

# Breastfeeding in South Africa: are we making progress?

## Authors:

Lisanne du Plessis<sup>i</sup>

Nazia Peer<sup>ii</sup>

Simone Honikman<sup>iii</sup>

René English<sup>ii</sup>

Recent global evidence shows that breastfeeding benefits both mothers and babies in rich and poor nations. Furthermore, evidence suggests that concerted national efforts to scale up breastfeeding interventions, policies and programmes can bring about rapid change, and that creating an enabling environment to practise breastfeeding has huge potential as an investment in the future health of mothers and the healthy life course of their children.

In South Africa, available national data suggest that most mothers initiate breastfeeding after birth. However, it has been observed that very few babies are exclusively breastfed during the first six months of life. Many babies also receive complementary foods between two and three months of age, and in some cases, even within a few days of birth. This suboptimal early nutrition profile predisposes South Africans to poor health outcomes in both their infant and young child years as well as in adulthood.

This chapter interrogates whether we are making progress in our country to improve breastfeeding practices. A review was done of breastfeeding progress globally, and South Africa's commitment to breastfeeding as a component of infant and young child feeding (IYCF) over the past few years. The chapter determines what has been done to promote breastfeeding, including which policy changes have imminently promoted breastfeeding. Thereafter, the key determinants of breastfeeding in South Africa are unpacked and detailed, together with a review of proven interventions at different levels of society. Finally, the chapter makes practical recommendations to restore breastfeeding as the 'new' norm for infant nutrition in all sectors of South African society.

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- i Division of Human Nutrition, Faculty of Medicine and Health Sciences, Stellenbosch University
- ii Health Systems Trust
- iii Perinatal Mental Health Project, Alan J Flisher Centre for Public Mental Health, Psychiatry and Mental Health University of Cape Town

## Introduction

It is now well established that breastfeeding holds substantial benefits for both mothers and babies in rich and poor nations. Estimates indicate that improved global breastfeeding rates can prevent breast cancer deaths in 20 000 mothers and prevent mortality in 823 000 infants annually.<sup>1</sup> Promotion, protection and support of breastfeeding can therefore contribute substantially to achieving the Sustainable Development Goals (SDGs).<sup>2</sup>

Evidence suggests that concerted national efforts to scale up breastfeeding interventions, policies and programmes can bring about 'rapid' change, and that creating an enabling environment to practise breastfeeding has huge potential as an investment in the future health of mothers and the healthy life course of their children.<sup>1</sup>

In South Africa, available national data show that most mothers initiate breastfeeding after birth.<sup>3,4</sup> However, it has been observed that very few babies are exclusively breastfed during the first six months of life.<sup>3-5</sup> Many babies also receive complementary foods between two and three months of age, and in some cases, even within a few days of birth.<sup>5</sup> This suboptimal early nutrition profile predisposes South Africans to poor health outcomes in both their infant and young child years as well as in adulthood. Within this context, the chapter interrogates whether we are making progress in our country to improve breastfeeding practices.

A review was done of breastfeeding progress globally, followed by a review of South Africa's commitment to breastfeeding as a component of infant and young child feeding (IYCF) over the past few years. We highlight what has been done to promote breastfeeding in general (for both HIV-infected and non-infected mothers), including which policy changes have imminently promoted breastfeeding. We also reflect on the findings of evaluations done in South Africa that assess how we have progressed as a country, and report on areas of deficiency highlighted in these documents. Thereafter, key determinants of breastfeeding in South Africa are unpacked and detailed, together with a review of proven interventions at different levels of society. Finally, the chapter makes practical recommendations to restore breastfeeding as the 'new' norm for infant nutrition within all sectors of South African society.

## Global breastfeeding targets and practices

From the perspective of global public health nutrition, the current optimal IYCF best practice guidelines are undisputed:<sup>6-8</sup> early initiation of breastfeeding, exclusive breastfeeding (EBF) for the first six months of life, and the continuation of breastfeeding for up to two years and beyond<sup>9</sup> remain the goal. However, evidence suggests that despite global commitment to promoting exclusive and other forms of breastfeeding as the nutritional method of choice, these targets are not being met effectively in many countries.<sup>2</sup> In a move to charter new nutritional targets on a global scale, the World Health Assembly (WHA) endorsed six new nutrition goals for 2025,<sup>10</sup> one of which is to increase the global prevalence of EBF in the first six months of life to at least 50% – from the current rate of 38% (Table 1).

Table 1: World Health Assembly Nutrition Targets 2025

World Health Assembly target	Baseline year/s	Baseline status	Target for 2025
40% reduction in the number of children under five who are stunted	2012	162 million	~100 million
50% reduction of anaemia in women of reproductive age (pregnant and non-pregnant)	2011	29%	15%
30% reduction in low birth weight	2008–2011	15%	10%
No increase in childhood overweight	2012	7%	7%
Increase the rate of exclusive breastfeeding in the first six months up to at least 50%	2008–2012	38%	50%
Reduce and maintain childhood wasting to less than 5%	2012	8%	<5%

Source: World Health Organization, 2015.<sup>10</sup>

A review by Rollins et al. in the *Lancet* 2016 Breastfeeding Series drew on data from countries<sup>1</sup> that report on the World Health Organization (WHO) IYCF indicators. The review showed that early initiation and EBF are compromised in all countries, regardless of their economic status,<sup>1</sup> and only 37% of infants are exclusively breastfed for the first six months in low- and middle-income countries (LMICs).<sup>1</sup> It has been noted that as a country's national wealth increases, so breastfeeding practices decline and the breastfeeding period shortens.<sup>1</sup> Notably, in countries where rapid improvement in EBF rates have been reported, such as in Bangladesh, Brazil, Cuba and Togo, collaboration among the stakeholders and sectors in addressing the contributing factors correlated directly with the overall success of nutritional interventions.<sup>2</sup>

According to the *Lancet* 2016 Breastfeeding Series, the breastfeeding prevalence rate at 12 months was found to be highest in sub-Saharan Africa, South Asia and parts of Latin America, with EBF of infants younger than six months estimated at 35.04% in sub-Saharan Africa in 2012.<sup>12</sup> Countries in East and southern Africa tend on average to have lower rates of continued breastfeeding but higher rates of EBF than those in West Africa.<sup>2</sup>

## Breastfeeding in South Africa over the past few decades

There is limited national information on breastfeeding practices in South Africa. Available data indicate that 88% of mothers initiate breastfeeding almost immediately post-delivery.<sup>4</sup> However, reviews report an 8% EBF rate from birth to six months of age, with over 70% of infants being given solid foods before six months.<sup>3,4,13</sup> The premature introduction of food and liquids to infants younger than six months has a detrimental impact on infant and young child nutrition (IYCN) and health, and has also been cited in smaller studies in the country.<sup>5,14</sup>

## Policy changes

The spread of HIV and AIDS in South Africa significantly altered the circumstances under which women made decisions about how to feed their infants, especially in the light of the risks involved in various feeding methods. In the early days of the pandemic the

widespread reality of mother-to-child transmission (MTCT) of HIV led to the introduction of numerous policies that resulted in a swift, sweeping move away from breastfeeding and a dramatic shift towards the use of breast-milk substitutes.

