Commitment and capacity for the support of breastfeeding in South Africa: a paediatric food-based dietary guideline

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Abstract

This paper aims to summarise current evidence and highlight best practices, in order to propose a paediatric food-based dietary guideline (FBDG) on exclusive breastfeeding for South Africa. A literature search was conducted to profile the current nutritional status of children and breastfeeding practices in South Africa, reflect on the commitment and capacity that has been pledged and built for exclusive and continued breastfeeding over the past five years, and highlight the action needed to improve infant and young child feeding practices in the country. From the review, it was clear that the nutritional status of children and breastfeeding practices in South Africa remain unsatisfactory. The evidence base supporting the importance of exclusive and continued breastfeeding on a global and local level has been broadened. There are comprehensive and practical international guidelines to guide the protection, promotion of, and support for breastfeeding. Comprehensive and sound national and provincial policies and guidelines have also been developed in South Africa. The political will to address infant and young child feeding has been advanced and demonstrated, and a supportive environment created through commitment and capacity building. There is a need for focused action addressing adequate monitoring and evaluation of processes during all stages of the implementation of evidence-based and theoretical planning. These actions should drastically improve exclusive and continued breastfeeding and advance the health and survival of children in South Africa. The recent momentum gained in support of improving infant and young child feeding could further be enhanced by the process of reviewing the preliminary South African paediatric FBDG and field testing the following proposed message: "Give only breast milk, and no other foods or liquids, to your baby for the first six months of life".

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Introduction

In the 2007 South African paediatric food-based dietary guideline (FBDG) technical support paper on breastfeeding, "The rationale for adopting current international breastfeeding guidelines in South Africa",[1] the authors highlighted the importance for the country of properly implementing the World Health Organization (WHO) guideline of "exclusive breastfeeding for six months, followed by the appropriate and adequate introduction of complementary foods at six months, with continued breastfeeding up to two years and beyond".[2]

More evidence and initiatives have emerged during the past five to six years to promote, support and protect exclusive and continued breastfeeding as the ultimate source of infant nutrition.

Kramer and Kakuma[3] explored the optimal duration of exclusive breastfeeding, a debate that has been termed "the weaning dilemma". They found no objective evidence for such a dilemma, and that exclusive breastfeeding for six months, as opposed to exclusive breastfeeding for 3-4 months, reduced gastrointestinal infection, aided maternal weight loss in the postnatal period and resulted in the delayed return of menses. There is no adverse effect on growth, but a reduced level of iron has been observed in developing country settings, a condition that can be rectified with delayed cord clamping[4] and maternal iron supplementation.[5] A Cochrane review from 2011[6] stated that there was no benefit to be derived from giving newborn infants water or glucose. On the contrary, doing so could negatively affect the duration of breastfeeding. It was also concluded that there was no benefit to giving infants aged 4-6 months any additional food. Therefore, no evidence was found to dispute the recommendation of exclusive breastfeeding for the first six months of life.[6]

Black et al[7] concluded that suboptimal breastfeeding, especially nonexclusive breastfeeding that includes the provision of water or tea in the first six months of life, led to 1.4 million deaths and represented 10% of the disease burden in children younger than five years of age. Four breastfeeding patterns were used to estimate the risk of cause-specific morbidity and mortality in children younger than six months of age. The patterns were:

- Exclusive: Nothing but breast milk (reference pattern).
- Predominant: Only water or tea, in addition to breast milk.
- Partial: Other liquids or solids, in addition to breast milk.
- Other: Not breastfeeding.

In the first six months of life, the relative risks of diarrhoea, pneumonia, morbidity and mortality were increased for each of the three feeding patterns, compared to exclusive breastfeeding. Partial breastfeeding had a moderately higher relative risk than predominant breastfeeding, and not breastfeeding had a very high relative risk. Two other patterns, breastfeeding or not in children aged 6-23 months, were also considered. There was a statistically raised risk of all-cause mortality and diarrhoea incidence when no breastfeeding occurred.[7]

Bhutta et al[5] reviewed interventions that effectively addressed child undernutrition and nutrition-related outcomes. One of these was individual and group promotion of breastfeeding. The promotion of exclusive breastfeeding for the first six months of life has been estimated to be the most effective preventive strategy for saving the lives of young children in low-income settings, and could contribute to achieving the Millennium Development Goal 4 (MDG 4) of reducing child mortality.[5] The first trial undertaken in Africa (Burkina Faso, Uganda and South Africa) to assess the effect of individual home-based exclusive breastfeeding peer counselling, Promoting Infant Health and Nutrition in Sub-Saharan Africa: Safety and Efficacy of Exclusive Breastfeeding Promotion in the Era of HIV (PROMISE-EBF),[8] reported that low-intensity individual breastfeeding peer counselling was achievable, and although it did not affect the diarrhoea prevalence in this study, could be used to effectively increase exclusive breastfeeding prevalence in many sub-Saharan African settings.

