Health Inequalities - Early Years

Glasgow Centre for Population Health

Introduction
The Glasgow Centre for Population Health (GCPH) is a research and development centre which is developing evidence on and providing leadership for action to tackle health inequalities. This response to the health inequalities and early years inquiry draws on the learning of the Centre and its partners to:

i) underline the significance of inequalities in the early years,

ii) outline key features that are needed for interventions to address health inequalities, and

iii) highlight evidence and initiatives which GCPH has been involved with and are important to the remit of this inquiry.

i. Health inequalities in the early years
Data on Scotland’s health and the different nature of our communities highlight the stark truth that many of Scotland’s children are starting off life at a disadvantage and this is anticipated to worsen with the impact of UK government austerity and welfare measures. As a result of these measures the number of children in poverty in Scotland is predicted to increase by an additional 50,000 by 2020.\(^1\) The detrimental effects of child poverty are wide-ranging in terms of health, social and economic outcomes. As outlined on the Understanding Glasgow website, children living in the poorest neighbourhoods can expect to live 14 years less than those in wealthier areas. Poverty also has a negative impact on physical and mental health and educational and social development. This becomes a vicious cycle, where poor physical and mental health and low educational achievement increase the risk of lower earning capacity and poverty in adulthood.\(^2\) GCPH with partner organisations investigated the psychological, social and biological determinants of ill health in Glasgow, known as the pSoBid study.\(^3\) The study explored possible links between early life, biological conditions and health outcomes in adulthood. The findings showed that the social and family environment in early life influences, through biological pathways, the propensity to develop common, chronic diseases in later life. The data also suggested that the duration of childhood spent in poverty or in a household of low socio-economic status has an effect that accumulates over time to adversely affect morbidity and mortality in later adulthood.

ii. Effectiveness of early years intervention in addressing health inequalities
From GCPH research and learning to date the following aspects of early years interventions have been found to be important for improving outcomes:

1. Health services have an important role to play in addressing early years health inequalities (e.g. smoking cessation (see iii. A) and breastfeeding (see iii. B), but a mainstream focus on early years and inequalities across all services and other environments is required. The advantages of multidisciplinary approaches have been observed in the
Healthier Wealthier Children Project (see iii. C) and are being pursued within the One Glasgow approach (see iii. D). GCPH is also currently working with partners to undertake a Cost of the School Day pilot project across a cluster of Glasgow primary and secondary schools, informed by an approach developed in England by the North East Child Poverty Commission. The project aims to ensure that no school activity identifies, excludes, treats differently or makes assumptions about children whose household income or resources are lower than others.

2. Policies and services that are universal and proportionate to increasing need are critical to reducing these inequalities, since inequalities are not just concentrated at the bottom of the socioeconomic spectrum in a specific group or ‘problematic families’. The Marmot review\(^4\) of health inequalities confirmed that children’s outcomes improve progressively the further up the socioeconomic spectrum, and worsen progressively down. In the recent British Academy report on reducing health inequalities, Edward Melhuish\(^5\) outlines evidence that supports the provision of universal early childhood education and care, because of its impact upon the wellbeing of the population as a whole, and its even greater benefits for children from disadvantaged backgrounds.

3. The concept of ‘child protection’ needs to be broadened to cover a wider range of environmental and social influences on the early years. Bolder actions are required to protect children from known harms such as smoking in pregnancy (see iii. A) and car speeds (see iii. F), as well as to support behaviours that improves children’s health such as breastfeeding (see iii. B), the school food environment (see iii. E) and active travel (see iii. F).

4. The effects of disadvantage in the early years can be countered by high-quality services. Hence, thought needs to be given not only to what services are provided but also how they are delivered. Glasgow has a unique resource for assessing social and emotional development of all its children across the early years since Strengths and Difficulties (SDQ) data have been collected since 2009. The emerging data provide evidence that children from the most affluent families have more favourable trajectories than other children, but also importantly that primary schools do appear to have effects on these trajectories independent of other factors.\(^6\) The One Glasgow approach is seeking to ensure that the way nurseries operate supports children who may be experiencing difficult circumstances (see iii. D).

