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## Breastfeeding, first food systems and corporate power

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*Breastfeeding Review* 2020; 28(2), 33–37

### **BREASTFEEDING, BREASTMILK SUBSTITUTES AND FIRST FOOD SYSTEMS**

Breastmilk is a personalised source of early-life nutrition, providing optimal nutrients in volumes regulated by the mother–child feeding dyad and biological factors that are crucial for the development of the child (Victora et al., 2016). To achieve optimal growth, development and health the World Health Organization (WHO) recommends infants are exclusively breastfed for the first 6 months of life and thereafter receive nutritionally adequate and safe complementary foods while breastfeeding continues for up to 2 years of age or beyond (World Health Organization [WHO], 2003). The WHO/UNICEF *Global strategy for infant and young child feeding* (GSIYCF) calls on governments to implement actions to support, promote and protect breastfeeding, including adoption of *The International Code of Marketing of Breast-milk Substitutes* and subsequent World Health Assembly resolutions (The International Code) into national legislation.

The International Code is a response to long-standing evidence that the commercial marketing of breastmilk substitutes (BMS) undermines breastfeeding and harms infant, child and maternal health in all country settings (WHO, 1981). Commercial BMS are any foods marketed or otherwise represented as partial or total replacements for breastmilk (WHO, 2016), typically ultra-processed formulations comprising powdered milk derivatives (from cows or other animals), sweeteners (usually lactose, sucrose and/or corn syrup), vegetable oil derivatives, micronutrients and cosmetic additives. Evidence of the health implications of BMS comes from studies comparing never and partially breastfed versus breastfed children. For infants, this includes significant increased risks of not breastfeeding for child infection and malocclusion, and probable increased risk of obesity and type-2 diabetes (Victora et al., 2016). For mothers, not breastfeeding forgoes the protective effects of breastfeeding against breast cancer and improved birth spacing, and further potential protection against ovarian cancer and type-2 diabetes (Victora et al., 2016).

Although the world exclusive breastfeeding rate (0–6 months) improved from 33% in 1995 to 42% in 2018 (UNICEF, 2019), this is an insufficient rate of progress to meet the World Health Assembly's target of 50% by 2025. Furthermore, despite the harms associated with not breastfeeding, a global *infant and young child feeding transition* to diets higher in commercial BMS has been underway since at least the mid-2000s (Baker et al., 2016; Rollins et al., 2016)). The most rapid infant and young child feeding (IYCF) transitions are evident in the industrialising countries of East and South East Asia, where market reports describe a a 'white gold rush' and BMS 'sales boom' underway. China alone accounted for 46% of the total world BMS market sales in 2015, more than double the value of the US and European markets combined (Changing Markets Foundation, 2017), and 62.5% of the total world BMS sale volume in 2018. Indonesia, Vietnam and the Philippines are countries that have also experienced remarkable increases in BMS sales.

Why now, and why in East and South East Asia? The transition we are observing reflects transformations in the systems that drive IYCF practices at the population level. These systems can be called *first food systems* defined here as the complete set of determinants of breastfeeding as the biological and social norm, and the determinants that drive feeding practices away from this norm (ie towards commercial BMS, other non-human milks, mixed feeding and the early introduction of complementary foods) over time. Such IYCF transitions and first food systems transformations are not a new phenomenon. Some countries, including Australia, United States and Norway, experienced declines in breastfeeding and a rise in BMS feeding during the latter half of the 20th century. This linked with rising incomes, urbanisation, the changing roles of women in families and society, the medicalisation of pregnancy and birthing, more intensive BMS marketing and the failure of policies to promote, support and protect breastfeeding in these new contexts (Liestøl, Rosenberg, & Walløe, 1988; Ryan, 1997; Smith, 2007). Some countries are now experiencing reversions back to higher although sub-optimal breastfeeding rates.