Internationally, efforts have been made to strategise on the best way forward to revitalise efforts to improve breastfeeding practices and increase exclusive breastfeeding rates as a key child survival strategy. The overall consensus is that there are many commitments, guidelines, policies and strategies in existence, yet the implementation of these has not been progressive enough.[9] In other words, the willingness (commitment) to address infant and young child feeding has been demonstrated, but the ability (capacity) to improve the situation is lacking in certain environments.[10]

This paper aims to summarise the current evidence and highlight best practices, in order to propose a South African paediatric FBDG message for exclusive breastfeeding. The specific focus will not be on complementary feeding, since this topic is covered by Du Plessis et al[11] in this series.

Method

A literature search was undertaken to profile the current nutritional status and breastfeeding practices of children in South Africa, reflect on the commitment and capacity that has been pledged and built for breastfeeding, and highlight the action needed to improve exclusive and continued breastfeeding practices in the country.

PubMed was searched for reviews and systematic reviews, as well as studies conducted in South Africa between 2008 and 2012, using the search terms "breastfeeding and child and South Africa". The *South African Journal of Clinical Nutrition (SAJCN)* was hand searched from 2008-2012, as it is not indexed in PubMed.

The PubMed search resulted in a total of 26 articles. One article was excluded, since the research was conducted in African countries other than South Africa. Twenty-three of the remaining 25 articles reported on infant and young child feeding in the context of human immunodeficiency virus (HIV). Seven relevant articles, of which six were original research studies, as well as a journal supplement were found in the *SAJCN* archives. Information deemed to be relevant by the authors for the focus of this paper was extracted from these articles.

The Lancet series (2008) on maternal and child malnutrition, as well as international and national milestone documents and guidelines developed since 2007 by leading global health and infant feeding authorities, was scrutinised for relevant information. These included the WHO, the United Nations Children's Fund (UNICEF), the Scaling Up Nutrition (SUN) Movement, and the National South African Department of Health.

Nutritional status and breastfeeding practices of children in South Africa

The last national nutrition survey, the National Food Consumption Survey (NFCS) Fortification Baseline of 2005,[12] investigated the nutritional status and nutrient intake of South African children aged 1-9 years of age. The major nutritional problems of South African children were described as follows: one in five children were stunted and one in 10, underweight. By contrast, one in 10 children were overweight and 4% obese. However, higher figures for stunting (> 20%) and overweight and obesity combined (> 30%) were seen with a secondary analysis of anthropometric data from the NFCS (1999) using the WHO Child Growth Standards,[13] when compared with the figures previously calculated with the National Centre for Health Statistics references.

Furthermore, it was reported that although the nutritional status of younger children, aged 12-71 months, had marginally improved at a national level compared to the 1999 NFCS data, micronutrient malnutrition in South Africa remains a concern, with specific reference to vitamin A and iron. Most South African children had inadequate intake of a number of other micronutrients as well.[12]

In comparison to international recommendations on minimum infant and young child feeding indicators that should be monitored,[9,14] South Africa has very limited available infant and young child feeding data. However, the anthropometric status of young children, coupled with the presence of micronutrient malnutrition, is indicative of poor infant and young child feeding practices. There is a paucity of national data on breastfeeding rates, but

initiation rates of breastfeeding remain high at around 88%. By stark contrast, different sources of data report that between 8%[15] and 25%[16] of babies are exclusively breastfed at six months. The majority are either formula fed or mixed fed,[16] and more than 70% of infants receive solids foods before the age of six months. The early introduction of food and liquid other than breast milk poses a considerable threat to child nutrition.[15]

