Health Inequalities – Early Years

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I am a consultant community paediatrician, and have worked in Glasgow for the past 12 years. I am based in Possilpark. My patients are drawn from East Dunbartonshire as well as from North Glasgow. The inequalities are unavoidable. From the Glasgow Centre for Population Health Community Profiles 2008, male life expectancy at birth was 84.3 years in Lenzie South, 63.4 years in Ruchill and Possilpark. The percentage of the child population living in workless households was 1.6% and 60.8% respectively. Unsurprisingly, given my job and its location, the impact of poverty on child health and the implications for how services should be provided is my principle area of interest. I have also contributed to the Royal College of Paediatrics and Child Health response to this consultation, and apologise if at some points I have used the same wording: they are my own words!

Glasgow is well known to include some of the most socioeconomically deprived neighbourhoods in the UK. Were it not for the efforts and expertise of all manner of professionals working in Early Years, outcomes would no doubt be worse, but we certainly can’t be considered to be winning all our battles at the moment, so this consultation by the Health and Sport Committee is very much to be welcomed. To set the scene in terms of some of our outstanding inequalities in health in the Early Years, I would signpost to the Understanding Glasgow website Children’s Indicators, particularly the Health section: http://www.understandingglasgow.com/indicators/children/health/overview. Browsing from this overview page, one can find charts illustrating stark ongoing disparities in rates of smoking during pregnancy, prematurity, low birthweight, breastfeeding, unintentional injuries, obesity and dental decay. The website does also include sections on learning, lifestyle, poverty, well-being, safety and population: the main Children’s Indicators homepage is http://www.understandingglasgow.com/

1. How effective are early years interventions in addressing health inequalities?
During pregnancy and the early years (particularly the first 5 years), the fetus, then infant and young child is undergoing rapid development. This therefore is a time full of windows of opportunity, many of which close for ever once they have passed. Hence pregnancy and the earliest years can be the only time for some effective interventions to take place. Also, interventions so early in life can influence a multitude of outcomes. Some specific interventions must be targeted according to assessment at individual level (eg which children need patching of one eye when visual screening has identified amblyopia, or which child is suffering from symptoms of constipation and merits treatment with laxatives), whilst others may be delivered universally, or to targeted population groups (eg Play at Home, Bookstart). It is recommended that services employ a strategy of Proportionate Universalism, whereby programmes and services are delivered/available universally, but systematic population and individual monitoring identifies those needing delivery to be modified/boosted to be appropriate and accessible to their circumstances, be
those differences in socioeconomic status, culture, language, disability, age, geography, etc.

Examples of evidence regarding developmental windows include:

- The Barker hypothesis and ensuing work linking lower birthweight with higher risk of high blood pressure and cardiovascular disease in adult life.
- Teratogenic effects of chemicals in the maternal bloodstream; from the dramatically obvious effects of a drug such as Thalidomide to the often subtle effects of commonly-consumed products such as alcohol: http://pubs.niaaa.nih.gov/publications/arh25-3/185-191.htm
- The longterm protective impact of breastfeeding.

Poor visual outcomes if congenital cataract surgery is delayed, improved speech outcomes with early cochlear implants for permanent childhood hearing impairment, and improved functional outcomes with appropriate multidisciplinary input for children with cerebral palsy.

The ever-increasing body of neuroscientific work (as summarized in the American Academy of Paediatrics papers referenced in question 5) on early adversity/toxic stress in childhood – the impact of stress responses on the developing brain and on regulation of stress responses and health/risk behaviours in adult life.

The Adverse Childhood Experiences (ACE) Study results showing that as the number of ACE (such as emotional neglect, emotional and/or physical abuse, household mental illness or substance abuse) increase, risk for the following increase in a strong and graded fashion:

- Alcoholism and alcohol abuse
- Chronic Obstructive Pulmonary Disease
- Depression
- Fetal death
- Health-related quality of life
- Illicit drug use
- Ischaemic heart disease
- Liver disease
- Risk for intimate partner violence
- Multiple sexual partners
- Sexually transmitted diseases
- Smoking
- Suicide attempts
- Unintended pregnancies
- Early initiation of smoking
- Early initiation of sexual activity
- Adolescent pregnancy

In summary, unless the nutritional/chemical/emotional/developmental environment is optimised in utero and the early years, an individual’s potential
in terms of health, development and well-being is compromised. To prevent that compromise, interventions should aim to optimise that highly complex environment, or at least to build resilience to any damaging impacts. It may be helpful to refer to our diagram in the Scottish CMO's report 2006, illustrating just a few of the influences on health from conception to adulthood:
http://www.scotland.gov.uk/Publications/2007/11/15135302/3 - our efforts should be directed at reducing the impact of threats to wellbeing (the downward arrows), and strengthening resilience (arrows pointing upward).