5. Early years health and wellbeing can not be addressed in isolation from the health and wellbeing of parents. As well as understanding the character of health inequalities in the early years, it is essential to consider the health characteristics of the young working age population, who are potential parents. Recognising the excess ill-health experienced by young working age adults in Scotland documented by GCPH data analysis\(^7\), there is a particular need to work collectively to reduce the inter-generational transmission of disadvantage. Services and approaches should be inter-
generational, affecting parents as well as children - see the sections below on Healthier Wealthier Children (iii. C), One Glasgow (iii. D) and social networks (iii. G).

6. In light of the impacts of austerity cuts and welfare reform there is an urgent need to address income inequalities, promote income maximisation approaches and promote low cost ways of improving health. Although the proportion of the population experiencing poverty has been reducing in Scotland in recent years, the percentage of families living in poverty, where at least one family member works, has increased substantially. These families are described as experiencing ‘in-work poverty’. As outlined in the GCPH report on this issue the introduction of a living wage is potentially an important policy response in reducing rates of in-work poverty. In terms of income maximisation, the Healthier Wealthier Children project (see iii. C) made impressive achievements and in terms of low cost ways to improve early years health, breastfeeding has been shown to reap health rewards (see iii. B). Both of these are good examples of preventative spend given the relatively small investments involved.

7. Need to maintain openness to trying new approaches and leadership in taking different courses of action. See evidence below on smoking cessation incentives (see iii. A) and a pilot of a Swedish approach to school meals (see iii. E).

8. There is a continued need to collect and link data to assess change at a population level to judge the impacts of actions aimed at reducing inequalities. For example, the lack of available data on health outcomes for looked after children and young people is a significant barrier to prioritising and improving early years’ experience of Scottish children, as failures in early years support for looked after children increases the plausible risk of perpetuating cycles of poor parenting.

iii. Highlighted Initiatives and Research Evidence

A. Smoking Cessation in Pregnancy

Smoking during pregnancy is known to be harmful to women and unborn children, yet a significant proportion of pregnant women in Scotland are smokers. It is associated with risks such as pre-term babies, low birth weight and attention deficit hyperactivity disorder (ADHD). There is a strong relationship between smoking in pregnancy and deprivation, with recorded smoking at the first antenatal appointment ranging from 31.3% in the most deprived areas to 6.6% in the least deprived areas (2011/12 data). Existing interventions are effective but uptake is lower than necessary to achieve an impact on inequalities in tobacco exposure prenatally and in the early years. A recent study co-funded by GCPH provides evidence of a promising new financial incentives intervention. The randomised control trial (RCT) explored whether financial voucher incentives are an effective method to increase smoking cessation among pregnant women in Greater Glasgow and Clyde. It found that financial incentives were acceptable to the women and health professionals involved and can at least double the quit rate when added to
existing smoking cessation services (the offer of £400 of shopping vouchers increased quitting from 9% to 23%). Given the strong association between smoking and socio-economic disadvantage, this type of approach has the potential to impact significantly on inequalities in tobacco-associated harm in the early years.

B. Breastfeeding
Breastfeeding gives the best source of nutrients for healthy infant growth and development. However, the rate of breastfeeding in Scotland remains one of the lowest in Europe and is much less prevalent among women in poorer communities than those living in more affluent areas. In 2012/13, 41.3% of mothers in the least deprived areas were exclusively breastfeeding at the 6-8 week review, compared with 14.2% of mothers in the most deprived areas. GCPH with collaborators created a unique linked data set to explore infant feeding and child health in Scotland. The benefits of breastfeeding were confirmed and the analysis found that (after controlling for parental factors, infant health and health service characteristics) infants breastfed for at least 6-8 weeks had a relatively lower risk of hospital admission and GP consultations than bottle fed infants, leading consequently to lower direct healthcare costs. Breastfed infants also had a reduced risk of excessive weight gain in early childhood. Analysis of Glasgow maternity units showed that the hospital does have an influence on breastfeeding – Baby Friendly Initiative hospitals were associated with a greater likelihood of breastfeeding. Nevertheless, analysis of the Scottish data set overall confirmed that a wide range of cultural, family, infant and maternal health characteristics also influence the likelihood to breastfeed in Scotland; deprivation remains an important determinant, but among many other factors. Therefore there is a clear role for health services in supporting mothers to establish breastfeeding and manage common lactation problems, but interventions to increase breastfeeding in Scotland should also extend beyond the health service and engage the entire population. Efforts to promote breastfeeding also need to consider the context of changing demographic and cultural influences e.g. the analysis identified that increased breastfeeding rates observed in deprived areas were in part attributed to changes in the composition of the population, notably increased proportions of mothers of non-British birth.

