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EDITORIALS

The resurgent influence of big formula

Education on infant feeding must not be left to industry

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In May, word spread from the World Health Assembly of remarkable developments around an apparently non-controversial World Health Organization resolution to support breastfeeding. The Trump administration had opposed the motion and threatened the proposer country, Ecuador, with a suspension of trade and military support.[1] Ultimately, the motion was proposed by Russia and accepted by the assembly, but the behaviour of the US caused ripples of surprise and concern throughout the global public health community.

Increased lobbying from infant formula manufacturers may underlie the US's new hard line approach.[2] The formula industry is anticipated to turn over about $70bn (£55bn; €61bn) next year,[3] and $60m has been spent lobbying the US government alone in the last decade.[4] The formula industry has other links to US power—one of the companies tasked with separating children from immigrant parents at the US-Mexico border shares two board members with a formula company.[5 6]

The 2016 Lancet Breastfeeding Series estimated that over 820 000 babies' lives could be saved annually worldwide by increased breastfeeding rates.[7] Mothers benefit too—recent meta-analyses have shown marked risk reductions for triple negative breast cancer, ovarian cancer, and endometrial cancer in a duration dependent manner, along with apparent protection from a range of autoimmune and chronic diseases.[8 9] In the European Union, over 90% of infants receive formula milk at some stage in their first year.[7] The increasing use of infant formula in low and middle income countries has coincided with a slowing of the rise in infant and maternal mortality.[7] Events at the World Health Assembly suggest a new level of Trumpian disregard for maternal and infant wellbeing that should be resisted in the strongest terms.

Human milk is not simply a food. It is a vastly complex biofluid, containing thousands of components, many unique, individualised to each baby and environment.[10] Lactation developed as an evolutionary strategy before placentation, primarily to protect the immunocompromised neonate.[11] Recent findings provide new mechanistic explanations for the wide ranging health protections of breastfeeding to both mother and infant. Human milk drives the development of a diverse gut microbiome and healthy gut epithelium, which underpin normal metabolic, immune, and neurological development.[12] Recent work indicates that perturbations in gut immune "sensing" mechanisms after early cessation of breastfeeding may contribute to the risk of acute lymphoblastic leukaemia.[13]

Doctors have great potential to influence behaviour, and yet training in lactation support is almost entirely absent from undergraduate or postgraduate paediatric training programmes, and attitudes can be influenced by difficult personal experiences.[14] Normal neonatal behaviour (cluster feeding, frequent waking to feed) may not be understood, and breastfeeding can be hard to establish; in specific circumstances, breastfeeding is impossible.

Instead, formula companies have invested heavily in medical, nursing, and dietetic education and online tools for parents,[15] including the dissemination of diagnostic criteria and tools for non-IgE mediated cow milk protein allergy or intolerance. Breastfeeding mothers who think their child has this allergy or intolerance may think that their own milk is harming their infant, with a consequent effect on breastfeeding and increased prescribing of specialised low allergy formula milks (which are processed to remove allergenic epitopes). Sales of these formulas exceeded £59.9m in 2016 in England and Wales alone.[16]

Leadership against industry educational initiatives has been hampered by the continued acceptance of formula sponsorship by professional bodies such as the Royal College of Paediatrics and Child Health and by close associations between industry and professional allergy, gastroenterology, and nutrition organisations, which WHO and the assembly continue to advocate against.[17] Without strong institutions at the heart of medicine, the provision of unbiased medical education is questionable. There is a global imperative to create fully independent infant feeding curriculums and resources for medical students and doctors.[3 18]

There are causes for optimism, with new grassroots organisations using social media to offer globally accessible resources. In the UK, the GP Infant Feeding Network (www.gpifn.org.uk) has provided evidence based unbiased information for doctors working in primary care since 2016, inspiring a recently formed Hospital Doctor Infant Feeding Network.

The Scottish government's 2017-18 breastfeeding programme highlighted the positive impact of fully adopting Unicef's

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evidence based UK Baby Friendly Initiative in each neonatal unit and maternity hospital[19]; six month breastfeeding rates have already improved by more than 10%,[20] and milk bank services are expanding. Appropriate use of screened donor milk in neonatal units, where it is primarily used to prevent necrotising enterocolitis in extreme preterm infants,[21] can also encourage breastfeeding[22 23]—could this be a tool to support more new mothers?

The time to act on infant feeding is now, with investment in independent medical educational programmes, medical advocacy for training in Unicef's initiative, and up-to-date information on prescribing, underpinned by research to fill in knowledge gaps. The 2016 UK National Maternity Review found that 90% of mothers stop breastfeeding before they have met their goals.[24] Doctors need to advocate breastfeeding, so another generation of mothers and babies are not failed.

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