Angioedema Research Center, Allergy, Immunology and Angioedema Department, Barzilai University Medical Center, Ashkelon 7830604, Israel (AR); Center of Reference for Rare Diseases, Laboratory of Clinical Immunology, Prof Livre Docente. Faculdade de Medicina ABC. São Paulo. Brazil (ASG)

- Busse PJ, Christiansen SC. Hereditary angioedema. N Engl J Med 2020; 382: 1136–48.
- Minafra FG, Gonçalves TR, Alves TM, Pinto JA. The mortality from hereditary angioedema worldwide: a review of the real-world data literature. Clin Rev Allergy Immunol 2022; 62: 232–39.
- Fijen LM, Bork K, Cohn DM. Current and prospective targets of pharmacologic treatment of hereditary angioedema types 1 and 2. Clin Rev Allergy Immunol 2021; 61: 66-76.
- 4 Lumry WR, Settipane RA. Hereditary angioedema: epidemiology and burden of disease. *Allergy Asthma Proc* 2020; **41** (suppl 1): 508-5.
- Maurer M, Magerl M, Betschel S, et al. The international WAO/EAACI guideline for the management of hereditary angioedema—the 2021 revision and update. Allergy 2022; 77: 1961–90.
- 6 Aygören-Pürsün E, Zanichelli A, Cohn DM, et al. An investigational oral plasma kallikrein inhibitor for on-demand treatment of hereditary angioedema: a two-part, randomised, double-blind, placebo-controlled, crossover phase 2 trial. Lancet 2023; 401: 458–69.

- 7 Bork K, Staubach P, Eckardt AJ, et al. Symptoms, course, and complications of abdominal attacks in hereditary angioedema due to C1 inhibitor deficiency. Am J Gαstroenterol 2006; 101: 619–27.
- 8 Ali MA, Borum ML. Hereditary angioedema: what the gastroenterologist needs to know. Clin Exp Gastroenterol 2014; **7:** 435–45.
- 9 Cao Y, Liu S, Zhi Y. Recurrent and acute abdominal pain as the main clinical manifestation in patients with hereditary angioedema. Allergy Asthma Proc 2021: 42: 131–35.
- Staller K, Lembo A, Banerji A, et al. Consider hereditary angioedema in the differential diagnosis for unexplained recurring abdominal pain. I Clin Gasteroenterol 2022: 56: 740–47.
- 11 Banerji A, Anderson J, Johnston DT. Optimal management of hereditary angioedema: shared decision-making. J Asthma Allergy 2021; 14: 119-25
- 12 Radojicic C. Guidelines for management of hereditary angioedema: what is new? What is missing? *Allergy Asthma Proc* 2022; **43:** 12–19.

# Stemming commercial milk formula marketing: now is the time for radical transformation to build resilience for breastfeeding



One of the striking messages of the Lancet Breastfeeding Series<sup>1-3</sup> is that the consumption of commercial milk formula (CMF) by infants and young children has been normalised. More children are consuming CMF than ever before.2 Only 48% of the world's infants and young children are breastfed as recommended,4 despite the huge body of evidence on the lifelong benefits of breastfeeding. This situation reflects the stranglehold the CMF industry has on governments, health professionals, academic institutions, and increasingly on caregivers and families through pervasive social media. CMF companies exert undue control on the infant and young child feeding discourse, and the value of CMF sales have increased year on year.2 This dire situation, interventions to address it, and the economic, health, and survival benefits to society of optimal breastfeeding practices have been outlined in three previous Lancet Series<sup>5-7</sup> since 2003. The 2023 Lancet breastfeeding Series underlines, yet again, inadequate progress in improving breastfeeding practices globally, with the powerful addition of quantifying the association between sales of CMF and national breastfeeding rates.<sup>2</sup> The Series provides evidence of the overwhelming influence of CMF marketing in the promotion of CMF as a positive choice and the solution to every feeding challenge, thereby eroding breastfeeding practices.<sup>1-3</sup>