2. What are your views on current early years policy in Scotland in terms of addressing health inequalities? The clear focus on the Early Years and on tackling inequalities is strongly supported. However, to those of us working in core services, it remains frustrating how frequently core staff are seconded or tempted out of important locality-based roles to contribute to a time-limited initiative with no realistic prospect of ever being 'mainstreamed'. Whilst sometimes dramatic innovations must be initiated, these should not be allowed to be at the expense of any steady development of core services. Investment in health visiting and associated services, childcare and early years education is most welcome. It is important to monitor how that investment contributes to reducing inequalities: offering it in the same way to all will not succeed.

Whilst services directed at the adult may lose track of their patient/client due to non-engagement, those services directed at the child have continuing responsibilities under the UN Convention on the Rights of the Child (UNCRC), and the Children Act (Scotland), and therefore have to continue supporting the parent/carer in finding/engaging with appropriate services, until their own needs have been addressed sufficiently to allow them to meet the needs of their child. Optimising the environment for the child is impossible without tackling the stresses on the parent(s)/carer(s).

Whilst recognising that resources are constrained, it is important that resource allocation models adequately take into account the additional cost of delivering core services in a manner sufficiently flexible to be accessible and appropriate to all, including the most needy. Assessment of a family affected by multiple stresses, including socioeconomic deprivation, disability or ill health affecting several family members, and/or not fluent in English, is time-consuming. Building trusting relationships demands that time investment, and a family's multiple stressors make it likely that a service will need to provide additional support, eg home visits, interpreters, additional or longer appointments, assistance with transport, etc. This is true of primary and secondary health services, and also of education and childcare provisions, and of social services and third sector support. Current national formulae for allocating resources according to socioeconomic deprivation are inadequate. This is very clear on the ground, in terms of core services for these groups. Formulae derived for adult services may not hold true for early years services. Patients/clients differ by not being independent, hence universally requiring a more holistic assessment including parent/care. Discharging a patient for failure to attend is rarely acceptable under child protection/UNCRC provisions.
GP contracts in Scotland do not yet appropriately recognise the potential importance of their role in serving those families which include the most vulnerable fetuses/infants and young children.

Core datasets, monitoring and research need to be strengthened, or policies aren’t translated into improvements at the coal face. Examples of nominally universal services with limited success in terms of uptake include:

- Healthy Start Programme (HSP). A recent audit of 150 children aged 5 or under attending A&E in Glasgow concluded that “the majority did not receive vitamins and the majority of carers are unaware of the Scottish Government recommendations. Cost does not appear to be a barrier. A minority of children entitled to the HSP are receiving vitamins due in large part to a lack of awareness of the programme.

- Nursery and childcare places. Evidence suggesting that the universal offer of a nursery place is less often taken up by more deprived families: in monitoring the NHSGG&C Preschool Vision Screening programme it was found that in 2012/13, of 13,795 children aged between 4 and 5 years old, over all 24.8 % were not registered with a nursery. In the most deprived Local Authority Area (Glasgow City) approaching 30% were not registered with a nursery, whilst in the least deprived (East Dunbartonshire and East Renfrewshire) the figure was <20%. [library.nhsggc.org.uk/mediaAssets/Board%20Papers/14-03.pdf (chapter 6)]. Clinicians are well aware of some very needy children not having nursery places, sometimes through parents not fully understanding the process for applying, sometimes through fearing that their child will not be accepted until they are fully toilet-trained, and sometimes because their child’s high level of need cannot be met within a mainstream nursery setting.

3. What role can the health service play in addressing health inequalities through interventions in the early years?

As the only universal service until a child starts school, the health service performs vital roles in developing a family’s trust in statutory services as a whole, and in not only identifying those children who already have an illness or impairment, but also those families affected by stressors likely to impact on the health and development of a fetus/infant/young child. Hence, whilst it may not be the health service that is most appropriately placed to deliver the intervention, it will often be health professionals who identify the need for those interventions, both at an individual level and a locality or population group level.