Thus interventions to prevent MTCT – implemented since 2001 in South Africa and updated in 2008, 2010,<sup>15</sup> 2013<sup>16</sup> and 2015<sup>17,18</sup> – have been accompanied by evidence-based transitions in IYCF recommendations for HIV-positive women. Recommendations ranged from avoiding breastfeeding and the provision of free commercial infant formula,<sup>19</sup> to avoiding breastfeeding if certain conditions were met (affordability, feasibility, acceptability, sustainability and safety), to breastfeeding under antiretroviral therapy (ART) cover.<sup>18</sup>

In the very first set of recommendations, women were counselled to choose either EBF with early weaning at 4–6 months, or exclusive formula feeding with free formula provided until six months. As a result, breastfeeding practices were compromised, not only for babies born to HIV-infected mothers, but also for HIV-unexposed babies born to HIV-negative mothers, as a consequence of the spill-over effects of mixed messaging, which caused HIV-negative mothers also to opt for alternatives to breastfeeding. Particular harm to breastfeeding in South Africa stemmed from the following:

- Healthcare provider confusion about infant feeding and the risks of HIV transmission through breastfeeding
- Poor support for infant-feeding counsellors
- Poor counselling skills
- A disconnect between feeding recommendations and the socio-cultural context within which feeding occurs.

The latter refers specifically to EBF guidelines and the practice of early introduction of fluids and foods very soon after birth.<sup>20,21</sup>

In 2011, a decade after the first wave of policy change in 2001 and against the backdrop of new evidence emerging on the benefits of exclusive and continued breastfeeding in both HIV-positive and HIV-negative environments,<sup>7,18,19,22–24</sup> South Africa embarked on a process of restoring breastfeeding. It is important to note that much work was done in South Africa by various researchers who focused specifically on breastfeeding in HIV-infected mothers.<sup>19–21,23</sup>

To this end, a strong commitment by the National Department of Health (NDoH) to advance both the IYCF and maternal nutrition cause in the country culminated in the landmark Tshwane Declaration of Support for Breastfeeding in South Africa.<sup>24</sup> This declaration was signed in August 2011 as a result of the National Consultative Breastfeeding Meeting convened by Dr Aaron Motsoaledi, the National Minister of Health.<sup>25</sup> The meeting was attended by various nutrition stakeholders, including government, non-governmental organisations (NGOs), academic and research institutions, and independent experts. It was a positive step towards promoting inter-sector collaboration and demonstrated commitment to the promotion, protection and support of breastfeeding in South Africa by the various nutrition stakeholders.

Since the 2011 Tshwane Declaration there has been measurable growth in some of the commitments outlined in the document. A new guideline was included in the revised IYCF policy, representing a unified national message in which HIV-infected mothers are encouraged to breastfeed their infants exclusively for the first six months of life, while receiving ART to prevent MTCT, and to continue

breastfeeding until their infants are one year of age.<sup>26</sup> Furthermore, Regulation 991, which governs the Code of Marketing of Breast-milk Substitutes and other foodstuffs for infants and young children, was legislated in December 2012,<sup>27</sup> with gradual implementation of these Regulations over a three-year period, culminating in full implementation in 2015.

The promotion, protection and support of breastfeeding has also been prioritised in a number of policy documents, including the NDoH Roadmap for Nutrition in South Africa 2013–2017;<sup>28</sup> the National Strategic Plan for Maternal, Newborn, Child and Women's Health and Nutrition 2012–2016;<sup>29</sup> and the National Health Promotion Policy and Strategy 2015–2019.<sup>30</sup> Nutrition also featured in the National Development Plan (NDP), focusing on the wellbeing of women and children and on interventions during the first 1 000 days of life, with breastfeeding as key to attaining development outcomes in the country.<sup>31</sup>

### Some lessons learned

The benefits of breastfeeding are increasingly emphasized throughout the world in scientific literature. During pregnancy most women express the desire to breastfeed. It has to be established what influences women to not breastfeed or to stop breastfeeding in the early postpartum period. Factors affecting breastfeeding are economic factors; advertising and commercial printing; the example set by the higher socio-economic group; changing values and status symbols; competing ideologies; perceived milk insufficiency; cultural preference for fat babies; availability of support; impact of health education; hospital policies; lack of support in the first critical days and lack of confidence. There is a trend away from breastfeeding with serious health implications and we therefore have a responsibility to promote breastfeeding. Strategies include research; assistance for working women; restrictions on the promotion of milk formulas; counselling; training of health personnel; changes in hospital routines; a national project to promote breastfeeding and a support system in low socio-economic areas.<sup>32</sup>

The above quotation could have appeared in a 2016 publication on breastfeeding in South Africa, but this summary was published in 1984 in an article titled "Breastfeeding in South Africa: Social and Cultural Aspects and Strategies for Promotion".<sup>32</sup> Three decades later, the determinants affecting breastfeeding, interventions needed for change, and the subsequent outcomes and practices, remain virtually unchanged. Reasons for this serve as lessons to inform future practice.

In 2008, South Africa was classified as one of 36 countries with the highest global prevalence of unsatisfactory birth outcomes, such as intra-uterine growth restriction, childhood stunting and underweight.<sup>28,33</sup> This was despite the implementation of various nutritional interventions, most notably those guided by the NDoH's Integrated Nutrition Programme (INP).<sup>34–36</sup> It was acknowledged that nutrition remained under-prioritised in the country, especially in the revised primary health care (PHC) approach, despite the PHC purview of the INP.<sup>28</sup> Some of these deficiencies are discussed below in relation to general government-led programmes.