In recent research, my colleagues and I argue that the contemporary IYCF transition has certain characteristics that differentiate it from past transitions. First, it is occurring predominantly in highly populated middle-income countries and includes not just infant formula (for ages 0–6 months) but also follow-on (6–12 months), toddler (13–36 months) and special (0–6 months) categories. The transition therefore affects an unprecedented number of infants and children and commercial 'breastmilk substitution' is occurring across a wider range of age groups. The implications for global infant, child and maternal health are therefore of serious concern. The second

reason is that it is occurring in the context of extensive economic globalisation, and rapid growth in the size and global reach of the BMS industry, with the majority of world BMS sales accruing to a small number of transnational companies.

Although the research community has paid close attention to the marketing practices of BMS companies, much less attention has been paid to understanding the growth in their wider market and political power. The exception is a number of recent civil society reports indicating that 'Big Formula' is vigorously pursuing a range of market and political strategies to shape first food systems and drive IYCF transitions in their commercial interests (Changing Markets Foundation, 2017; Save the Children, 2018).

## FIRST FOOD SYSTEMS AND CORPORATE POWER

To understand how corporate power shapes first food systems, a political economy approach is useful. The term political economy means the interplay between political, economic and social forces in society, the distribution of power and resources between different individuals and groups within and surrounding first food systems, and the processes that generate, sustain and transform these relationships over time (Baker & Demaio, 2019). Those who know the work of Gabrielle Palmer, Maureen Minchin and Julie Smith will already understand how important the role of politics and power is in relation to breastfeeding. To build on and extend this work, corporate power can be understood in relation to the material, instrumental, structural and discursive forms of power of the BMS industry (Clapp & Scrinis, 2017; Fuchs, 2007). These are concepts well known to political scientists, but not yet applied to the politics of breastfeeding.

*Material power* is power through the accumulation and coordination of assets and resources within and across markets, and the capacity to generate market distortions for commercial advantage (Fuchs et al., 2016; IPES-Food, 2017). Many studies refer to this form of power when they compare the revenue of major corporations with the GDP of national economies, or the historical growth in the number and size of transnational corporations.

Material power is evident in the concentration of BMS markets worldwide. By acquiring greater market share, companies can generate market distortions in ways that help facilitate IYCF transitions — for example they can drive down production costs through their bargaining power over input suppliers, command more favourable prices and constrain the product choices available to consumers. The industry is described as 'currently undergoing terminal consolidation' (Coriolis, 2014). In 2018, 61.6% of global market sales or US\$32.5

billion accrued to just six key players — Nestlé, Danone, RB Mead Johnson (RBMJ), Abbott, Royal Friesland Campina and Feihe. The three largest alone had a combined world market share of 42%. These gains have occurred partly through organic market growth, but also intensive merger and acquisition activity. For example, Nestlé's acquisition of Pfizer's infant nutrition division in 2012 and Danone's of Numico/Nutricia in 2007.

Markets are even more concentrated at regional and national levels, with usually just three or four dominant firms involving some combination of transnational corporations, regional and national firms with small players occupying market niches (eg goat, organic or plant-based). The transnationals have strong oligopolies in many key markets. For example, in 2018 Nestlé and Danone commanded 69% and 22% of Brazil's market share, while Abbott and RBMJ dominated the US market with 42% and 38% respectively. The exception is China, where a broad mix of transnational, regional and national players are engaged in intense competition. Trade liberalisation via the World Trade Organization and other free trade agreements has enabled this remarkable transnational expansion of the BMS industry (Baker, 2014; Smith, Galtry, & Salmon, 2014). Removing barriers to trade and investment enables companies to expand their global operations by, for example, making new investments in production facilities in emerging markets, and by establishing sophisticated global supply chains involving subsidiary or affiliate firms.

*Actor-to-actor (instrumental) power* is the power to influence others directly through shared participation in social networks. As BMS companies grow, they can harness or pool together more resources to hire lobbyists to engage policy decision-makers, make political donations, employ law firms to engage in litigation, finance civil society groups, engage health professionals and scientists, and establish front groups. Company executives can contract professional lobbyists, lawyers and public relations firms, or co-opt government officials to act on the industry's behalf. Through transnational public relations networks and interlocking board memberships, lobbying practices can be coordinated across industries and multiple policy-making arenas simultaneously.