C. Income Maximisation
The Healthier Wealthier Children (HWC) project is a collaboration between NHS Greater Glasgow and Clyde (NHSGGC), Local Authorities, GCPH and Voluntary Sector Money Advice Services. The project sought to create a system change by integrating an approach to addressing child poverty amongst health staff in NHSGGC. By developing information and referral pathways between the NHS early years workforce and money/welfare advice services, it was envisaged that staff, such as midwives and health visitors, could identify pregnant women and families, who need advice and help and thereby mitigate the impact of child poverty. A thorough evaluation of the project was undertaken by GCPH between October 2010 and March 2013, providing clear evidence of 5,000+ referrals to money advice services, mainly by early years health service staff, which resulted in quantified financial gains (over £4.5 million in total gained and now in local economies). Equally
important were the wide range of non-financial gains reported, in terms of improved mental health and wellbeing, and quality of life, as well as the help and advice across a range of issues affecting their lives (e.g. banking, childcare, debt, employment, fuel and housing). A key finding was that pregnant women and families with young children were previously unknown to money advice services and that those referred were mostly unaware of their entitlements. It cannot be assumed that interventions like this will fully alleviate future financial concerns and more significant changes are needed at a society level to address the underlying social inequalities. Projects like this, however, demonstrate the potential for integrated approaches to mainstream action on maximising incomes and providing routine financial inclusion advice and support to pregnant women and families with young children at risk of poverty.

**D. One Glasgow Early Years Approach**

Glasgow Community Planning Partnership’s *One Glasgow* approach appears to be a good example of a multi-agency response, aligning early years contributions of different service providers within the city and beyond. An evaluation of this approach to early years is due to be undertaken and should be of continued interest to the Committee. The approach is also aiming to reduce inequalities in childhood development and parental/carer/family wellbeing through focusing on families that are ‘just coping’ (described as families that are often invisible to public services as they are keen to hide the true extent of social and financial difficulties to avoid ‘dysfunctional’ or ‘chaotic’ labels). Building on the success of Glasgow City Council’s nurture groups in primary schools, nurture corners have been developed in around 20 nurseries across Glasgow. The approach involves the provision of family learning and family support with a focus on parenting involvement in a child’s nursery experience. A family learning centre model is being rolled out across the city with 48 nurseries out of the 100 currently using this approach. Third Sector services are becoming steadily more involved and embedded in partnership work to enhance provision of early years nurture approaches supported by Scottish Government funding.

**E. School Food Environment**

Scottish children follow a diet that falls short of national recommendations and is less healthy than that of other European countries. Poor nutrition contributes to the risk of obesity. Within Scotland there is a relationship between deprivation and the proportion of children at risk of overweight and obesity. In 2012/13 in the least deprived areas 17.8% of Primary 1 children were classified as at risk of overweight and obesity combined compared to 24.4% in the most deprived areas.¹⁷ This provides an important imperative to promote a healthier diet amongst children, especially those living in the most deprived areas. Healthy school food policy can play an important role. GCPH research and evaluation¹⁸ exploring school food policies and programmes in Glasgow has highlighted the importance of establishing and maintaining good quality social and physical environments within schools in order to promote healthy eating amongst school pupils. Further learning through GCPH collaboration with public health and education colleagues in Gothenburg, Sweden¹⁹ has led to the testing out of a ‘family-based’ approach to school
lunchtime in a primary school in the East of Glasgow. Tables within the school canteen have been rearranged into more social seating, and lunch time has been extended by 15 minutes. Lunch time is being treated as a learning experience addressing healthy eating choices and good manners. Pupils enjoy the opportunity to chat with staff and fellow pupils over lunch. They also appear to be transferring listening and talking skills to the classroom; and staff report less wastage of food as children are spending more time sitting round the table eating. There have also been positive impacts in relation to improved content of pack lunches brought in by individual pupils. After initially testing out this approach with one primary class group, school staff have extended this lunch-time initiative to the entire pupil population in the school as they perceive it has very valuable benefits.