In the 2008 *South African Health Review*, Swart et al. examined nutritional trends in South Africa during the period from 1994 to 2008, in relation to nutrition-related services and the PHC

principles inherent in the country's health system.<sup>37</sup> Inadequate capacity was identified as a key factor contributing to the poor implementation of such nutrition services. Insufficient capacity was found at various essential levels, such as information-management, programme, strategic, technical and operational levels, and was identified as having directly hindered progress in IYCN. Swart et al. recommended that capacity be developed among trained staff across a range of various specialities or roles, using both pre- and in-service training. The report further recommended the prioritisation of certain key nutritional interventions in order to facilitate greater impact through a more focused and unified approach, rather than diluting the pool of resources in an attempt to focus on too wide a range of interventions.<sup>37</sup>

In 2009, a landscape analysis was undertaken in South Africa to identify primary problem areas in the progress towards effective implementation of nutritional intervention strategies.<sup>38</sup> The findings were encouraging, suggesting that South Africa does in fact possess the ability and resources to implement pivotal nutritional interventions targeting maternal and child under-nutrition. However, challenges to operationalising these resources were found to lie in ineffective policy and programme implementation. The report specifically identified policy and implementation inadequacies in terms of budget allocations, human resources, inter-sector collaboration, and nutritional surveillance systems to monitor and evaluate interventions and influence decision-making. In terms of implementation, there was poorer commitment and capacity at provincial than national level.<sup>38</sup>

The findings of an independent report prepared for the Department of Performance Monitoring and Evaluation (DPME) in 2014, "Evaluation of Nutrition Interventions for Children from Conception to Age 5 in South Africa",<sup>36</sup> supported the national reports and evaluations previously discussed. These findings indicate that there is still a poor rate of progress regarding nutritional outcomes, which has led to a lack of progress in improving child mortality and morbidity in the country. As a result, South Africa showed delayed progress in achieving its Millennium Development Goals (MDGs) by 2015 (specifically MDGs 4 and 5 relating to child mortality and maternal health), and ultimately failed to achieve them. Although there are policies, strategies and regulations within the relevant individual departmental portfolios regarding nutrition intervention (i.e. within the Departments of Health; Social Development; Agriculture, Forestry and Fisheries; and Rural Development and Land Reform), there is an indication of uneven commitment to nutrition across these departments, evidenced in differing degrees of investment in the allocation of budget, staff, planning, management and leadership.<sup>36</sup> The core finding of the DPME report also indicates that there is an overall lack of capacity, including systemic, organisational and individual capacity, to address the IYCN problems adequately in the country.

## Key determinants of breastfeeding in South Africa

Existing evidence suggests that numerous factors play a role in determining choices that women make regarding breastfeeding. Kent's<sup>39</sup> 'nested rings of responsibility' indicate these levels of influence, which include the mother, the family, the community, hospitals, work-places, employers, business, industry, the media,

health services, and the State authority or local government in charge of policies.<sup>39</sup> These different role-players can assist in creating an enabling environment for successful breastfeeding. Accordingly, we reviewed the existing literature to identify documented local determinants and interventions in an attempt to understand what hinders or facilitates South African breastfeeding practices. We also drew on the evidence from the Lancet Breastfeeding Series (2016)<sup>1</sup> to supplement our findings.

### The mother, family and community

A woman's breastfeeding behaviour is influenced by personal attributes (age, weight, education level, confidence, baby's gender, baby's wellbeing, and baby's temperament).<sup>1</sup> Breastfeeding involves an intimate relationship between mother and baby, as the two interact constantly. The mother internalises her influence on the baby, notably whether the baby is satisfied and content with breast milk.<sup>1</sup>

A study by Sibeko et al.<sup>40</sup> showed that women choose to breastfeed because they believe it is better for infant growth and health. Reasons that women do not breastfeed exclusively include fears about milk insufficiency and reduced milk production, due to the perception that the infant is hungry<sup>41-43</sup> or that the infant is not receiving optimal nutrition. Bland et al. noted that the overarching concern of mothers was the infant not being adequately fed and therefore remaining unsatisfied when drinking breast milk only.<sup>42</sup>

Community dialogues conducted in KwaZulu-Natal in 2013 as part of community engagement to ascertain barriers to EBF in the first six months of life highlighted the influence of the community and elders, especially grandmothers, in this regard.<sup>a</sup> The reasons for women not breastfeeding were explored in another series of community dialogues, also conducted in 2013, which aimed to identify barriers to the uptake of antenatal care and prevention of mother-to-child transmission (PMTCT) in three rural provinces in South Africa.<sup>b</sup> The findings revealed a negative perception of breastfeeding among younger women and girls. Lack of knowledge, desire for social acceptance, and pressure to maintain an ideal body shape, fuelled negative attitudes and perceptions in this age group. According to the participants, women lacked information and therefore did not understand the benefits and importance of breastfeeding.<sup>b</sup> In the North West Province, young female participants spoke about the possibility of breastfeeding damaging their bodies, making them "too slim" and flattening their breasts. Some women wanted to breastfeed in order to lose weight. Others did not want to breastfeed so that they would not lose weight. Evidence from a study by Shah et al.<sup>44</sup> also highlights concerns about body shape. Women who had not achieved their desired weight loss from breastfeeding chose not to breastfeed.<sup>41</sup> Across all age groups, women also claimed to have insufficient breast milk to breastfeed exclusively for six months.<sup>41,42</sup>

Traditional and cultural factors are strong determinants of breastfeeding in South Africa. In the Northern Cape, traditional medicines are believed to prepare the baby for dentition and to protect against witchcraft. In Limpopo Province, a traditional dish called *tshiunza*, made from maize and roots, and fermented to form a soft sour porridge, is given immediately after birth and promoted by grandparents. This food is believed to provide babies with energy

a Personal communication: Lenore Spies, Integrated Nutrition Programme, Department of Health, KwaZulu-Natal.

b Personal communication: Elise Levendal, Researcher, Health Systems Trust, 26 March 2016.

to grow well and to assist them in passing stools since breast milk is believed to be insufficient for infants.<sup>45</sup> In some cultural settings in South Africa, mixed feeding, including complementary foods, begins within one month of birth.<sup>41,42</sup>

Poor breastfeeding technique (poor latching/attachment and positioning) are known to predispose women to breast health problems, namely mastitis, sore or cracked nipples and breast engorgement.<sup>41</sup> These conditions interfere with the success and duration of breastfeeding practice during the first six months, especially among women with sub-clinical mastitis. The conditions can also increase the risk of postnatal HIV transmission in HIV-infected women.<sup>46</sup> One study showed that if women had sore nipples they felt less confident in their ability to breastfeed, and were therefore less likely to choose breastfeeding.<sup>41,47</sup>

Other factors related to the individual are also reported. Women who had increased exposure to media messages<sup>41</sup> were more likely to stop breastfeeding, and women who had completed schooling were more likely not to breastfeed.<sup>40</sup> Bland et al.<sup>41</sup> reported on the use of trained lay counsellors in their study, which was designed to improve breastfeeding practices in HIV-positive and -negative women living in a high HIV-prevalent area with previously low EBF rates. The study showed that women with better socio-economic status were more likely to stop breastfeeding at 16 weeks, and single women were also more likely to stop breastfeeding.<sup>48</sup> Prior breastfeeding experience has also been found to impact on current practices; women who did not have a positive experience with their first baby were less likely to breastfeed their second child.<sup>40</sup>