Many examples of this exist. In the United States, Nestlé was found to have established relationships with prominent health organisations and opinion leaders, and hired lobbyists to influence government policy (Tanrikulu, Neri, Robertson, & Mialon, 2020). At the international level, the BMS industry has strong representation through various peak industry organisations and within government delegations attending Codex Alimentarius Commission, the United Nations food-standard-setting body, and has contested multiple standards relevant to infant and

follow-on formula (Koletzko & Shamir, 2006). Another is the highly publicised actions taken by the US Government to oppose resolutions to strengthen *The International Code* at the 2018 World Health Assembly, although direct evidence linking this with the BMS industry is not yet established (Jacobs, 2018).

*Structural power* is the power to set agendas and constrain the options available to others. This also has a material basis. Given their large capitalisations and international capital mobility, BMS companies can achieve favourable policy environments (eg regulatory concessions beyond those available to domestic investors) by threatening to locate or shift investments and jobs elsewhere. As BMS markets grow within countries, the industry also becomes more important within national economies as suppliers of jobs, exports and tax revenue. This further enhances their structural power as governments become more reluctant to regulate growth or can even directly support burgeoning industries. In China, for example, the government is directly supporting BMS industry growth through a coordinated plan including tax cuts and financial assistance (Xinhuanet, 2019). This growing structural power also occurs via massive growth in ancillary industries involved in BMS supply chains, especially for dairy industries that provide the primary ingredients used in manufacturing, for example in New Zealand (Galtry, 2013).

Another example of structural power is the adoption of voluntary standards (eg codes of practice) or forms of co-regulation via private governance initiatives that can pre-empt and undermine calls for strong government action. Australia's Marketing of Infant Formula Agreement is a clear example of this, as a voluntary industry code that substitutes for legislated restrictions on BMS marketing found in many other countries. The trade rules adopted in World Trade Organization (WTO) or other free trade agreements can also constrain the policy options available to governments, as those representing the interests of the BMS industry can dispute BMS marketing regulations proposed or adopted by other governments. Although trade arbitration directly relating to BMS has not yet occurred at the WTO, those lobbying against implementation of *The International Code* have argued that some measures proposed by governments are inconsistent with international trade agreements (WHO & UNICEF, 2020).

*Discursive power* is the power to generate (or divert) attention, influence the production of knowledge and evidence, and shape the discourses through which IYCF problems, solutions, actors and interests are interpreted and portrayed (ie framed). This is the power to socialise others, often unconsciously, into accepting certain problem interpretations and

behaviours as normal, acceptable and desirable. Material resources also enable discursive power eg corporations can finance media, philanthropy, corporate social responsibility, partnerships with cultural and sporting associations, and importantly through large expenditures on commercial marketing.

The normalisation of formula-feeding – ie a shift from a breastfeeding to formula-feeding culture – in a given society is, at least to a significant extent, a reflection of the discursive power of BMS companies. Branding, advertising, packaging and promotions imbue companies and their products with symbolic and social meaning eg with modernity, status and sustainability. Public relations, or the cultivation of favourable public opinion 'by applied psychology in mass communications media', is used to portray companies as good corporate citizens and as legitimate policy partners, while simultaneously deflecting criticism (Miller & Dinan, 2008). Marketing messages often portray BMS as equivalent with or superior to breastmilk, as a symbol of modernity, and formula-feeding as extensively practised and as an appropriate lifestyle choice (Mejia, Seklir, Gardin, & Nixon, 2016; Piwoz & Huffman, 2015). Evidence suggests this is highly effective in shaping social norms and beliefs. For example, in a recent US study, 52% of infant caregivers agreed with the statement that infant formula can be better for babies' digestion and brain development than breastmilk; 62% agreed that it can provide nutrition not present in breastmilk (Romo-Palafox, Pomeranz, & Harris, 2020).

By researching breastfeeding, BMS and first food systems through the lens of power, we can move towards a deeper understanding of why different countries progress through different types of IYCF transitions and the implications for infant, child and maternal health.

## DECLARATION

Phillip Baker declares no conflicts of interest. He is currently a lead investigator on a World Health Organization funded project on the political economy of breastmilk substitutes.

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