This Lancet Series recommends programmatic and policy actions to support women who want to breastfeed, including the adoption of a framework convention on the commercial marketing of foods for infants and young children.3 Although a framework convention to restrict CMF marketing could be a potentially impactful high-level action, the International Code of Marketing of Breast-milk Substitutes (hereafter referred to as the Code) that regulates the marketing of CMF has been in existence for 40 years.8 The Code and subsequent resolutions explicitly state that "there should be no advertising or other form of promotion to the general public" and that "manufacturers and distributors should not provide...to pregnant women, mothers or members of their families, samples of products".8 Promotion through any type of sales device, including special displays, discount coupons, and special sales, is prohibited.8 In terms of health-care settings, the Code and subsequent resolutions call for a total prohibition of any type of promotion of products that fall within their scope in the health services. The evidence analysis in the Lancet Series shows clearly how marketing has continued, irrespective of the Code. Notably, advertising expenditure by CMF manufacturers has grown by 164% during the past decade,2 despite 144 (74%)

Published Online February 7, 2023 https://doi.org/10.1016/ 50140-6736(23)00095-8 See Series pages 472, 486, and 503

## Panel: Examples of civil society action to create enabling environments for breastfeeding

#### Global

• In 1977, a boycott was launched in the USA by the Infant Formula Action Coalition (INFACT) against Nestlé following increased concern over the company's marketing practices in low-income and middle-income countries (LMICs). The boycott soon spread across several other countries and in 1978 the US Senate held a public hearing into the promotion of breastmilk substitutes in LMICs and joined calls for a Marketing Code. The global boycott generated the political pressure that resulted in the development and adoption of the International Code of Marketing of Breast-milk Substitutes by the World Health Assembly in 1981.

#### South Africa

• In August, 2021, a group of civil society organisations in South Africa created awareness around events that had been planned by a large commercial milk formula (CMF) manufacturer (Nestlé) by engaging with national media outlets, creating an online petition, and coordinating a social media campaign (using the hashtag #NotTodayNestle). The company was planning to directly engage with mothers and caregivers at online events called "Free Stokvel Mom and Child Forums". The civil society action resulted in the events being cancelled.

• In November, 2021, a group of 220 academics from around the world signed a letter of concern<sup>12</sup> regarding a conflict of interest after the appointment of the director of the African Research University Alliance Centre of Excellence in Food Security to the Nestlé Global Board of Directors.<sup>13</sup> This action led to a meeting of university medical school representatives in South Africa to discuss conflict of interest policies within academic institutions to prevent corporate influence in education and research.

#### Brazil

• In May, 2022, the Brazilian Institute for Consumer Protection (IDEC), supported by the Global Health Advocacy Incubator (GHAI), <sup>14</sup> filed a Public Civil Action against three CMF manufacturers (Nestlé Brazil, Danone, and Mead Johnson) for misleading cross-promotion between toddler milks and infant formulas. In July, 2022, the court determined that the similarities between the two product packages had an unequivocal harmful potential. <sup>15</sup> The judge concluded that "the harmful potential, thus considered the power to confuse the consumer, is unequivocal", and gave an instruction to the corporations to add a warning label to their products within 60 days. <sup>15</sup>

of 194 WHO member states having adopted legal measures to implement the Code, which explicitly states there should be no advertising to the general public of products covered within its scope. These high-level actions are far removed from the environments where breastfeeding takes place. There is a crucial need for more attention to and increased investment in local action to support breastfeeding.

The roles of civil society, consumer empowerment, and social mobilisation in building alliances, holding CMF companies accountable, and lobbying for environments supportive of breastfeeding have a long history, starting with the 1977 boycott of Nestlé.<sup>10</sup> One action recommended in this Series to reduce the power of CMF marketing is use of plain packaging for CMF. A groundswell of support is needed for this action to ensure that it is included by governments in national legislation. The panel highlights examples of civil society action in support of enabling environments for breastfeeding. <sup>10-15</sup> Such actions are underappreciated in the much-needed responses to support breastfeeding. Yet civil society coalition building is often coordinated with insufficient or no resources in stark contrast to the financial might

and technical expertise that CMF companies have at their disposal.