The mental health of the mother also plays a part in breastfeeding. Stress and anxiety can contribute to depression.<sup>49,50</sup> Perinatal depression is associated with infant under-nutrition, which may be mediated through several separate or concurrent mechanisms.<sup>51</sup> Depressive symptoms, such as poor concentration, lethargy, sleep disturbance and low mood, can play a role in initiating and maintaining EBF for the first six months.<sup>51</sup> A study in Pakistan demonstrated that depressed mothers were more likely to perceive their milk supply as being insufficient, despite this not objectively being the case from quantity measurements; and depressed mothers were more likely to initiate early cessation of breastfeeding. These findings are particularly pertinent for South Africa, given the high rates of perinatal depression, ranging from 35%–47%, reported in diagnostic studies.<sup>52,53</sup> Newborn weight loss has been associated with milk-supply concern and maternal anxiety,<sup>54</sup> and in India, maternal anxiety was found to be an independent risk factor for non-adherence to EBF at six months.<sup>55</sup> Although there is a paucity of data on maternal anxiety in South Africa,<sup>56</sup> rates are likely to be substantial given the co-morbidity between the two common perinatal mental disorders<sup>57</sup> and the high lifetime prevalence rate (15.8%) for any anxiety disorder nationally.<sup>58</sup>

Mental health problems, together with the effects of poor maternal nutrition, including obesity and under-nutrition, have been found to contribute to unsuccessful breastfeeding.<sup>59</sup> In contrast, a cluster randomised-controlled trial showed that peer mentoring support for HIV-positive mothers reduced depressive symptoms and increased the likelihood of EBF for at least six months.<sup>60</sup>

Breastfeeding in public is not adequately supported in policy, the media or in general society. The Normalise Public Breastfeeding in South Africa (NPBSA) lobby group reports that women are

reluctant to breastfeed in public because of fear of being mocked and shamed. Breastfeeding in public is not seen as 'normal'; this has resulted in incidents where women have been escorted out of shops for breastfeeding in public.<sup>61</sup>

The community dialogues conducted in 2013 revealed that there was some confusion with regard to breastfeeding recommendations for HIV-positive mothers.<sup>b</sup> Participants spoke about their difficulty in determining the risks and rewards of practising breastfeeding if they were HIV-positive. In Mpumalanga Province, all participants, including women of childbearing age, men and family members, reported that breastfeeding posed a dilemma for HIV-positive mothers. They often adopted mixed feeding patterns, specifically formula milk in private and breastfeeding in public, to avoid embarrassment when people asked if they were not breastfeeding because they were HIV-positive.<sup>62</sup> Furthermore, for women regardless of HIV status, the practice of expressing breast milk and storing it for the baby to feed on when the mother was absent was uncommon, as grandmothers, mothers and nannies were assigned to look after the babies.<sup>b,40,45</sup> These caregivers determined their own methods of formula feeding. Some of the participants also reported mixed feeding and giving babies solid food earlier than the recommended age.

## Health systems and services

### Human resources: numbers and capacity

Studies show that pregnant women are given advice on infant-feeding choices mostly by healthcare staff, which emphasises the important role that healthcare workers play in influencing mothers' decisions.<sup>40–43</sup> Fathers, mothers-in-law, aunts and other family members are also mentioned as providing IYCF advice.<sup>40–43</sup> In a study by Davies that investigated how informed literate mothers were about their infant-feeding options, 80% of mothers made decisions based on information provided to them by healthcare workers.<sup>48</sup>

A notable obstacle hindering breastfeeding progress is the lack of human resources to implement nutrition interventions. In the study by Davies, 67% of healthcare workers indicated that insufficient staff members were stationed at PMTCT sites, and only 53% had been shown how to use feeding-option cards when counselling mothers. Healthcare workers also reported that more educational materials were needed. This staff shortage has been indicated in several evaluations and reports, with accompanying recommendations for the institution of a national human-resource strategy for public health, as well as recommendations for a national audit of the nutrition and nutrition-related workforce.<sup>37,63,64</sup> These recommendations have not been adequately addressed thus far.

### Staff: knowledge, skills and attitudes

In 2013, Kassier and Veldman reported that some health workers were still not convinced that breastfeeding is advantageous, even in the case of HIV-negative mothers, and that staff lacked the necessary lactation-management knowledge and skills.<sup>47</sup> Davies<sup>48</sup> found that 65% of the health worker respondents indicated that it was possible to take a neutral stance in a counselling session, regardless of the health worker's personal preference for infant feeding, and 60% of those who could not maintain neutrality in this regard nonetheless believed that it was in the mother's best interests to be counselled by

them. Ninety-eight per cent of these respondents agreed that mothers had the right to make informed decisions, and 80% agreed that mothers were able to make such decisions. Between 49% and 82% of the healthcare workers knew the correct answers to knowledge questions relating to breastfeeding, and between 37% and 56% knew the correct answers to knowledge questions relating to formula feeding. Not one healthcare worker participating in the study knew all the steps involved in preparing a formula feed. In the same study, 14% of the healthcare workers indicated that what was expected of them was not achievable in their working environment.<sup>47</sup> These findings underscore the need for ongoing training and retraining of healthcare workers,<sup>43</sup> including specific HIV and breastfeeding training and supervision.<sup>65</sup>

Tuthill et al. offer qualitative evidence of health workers claiming that the transition from the prior policy of warning HIV-infected mothers against breastfeeding and the subsequent promotion of breastfeeding with ART coverage was difficult because of the conflicting messages. They felt that as a result of these changes, patients no longer trusted the health workers' guidance.<sup>62</sup>

Insufficient and poor counselling by health professionals and lack of health worker knowledge regarding the impact of HIV were also contributory factors for early cessation of breastfeeding.<sup>65</sup> One study reported poor health worker knowledge and gaps in knowledge, which were evident because health workers recommended that mothers feed their babies with water, formula and solids rather than encouraging the women to practise EBF.<sup>44</sup>

### Baby-Friendly Hospital Initiative

The Baby-Friendly Hospital Initiative (BFHI) was launched by the World Health Organization and the United Nations Children's Fund (WHO/UNICEF) in 1991 as a 10-step model. This model should be implemented in public birthing facilities to protect, promote and support breastfeeding, thereby creating an enabling environment for breastfeeding as the optimal infant-feeding choice.<sup>66,67</sup>

In South Africa, the BFHI has been renamed the 'Mother-Baby-Friendly Initiative' (MBFI) to stress the importance of the initiative in reducing both infant and maternal morbidity and mortality, and also to shift the focus from the sole context of the hospital setting.<sup>68</sup> In Mpumalanga Province, early initiation of breastfeeding and EBF were found more often in a sub-district where all public health maternity facilities were baby-friendly than in a sub-district where none of the facilities was baby-friendly. The study concluded that the MBFI appeared to be successful in improving infant-feeding practices for at least the first six months of life.<sup>39</sup> MBFI has received much attention since the Tshwane Declaration, which called for all public hospitals and health facilities to be accredited as 'mother-baby-friendly' by 2015. Private birthing facilities are also targeted to become MBFI-accredited and to implement the Ten Steps to Successful Breastfeeding<sup>69</sup> in the private medical care environment. Although there has been progress in this regard, this process has not yet been implemented and monitored optimally in all South African public and private birthing facilities.