Smaller studies have confirmed the practice of introducing solids and other food or liquid too early.[17-20] In the Cape Town area, it was found that high numbers of mothers (88%) in higher socio-economic areas chose to formula feed after birth.[21] Factors influencing this decision were a lack of breastfeeding knowledge or experience, the absence of public facilities within which to breastfeed, fathers' involvement and working mothers. Another factor that has impacted on the decision to formula feed is the HIV epidemic in South Africa, which has had a detrimental spillover effect, leading to more mothers opting not to breastfeed. In the past, the South African prevention of mother-to-child transmission (PMTCT) of HIV programme provided free formula for a period of six months as an infant feeding option that HIV-positive mothers could choose.[22]

Global and local evidence is showing very slow advancement, if any, in the improvement of overall infant feeding practices, but countries that have shown a strong commitment to advancing infant and young child feeding have demonstrated significant progress.[9] The following section will focus on the commitment and capacity that has been pledged and built in South Africa to this effect.

Milestone events for breastfeeding in South Africa

On a global level, the latest undertaking to address infant and young child malnutrition began with the Millennium Declaration in September 2000, in which member states agreed to work towards the MDGs. These goals, with time-bound targets and indicators, synthesised in a single package, include many of the most important commitments made separately at international conferences and summits of the 1990s. But, the question that arises is: What will make these goals different from all previous goals? According to the MDG report: "The single most important success to date has been the unprecedented breadth and depth of the commitment to the MDGs, a global collective effort that is unsurpassed in 50 years of development experience".[23] Appropriate breastfeeding and complementary feeding practices can contribute to the achievement of all eight of the MDGs,[24] providing ample motivation to actively promote exclusive and continued breastfeeding.

The National Breastfeeding Consultative Meeting, held in August 2011, was a very important milestone event for breastfeeding in South Africa. It was convened by the National Minister of Health, Dr Aaron Motsoaledi, and included representatives from nongovernmental, non-profit and academic organisations and institutions, as well as government officials and independent experts. This landmark meeting culminated in the signing of the Tshwane Declaration of Support for Breastfeeding in South Africa (Tshwane Declaration).[25] The Tshwane Declaration symbolises the commitment of political will at the highest level, as well as the dedication by all stakeholders in South Africa, to work together to ensure the promotion, protection and support of breastfeeding. This declaration has received extensive media coverage and is used as an important reference tool. The stakeholders and government should be commended for taking bold steps at this meeting in order to ensure that South Africa takes a firm stand on this matter.

The progress in commitment to and capacity building for breastfeeding that has been made in South Africa since 2007 will be considered within the context of the Tshwane Declaration (Table I).

The Tshwane Declaration's resolutions begin by calling on South Africa to declare itself as a country that actively protects, promotes and supports exclusive breastfeeding. The Integrated Nutrition Programme (INP), Nutrition Directorate, South African Department of Health, has scaled up its commitment and capacity since 2007 to promote, protect and support breastfeeding at national level. The programme has demonstrated its priorities, with a focus on maternal care and infant and young child feeding as strategies to safeguard infant feeding practices.[26,27] The first South African infant and young child feeding policy was signed by the Minister of Health in February 2008.[28] The purpose of this policy was to standardise and harmonise infant feeding messages for infants and children from birth to the age of five years, to guide healthcare providers on how to address threats and challenges to infant feeding, and to promote optimal infant feeding practices. This document included recommendations on HIV and infant feeding.[28] This policy has subsequently been updated to include the resolutions of the 2011 Tshwane Declaration, as well as revised HIV and infant feeding recommendations.[29]

In 2009, South Africa, classified as one of 36 high-burden countries, undertook a landscape analysis to identify impediments to the development of responsive solutions and opportunities to accelerate good practices in nutrition programming. The WHO developed the landscape analysis in its efforts to accelerate progress towards the achievement of the Millenium Developement Goals (MDGs), in particular MDGs 1, 4 and 5. The landscape analysis is a readiness analysis of countries with regard to the improvement of nutrition, and was launched at the end of 2007. The ultimate aim is to lay the foundation to implement consolidated and harmonised action in the 36 high-burden countries.[30] The landscape analysis considers the commitment and capacity to accelerate nutrition actions, in other words, readiness to do so is understood

Table I: Main resolutions of The Tshwane Declaration for Support of Breastfeeding in South Africa[25]