Change must also happen within the health professions to support breastfeeding. The research and evidence synthesis presented in this Lancet Series provide compelling examples of the strategies used by CMF manufacturers to influence health professionals and academia through education, research funding, marketing in scientific journals, and conference sponsorship.<sup>2</sup> These marketing strategies have medicalised usual newborn behaviours and mothers' perceptions that breastmilk is insufficient, advancing the narrative that CMF is the solution to these so-called problems and promoting this message among health professionals. 1,16,17 There is a need for improvements in health professional training on breastfeeding and newborn development. However, the CMF marketing that health professionals and caregivers are exposed to also needs to be stemmed. Far stronger action and regulation is needed from ministries of health, health professional associations, educational institutions, and health facilities to act ethically and in the best interests of children and halt CMF industry influence in health professional education, research, and practice.

Actions that could be taken include development of position statements and codes of conduct that academic institutions, <sup>18</sup> health professional associations, <sup>19,20</sup> and medical journals<sup>21</sup> could adopt to guide engagement with the CMF industry. These actions must become the norm for any public health organisation and be accompanied by monitoring and reporting mechanisms, including transparency around existing relationships with the CMF industry.

Transforming environments to be more enabling for breastfeeding globally will also support more sustainable and resilient food systems and reduce the huge carbon footprint<sup>22,23</sup> resulting from increasing CMF consumption. As the papers in the Series show, more children than ever before are fed CMF at a time when the climate and global economic crises, together with political insecurities, create repeated events that disrupt CMF supply chains. Recent examples of such disruption include flooding in the province of KwaZulu-Natal, South Africa, war in Ukraine, the COVID-19 pandemic,24 and the formula contamination that led to an acute CMF shortage in the USA.25 CMF companies have capitalised on these events as opportunities to make donations and garner more customers.26 These challenges are only going to increase, and the solution requires radical transformation of the infant feeding landscape so that women and families can make decisions in the best interests of their children free from commercial interest, rather than being dependent on a suboptimal product that relies on fragile global supply chains that may fail or produce products of poor quality.

In the third Series paper, Phillip Baker and colleagues call on governments to recognise the value of breastfeeding and unpaid care work by women to economies and to invest appropriately.<sup>3</sup> Corporate political activities by CMF companies devote huge resources to lobbying against legislation to protect breastfeeding,<sup>27</sup> most notably in the USA, which remains the only high-income country without legislated paid maternity leave.<sup>17</sup> A Mothers' Milk Tool, developed in 2022 by non-profit groups,<sup>28</sup> enables governments to quantify the volume of breastmilk and the value of breastfeeding at a national level, as well as the economic losses if environments, policies, and health-care, work, and community settings do not enable women's and children's rights to breastfeeding.

Breastfeeding should be a key public health priority for all countries as part of broader efforts to

improve women's and children's health, prevent non-communicable and communicable diseases, grow economies sustainably, and decrease inequities. Now is the time for radical transformation towards a world resilient for breastfeeding. There is no alternative for the future of children, societies, and the planet.

We declare no competing interests.

## \*Tanya Doherty, Christiane Horwood, Catherine Pereira-Kotze, Lisanne du Plessis, Chantell Witten tanya.doherty@mrc.ac.za

Health Systems Research Unit, South African Medical Research Council, Cape Town 7505, South Africa (TD); Centre for Rural Health, University of KwaZulu-Natal, Durban, South Africa (CH); Division of Human Nutrition, Department of Global Health, Faculty of Medicine and Health Sciences, Stellenbosch University, Stellenbosch, South Africa (LdP); School of Public Health, University of the Western Cape, Cape Town, South Africa (TD, CP-K, CW)