F. Active Travel
The above data on children at risk of overweight and obesity also points to the need for increasing levels of physical activity amongst children, particularly those in more deprived areas. Shifting from car-based transport to more active modes such as walking and cycling not only increases levels of regular physical activity, it can also reduce harm from pollution and make urban spaces more pleasant and reduce the fear of accidents.\(^\text{19}\) While levels of walking to primary school remain relatively high, the trend over the last 20 years in Scotland has been toward greater car use and less walking (with consistently very low levels of cycling to school).\(^\text{20}\) GCPH research found that there is a significant role for local cultures to be supportive and encouraging of walking and cycling, both in terms of school-based initiatives (e.g. proactive promotion of active travel, including participation in national, local and individual school initiatives), and also the attitudes of parents and the local community. Safety is also an important factor. Therefore, the existence of safe routes to school, particularly supervised crossings, and having low levels of perceived personal safety risks within communities, contributed to higher levels of active travel. There have been reductions in overall child road casualty rates, but of particular concern is the fact that child pedestrian casualty rates in the most deprived areas of Glasgow and Clyde Valley remained high (at least 4 times higher) in comparison to the most affluent areas. This adds support to the arguments made by Danny Dorling in the recent British Academy publication\(^\text{21}\) for introducing 20mph speed limits in residential areas, by shops and schools.

G. Social Networks
The GCPH commissioned a review of evidence on the impact of social capital on the health and wellbeing of children and young people. Social capital is a term used to describe social relationships and networks within families and between individuals/families and the wider community. The review concluded that young people with access to high quantity and quality of social support networks have better outcomes in most domains; they are more likely to have better mental health outcomes, fewer behavioural problems and to participate in more health promoting behaviours. As children grow older they have access to their own social support networks, but the networks in which parents and families are embedded are also very important. The review highlights the importance of linking families to their local communities, as
evidence suggests that creating opportunities for parents to develop and exploit their social networks ultimately benefits their children, especially early years and school-aged children. Initiatives such as Templehall Dads’ Group and the Fair Isle School ‘Opportunities for All’ project (both based in Kirkcaldy, Fife) have the potential to expand parents’ social networks and offers further opportunities to encourage the protective element of family social capital. Both these projects were featured as examples of asset based approaches for health improvement in the GCPH report ‘Assets in Action’.

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March 2014
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References

2 The Understanding Glasgow website was developed by GCPH in collaboration with other partners in Glasgow to provide an accessible resource about issues of importance to Glasgow’s population (e.g. health, poverty, education, environment etc). It includes a set of children’s indicators. The section on child poverty is available at: www.understandingglasgow.com/indicators/children/poverty/overview
3 McLean J (2013) Psychological, social and biological determinants of ill health (pSoBid), Glasgow: GCPH. www.gcph.co.uk/publications/421_psychological_social_and_biological_determinants_of_ill_health_psobid
6 Work by Phil Wilson, Lucy Thompson and Louise Marryat, see: www.gla.ac.uk/researchinstitutes/healthwellbeing/research/mentalhealth/projects/psf/research activities/sdqpreschool/
11 Tappin D M et al (to be published) Financial Incentives for Smoking Cessation in Pregnancy: A Phase II Randomised Controlled Trial (CPIT)
Ajetunmobi O, Whyte B, Chalmers J, MacDonald A, Stockton D, and Wolfson L. *Infant feeding in Scotland: Exploring the influence of hospital on infant feeding choices (within Glasgow) and the potential health and economic benefits of breastfeeding on child health.*


A range of research and evaluation publications on the school food environment are provided on the GCPH website at: www.gcph.co.uk/publications/filter/young%20people%20and%20the%20urban%20environment


Whyte B (2011) *Children’s travel to school - are we moving in the right direction?* Glasgow: GCPH.