The provision of clinical health services (both universal and specialist) for pregnant women, infants and young children, can only address health inequalities if they do not perpetuate the Inverse Care Law, by which those most in need of services are the least likely to access them. Unless resource allocation formulae permit services to be delivered sufficiently flexibly to meet the needs of the most vulnerable to the same extent as they do all other patients, then clinical health services will serve to increase health inequalities rather than address them. The following, as yet unpublished, chart shows
appointments to the community paediatric disability service in Greater Glasgow in 2009, per 10,000 residents, by SIMD quintile and age. Approximately four times as many appointments were needed for the population in the most deprived quintile than those in the least deprived. This is multi-factorial:

- there is a higher rate of childhood disability in more deprived populations
- more deprived families suffer, on average, from a higher number of stressors, and will therefore be more likely to fail to bring a child to an appointment, or have to cancel at short notice
- management plans for children in families with a higher level of stress need to be reviewed more frequently, so shorter intervals are left between appointments.

Health services can provide an accessible, non-stigmatising forum/venue for identifying need and signposting to services that may address the need, or even allow another service to be embedded within the health service, eg income maximisation services within antenatal clinics, or social work resource worker within Child Development Centre.

The health service can collect and analyse health data and share it in appropriate form with other stakeholders: one very small example would be rates of A&E attendance or hospital admission for unintentional injury in under 5s being presented to Community Planning Partnerships, with details of types of injury and population group affected, so as to direct local policies for injury prevention. Many other examples can be seen at http://www.understandingglasgow.com/indicators/children/health/overview but these are limited by what good quality routinely-collected data is available. Improved data collection and analyses eg re ethnicity, disability, etc, would allow better informed policy and service development,
4. What barriers and challenges do early years services face when working to reduce health inequalities?

Already stated in 2 and 3 above, but without resource allocation models reflecting the true cost of delivering services sufficiently flexibly to address the additional needs of the most vulnerable, services are likely to increase health inequalities rather than reduce them. Vanishingly few interventions can be delivered at the same cost to all. Management policies designed to “increase efficiency” and save money frequently result in creating barriers to access for the most needy, eg introducing “opt in” or partial booking systems for appointments may be very welcome to literate working families with the confidence, cash and organisational skills to keep phoning an NHS number during working hours, but systematically excludes those without the means to understand or respond to the letter. Unpublished figures from an audit conducted over a single month in 2013 at the Royal Hospital for Sick Children, Yorkhill, demonstrate that those living in the most deprived SIMD quintile were the least likely to respond to a “partial booking” letter. If the parent/carer does not respond to the letter, no appointment is offered, so the child’s needs are not addressed.

Parents/carers and/or their social environment are commonly the point at which intervention is needed, rather than the fetus/infant/child themselves, so policy-making and service delivery and monitoring/development must cross a number of services/agencies. Often services develop complex, multi-level management structures, so those attending service-planning meetings may well feel pressures to try and enforce “top down” changes without ever gaining a full understanding of the “bottom up” issues. Data may be held in geographical or service-specific silos, limiting its usefulness in directing service development.

Investment in time-limited or very-specifically-targeted initiatives at the expense of building the flexibility of core services results in inevitable weaknesses in those core services, with lack of continuity not only for individual patients/families but also for localities and patient groups, in terms of having core staff developing a knowledge and evidence base with which to advocate for the ongoing development of services as appropriate.

5. Are there any specific initiatives or research evidence from Scotland, UK or internationally that you would wish to highlight?

The first paragraph on this webpage provides links (“briefing paper”, “health consequences of poverty for children” and “child poverty and adult health”) to three valuable briefing papers summarising evidence of the impact of child poverty on child and on adult health: http://www.understandingglasgow.com/indicators/children/health/resources

Summary of evidence of the lifelong effects of early childhood adversity and toxic stress, produced by the American Academy of Pediatrics, can be found here: http://pediatrics.aappublications.org/content/early/2011/12/21/peds.2011-2663.full.pdf+html
….and policy statement leading on from that evidence here: http://pediatrics.aappublications.org/content/129/1/e224.full.pdf+html

The RICHER social paediatrics model from Vancouver: “Fostering access and reducing inequities in children’s health”
And http://www.biomedcentral.com/1471-2431/12/158

Australian Early Development Index http://www.rch.org.au/aedi/policymakers/

British Association for Child and Adolescent Public Health
http://www.bacaph.org.uk/

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