	All quintiles				
	C	A	I	U	Total
	%	%	%	%	
Glasgow North East	7.0	35.1	6.2	51.7	2021
Glasgow North West	14.6	41.4	4.5	39.5	2063
Glasgow South	10.3	27.4	4.9	57.4	2789
Glasgow City Total	10.7	33.9	5.2	50.3	6873
West Dunbartonshire	7.8	45.0	5.4	41.8	1045
East Dunbartonshire	3.9	15.3	1.7	79.1	923
East Renfrewshire	12.6	20.0	1.1	66.3	886
Inverclyde	3.6	50.8	4.2	41.4	769
Renfrewshire	11.7	45.0	3.2	40.2	1785
North Lanarkshire (GGC pt)	2.4	88.4	0.8	8.4	250
South Lanarkshire (GGC pt)	16.3	52.0	3.2	28.6	756
NHSGGC Total	**10.0**	**37.1**	**4.2**	**48.8**	**13,287**

Source CHS-PS 2011/12, extracted May 2013
(C) Core, (A) Additional, (I) Intensive, (U) Unassigned

Table A20 Proportions of children assigned to different HPI groups by sectors for NHSGGC residents at 6-8 weeks review, NHSGGC residents at time of data extract

Sector/CH(C)P	All quintiles				
	C	**A**	**I**	**U**	**Total**
	%	%	%	%	No.
Glasgow North East	19.8	46.0	7.1	27.1	1950
Glasgow North West	40.1	38.9	5.0	16.0	2005
Glasgow South	35.4	34.8	6.4	23.4	2642
Glasgow City Total	**32.2**	**39.4**	**6.2**	**22.3**	**6597**
West Dunbartonshire	32.8	36.7	6.1	24.3	996
East Dunbartonshire	51.8	22.0	1.4	24.8	871
East Renfrewshire	60.4	27.0	1.8	10.7	869
Inverclyde	16.3	60.2	4.4	19.1	744
Renfrewshire	60.5	27.3	4.2	8.0	1690
North Lanarkshire (GGC pt)	7.9	83.5*	*	8.7	242
South Lanarkshire (GGC pt)	36.7	48.5	3.1	11.7	736
NHSGGC Total	**38.1**	**38.1**	**4.9**	**18.9**	**12,745**

Source CHS-PS 2011/12, extracted May 2013

**Additional and Intensives combined for North Lanarkshire as small numbers involved.*

(C) Core, (A) Additional, (I) Intensive, (U) Unassigned

Table A21 Proportions of children assigned to different HPI groups by sectors for NHSGGC residents at 24 months review, NHSGGC residents at time of data extract

Sector/CH(C)P	All quintiles				
	C	A	I	U	Total
	%	%	%	%	
Glasgow North East	31.2	56.3	12.0	0.4	925
Glasgow North West	30.1	53.3	14.9	1.7	664
Glasgow South	30.1	56.6	11.6	1.8	795
Glasgow City Total	**30.5**	**55.6**	**12.7**	**1.2**	**2,384**
West Dunbartonshire	33.8	50.5	15.8	0.0	317
East Dunbartonshire	40.2	53.0	6.8	0.0	117
East Renfrewshire	40.5	52.9	6.2	0.5	210
Inverclyde	46.5	44.9	7.3	1.3	381
Renfrewshire	36.3	52.1	11.3	0.3	336
North Lanarkshire (GGC pt)	50.0	45.5	4.5	0.0	66
South Lanarkshire (GGC pt)	44.6	47.9	7.5	0.0	213
NHSGGC Total	**34.6**	**53.1**	**11.4**	**0.9**	**4,024**

Source CHS-PS 2011/12, extracted May 2013

Table A22 Recording of Childsmile status at 6-8 weeks Health Visitor review by CHC(C)P for NHSGGC residents at time of data extract

Sector/CH(C)P	Yes	No	Refused	Incomplete
Glasgow North East	45.2%	3.4%	2.6%	48.8%
Glasgow North West	43.6%	6.3%	5.4%	44.8%
Glasgow South	38.8%	13.9%	3.5%	43.8%
West Dunbartonshire	2.5%	24.6%	0.5%	72.4%
East Dunbartonshire	7.3%	10.3%	0.9%	81.5%
East Renfrewshire	7.5%	22.2%	1.4%	68.9%
Inverclyde	57.0%	7.0%	6.7%	29.4%
Renfrewshire	46.6%	12.1%	4.5%	36.7%
North Lanarkshire (GGC pt)	61.5%	5.0%	3.7%	28.9%
South Lanarkshire (GGC pt)	21.8%	15.0%	1.9%	61.3%
NHSGGC Total	34.9%	11.5%	3.3%	50.2%

Table A23 Proportion of children without signs of dental decay in P1 for NHSGGC residents by SIMD quintile and CH(C)P – Community Health (and Care) Partnership of residence, 2012. Includes NHSGGC residents at time of data extract