- 1 Pérez-Escamilla R, Tomori C, Hernández-Cordero S, et al. Breastfeeding: crucially important, but increasingly challenged in a market-driven world. Lancet 2023; published online Feb 7. https://doi.org/10.1016/S0140-6736(22)01932-8.
- 2 Rollins N, Piwoz E, Baker P, et al. Marketing of commercial milk formula: a system to capture parents, communities, science, and policy. Lancet 2023; published online Feb 7. https://doi.org/10.1016/S0140-6736(22)01931-6.
- 3 Baker P, Smith J, Garde A, et al. The political economy of infant and young child feeding: confronting corporate power, overcoming structural barriers, and accelerating progress. *Lancet* 2023; published online Feb 7. https://doi. org/10.1016/50140-6736(22)01933-X.
- 4 UNICEF. Global database exclusive breastfeeding (<6 months) 2022. 2022. https://data.unicef.org/wp-content/uploads/2021/09/UNICEF\_Expanded\_ Global\_Databases\_ExclusiveBF\_2022.xlsx (accessed Jan 17, 2023).
- 5 Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS, Bellagio Child Survival Study Group. How many child deaths can we prevent this year? Lancet 2003; 362: 65–71.
- 6 Black RE, Alderman H, Bhutta ZA, et al. Maternal and child nutrition: building momentum for impact. Lancet 2013; 382: 372–75.
- 7 Rollins NC, Bhandari N, Hajeebhoy N, et al. Why invest, and what it will take to improve breastfeeding practices? *Lancet* 2016; 387: 491–504.
- 8 WHO. International Code of Marketing of Breast-milk Substitutes. Geneva: World Health Organization, 1981.
- 9 WHO. Marketing of breast-milk substitutes: national implementation of the International Code, status report 2022. Geneva: World Health Organization, 2022. https://apps.who.int/iris/rest/bitstreams/1278635/ retrieve (accessed Jan 11, 2023).
- Johnson DA, Duckett LJ. Advocacy, strategy and tactics used to confront corporate power: the Nestlé boycott and International Code of Marketing of Breast-milk Substitutes. J Hum Lact 2020: 36: 568–78.
- Heywood M, Banda M. Nutrition activists urge Nestlé to cancel "Free Stokvel Mom and Child Forum" saying it violates SA regulations. Daily Maverick. Aug 12, 2021. https://www.dailymaverick.co.za/article/2021-08-12-nutrition-activists-urge-nestle-to-cancel-free-stokvel-mom-and-child-forum-saying-it-violates-sa-regulations/ (accessed Jan 11, 2023).
- Heywood M. On Board with Nestlé? Academics express concern over conflicts of interest. Daily Maverick. 2021. https://www.dailymaverick.co.za/article/2021-11-23-on-board-with-nestle-academics-express-concern-over-conflicts-of-interest/ (accessed Jan 11, 2023).
- 13 Nestlé. Board of Directors. 2023. https://www.nestle.com/aboutus/ management/board-directors/lindiwe-majele-sibanda (accessed Jan 17, 2023).
- 14 Global Health Advocacy Incubator. Brazilian courts protect vulnerable children and youth in decision against Nestlé Brazil. 2022. https:// advocacyincubator.org/2022/07/13/brazilian-courts-protect-vulnerablechildren-and-youth-in-decision-against-nestle-brazil/ (accessed lan 11 2023)
- 15 International Baby Food Action Network. Court orders Nestlé to clearly signal the difference between infant formulas and growing-up milks. July 4, 2022. https://www.babymilkaction.org/wp-content/uploads/2022/07/Pressrelease-IDEC-wins-over-Nestle%CC%81-4July2022.docx (accessed Jan 17, 2023).

- 16 Doherty T, Pereira-Kotze CJ, Luthuli S, et al. They push their products through me: health professionals' perspectives on and exposure to marketing of commercial milk formula in Cape Town and Johannesburg, South Africa—a qualitative study. BMJ Open 2022; 12: e055872.
- 17 Hastings G, Angus K, Eadie D, Hunt K. Selling second best: how infant formula marketing works. Globaliz Health 2020; 16: 77.
- Department of Paediatrics and Child Health. University of Cape Town Department of Paediatrics (UCT DOP) position statement on relations with formula milk companies. 2020. http://www.paediatrics.uct.ac.za/sites/ default/files/image\_tool/images/38/child-advocacy/UCT\_Department\_of\_ Paediatrics\_position\_statement\_on\_Relations\_with\_Formula\_Milk\_ Companies-13November2019.pdf (accessed Jan 11, 2023)
- United South African Neonatal Assocation. Position statement on relations between commercial milk formula (CMF) companies and the United South African Neonatal Association (USANA). 2022. https://usana.org.za/wp content/uploads/USANA-Position-Statement-on-relations-with-Commercial-Milk-Formula-Companies\_September-2022.pdf (accessed lan 11, 2023).
- Association for Dietetics in South Africa. ADSA sponsorship guidelines 2019. https://www.adsa.org.za/\_files/ugd/218581\_ a40cc3bcc83146ec9db71351f201b93f.pdf (accessed Jan 17, 2023).
- Godlee F, Cook S, Coombes R, El-Omar E, Brown N. Calling time on formula milk adverts. BMJ 2019; 364: l1200.