A voluntary organisation, La Leche League South Africa, provides information, encouragement and support to women who want to breastfeed, through their unique mother-to-mother support network. La Leche League South Africa is active on governmental and NGO bodies working for the promotion and protection of breastfeeding

in South Africa; it also facilitates UNICEF-designed lactation-management training workshops and a peer-counselling programme for volunteers largely from disadvantaged communities to work as breastfeeding counsellors.<sup>70</sup> This organisation acts on step 10 of the BFHI, which has been described as one of the most difficult and neglected steps, namely: "to foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic".<sup>70</sup>

### Workplace and employment

Low-cost interventions in the workplace, including lactation rooms and nursing breaks, have been shown to reduce absenteeism and improve work performance, commitment and retention among female staff, and paid maternity leave can increase EBF practice substantially.<sup>1</sup>

Specific legislation in South Africa's Constitution,<sup>71</sup> Labour Relations Act,<sup>72</sup> Employment Equity Act,<sup>73</sup> and Basic Conditions of Employment Act<sup>74</sup> protect women from discrimination related to pregnancy and hazardous working circumstances, and regulate maternity leave. Women in South Africa are entitled to maternity leave of up to four months, but with the exception of government service and some large companies this is mostly unpaid leave, making babies of women working in other sectors vulnerable to suboptimal feeding and care practices.

The Tshwane Declaration specifically resolved that legislation be reviewed to protect and extend maternity leave for all workers, and to include an enabling workplace. This resolution is yet to be addressed, leaving a void in the protection of economically active mothers and their babies.

### Industry and marketing

Globally, marketing strategies for infant formula are effective and the retail value of the formula industry is growing. It is therefore important to have inclusive national laws and regulations to restrain inappropriate marketing practices. Adequate monitoring and meaningful penalties to protect breastfeeding should also be put in place. The Code of Marketing of Breast-milk Substitutes and other foodstuffs for infants and young children, was legislated in South Africa in December 2012.<sup>27</sup> The impact of this legislation on stakeholder compliance and on breastfeeding practices in South Africa should be assessed in the near future.

### The media

It has been noted that the South African government uses mass media infrequently for dissemination of nutrition policy messages, which is problematic in the light of intensive marketing of non-nutritious food by food companies. A recommendation from an evaluation report on services to children under five was that the NDoH should create a dedicated health-promotion strategy on nutrition for these children, as was done for HIV and AIDS. Television and radio should be used to educate pregnant women and mothers with children younger than five years about the importance of good nutrition. The use of celebrities to promote breastfeeding has also been proposed to elevate the status of breastfeeding.<sup>36</sup>

There is also considerable potential benefit in promoting and supporting breastfeeding through social media. Examples are the La Leche League Facebook page where mothers can pose questions and be supported, and MomConnect.<sup>75</sup>

## The State authority or local government in charge of policies

Evidence from South African studies show that it is very difficult for mothers to sustain EBF because of various factors, alone or combined, that may obstruct this practice.

Less than 0.3% of the national health budget is allocated to nutrition, including breastfeeding interventions. Priority nutrition interventions are not necessarily receiving an appropriate proportion of the nutrition budget; this has prompted a call to evaluate the proportion of funds actually spent on high-priority interventions of this kind in terms of returns on the nutrition-funding investment.<sup>28</sup>

## Interventions targeting breastfeeding

In this section we interrogate evidence on interventions to improve breastfeeding and reflect on the extent to which interventions with a strong evidence base are prioritised within local strategies, guidelines and policies. The section is structured to present findings from studies that compiled evidence from systematic reviews drawn from an international literature base, plus findings from a review that interrogated evidence drawn only from LMICs and that only included studies considered to be strong methodologically.

One of the *Lancet* 2016 Breastfeeding Series papers<sup>1</sup> reported on the effects of breastfeeding interventions in various settings.<sup>59,76</sup> Findings were presented according to the following categories: health systems and services; family and community; and workplace and employment. In the health systems setting, several interventions were included in the Baby-Friendly Hospital Initiative (BFHI), namely individual counselling or group education, immediate breastfeeding support at delivery, and lactation management affecting breastfeeding rates. These interventions increased EBF by 49% (relative risk (RR)=1.49; 95% confidence interval (CI):1.33–1.68), and any breastfeeding by 66% (RR=1.66; 95% CI:1.3–2.07). Counselling and education increased EBF by 66% (RR=1.66; 95% CI:1.43–1.92), and any breastfeeding by 47% (RR=1.47, 95% CI:1.29–1.68).<sup>1,59,76</sup>

In the family and community setting, the *Lancet* series presents a meta-analysis of interventions providing both antenatal and postnatal support to mothers, fathers and other family members at home; these included community health workers and peer-to-peer counsellors. The latter refers to counselling by a nurse, trained lactation counsellor, or other health provider. This support was extended to post-discharge telephone calls combined with home visits. Fathers were specifically targeted individually and also in group counselling sessions. The results showed that home and family-based interventions were effective in improving EBF (RR=1.48; 95% CI:1.32–1.66), continued breastfeeding (RR=1.26; 95% CI:1.05–1.50), any breastfeeding (RR=1.16; 95% CI:1.07–1.25), and improved early initiation of breastfeeding (RR=1.74; 95% CI:0.97–3.12).<sup>1,59,76</sup>

Antenatal and postnatal combined counselling was more effective than targeted counselling during one period only. Community-based interventions consisting of counselling or education and social mobilisation, with or without mass media, increased timely breastfeeding initiation by 86% (95% CI:33–159) and EBF by 20% (95% CI:3–39).<sup>1,59,76</sup>

In the workplace setting, the minimal data available suggest that maternity leave policies are effective in increasing EBF by 52% (RR=1.52; 95% CI:1.03–2.23). A global study did a multivariate analysis on the relationship between national policies and EBF rates.<sup>77</sup> In multivariate models, national policies guaranteeing paid breastfeeding breaks until the child was at least six months old were associated with significantly higher rates of EBF. This guarantee generated an increase of 8.9% in the rate of EBF of infants younger than six months ( $P<0.05$ ) in the full model. Also, lactation rooms and breaks to express breast milk increased breastfeeding until the child was six months old by 25% (95% CI:9–43).<sup>1,59,76</sup>

What is clear from this and other related systematic reviews<sup>76,78</sup> is that multiple interventions are more effective than single interventions, and that two or more actions (a mixture of interventions) were most effective in improving any breastfeeding and EBF rates.

A literature review<sup>79</sup> was done on public health interventions in LMICs that improve maternal, neonatal and child morbidity and mortality outcomes within the first 1 000 days of life in order to identify a range of interventions. The objectives were to assess the strength of the evidence supporting the effectiveness of the different interventions, to assess their alignment with current South African policies and guidelines, and to determine whether related gaps exist. The group sought to confirm whether all these interventions with a strong evidence base were used to inform local strategies, policies and guidelines, and if so, to determine the degree to which these interventions were incorporated into local documents and promoted in practice. A systematic five-phased process was followed, including an exhaustive search strategy covering a wide range of databases, the application of rigorous quality-assessment criteria, and assessment of applicability in South Africa through studying key local strategies, policies and guidelines. With regard to breastfeeding, the relevant LMIC interventions were: (1) antenatal breastfeeding education; (2) breastfeeding support; (3) breastfeeding promotion; and (4) Kangaroo Mother Care (KMC). These are detailed in the following section.