Sector/CH(C)P	Q1	Q2	Q3	Q4	Q5	TOTAL
Glasgow City	49.1%	60.2%	65.2%	76.3%	68.2%	57.2%
West Dunbartonshire	47.2%	69.6%	55.3%	68.8%	78.9%	59.0%
East Dunbartonshire	57.1%	74.0%	74.1%	74.1%	85.2%	80.4%
East Renfrewshire	52.0%	58.3%	75.0%	77.1%	86.6%	79.7%
Inverclyde	41.0%	71.7%	78.7%	78.5%	81.6%	66.7%
Renfrewshire	49.1%	61.6%	70.2%	63.1%	72.2%	63.9%
North Lanarkshire (GGC pt)	55.6%	66.7%	70.9%	80.2%	100.0%	74.0%
South Lanarkshire (GGC pt)	51.3%	78.9%	79.6%	73.6%	76.9%	68.6%
NHSGGC Total	48.7%	64.9%	68.6%	74.2%	80.7%	63.8%

Quintile 1 is most disadvantaged

Source: National Dental Inspection Programme (NDIP) 2011 Analyses by CH(C)P - Community Health (and Care) Partnership and SIMD by Department of Community Dental Health, Glasgow University Dental School. Date updated: May 2013

Table A24 Proportion of children without signs of dental decay in P7 for NHSGGC residents by SIMD quintile and CH(C)P - Community Health (and Care) Partnership of residence, 2011. For NHSGGC residents at time of data extract

Sector/CH(C)P	Q1	Q2	Q3	Q4	Q5	TOTAL
Glasgow City	46.9%	60.7%	67.0%	75.0%	74.3%	55.3%
West Dunbartonshire	56.7%	52.2%	81.7%	88.9%	77.8%	62.5%
East Dunbartonshire	57.1%	59.1%	77.8%	80.5%	78.4%	72.6%
East Renfrewshire	53.1%	50.0%	64.1%	71.4%	74.0%	64.4%
Inverclyde	53.2%	68.3%	66.7%	76.7%	79.2%	62.2%
Renfrewshire	59.2%	58.3%	64.7%	69.4%	84.9%	69.2%
North Lanarkshire (GGC pt)	32.0%	53.3%	60.4%	69.5%	50.0%	60.7%
South Lanarkshire (GGC pt)	50.4%	58.6%	65.8%	71.1%	78.9%	61.8%
NHSGGC Total	49.4%	58.6%	67.7%	73.3%	77.6%	60.7%

Quintile 1 is most disadvantaged

Source: National Dental Inspection Programme (NDIP) 2011 Analyses by CH(C)P - Community Health (and Care) Partnership and SIMD by Department of Community Dental Health, Glasgow University Dental School. Date updated: May 2013

Table A25 Proportion of 0-2 year olds registered with a dentist at 31 March 2012, NHSGGC residents at time of data extract

Community Health (and Care) Partnership	% registered
East Dunbartonshire CHP	46.1
East Renfrewshire CH(C)P	50.0
Inverclyde CH(C)P	58.3
Renfrewshire CHP	47.5
West Dunbartonshire CH(C)P	34.3
East Glasgow CH(C)P	51.6
North Glasgow CH(C)P	51.8
South East Glasgow CH(C)P	45.5
South West Glasgow CH(C)P	46.7
West Glasgow CH(C)P	50.4
Glasgow City	49.2
NHSGGC	**48.1**

Source: ISD Scotland, 2012

Table A26 Proportion of 3-5 year olds registered with a dentist by CH(C)P – Community Health (and Care) Partnership of residence, for NHSGGC residents at time of data extract

Community Health (and Care) Partnership	% registered
East Dunbartonshire CHP	86.8
East Renfrewshire CH(C)P	86.8
Inverclyde CH(C)P	89.4
Renfrewshire CHP	87.1
West Dunbartonshire CH(C)P	85.2
Glasgow East CH(C)P	90.7
Glasgow North CH(C)P	90.7
Glasgow South East CH(C)P	94.8
Glasgow South West CH(C)P	87.3
Glasgow West CH(C)P	91.4
Glasgow City	90.8
NHSGGC	**89.2**

Source: ISD Scotland, 2012

Table A27 BMI classification and recording by CH(C)P - Community Health (and Care) Partnership of residence for P1 pupils, NHSGGC residents at time of data extract

CHP/ Sector of School	Total P1 pupils	Pupils with a BMI recorded	% pupils with a BMI recorded	No. of pupils with missing BMI	% pupils with a missing BMI	% of pupils with a recorded BMI	
						Overweight	Obese
					%	%	%
Glasgow North East	1,774	1,692	95.4	82	4.6	9.9	7.7
Glasgow North West	1,790	1,641	91.7	149	8.3	8.0	5.7
Glasgow South	2,393	2,034	85.0	359	15.0	8.3	6.1
Glasgow City	5,957	5,367	90.1	590	9.9	8.7	6.5
East Dunbartonshire	1,229	1,139	92.7	90	7.3	7.8	4.1
East Renfrewshire	1,083	1,008	93.1	75	6.9	7.7	4.4
Inverclyde	839	826	98.5	13	1.5	9.9	6.4
Renfrewshire	1,806	1,734	96.0	72	4.0	9.0	5.0
North Lanarkshire (GGC pt)	258	244	94.6	14	5.4	10.7	5.3
South Lanarkshire (GGC pt)	642	621	96.7	21	3.3	9.2	7.4
West Dunbartonshire	1,012	911	90.0	101	10.0	10.6	6.1
Total	**12,826**	**11,850**	**92.4**	**976**	**7.6**	**8.9**	**5.9**