1. South Africa declares itself to be a country that actively promotes, protects and supports exclusive breastfeeding.
2. South Africa adopts the 2010 World Health Organization guidelines on human immunodeficiency virus and infant feeding, and recommends that all human immunodeficiency virus-infected mothers should breastfeed their infants and receive antiretroviral drugs to prevent human immunodeficiency virus transmission.
3. National regulations on the International Code of Marketing for Breast-milk Substitutes will be finalised and adopted into legislation within 12 months.
4. Resources will be committed by government and other partners, excluding the formula industry, to promote, protect and support breastfeeding.
5. Legislation on maternity for working mothers will be reviewed to protect and extend maternity leave and ensure that all workers benefit from maternity protection.
6. Comprehensive services will be provided to ensure that mothers are supported in their decision to exclusively breastfeed their infants for six months, and thereafter to give appropriate complementary foods, and continue breastfeeding up to two years and beyond.
7. Human milk banks should be promoted and supported as a source of breast-milk for babies who cannot breastfeed.
8. Public hospitals and health facilities should be Baby-Friendly Hospital Initiative-accredited by 2015. Private hospitals and health facilities should be partnered to be Baby-Friendly Hospital Initiative-accredited by 2015, and all communities should be supported to be "Baby Friendly".
9. Community-based interventions and support should be implemented as part of the continuum of care, with facility-based services to promote, protect and support breastfeeding.
10. Continued research, monitoring and evaluation should inform the policy development process and strengthen implementation.
11. Formula feeds will no longer be provided at public health facilities, with the exception of nutritional supplements available on prescription from appropriate healthcare professionals for mothers and infants with approved medical conditions.

as being "willing and able".[10,30] The country assessments mainly focus on interventions delivered through the public health sector in communities and health services. Therefore, the proposed indicators for capacity focus on the health sector. The commitment indicators are largely derived from operational strategies and the availability of financial resources, and are monitored continually.[30]

The landscape analysis revealed that South Africa has the potential and resources to accelerate key nutrition interventions to reduce maternal and child undernutrition. Although there is political commitment to improving the nutrition situation in South Africa, many challenges still remain, primarily because some commitments have not been translated into concrete action to improve the nutritional well-being of South Africans.[31]

Following the signing of the Tshwane Declaration, the South African Department of Health is in the process of finalising a policy directive for its implementation and revised guidelines on infant and young child feeding. Provinces are in the process of developing implementation plans to enforce the resolutions of the Tshwane Declaration and increase exclusive breastfeeding rates.

The South African Department of Health: Nutrition Directorate has developed a *Roadmap for nutrition in South Africa for 2012-2016*[32] (the Roadmap). This is a medium-term strategic framework that lists a number of guiding principles and strategic approaches for nutrition. It was developed in the context of the Department of Health's strategic plan, the recommendations of *The Lancet* nutrition series and other global recommendations, as well as the achievement of the MDGs and the SUN framework for action. The Roadmap also takes into account the findings of the landscape analysis of 2009. The evidence-based and cost-effective intervention of breastfeeding promotion (the early initiation of breastfeeding and the practice of exclusive breastfeeding) is one of the first recommendations made, and is reiterated throughout the document. The continued implementation of the Baby-Friendly Hospital Initiative (BFHI) is recommended. The Roadmap is a comprehensive and integrated document to guide provinces to incorporate nutrition into their activities and actions. It also contains many of the resolutions of the Tshwane Declaration.[32]

Furthermore, at national level, breastfeeding has been integrated into a number of other important policy guidelines within the health sector, such as the Strategic Plan for Maternal, Newborn, Child and Women's Health and Nutrition in South Africa for 2012-2016[33] and the Framework for Accelerating Community-Based Maternal, Neonatal, Child and Women's Health and Nutrition Interventions.[34] This is consistent with global policy frameworks, whereby breastfeeding has been incorporated into the Global Strategy for Women and Child Health. The UN Secretary General's Global Strategy for Women's and Children's Health was developed in 2010 and reinforces the notion that strategies that are needed to improve the health of women and children, but there is a need to focus on ensuring universal access to essential, evidence-based health services.[35] Exclusive breastfeeding is listed as a simple intervention to reduce maternal and child mortality from preventable causes. This strategy was also developed in the context of achieving the MDGs. It is based on human rights and recommends a multilateral approach, with the involvement and commitment of partners in government and private and civil society.[35] Such an approach in South Africa would strengthen the fourth resolution of the Tshwane Declaration, which states that resources should be committed by government and other partners, excluding the formula industry, to promote, protect and support breastfeeding.

