



LactaHub Workshop: Exploring the benefits of breastfeeding and breastmilk

Workshop kick-off: Important information and smooth sailing ahead – housekeeping announcements



Technical issues: If you cannot hear or see us, please check your computer preferences, close other programs, and check your sound level. If issues persist, you might need to close and restart the Zoom meeting, or join via The Global Health Network's Facebook page.



Video and audio: Your camera is automatically deactivated and all microphones are muted.



Questions: If you are joining us on **Zoom**, please ask your question in the non-public Q&A section. If you are tuning in via The Global Health Network **Facebook** page, please send your question to The Global Health Network via Facebook Messenger. **We will answer as many questions as possible during the workshop Q&A.**



Knowledge sharing: In the spirit of open access and knowledge sharing, we are recording this workshop to make it accessible for a wider audience on LactaHub – including the slide deck.



Certificates: LactaHub issues Certificates of Attendance after full participation (80%). Your certificate will be generated and delivered to the email address you used for registration within 4 weeks following the workshop.

International experts will guide us through the LactaHub workshop and share their professional perspectives with us



Dr. Alice Lakati

Director of Research and Community Extension, Amref International University, Kenya



Dr. Sutantri

Lecturer & Head of School of Nursing, Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta, Indonesia

Find full bios here:
www.LactaHub.org/LactaWebinar



Esther Nyokabi Kimani

Doula and Lactation Specialist, Kenya



Mili Wanjiru Karina

IBCLC, Maternal and Child Health Expert, Kenya



Arancha de la Horra

Clinical Research Specialist, The Global Health Network, UK

Your voice matters – engage and enrich the discussion and share your thoughts and questions during the Q&A session

10 min. **Workshop kick-off and introduction**
Arancha de la Horra

5 min. **Welcome from Amref International University**
Dr. Alice Lakati

15 min. **Why breastfeeding is important**
Dr. Sutantri

15 min. **Benefits for child health**
Esther Nyokabi Kimani

15 min. **Benefits for maternal health**
Mili Wanjiru Karina

25 min. **Q&A**
Moderated by Arancha de la Horra
We aim to answer as many questions as possible. If we can't address them all, we'll save them and strive to provide written responses with the recording.

5 min. **Closing**
Arancha de la Horra

Learning objectives: We aim to support your daily work by providing useful knowledge about breastfeeding and breastmilk in this workshop

- 1. Understanding the global impact of breastfeeding:** Gain insights into how breastfeeding aligns with and contributes to achieving the United Nations Sustainable Development Goals (SDGs).
- 2. Recognizing the nutritional benefits of breastmilk:** Learn about nutrients and antibodies present in breastmilk that are crucial for infant growth, development, and malnutrition prevention.
- 3. Identifying immediate and long-term health benefits for children:** Grasp the immediate and long-term health advantages that breastfeeding offers to children, including reduced risks of childhood obesity, asthma, and childhood mortality.
- 4. Understanding breastfeeding's influence on maternal health:** Gain an understanding of the protective effects of breastfeeding against diseases such as breast cancer, type 2 diabetes, obesity, and cardiovascular disease in mothers.
- 5. Promoting breastfeeding for a sustainable future:** Gain insights into the importance of encouraging and facilitating breastfeeding as a strategic step toward a healthier future for both individuals and communities worldwide.



Welcome from Amref International University

Dr. Alice Lakati

Director of Research and Community Extension
Amref International University



1st Primary Health Care Congress ***29th November to 1st December 2023***

Theme: Aligning practice to evidence in strengthening PHC for lasting health change in Africa



Amref International University

Pan-african university on primary healthcare

Strategic Focus

- Develop fit for purpose leaders for primary healthcare
- Provide a training ecosystem that promotes equitable access to education
- Execute research to drive evidence-based practice for strong primary healthcare
- Bridge the gap between knowledge and practice





1st Primary Healthcare Congress Sponsors and co-convenors



More information:
www.phcongress.com



Amref International University *1st Primary Healthcare Congress*

Date: November 29 – December 1, 2023

Venue: Amref International University main campus, Langata Road, Nairobi

Theme: Aligning practice to evidence in strengthening PHC for lasting health change in Africa

Sub-themes:


