## Is the US infant formula shortage an avoidable crisis?



Published Online May 30, 2022 https://doi.org/10.1016/ 50140-6736(22)00984-9

Since February, 2022, there has been an acute shortage of commercial milk formula in the USA. This shortage is the result of the recall of several products manufactured by Abbott Nutrition, the largest manufacturer of infant formula in the USA, due to bacterial contamination and shutdown of their Michigan plant. The out-of-stock rate for commercial milk formula reached 43% for the week ending May 8, 2022, and in six states more than half of infant formula was sold out.<sup>2</sup> Desperate parents face huge uncertainty and hungry, crying babies. Socioeconomically vulnerable families are hardest hit by this crisis, because Abbott Nutrition is the main supplier of commercial milk formula to low-income families in the USA through state benefit programmes, such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). About half of infant formula nationwide is purchased by participants using WIC benefits; therefore, this shortage poses a direct threat to the health and survival of these most nutritionally vulnerable infants.3

This crisis has exposed the risk inherent in an infant feeding culture reliant on commercial milk formula produced and marketed by a few consolidated transnational corporations and with considerable political backing.4 The shortage of infant formula could have been avoided with a more enabling and resilient infant feeding environment.

During the past two decades global formula milk sales have increased, with the industry estimated to be worth US\$55 billion per annum<sup>5</sup> (\$3.6 billion in the USA<sup>6</sup>). This industry growth is linked to exploitative, aggressive, and misleading infant formula marketing practices that negatively impact decisions about infant feeding<sup>5</sup> and have eroded breastfeeding in marginalised and lowincome groups.7

As far back as 1981, the World Health Assembly adopted the International Code of Marketing of Breastmilk Substitutes (the Code) to regulate the marketing of commercial milk formula. The USA is one of only 14 highincome countries without legal measures to enact the Code.8 More than 40 years later, uninhibited commercial milk formula marketing, including algorithm-driven targeted digital advertising,<sup>5</sup> contributes to the normalisation of infant formula, the continual increase in formula sales, and the undervaluation of breastfeeding promotion and support.

The USA is the only high-income country with no statutory national paid maternity leave, resulting in many women not initiating or discontinuing breastfeeding before they return to work.9 This situation is an indictment against one of the most powerful countries in the world. As summarised by the 2016 Lancet Breastfeeding Series, "success in breastfeeding is not the sole responsibility of a woman-the promotion of breastfeeding is a collective societal responsibility".10 Insufficient support for breastfeeding is a major contributor to the USA having one of the lowest exclusive breastfeeding rates in the world at only 26%, below the WHO target of 50% of infants younger than 6 months.11

Most proposed solutions to the commercial milk formula shortage fail to consider measures to increase breastfeeding and access to breastmilk. In a media statement on May 12, 2022, US President Joe Biden announced steps to improve formula supply, including simplifying product offerings, calling on state attorneys general to monitor and address price gouging and predatory behaviour in the market, and increasing imports.3 Similarly, when the American Academy of Paediatrics (AAP) provided tips for what parents should do if they could not find formula, its recommendations included checking smaller stores, buying formula online, switching formula brand, and checking social media groups for advice on where to find supplies.12 As one of the most influential sources of paediatric information in the USA, the AAP has a stark conflict of interest, since it



receives substantial financial support from commercial formula producers.<sup>13,14</sup>

These responses to the shortage do not recognise the need to reduce demand for infant formula. They ignore immediately implementable, best practice, sustainable actions such as promoting and supporting breastfeeding, relactation, and scaling up human milk banking. Human milk banking is gaining increased attention with the growing awareness of potential harm from commercial milk formula, as highlighted by lawsuits against Abbott Laboratories and Mead Johnson that claim the companies did not warn about the increased risk of necrotising enterocolitis in preterm infants fed Enfamil or Similac compared with those fed human milk. 15,16 Relactation and increased donation of excess breastmilk to Human Milk Banking Association of North America accredited milk banks would help to minimise the effect of this shortage and are included among the recommendations of the Academy of Breastfeeding Medicine. 17

Breastfeeding has substantial benefits for children, women, society, and the environment. The total future cost (health system, mortality, and cognitive) attributed to not breastfeeding for the USA is estimated at \$115 billion.<sup>18</sup> The costs of burgeoning formula milk manufacture on the environment also need to be considered as global concerns of climate change and water shortage loom large.<sup>19</sup>

Urgent attention to address the upstream determinants of low breastfeeding rates should include efforts to improve maternity protection, legislate breastfeeding-friendly workplaces, and enact tighter regulations on commercial milk formula marketing. The continued commercialisation of infant nutrition is not a sustainable long-term option. For the future health of children, societies, and the planet, the trajectory must shift towards creating a more enabling environment for women to breastfeed and for infants to receive optimal nutrition.

We declare no competing interests.