The second resolution of the Tshwane Declaration, which ties in with resolution 11, was that South Africa must adopt the 2010 WHO guidelines on HIV and infant feeding. One of the main changes to these guidelines was to recommend that countries choose one infant feeding option [either

exclusive breastfeeding with antiretroviral (ARV) drugs or avoiding breastfeeding], which the country would principally advise to be the strategy most likely to result in the increased HIV-free survival of infants in that country.[36] This is different to previous guidelines which advised individual counselling of mothers, to provide them with different available feeding options, and which required the mother to make the decision as to which option to choose. The guidelines further recommended that if ARVs were available in a country, the recommendation to exclusively breastfeed (with the administration of ARVs) was strongly advised.

One of the main principles of the 2010 WHO guidelines is to balance HIV prevention with child survival, and to minimise non-HIV morbidity and mortality.[36] Thus, ARVs should be accelerated and sustained to prevent HIV transmission through breastfeeding, and to improve the health and survival of HIV-infected mothers.[36] It should be highlighted, that in South Africa, the latest data on HIV show that South Africa has an antenatal HIV prevalence of 30.2%.[37] Therefore, the vast majority of mothers (~ 70%) in the country are HIV negative and should exclusively breastfeed for six months, with continued breastfeeding up to two years and beyond. This ideal is far from being realised. HIV-positive mothers constitute large numbers but are still the minority, and should be treated as such, so as to reduce the risk of the spillover effect influencing HIV-negative mothers not to breastfeed. All previous PMTCT programmes in South Africa have recommended that the option to formula feed should only be chosen by the mother, if the acceptable, feasible, affordable, sustainable and safe (AFASS) criteria are met. However, studies of the PMTCT programme highlighted problems with its implementation, including factors such as mothers opting to formula feed even when they did not meet the AFASS criteria, high levels of bacterial contamination of infant formula, inadequate mixing of infant formula, and stock-out situations at health facilities which resulted in an unreliable supply of infant formula.[22,38] Given these challenges, policy-makers decided that South Africa should apply the recommendation that all HIV-infected mothers should breastfeed their infants and receive ARVs to prevent HIV transmission.[25]

The third resolution of the Tshwane Declaration has committed South Africa to adopting legislation, within 12 months, that includes national regulations on the International Code of Marketing for Breast-milk Substitutes (the Code), which should then be implemented and monitored.[25] In March 2012, the final draft Regulations Relating to Foodstuffs for Infants and Young Children was released for comment, and was subsequently gazetted on 6 December 2012.[39] The Code was adopted by the WHO in 1981,[40] and while it is disappointing that it has taken over 30 years for this important regulation to be incorporated as legislation in South Africa, the Department of Health has made significant progress developing this legislation since the endorsement of the Tshwane Declaration. The regulations aim to protect and promote breastfeeding by ensuring the appropriate use of breastmilk substitutes and making sure that there are appropriate marketing and distribution practices.[39]

Many women who are employed in the informal sector face an additional challenge, since they do not receive any maternity protection or benefits. Even in the private sector, international recommendations are not always implemented.[1,41] The Tshwane Declaration's fifth resolution is that legislation on maternity protection should be reviewed and implemented appropriately. This is an area that still needs further attention.

The new Road to Health Booklet (RtHB) for children was launched by the Department of Health in 2010, replacing the previous Road to Health Card. It incorporates the 2006 WHO Child Growth Standards, based on children who are afforded the best start in life (defined as those who are subjected to the most appropriate feeding practices, i.e. exclusive breastfeeding and complementary feeding, optimal paediatric health care and a health-promoting environment). It was developed using a more representative reference population of children. Therefore, these standards are considered to be globally applicable and relevant,[42] and use a predominantly breastfed infant as the standard by which to measure growth and development. The previous growth charts were developed by the US National Center for Health Statistics, and were largely based on formula-fed babies from one ethnic group in one country only. The WHO Child Growth Standards promote the nutritional, immunological and growth benefits of breastfeeding.[43]

The growth standards in the new South African RtHB do not only focus on weight for age, as in the past, but also include height-for-age and weight-for-height tables. This is a step in the right direction in addressing the stunting problem in the country, because for the first time the measurement of height for age, used to assess stunting, is being recommended as a routine growth monitoring practice.[26] The RtHB also contains more information and space within which to record relevant health interventions. It features health promotion messages that include the definition and promotion of exclusive breastfeeding. The sixth resolution of the Tshwane Declaration is that comprehensive services should be provided by health workers at all levels of healthcare service delivery to ensure that mothers are supported in their decision to practise exclusive breastfeeding and appropriate complementary feeding. The new RtHB is an important, comprehensive tool, to be used at all levels of health care, which can assist with the realisation of this resolution. Currently, a research study is being conducted by Stellenbosch University to assess the implementation of the new RtHB in primary healthcare facilities (unpublished data) (Blaauw R. Stellenbosch University, personal communication, May 18, 2012). This supports resolution number 10.