- Karlsson JO, Garnett T, Rollins NC, Röös E. The carbon footprint of breastmilk substitutes in comparison with breastfeeding. J Clean Prod 2019; 222: 436-45
- 23 Smith JP. A commentary on the carbon footprint of milk formula: harms to planetary health and policy implications. Int Breastfeed J 2019; 14: 49.
- Ching C, Zambrano P, Nguyen TT, Tharaney M, Zafimanjaka MG, Mathisen R. Old tricks, new opportunities: how companies violate the International Code of Marketing of Breast-Milk Substitutes and undermine maternal and child health during the COVID-19 pandemic. Int J Environ Res Public Health 2021;
- 25 Doherty T, Coutsoudis A, McCoy D, et al. Is the US infant formula shortage an avoidable crisis? Lancet 2022; 400: 83-84.
- van Tulleken C, Wright C, Brown A, McCoy D, Costello A. Marketing of breastmilk substitutes during the COVID-19 pandemic. Lancet 2020; 396: e58.
- Baker P, Russ K, Kang M, et al. Globalization, first-foods systems transformations and corporate power: a synthesis of literature and data on the market and political practices of the transnational baby food industry. Globaliz Health 2021; 17: 58.
- Alive and Thrive. Mothers' Milk Tool: the value of nourishing newborns and nations. 2022. https://www.aliveandthrive.org/sites/default/files/mothers milk tool information kit-compress.pdf (accessed Ian 11, 2023).



# Deaths from alcohol-related liver disease in the UK: an escalating tragedy



Published Online December 19, 2022 https://doi.org/10.1016/ 50140-6736(22)02583-1

In 2013, the UK National Confidential Enquiry into Patient Outcome and Death (NCEPOD) published Measuring the Units.1 This report on UK hospital deaths from alcoholrelated liver disease in 2011 highlighted the avoidable nature of many of these deaths and found that care was less than good in more than half of the cases reviewed; basic omissions in patient care and missed opportunities were common, including the identification of patients with decompensated liver disease and initiation of simple urgent investigation and treatment.1 There was also failure of referral to gastroenterologists and hepatologists and challenges to get people with alcohol-related liver disease admitted to critical care, despite the potentially reversible nature of their condition. The 2013 NCEPOD report underlined that "early intervention with evidencebased treatments for patients with the complications of cirrhosis can save lives" and that there was a "failure to use appropriate protocols".1 This report contained 28 recommendations for improving structures and processes to reduce avoidable deaths.1

Remeasuring the Units,<sup>2</sup> a new NCEPOD report published on Dec 15, 2022, describes a 2021 survey of admissions in 2019 to National Health Service (NHS) Trusts in England, Wales, and Northern Ireland and shows that, although there have been some improvements in the care of patients with alcohol-related liver disease, there is still widespread failure to implement the recommendations of 2013. These findings come in the context of worsening alcohol-related liver disease in the UK. The latest Office for National Statistics data for 2021 show the highest number of alcohol-specific deaths on record in the UK; of these 9641 deaths, 7518 (78%) deaths were due to liver disease.3

Liver disease kills young people: in 2020 it was the second most common cause of years of life lost in England among people of working age (16-64 years) after "selfharm and undetermined intent".4 Since 2011, in England, the number of premature (<75 years) deaths from alcohol-related liver disease has increased by 23% (4300 in 2011 and 5285 in 2020).5 On average, women die of alcohol-related liver disease 1 year younger than men (mean age 55.7 vs 57.0 years) and this difference is widening.<sup>2</sup> The increase in mortality has been mirrored by an increase in hospital admissions for alcohol-related liver disease—15596 in 2010-11 rising to 24544 in 2020-21.5 Of 17604 inpatient admissions for alcohol-related liver disease in 2020-21, 16207 (92%) were emergencies (unpublished, Verne J). Not only does alcohol-related liver disease kill many young adults, but it is also a condition of stark inequalities; in 2020, the premature mortality rate (<75 years) was 4.8 times higher in the most deprived areas of England than the most affluent.5