Source: CHS-School July 2013

Please note percentages are calculated as a proportion of all children, rather than as a proportion of a recorded BMI

UNINTENTIONAL (PREVENTABLE) INJURY

Table A28 Numbers and crude injury rates for NHSGGC by CH(C)P of residence, 2011/12

Children Aged 0-19 Unintentional Injuries Admission Rate Per 1,000 Population
Source: SMR01, August 2013

		Road Traffic Accidents		Home		Other		Total	
Community Health (Care) Partnership	Population	Number	Rate Per 1000 Population	Number	Rate Per 1000 Population	Number	Rate Per 1000 Population	Number	Rate Per 1000 Population
East Dunbartonshire	23,987	9	0.38	70	2.92	110	4.59	189	7.88
East Renfrewshire	22,067	14	0.63	50	2.27	89	4.03	153	6.93
Glasgow City	127,165	113	0.89	418	3.29	630	4.95	1,161	9.13
Inverclyde	17,495	12	0.69	37	2.11	125	7.14	174	9.95
Renfrewshire	38,412	17	0.44	96	2.50	247	6.43	360	9.37
West Dunbartonshire	20,633	16	0.78	68	3.30	108	5.23	192	9.31
Other (North & South Lanarkshire)	18,364	8	0.44	48	2.61	73	3.98	129	7.02
NHS Greater Glasgow & Clyde	268,123	189	0.70	787	2.94	1382	5.15	2,358	8.79

Table A29 Numbers of discharges in 0-15 year olds during 2011/12 due to unintentional injury. Standardised Discharge Ratios and confidence intervals, where the SDR for Scotland is 100

CH(C)P	No. discharges	SDR	CI lower	CI upper
NHSGGC	1799	99.2	94.6	103.8
Glasgow	875	101.3	94.6	108.1
Inverclyde	110	93.6	76.1	111.1
Renfrewshire	284	108.8	96.2	121.5
West Dunbartonshire	157	112.6	95	130.2
East Dunbartonshire	154	98.1	82.6	113.6
East Renfrewshire	124	82.6	68	97.1
Not Known	95			

Source SMR01

EMERGENCY DEPARTMENT

Table A30 Attendance and admission rates for NHSGGC residents and Scotland by age band and gender for the year 2011/12

NHS Greater Glasgow and Clyde						
age	males			females		
	attendance	admission	admission %	attendance	admission	admission %
0 to 4	617	74	11.9	505	54	10.7
5 to 9	286	29	10	236	22	9.4
10 to 14	305	25	8	253	20	8.1
15 to 19	312	26	8.3	311	41	13.2
All Scotland						
age	males			females		
	attendance	admission	admission %	attendance	admission	admission %
0 to 4	430	70	16.3	346	52	15.1
5 to 9	233	23	10	194	18	9.2
10 to 14	287	21	7.4	227	18	7.9
15 to 19	293	25	8.6	274	34	12.5

Rates per 1,000

Data courtesy of ISD (A&E returns from local patient information systems)

Table A31 Three year rolling mortality rates for 0-19 year olds by age band and CH(C)P for NHSGGC residents, for the period ending March 2013. Age band rates calculated using NRS death data and SAPE 2011. IMR calculated per 1,000 live births. please note that the small numbers of deaths prevent the calculation of rates for different SIMD quintiles of deprivation at the levels of CH(C)Ps

Age	2000/01-2002/03	2001/02-2003/04	2002/03-2004/05	2003/04-2005/06	2004/05-2006/07	2005/06-2007/08	2006/07-2008/09	2007/08-2009/10	2008/09-2010/11	2009/10-2011/12
IMR	6.5	6.0	6.6	5.8	5.4	4.8	4.9	4.7	4.6	4.1
0-4	1.45	1.36	1.57	1.42	1.34	1.23	1.26	1.20	1.08	0.97
5-9	0.14	0.11	0.10	0.09	0.10	0.09	0.11	0.09	0.10	0.09
10-14	0.17	0.17	0.15	0.14	0.15	0.16	0.13	0.12	0.10	0.11
15-19	0.53	0.54	0.52	0.46	0.46	0.46	0.46	0.46	0.42	0.39
Total 0-19	**0.55**	**0.52**	**0.55**	**0.50**	**0.49**	**0.47**	**0.49**	**0.47**	**0.44**	**0.40**

Source: NRS August 2013 and SMR02 March 2013

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