In 2009, the WHO/UNICEF BFHI strategy documents were revised, updated and expanded for integrated care.[24] The most important revisions were to the training course for maternity staff (increased from 18 to 20 hours), the implementation of the global criteria for each of the 10 steps (and three additional items: compliance with The Code, mother-friendly care, and HIV and infant feeding), alignment of the BFHI documents with The Global Strategy for Infant and Young Child Feeding,[2] and updated recommendations on HIV and infant feeding. The BFHI strategy progressively focuses on the follow-up support of mothers once they have left the maternity unit, both at well-baby clinics and in the community, with the eventual designation of "baby-friendly" communities.[24]

Resolution seven of the Tshwane Declaration states that human milk banks should be promoted and supported as a source of breastmilk for babies who cannot breastfeed or be breastfed. The updated South African Infant and Young Child Feeding Policy describes human milk banks as an effective approach to reducing early neonatal and postnatal morbidity and mortality in babies who cannot be breastfed. It calls for human milk banks to be established in facilities that care for high-risk infants, including very low-birthweight infants (< 1 500 g), preterm infants (infants born at < 32 weeks of gestational age), low-birthweight infants (< 2 500 g), and HIV-exposed infants who are not able to suckle, or whose mothers are too sick to breastfeed.[29]

The eighth resolution of the Tshwane Declaration is for all public hospitals and health facilities to be BFHI-accredited by 2015, for private hospitals to be "partnered" to become baby friendly by 2015, and for communities to be supported to be baby-friendly. In 2007, South Africa had 225 baby-friendly facilities out of a possible 545 (i.e. 41%). The initiative is gaining momentum and includes attempts to improve breastfeeding rates through the implementation of the BFHI.[44] The BFHI was renamed the Mother and Baby-Friendly Initiative by the national INP to give more attention to the fact that the BFHI is also a strategy used to reduce maternal morbidity and mortality, and to shift the focus from only considering the BFHI in the context of the hospital. This links with resolution number nine, which calls for community-based interventions and support to be implemented as part of the continuum of care, with facility-based services to promote, protect and support breastfeeding. A further example of such interventions is breastfeeding peer counsellor programmes, whereby peer counsellors are placed at birthing units and basic antenatal care sites to provide antenatal education on the benefits of breastfeeding, as well as postnatal support to mothers.[29]

The barriers to exclusive breastfeeding, which need special attention, were also emphasised in the Tshwane Declaration. Barriers to exclusive breastfeeding include:

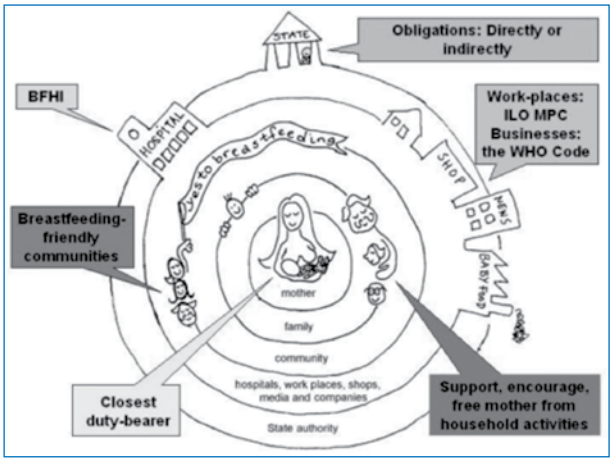
- The aggressive promotion of formula by manufacturers.
- Challenges to breastfeeding in the workplace for working mothers.
- Teenage mothers leaving their babies at home with relatives, who have to rely on formula feeding.
- The lack of family and community support for breastfeeding.
- The suboptimal involvement of men in supporting breastfeeding.
- Practices in health facilities that do not support breastfeeding, such as delayed initiation of breastfeeding or poor counselling on infant feeding.
- National policies which obstruct the promotion of breastfeeding, such as the discharge of mothers soon after delivery, before breastfeeding has been established.
- Confusion about the risks of HIV transmission and breastfeeding.
- The lack of large-scale systemic efforts to promote exclusive breastfeeding, because of a limited understanding of its benefits.[25]

Kent[45] developed the idea of a set of "nested rings of responsibilities". Engesveen[41] depicted the role players or "duty bearers" in a pictorial version of Kent's diagram of rings (Figure 1), to show the many role players at different levels within a mother's environment who can either support or hinder breastfeeding.