While interrogating existing strategies, policies and guidelines, it became clear that despite widespread commitment to promoting appropriate breastfeeding practices, South Africa has failed to incorporate specific evidence-based interventions in our strategies. No document exists that lists the various options 'in one place', presents the 'how' of implementation, or provides options that enable multiple approaches to be adopted by nurses. Such failures could exacerbate the incapacity of staff in terms of breastfeeding promotion and support at the coalface. Furthermore, understanding of local determinants, such as cultural and traditional practices, is not explicitly incorporated into these guidelines.

## Evidence from a review of breastfeeding interventions in low- and middle-income countries

### Antenatal breastfeeding education

In 2011, Lumbiganon et al.<sup>80</sup> did a systematic review to explore the effectiveness of antenatal breastfeeding education in increasing breastfeeding initiation and duration. One study in the review compared peer counselling with routine care (that was not defined) and showed a significant increase in the initiation of breastfeeding in the intervention group (RR=1.82; 95% CI:1.13–2.93).

Another study compared a breastfeeding booklet-plus-video-plus-lactation consultation versus a breastfeeding booklet-plus-video. The results at six months showed a significant increase in EBF in the group receiving a booklet-plus-video-plus-lactation consultation compared with the other group (RR=2.23; 95% CI:1.01–4.92). This study also measured a programme involving multiple methods versus no formal education, namely a breastfeeding booklet-plus-video-plus-lactation consultation versus no formal breastfeeding education. The results showed a significant increase in EBF at three months in the group that received a breastfeeding booklet-plus-video-plus-lactation consultation compared with the other group (RR=2.02; 95% CI:1.16–3.49).

### Breastfeeding support

A 2007 systematic review conducted by Britton et al.<sup>81</sup> assessed the effectiveness of support for breastfeeding mothers. The target group consisted of pregnant women who intended to breastfeed. The results showed that all forms of extra support analysed together gave an increase in duration of 'any breastfeeding' (RR=0.91 for cessation of any breastfeeding before six months; 95% CI:0.86–0.96). All forms of extra support had a greater effect on the duration of EBF than on any other form of breastfeeding (RR=0.81; 95% CI:0.74–0.89). Joint lay and professional support extended the duration of any form of breastfeeding significantly (RR=0.65 for cessation before 4–6 weeks; 95% CI:0.51–0.82; and RR=0.74 before two months; 95% CI:0.66–0.83). Finally, EBF was significantly prolonged with use of WHO/UNICEF training (RR=0.69; 95% CI:0.52–0.91).

### Breastfeeding promotion

A 2013 systematic review by Haroon et al.<sup>78</sup> reported on breastfeeding promotion interventions and breastfeeding practices by comparing breastfeeding education or support with routine care. The effect of interventions was observed for exclusive, predominant, partial and no breastfeeding rates. Statistically significant increases in EBF rates as a result of breastfeeding promotion interventions were observed: 43% at day 1, 30% at <1 month, and 90% at 1–5 months. Rates of no breastfeeding reduced by 32% at day 1, by 30% at <1 month, and by 18% at 1–5 months.

### Kangaroo Mother Care

The 2012 systematic review by Conde-Agudelo et al.<sup>82</sup> covered 16 randomised controlled trials (RCTs) focused on low-birth-weight neonates and demonstrated that Kangaroo Mother Care (KMC) in preterm neonates was associated with a 40% reduction in the risk of mortality, a 58% reduction in nosocomial infection or sepsis, a 77% reduction in prevalence of hypothermia, and a reduced length

of hospital stay. At follow-up, they found that KMC was associated with a decreased risk of mortality and severe infection/sepsis. Lastly, KMC was found to increase some measures of infant growth, breastfeeding, and mother–infant attachment.

In 2012, Moore et al.<sup>83</sup> did a systematic review of 34 RCTs and showed that early skin-to-skin contact in KMC produced a significant (27%) increase in breastfeeding at 1–4 months of age (RR=1.27; 95% CI:1.06–1.53), and increased duration of breastfeeding (mean difference (MD) 42.55 days; 95% CI:–1.69–86.79), which had borderline significance.

Evaluation of the nutrition interventions cited in this chapter showed that KwaZulu-Natal and the Western Cape were the leading provinces in terms of improved breastfeeding rates and nutritional outcomes in South Africa.<sup>36</sup> Central success factors were the interventions being province-led, and intentional key stakeholder engagement. The success factors are presented in Table 2.

Table 2: Progress in improved breastfeeding rates and nutritional outcomes in South Africa – central success factors for KwaZulu-Natal and Western Cape Provinces

<b>KwaZulu-Natal process – initiative for breastfeeding support<sup>36,84</sup></b>
<b>Strategic approach to improving breastfeeding and IYCN through engaging in specific tasks in a defined time period</b>
KwaZulu-Natal Province (KZN) has placed the Nutrition Department at the highest level, and the Premier has launched Operation Sukuma Sakhe (OSS), an inter-departmental co-ordination mechanism, with nutrition as a key element. OSS task teams are extremely effective in co-ordinating delivery. When compared with the other provinces, KZN has a more balanced budget allocation for nutrition in proportion to the province's prevalence of child stunting.
<b>Nutrition indicators</b>
A monitoring and evaluation (M&E) reporting system has been established in all departments, resulting in more nutrition indicators being reported on than in other provinces. Two indicators were added to the District Health Information System (DHIS) in April 2011: early breastfeeding initiation (one hour of birth) and EBF at 14 weeks.
<b>Nutrition advisors</b>
The University of KwaZulu-Natal (UKZN) is currently training former community caregivers (CCGs) in nutrition and skills to provide nutrition support and non-clinical interventions at clinic level. KZN also has a strong community-based service delivery model.
<b>Progress in the province</b>
District management advocacy has been facilitated for policy support and training, and a communication strategy has been developed, including an accelerated plan for implementation of MNCWH and nutrition interventions at community level.
A breastfeeding culture has been created through the communication strategy, including radio and print messaging and participation in the annual World Breastfeeding Week.
Capacity-building for breastfeeding has been instituted at all levels within the health care system, including community caregivers and employment of nutrition advisors at all PHC facilities.
<b>Results:</b>
In 2012, the EBF rate was 34.3% at 14 weeks.
Early initiation of breastfeeding increased from 26% in 2011/12 to 81.60% in 2014/15.
The rate of 'Infant exclusively breastfed at Hep B 3rd dose' increased from 34% to 49.8%. <sup>86</sup>
Ongoing strategies to improve IYCF include:
<ul style="list-style-type: none"><li>• Extension of the Mother-Baby-Friendly Initiative to community health centres (CHCs) and PHC centres</li><li>• Establishment of breast-milk banks</li><li>• Media messaging (including social media)</li><li>• Expansion of health facility support, including lactation advisors</li><li>• Mentoring and support for healthcare workers</li></ul>

### Western Cape process<sup>85</sup> – breastfeeding support, promotion and programmes

The Mother-Baby-Friendly Initiative (MBFI) has been implemented in 94% of the public birthing units in the Western Cape Province.