- Evidence-based community approaches; models that strengthen equitable access to PHC services
- Social determinants of health; evidence-based interventions that improve health in communities
- Priority PHC service delivery interventions that transform the health of communities (RMNCAH, mental health, NCDs, etc.)
- Interventions to leverage emerging global issues to improve PHC; climate change, advances in technology, global health security
- Evidence for systems strengthening; social accountability, health leadership, and management; health financing and entrepreneurship



More information:
www.phcongress.com



Panel Sessions

	Organization	Topic
	LactaHub in collaboration with Kenya Association for Breastfeeding (KAB)	Empowering primary healthcare workers for better child and maternal health
	African Population & Health Research Centre (APHRC)	Implementation research
	Africa Public Health Students Network Association	A training workshop on anti-microbial resistance
	Africa Public Health Students Network Association	Advocacy meeting with stakeholders
	Africa Public Health Students Network Association	Planning next steps on microbial resistance
	International Center for Research on Women (ICRW)	Addressing social determinants of health through community-based initiatives
	Amref International University (Tekeleza & KISSMEE)	Digital innovations in PHC
	Reproductive Health Network	The role of global SRHR commitments in realization of PHC
	Centre for Public Health & Development	TBC
	Amref International University/ARQ	Understanding health and health seeking behavior at the intersection of prolonged displacement among refugees
	UNFPA, CRR & NAYA	Sexual and reproductive health rights concurrent session



What to expect at the congress?

- 305 abstracts in two formats: Scientific and best practices will be presented
- Researchers from over 10 countries – including Kenya, Zambia, Ethiopia, Cameroon, Malawi
- Networking opportunities
- Capacity building
- Interaction with keynote speakers



More information:
www.phcongress.com



Why breastfeeding is important

Dr. Sutantri

Lecturer & Head of School of Nursing, Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta, Indonesia

The benefits of breastfeeding

1. Nutritional Benefits of Breastmilk

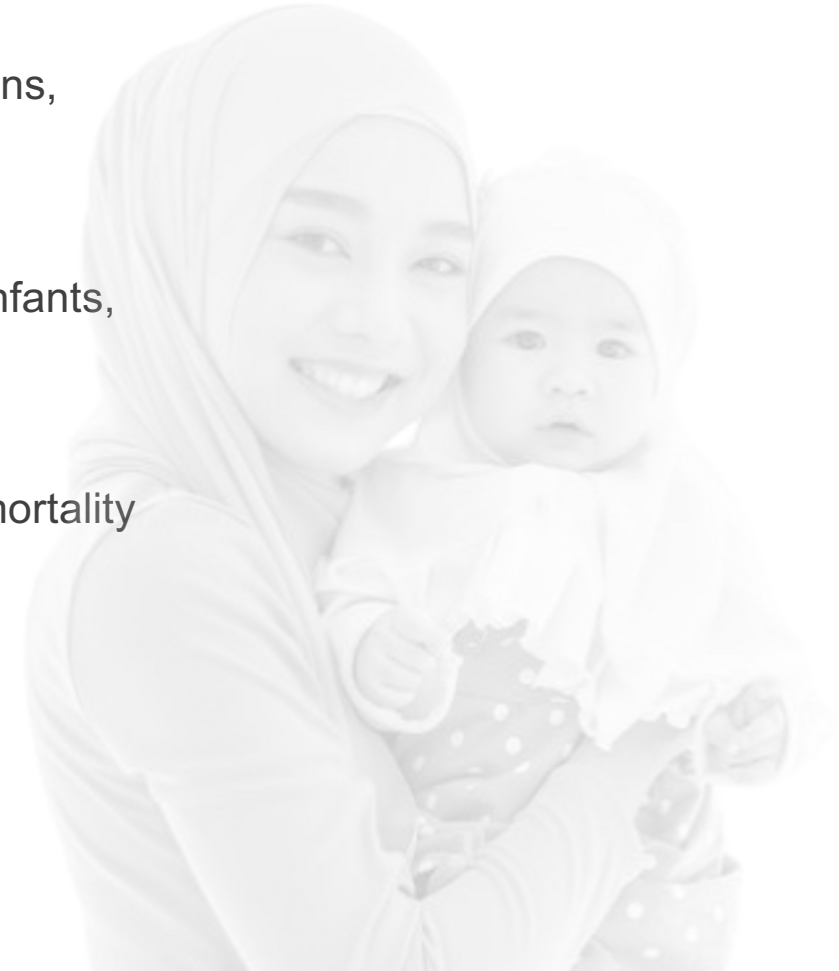
Breastmilk provides ideal nutrition for infants, containing essential nutrients, vitamins, and antibodies that support their growth and development.