Charting the way forward

With this background on the nutritional status and breastfeeding practices of South African children, as well as evidence-based policies, guidelines and programmes that have been developed globally and locally to address infant and young child feeding, the next required step is action in implementation.

The SUN Movement's framework for action was developed in 2010, following the *The Lancet* nutrition series in 2008, with the aim of focusing on the "first 1 000 days" for high-impact (evidence-based, cost-effective) interventions to reduce mortality and morbidity and to avoid irreversible damage.[46] The SUN Movement



BFHI: Baby-Friendly Hospital Initiative, ILO MPC: International Labour Organization Maternity Protection Convention, WHO Code: World Health Organization International Code of Marketing for Breast-milk Substitutes

Figure 1: Role analysis of "duty bearers"[40]

recommends a multisectoral approach that integrates nutrition interventions with other strategies. Consistent with other international recommendations, breastfeeding is listed as one of these interventions. The SUN Movement's framework for action provides a list of principles to guide action, which include developing country strategies, making use of international support, giving additional support to vulnerable groups and making use of evidence-based interventions.[46] South Africa has adopted most of these approaches, albeit not at scale, but has not officially become a signatory to the SUN Movement to date.

The UNICEF Infant and Young Child Feeding Programming Guide provides guidance on the implementation of comprehensive infant and young child feeding programmes to improve child survival.[9] This document highlights breastfeeding and complementary feeding as two important child survival interventions, and emphasises "the importance of breastfeeding as the preventive intervention with potentially the single largest impact on reducing child mortality". It indicates that some countries have demonstrated significant improvements in breastfeeding practices, but drastic changes are urgently needed in others. The UNICEF guide recommends the "large-scale implementation of comprehensive multi-level programmes, to protect, promote and support breastfeeding, with strong government leadership and broad partnerships". It reinforces the Global Infant and Young Child Feeding Strategy Guideline of exclusive breastfeeding for the first six months of life, followed by the introduction of complementary foods and continued breastfeeding up to two years or beyond. It also promotes early initiation of breastfeeding, defined as breastfeeding that starts within one hour of birth, as a strategy to be employed to prevent neonatal deaths. The UNICEF guide makes many recommendations on how to improve infant feeding practices, such as the appropriate training of healthcare staff and the institutionalisation of the BFHI.[9] Therefore, training courses and material on infant and young child feeding that are standardised, evidence-based, regularly updated and in line with national and provincial guidelines should be included in the curricula of higher education training institutions, in order to increase the sustainability and training coverage of healthcare workers to ensure consistent messages.[47,48]

A starting point to better monitor the nutritional status of infants and young children in South Africa could be to include the WHO indicators for infant and young child feeding practices in the district health information system. Eight core indicators and seven optional indicators focus on selected food-related aspects of child feeding responsive to population-based surveys from data collected at household level.[14] Currently, it is advised that this set of indicators should be used for a situation assessment in a comprehensive national planning process on infant and young child feeding,[9] since it can be used for:

- Assessment: To make national and subnational comparisons and to describe trends over time.
- Targeting: To identify populations at risk, target interventions, and make policy decisions on resource allocation.
- Monitoring and evaluation: To monitor the progress in achieving goals and evaluate the impact of interventions.[14]

At the Tshwane meeting, one of the breakaway workshop groups was asked to deliberate the topic "Monitoring, Evaluation and Research", and discussed the possible inclusion in the district health information system of the following two indicators for breastfeeding (Doherty T, Medical Research Council, personal communication, August 23, 2011): early initiation of breastfeeding and exclusive breastfeeding at 14 weeks. These two indicators, among others, have subsequently been incorporated into the new South African Infant and Young Child Feeding Policy monitoring process in order to ensure its effective implementation.[29]

