

Setting the Standards for the Health of Young Children

The Academy of Medical Sciences has just published its standards and priorities for the health of young children¹. The committee membership consisted of 5 paediatricians, 2 economists, 2 epidemiologists, 1 social scientist, and 2 'lived in experience' experts. They benchmarked their health and well-being criteria for children against the current status of child health in the UK. Their findings are equally applicable in other countries. The committee states that each child has a right to a safe and healthy childhood and that it is the foundation for their health in adult life.

The key message is that early appropriate interventions reduce morbidity and mortality through childhood and into adulthood. This is demonstrated with compelling visual representations. The health of a country's children is a dynamic process, things don't stand still. Year-on-year it can improve or deteriorate depending on the interplay of a wide range of medical and socio-economic factors. Constant vigilance is of paramount importance in order to maintain the optimal health of a nation's children.

The infant mortality rate (the number of deaths in infants under 1 year per 1000 live births) has for many decades been used as a marker of a society's health services, and standard of living. It includes the consequences of perinatal events- prematurity, birth defects, and deaths in the post-neonatal period including infections, SIDS, and accidents. The post-neonatal deaths are often preventable and are highly influenced by social circumstances. In 2021, the infant mortality rate in various countries was – UK 4.0/1000 live births, Ireland² 3.2, Italy 2.3, Japan 1.6. With the current low rates it is increasingly more difficult for countries to achieve further reductions. The Euro Peristat Project³ is collecting infant mortality rates across European countries, the mission is 'better statistics for better health for pregnant women and their babies'. Its most recent 5-year analysis for 2015-2019 found that the median infant mortality across Europe was 2.6 per 1000 live births (IQ 2.1-3.2), with two thirds of the deaths occurring in either preterm or low birth weight infants. One of the data-collection challenges for some countries is developing the link between birth and death registration.

While we know what an adverse early childhood is, it frequently remains a major struggle to improve the outcome for affected children. There are many barriers to achieving progress. There are major difficulties in developing systems that enable intervention measures to reach the children most in need. It is important that the best options with the highest potential benefit are chosen. The committee placed a major emphasis on child development and

education, breast feeding, immunisation rates and the need to reduce NTDs (neural tube defects) and prematurity.

All development builds on early development. Getting the early years right provides the best foundation for the future. Extreme stress in early childhood disrupts many body systems leading to poorer cognitive and developmental outcomes. Adverse factors include domestic violence, neglect, abuse, and reduced carer interaction. Children from these backgrounds are 6 times more likely to have behavioural problems. Family supports during these critical times are essential and can be very effective.

School readiness is an important milestone for every child. First described in 1936, school readiness means that the child has the levels of intellectual, physical, and social development which allows them to meet requirements and cope with school. The child's progress in the antecedent years pays a major part in preparing them for school. Early identification and intervention for young children in the pre-school years is important. In England data from 21/22 show that 35% of children at the end of reception year do not reach the expected level of development. US studies show that quality birth- five programmes can provide a 13% return on investment for every year of a child's life.

One notable omission from the document is the important role played by screening in the early detection and treatment of conditions. Screening is strongly supported by the Faculty of Paediatrics, RCPI. It has been placed on a stronger footing with the establishment of NSAC (national screening advisory committee) in 2019. Public health nurses play an important role in the detection of problems in infancy and early childhood.

Poor nutrition remains a problem for many children. Children with obesity are 5 times more likely to be overweight as adults. The factors that increase the likelihood of obesity are low breast feeding rates, poor quality diets, consumption of sugar -sweetened drinks, and high calorie fast foods. In the UK the soft drinks levy saw a 46% decrease in sugar content of drinks. This has resulted in 5,000 fewer cases of obesity in year 6 girls (age 10-11 years) across all socio-economic groups⁴. Ireland introduced a sugar-sweetened beverage tax (SSBT) in 2018. The threshold was set at 5g of sugar per 100 mls, the levy being 5 cent on a 330 ml can. Since its introduction three well known have reduced their sugar content below the 5g threshold⁵. Breastfeeding plays a key role both in nutrition and immunity. Breastfeeding rates in the UK are low with 40% of infants in England not breast fed at all. The committee emphasised that breastfeeding is not the sole responsibility of women and that cultural and practical barriers to breastfeeding is a social responsibility. The breastfeeding rate is 58% in Ireland⁶ and it has improved from its nadir 32% in 1982.

The issue of food insecurity and its links to poor quality dietary intakes is addressed. In Ireland one important positive initiative is that the DEIS (delivering equality of opportunity in schools) schools in the severely disadvantaged areas provide free meals⁷. Currently the scheme involves 94 schools and over 9,000 children at an annual cost of 94 million Euro.

The potential for the proposed mandatory folic acid fortification of flour legislation in the UK for the prevention of neural tube defects is also highlighted in the document.

The vaccination programme plays a pivotal role in ensuring a healthy childhood. The committee expressed concern that the 2021-2022 data reported that the majority of routine vaccination programmes do not meet the 95% coverage target set by the WHO. The HPSC data⁸ for Q3 2023 shows that the immunisation uptake of DT3/P3/Hib3/Polio 3 in Irish infants 12 months of age is 85.9%. The committee state that the barriers to vaccination are timing and availability of appointments and childcare duties. The value of call/recall strategies are emphasised.

In the UK tooth decay affects 1-in-4 of all 5 year old children. It is stated that water fluoridation reduces the incidence by 60%. Its efficacy is greatest for deciduous teeth. In the UK 10% of population receives water that is fluorinated compared with 73% in Ireland⁹.

In summary this document offers a blueprint for the achievement of a high standard of health in young children. All the goals are readily achievable in any developed country.

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