

Cynulliad Cenedlaethol Cymru | National Assembly for Wales

Y Pwyllgor Plant, Pobl Ifanc ac Addysg | Children, Young People and Education Committee

Y 1,000 diwrnod cyntaf | First 1,000 Days

FTD 29

Ymateb gan: Canolfan Economeg Iechyd a Gwerthuso Moddion, Prifysgol Bangor

Response from: Centre for Health Economics & Medicines Evaluation, Bangor University

The Centre for Health Economics & Medicines Evaluation (CHEME) was founded in 2001, and is now one of the leading health economics centres in the UK. At CHEME, we aim to promote and sustain high-quality health economics research, maximise opportunities for research grant capture and publications in high impact journals. The Centre is active across a range of health economic and medicines evaluation research activities including public health economics and the health economics of psychosocial interventions and other non-pharmacological health technologies, led by Professor Rhiannon Tudor Edwards. For more information about our centre visit <http://cheme.bangor.ac.uk/>

Our attached report "[Transforming Young Lives across Wales](#): The Economic Argument for Investing in Early Years" funded by Public Health Wales, was launched in October 2016 at the Health and Care Research Wales (Research with Impact) Conference in Cardiff. In our report we have highlighted evidence that shifting the curve towards prevention and investing early in the life course has the potential to save millions of pounds across public sectors in Wales. Based on international evidence, we argue that investment that focuses on the critical window of the first few years of life, beginning with pre-conception and early pregnancy, is likely to provide the most efficient use of public resources, yielding returns over and above other forms of financial investment and investment at other points of the life course.

Wales already has a significant policy direction and investment in programmes and practice relating to Early Years and has recognised the intergenerational relationship between poverty, health and lifetime opportunities in the Well-being of Future Generations (Wales) Act. To build on this the report considers the economic evidence to support investment in services and programmes targeted at children under 7 years and concludes that by investing in the health and well-being of babies and young children, Wales has an opportunity to benefit from both short and long-term dividends right across society in the future. Investment in Early Years in Wales can contribute to the building of social capital and promote economic growth and should be considered in the same way as national investment in wider economic development.

While our report highlights evidence across the full Early Years period, we specifically highlight the importance of the first 1000 days in section 1.2 of our report before exploring the economic case for investing in babies and young children in section 2.

Pre-conception and a healthy pregnancy

- Universal provision of vitamin supplements is a cost-effective way of promoting good maternal health, healthy pregnancies and child outcomes (NICE, 2015; Filby et al., 2015).
- The additional cost to Welsh NHS maternity services of delivering low birth weight babies attributed to smoking and other modifiable risk factors is estimated to be £2.15 million annually (Johnson, Jones & Paranjothy, 2016).

Getting the best start in life through breastfeeding and vaccinations

- Low breastfeeding rates result in higher incidence of illness, which subsequently places a significant cost on the National Health Service (Ball & Wright, 1999). We estimate that increasing rates of exclusive

breastfeeding at 4 months (currently at 9% in Wales) to the rates observed at birth (currently 57% in Wales) would lead to cost savings of £1.51 million per annum in reduced spending on various childhood conditions in Wales (Renfrew et al., 2012). A 1% decrease in the number of infants who were never breastfed could equate to approximately £13.9 million in gains in economic productivity, as a result of increasing IQ levels in Wales (Renfrew et al., 2012). Children who are not breastfed are significantly less likely to breastfeed their own babies in later life (Renfrew et al., 2012). Changing social norms in Wales supported by evidence based interventions that increase rates of breastfeeding may help break this intergenerational cycle.

- Vaccinations for children reduce disease, death, disability and inequity worldwide (Andre et al., 2008). In Wales, less than 90% of children are up to date with all routine immunisations by the time they start school (Public Health Wales, 2016). Compared with other common public health interventions, vaccinations are considered to be a good investment and generally highly cost-effective (Chabot et al., 2004). Evidence from US showed that for every \$1 invested in the MMR vaccine there are \$26 in benefits to society (Zhou et al., 2004). The childhood flu vaccine is highly cost-effective with a cost per Quality Adjusted Life Year (QALY) gained of £251 dramatically below the NICE threshold of £20,000 used for decisions about new medicines and services (Pitman et al., 2013).

Considering the whole family unit and supporting parents

- Parenting programmes when delivered well can be effective and cost-effective in preventing and reducing conduct disorder in children, with potential savings across multiple sectors (Edwards et al., 2007; Edwards et al., 2016; Hutchings et al., 2007; Knapp et al., 2011). Public sector costs for children with conduct disorders are ten times more than for children with no conduct disorders (Knapp et al., 2011).

It is estimated that preventing conduct disorder in the most serious of cases could provide lifetime savings of around £150,000 per case (Friedli & Parsonage, 2007).

For a full list of references please see our report, attached or available to download from our website

<http://cheme.bangor.ac.uk/reportspublications.php.en>