Implementation of the MBFI requires that practices in the birthing unit be reviewed to remove obstacles hindering the establishment of breastfeeding. This includes setting standards (the national standardised training package for clinical staff), educating mothers (provincial infant-feeding education package), and standardising practices (comprehensive infant-feeding policy available in all accredited units).

The Western Cape Provincial DoH has created sentinel sites for the breast-milk banks and drafted guidelines for the management of expressed breast milk (to be submitted this year for approval).

#### Implementation of guidelines and policies:

- Mother-Baby-Friendly Initiative implementation in public health birthing facilities
- Infant feeding counselling guidelines to guide counsellors (or healthcare workers) in supporting mothers to make informed infant-feeding choices
- Infant formula on prescription according to set criteria. This has worked to reduce the use of infant formula through strengthening the criteria and supporting informed decision-making.

#### Breastfeeding Peer-Counselling Programme (BPCP)

- Non-profit organisations are funded by sub-districts to place breastfeeding peer counsellors (BFPCs) at midwife obstetric units and basic antenatal care sites in the Metropole district. BFPCs are capacitated to deliver peer-to-peer counselling and are trained in a 20-hour or updated national breastfeeding course.
- The BFPCs are tasked with educating pregnant women on the infant-feeding education package, supporting mothers without companions (when they can) and supporting (and educating) postnatal women on breastfeeding and its management.
- Part of the BFPCs' function is also to foster the establishment of community support groups, but this has been difficult to implement and they are consequently facility-based counsellors.

#### Educating community health workers:

- Community health workers are trained in infant feeding as part of the implementation of MBFI in order to foster support for mothers once they have been discharged from the birthing unit.
- Messages around IYCF are standardised in both facility-based programmes and community-based programmes.

#### Media messages:

- The Western Cape has standardised key messages through provincial documents, initiatives and policies. The First 1 000 Days campaign will incorporate a communication strategy.

#### Lactation consultants:

- Some units are staffed with lactation consultants who volunteer in the birthing units, but this is not uniform through the province.

The Western Cape Department of Health's breastfeeding policy has been published and advocates for maternity legislation for women. The policy is in the process of being implemented. Health facilities are voluntarily establishing 'comfort rooms' for staff members that can be utilised as a space to express breast milk.<sup>85</sup>

assigned to recruit pregnant women at their sites to participate in the study. Prevalence of EBF at 12 weeks in the intervention cluster was about twice that in the control cluster, whether based on a 24-hour (PR=1.72; 95% CI:1.12–2.63) or seven-day (PR=1.98; 95% CI:1.30–3.02) recall of feeding practices. The prevalence of EBF was lower at 24 weeks of age than at 12 weeks, but the differences (prevalence ratios) were higher for 24-hour (PR=5.70; 95% CI:1.33–24.26) and seven-day (PR=9.83; 95% CI:1.40–69.14) recall of feeding practices.

### Lay counsellors trained to conduct home visits<sup>41</sup>

Lay counsellors visited women to support EBF four times antenatally, four times in the first two weeks postpartum, and then fortnightly up to six months. Daily feeding practices were recorded at weekly intervals by separate field workers. Counsellors were trained on the WHO/UNICEF HIV and Infant Feeding Counselling Course and supervised for quality control. Using 24-hour recall, EBF rates at three and five months were 83.1% and 76.5% respectively in HIV-negative women and 72.5 and 66.7% respectively in HIV-positive women. Counselling visits were strongly associated with adherence to cumulative EBF at four months. Women who had received the scheduled number of visits were more than twice as likely to maintain EBF than those who had not (HIV-negative women: odds ratio (OR)=2.07; 95% CI:1.56–2.74), HIV-infected women: adjusted OR: 2.86; 95%; CI:2.13–3.83).

### Good Start<sup>87</sup> – integrated community-based package for maternal and newborn care

CHWs were trained to provide counselling. In the intervention cluster, CHWs were trained over 10 days and implemented the intervention through a structured home-visiting programme consistent with existing PMTCT, Integrated Management of Childhood Illness (IMCI), lactation counselling, and newborn care guidelines. Women in the intervention arm were scheduled to receive seven home-based visits: two during pregnancy and one within 48 hours of delivery, during days 3–4 and 10–14, and during weeks 3–4 and 7–8. The results showed that the EBF prevalence rate at 12 weeks increased in the intervention group compared with the control group (RR=1.92; 95% CI:1.59–2.33). The intervention appeared to have a slightly more significant effect among HIV-negative mothers (RR=2.16; 95% CI:1.71–2.73).

## Notable local studies

The following community-level projects providing various forms of breastfeeding support have yielded promising results.

### PROMISE-EBF<sup>86</sup> – Individual home-based exclusive breastfeeding peer counselling

Peer counsellors provided breastfeeding support in intervention clusters. They provided one antenatal breastfeeding peer-counselling visit and four post-delivery visits. The intervention involved mothers receiving infant-feeding peer counselling, while in the control group, peer counsellors assisted mothers with obtaining social grants. The focus of the intervention was to provide community-level support. Women from the respective communities were selected and trained to provide counselling, and were supervised. Peer counsellors were

## Key recommendations

The evidence presented in this chapter indicates that successful protection, promotion and support of breastfeeding requires a multi-layered, multipronged approach across the various levels of government and society.<sup>1,2,12</sup> In order to create an enabling environment for breastfeeding in South Africa, the different strata in society that influence breastfeeding practices should be considered within the definition of an enabling environment for nutrition interventions. Three linked elements of an enabling environment, namely knowledge and evidence; politics and governance; and capacity and resources,<sup>88</sup> should be the main focus at all levels of impact<sup>1</sup> and should be addressed in South Africa as a matter of urgency. This approach was also proposed in the *Lancet Series on Breastfeeding*,<sup>1</sup> and our recommendations are modelled to align with the action points in the Series.

## Knowledge and evidence

### Dissemination of evidence

Evidence on breastfeeding and its significant impact on national health and development should be vigorously disseminated. There is often a lack of understanding among programme managers, policy-makers, scientists, healthcare workers and communities about the significance of good national breastfeeding practices in the achievement of the SDGs, as well as the benefits for both women and children. Therefore, broad promulgation of such evidence is necessary for the successful promotion, protection and support of breastfeeding.