\*Tanya Doherty, Anna Coutsoudis, David McCoy, Lori Lake, Catherine Pereira-Kotze, Jeffrey Goldhagen, Max Kroon tanya.doherty@mrc.ac.za

Health Systems Research Unit, South African Medical Research Council, Cape Town 7505, South Africa (TD); Paediatrics and Child Health, University of KwaZulu-Natal, Durban, South Africa (AC); United Nations University, International Institute for Global Health, Kuala Lumpur, Malaysia (DM); Children's Institute, Department of Paediatrics and Child Health, University of Cape Town, Cape Town, South Africa (LL); School of Public Health, University of the Western Cape, Cape Town, South Africa (TD, CP-K); International Society for Social Pediatrics and Child Health, Jacksonville, FL, USA (JG); Department of Pediatrics, University of Florida College of Medicine-Jacksonville, Jacksonville, FL, USA (JG); Neonatology, University of Cape Town Faculty of Health Sciences, Cape Town, South Africa (MK)

- 1 Jewett C, Bogel-Burroughs N. F.D.A. chief details "shocking" conditions at baby formula plant. The New York Times, May 25, 2022. https://www. nytimes.com/2022/05/25/health/fda-baby-formula-shortage.html (accessed May 25, 2022).
- 2 Datasembly. Datasembly releases latest numbers on baby formula. 2022. https://datasembly.com/news/latest-numbers-on-baby-formula/ (accessed May 25, 2022).
- 3 The White House. Fact sheet: President Biden announces additional steps to address infant formula shortage. May 12, 2022. https://www.whitehouse. gov/briefing-room/statements-releases/2022/05/12/fact-sheet-presidentbiden-announces-additional-steps-to-address-infant-formula-shortage/ (accessed May 13, 2022).
- 4 Jacobs A. Opposition to breast-feeding resolution by US stuns world health officials. The New York Times. July 8, 2018. https://www.nytimes. com/2018/07/08/health/world-health-breastfeeding-ecuador-trump.html (accessed May 25, 2022).
- 5 WHO, UNICEF. How the marketing of formula milk influences our decisions on infant feeding. Geneva: World Health Organization, 2022. https://apps. who.int/iris/rest/bitstreams/1411756/retrieve (accessed May 13, 2022).
- 6 Allied Market Research. US baby infant formula market. 2021. https://www.alliedmarketresearch.com/us-baby-infant-formula-market-A10849 (accessed May 13, 2022).
- 7 Save the Children. Don't push it: why the formula milk industry must clean up its act. London: Save the Children, 2018.
- 8 WHO. Marketing of breast-milk substitutes: national implementation of the international code, status report 2020. Geneva: World Health Organization, 2020. https://apps.who.int/iris/rest/bitstreams/1278635/retrieve (accessed May 12, 2022).
- 9 Whitley MD, Ro A, Palma A. Work, race and breastfeeding outcomes for mothers in the United States. PLoS One 2021; 16: e0251125.
- 10 Rollins NC, Bhandari N, Hajeebhoy N, et al. Why invest, and what it will take to improve breastfeeding practices? *Lancet* 2016; 387: 491–504.
- 11 WHO, UNICEF. Global nutrition targets 2025: breastfeeding policy brief (WHO/NMH/NHD/14.7). Geneva: World Health Organization, 2014. https://apps.who.int/iris/bitstream/handle/10665/149022/WHO\_NMH\_NHD\_14.7\_enq.pdf?sequence=1&isAllowed=y (accessed May 12, 2022).
- 12 Abrams S. With the baby formula shortage, what should I do if I can't find any? American Academy of Pediatrics. 2022. https://healthychildren.org/English/tips-tools/ask-the-pediatrician/Pages/Are-there-shortages-of-infant-formula-due-to-COVID-19.aspx (accessed May 13, 2022).
- 13 Sharfstein JM, Silver DL. Relationship between the American Academy of Pediatrics and infant formula companies. JAMA Pediatrics 2017; 171: 613-14.
- 14 American Academy of Paediatrics. American Academy of Pediatrics: current partners. 2022. https://www.aap.org/en/philanthropy/corporate-andorganizational-partners/current-partners/ (accessed May 25, 2022).
- Miller RV, Jr. NEC Baby Formula Lawsuit. Miller & Zois LLC. May 23, 2022. https://www.lawsuit-information-center.com/nec-baby-formula-lawsuits. html (accessed May 25, 2022).
- 16 Quigley M, Embleton ND, McGuire W. Formula versus donor breast milk for feeding preterm or low birth weight infants. Cochrane Database Syst Rev 2018: 6: Cd002971.
- 17 Academy of Breastfeeding Medicine. AMB statement on shortage of breastmilk substitutes. 2022. https://www.bfmed.org/statement-onshortage-of-breastmilk-substitutes (accessed May 13, 2022).
- 18 Walters DD, Phan LTH, Mathisen R. The cost of not breastfeeding: global results from a new tool. *Health Policy Plan* 2019; **34**: 407–17.
- 19 Pope DH, Karlsson JO, Baker P, McCoy D. Examining the environmental impacts of the dairy and baby food industries: are first-food systems a crucial missing part of the healthy and sustainable food systems agenda now underway? Int J Environ Res Public Health 2021; 18: 12678.