The proposed monitoring would be a step closer to ensuring that more meaningful information on infant and young child feeding is collected. However, there are more opportunities that are not yet being fully utilised, to incorporate data collection that is responsive to additional indicators of infant and young child feeding practices into community-based research projects, as well as larger-scale population studies, for example the South African National Health and Nutrition Examination Survey (NHANES).[49]

Pregnant women and mothers known to be HIV infected should be informed of the recommended infant feeding strategy by the national or provincial authority. This would improve the HIV-free survival of HIV-exposed infants, and the health of HIV-infected mothers. Pregnant women and mothers should have access to skilled counselling and support for appropriate infant feeding practices and ARV interventions to promote the HIV-free survival of infants.[36] Counselling and education on infant feeding needs to be strengthened at facility and community level. When children present at facilities for routine immunisations, infant feeding should be thoroughly assessed and followed up. Existing strategies, such as the implementation of the community-integrated management of childhood illnesses, should be used by the community as an opportunity to identify and address infant feeding problems, and execute health promotion and prevention strategies that are relevant to infant feeding.[50] The RtHB could be used effectively as a tool to assess, act upon and monitor these important interventions.

Two processes that would further strengthen commitment to breastfeeding pertain to the food labelling legislation that has recently been promulgated in South Africa,[51] and the regulation of infant foods, which also encompasses regulation of the marketing of breast-milk substitutes.[39] However, in order for national regulations to be fully

effective, adequate monitoring systems need to be developed and implemented, together with the regulations.[52]

The commitment and capacity to advance breastfeeding as optimal nutrition for infants has been achieved at national level. From the Tshwane Declaration, a national implementation plan for breastfeeding promotion in South Africa will be developed, together with an advocacy, communication and social mobilisation plan.[32] There is a great need to also build commitment and capacity at provincial, district and community levels,[53] as depicted in Figure 1.[41]

The South African landscape analysis report highlighted the limitation of only interviewing health workers from public institutions and some NGOs, and not those from academic and research institutions, nor the private sector.[31] It is of utmost importance to also assess and build commitment and capacity with a wider spectrum of stakeholders, as stated in the Tshwane Declaration.[25] This includes the Departments of Health, Rural and Social Development, Education, Agriculture, and Labour, the civil society sector, traditional leaders and healers, the private and business sectors, researchers and academia, as well as the media. The role of the media as important communication channels to the public should be strengthened, and healthcare professionals encouraged to engage with the media and share messages on evidence-based practice with regard to breastfeeding promotion and support.

The recent momentum gained in support of improving infant and young child feeding could further be enhanced by the process of reviewing the preliminary South Africa paediatric FBDGs. A consumer research study of the preliminary paediatric FBDGs for infants younger than six months[54] proposed that the guideline "Breastfeeding is best for your baby for the first six months" should be changed to include the word "only" in support of exclusive breastfeeding. It was further suggested that the benefits of breastfeeding should be included in supportive documentation, as well as a definition or explanation of exclusive breastfeeding. After considerable deliberation, the current paediatric FBDG working group formulated the following message that needs to be field tested: "Give only breast-milk, and no other foods or liquids, to your baby for the first six months of life".

This message should be supported by the following information:

- Give your baby only breastmilk for the first six months. No other food or drink is needed at this age. If a baby is given other food and drink, he or she will consume less breastmilk, and thereby receive less nutrition. Babies are protected against infection when they are breastfed.
- Hold your baby against your chest, skin to skin, within one hour of birth. Start breastfeeding at this time.
- Feed your baby several times during the day and night. This will help your body to make more milk.
- Breastmilk contains substances that help to protect your baby against illness. If your baby does not get breastmilk, he or she is at a greater risk of developing serious illnesses.
- Ask for help if your baby is having difficulty breastfeeding.

Conclusion

The evidence base that supports the importance of exclusive and continued breastfeeding on a global and local level has been broadened. There are comprehensive and practical international guidelines to assist with the protection and promotion of, as well as support for, breastfeeding. Comprehensive and sound national and provincial policy guidelines have been developed in South Africa. The political will to address infant and young child feeding has been advanced and displayed in our country, and a supportive environment created through commitment and capacity building. The evidence-based and theoretical planning must now be translated into action. There is a need for adequate monitoring and evaluation processes at all stages of implementation, using the above strategies to drastically improve exclusive and continued breastfeeding, and to advance the health and survival of children in South Africa. The revised South African paediatric FBDGs should be field tested to support these efforts in the country.

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