### Promotion of a culture of breastfeeding

A positive attitude towards breastfeeding in society should be engendered, with specific focus on addressing local beliefs and practices that are contrary to the promotion of good practices. The move to promote breastfeeding as a high-value practice should be achievable in today's milieu of mass social marketing and innovative communication formats. Also, existing resources should be used and shared, for example the well-packaged information in the documents developed for the launch of the *Lancet Series on Breastfeeding*.<sup>89</sup>

## Politics and governance

### Political will

Politicians working in all sectors (not only health) that affect YCF need to understand and appreciate the role that breastfeeding plays in reducing mortality and saving money on a national scale. National commodity-based interventions such as the promotion and use of drugs and vaccines tend to secure official support because they are comparatively easy to monitor and evaluate, and they dovetail with the interests of the commercial sector, whereas the promotion of breastfeeding does not. However, breastfeeding has considerable positive impact in economic terms, including increased intelligence and thriving in children, which contributes to the country's gross domestic product (GDP), reduction in healthcare costs associated with reduction in non-communicable diseases in women and children, reduced morbidity and mortality from childhood infections, and a beneficial impact on the environment. These advantages should be entrenched in deliberations on the allocation of funding for the promotion, protection and support of breastfeeding. Furthermore, breastfeeding should feature prominently in health-related preventive programmes such as the prevention of non-communicable disease in women and children.

### Removal of societal and structural barriers

Political institutions should strive for the removal of societal and structural barriers to breastfeeding through application of their authority and power base. This is an obligation of democratically elected governments as custodians of the health and wellbeing of communities. Furthermore, the countries that have ratified the Convention of the Rights of the Child have a duty to promote, protect and support breastfeeding as an explicit action towards the protection of children and the promotion of their health.<sup>89</sup> South Africa is also obligated to uphold this right based on our Constitution. Societal and structural barriers to the right of working mothers to breastfeed

should be addressed through policy, legislation and systems of accountability in order to support breastfeeding in the workplace and to create an enabling environment for breastfeeding in general (as workplace policies will not impact mothers who are informally and self-employed). Furthermore, all maternity health services must be compliant with Regulation 27 and the MBFI.

### Regulation of the breast-milk substitute industry

Breast-milk substitutes are a multi-billion dollar industry, and without stringent enforcement, the legislated regulations will continue to be violated. Even 'subtle' marketing of breast-milk substitutes directly subverts the promotion of breastfeeding as the best possible IYCF practice. State commitment in enforcing regulations is a significant way in which the government can fulfil its obligations to the International Convention on the Rights of the Child, particularly in terms of ensuring "the survival and development of the child".

Although breastfeeding is not expressly mentioned in the SDGs, the improvement of breastfeeding interventions will contribute extensively to the achievement of the health, food security, education, equity, development and environmental SDG targets.<sup>91</sup> However, robust commitment and investment on a multi-sector scale, including all relevant nutrition stakeholders, must be established.

## Capacity and resources

### Tailoring of interventions to local needs

Sufficient capacity and resources of the appropriate type and level are crucial in considering what is needed to scale up efforts for breastfeeding. Adequate numbers of trained breastfeeding supporters (all healthcare staff, community health workers and volunteers) should be strategically placed and supervised in health facilities and communities for highest impact. The success stories from at least two provinces in South Africa, reported earlier, should be used as examples to build on. Existing policies and guidelines should be reviewed to determine the extent to which the recommendations:

- are evidence-based;
- are explicit to service providers in terms of what needs to be done to promote, protect and support breastfeeding;
- promote delivery of care by the most appropriate providers (e.g. facility-based health worker versus community health worker); and
- leverage existing resources such as community members and leaders who have been shown to influence the choices of breastfeeding women.

Lastly, there is a need for good-quality breastfeeding data to plan effectively for targeted interventions and appropriate monitoring and evaluation strategies. Standardised messages and explicit guidelines on breastfeeding practices should be incorporated into such interventions.<sup>68</sup>

## Conclusion

A review of the literature on breastfeeding in South Africa over the past few decades suggests that EBF practices have stagnated at around 8% for age six months. Since 2011, a display of high-level political commitment to promote, protect and support breastfeeding has resulted in important policy changes, including in the context of HIV, as well as legislation of the Code of Marketing of Breast-milk Substitutes in the form of Regulation 991. A number of policy documents have highlighted breastfeeding as a key child-survival strategy and also as an intervention that can substantially impact future health. There are now indications that over the past four years these commitments have had a positive effect on early (4–8 weeks) EBF rates in the country.

Multiple layers in society can impact IYCF and more specifically breastfeeding; these include the mother, the family, the community, hospitals, work-places, employers, business, industry, the media, health services, and the State authority or local government in charge of policies. Determinants of breastfeeding across these layers, and interventions internationally, in LMICs and locally that have been proven to work, were reviewed in order to establish which interventions with a strong evidence base are prioritised within local strategies, guidelines and policies and in different settings (i.e. the health systems and services, family and community, and workplace and employment). It is important to note that multiple interventions are more effective than single interventions, with a combination of interventions shown to be most effective in improving any breastfeeding and EBF rates. The range of interventions shown to have a robust evidence base included specific education of mothers and health workers, use of lay health workers, peer-counselling, provision of lactation support, involvement of the family, and ongoing support within the community, specifically in LMICs. However, not all these interventions have been implemented locally. Importantly, two provinces (KwaZulu-Natal and the Western Cape) are examples of high-level support; they have implemented specific interventions known to be effective, and have recognised the value of capacitating staff to deliver the interventions.

In South Africa, numerous policies, strategies and guidelines have been developed that show commitment to the promotion, protection and support of breastfeeding. However, what is clear is that to move forward, South Africa cannot merely promote breastfeeding as part of broader nutritional and PMTCT initiatives. Breastfeeding should receive sufficient prominence as a separate intervention that warrants time, effort and attention. Effective and efficient implementation of strategies and guidelines that have a strong inter-sector focus is paramount. What is required is a demonstration of concerted, co-ordinated effort to incorporate evidence into local strategies, guidelines and policies, and active promotion of these in practice. For South Africa to improve IYCN outcomes there has to be widespread commitment:

- to move well beyond paying lip service to the concept of inter-sector collaboration;
- to acknowledge that addressing service-related factors alone, including operationalisation of resources and improved policy and programme management, are not sufficient; and
- to agree that a better understanding of the local enabling environment is required in order for breastfeeding to succeed.

Some progress has been made, albeit slow and fraught with challenges. However, much still needs to be done to improve exclusive and continued breastfeeding rates in the country. Three linked elements of an enabling environment, namely knowledge and evidence; politics and governance; and capacity and resources,<sup>88</sup> should be the main focus at all levels of impact across society<sup>1</sup> and should be addressed in South Africa as a matter of urgency. Despite the fact that almost two decades of democracy have passed, the battle to attain good nutrition and breastfeeding outcomes continues.

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