2. Health Benefits for Both Mother and Infant

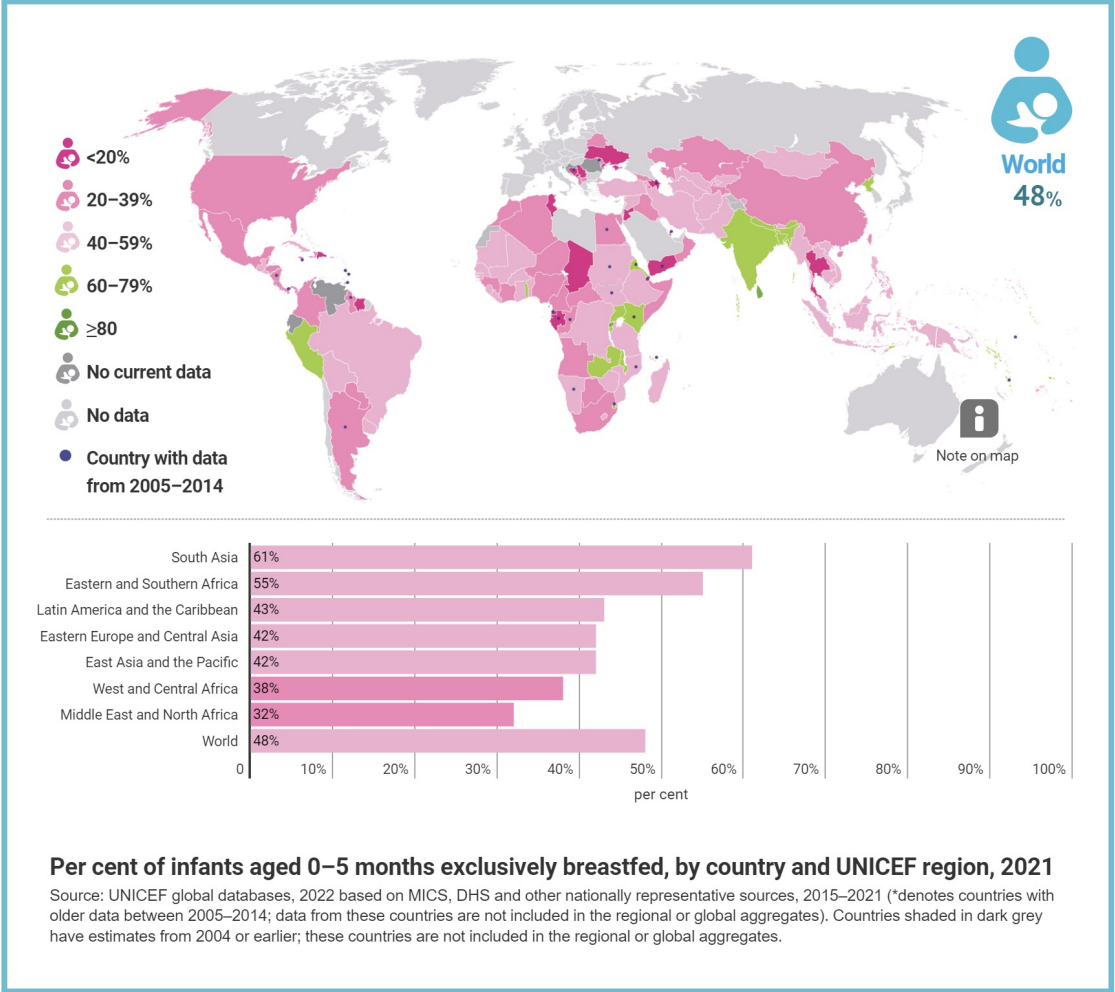
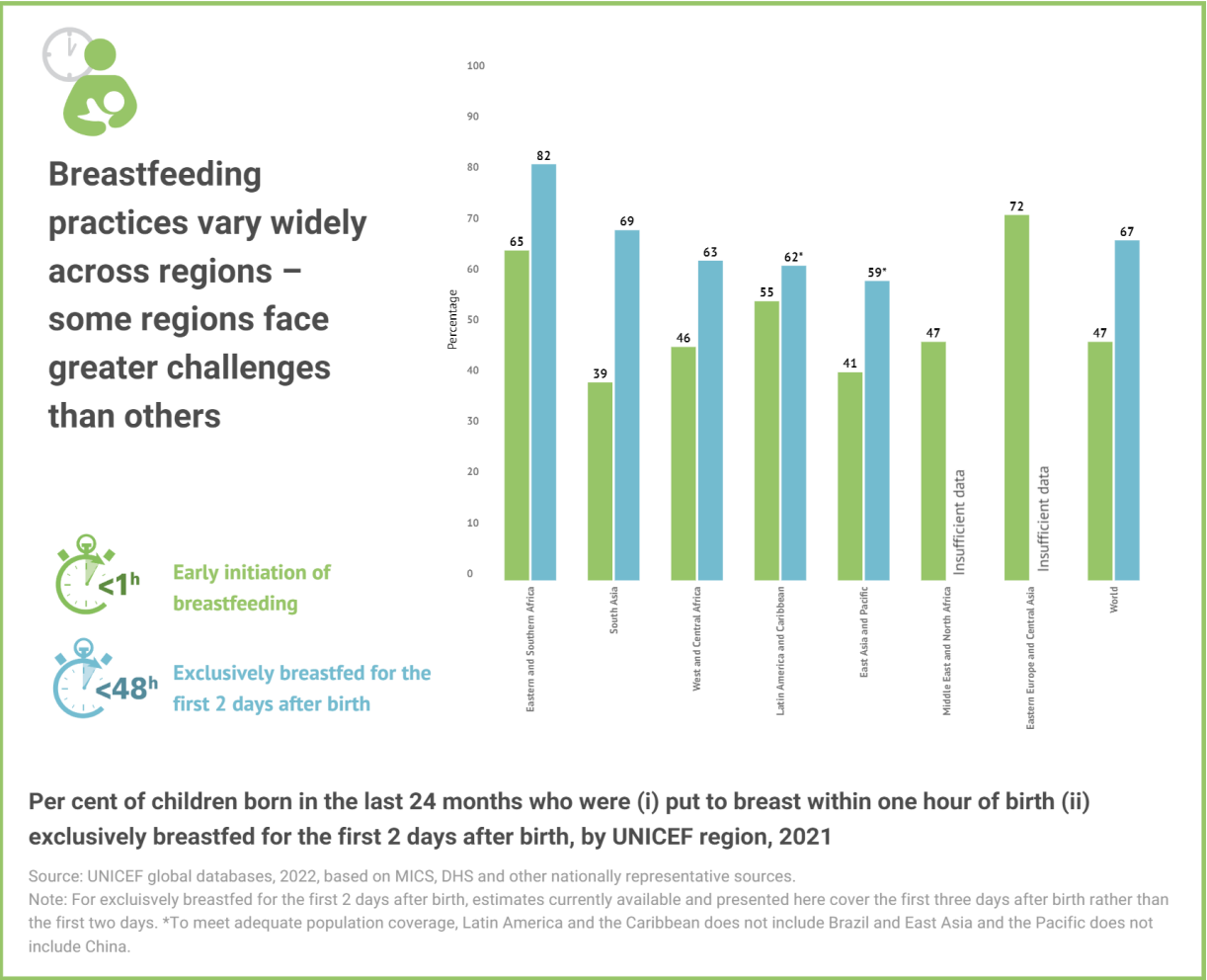
Breastfeeding reduces the risk of various health conditions for both mothers and infants, such as infections, allergies, and chronic diseases.

3. Contribution to Reducing Child Mortality and Improving Overall Health

Exclusive breastfeeding for the first six months of life is essential to reduce child mortality and promote optimal health outcomes.



Breastfeeding’s poor performance



Challenges and barriers to breastfeeding

1. Lack of Awareness and Education

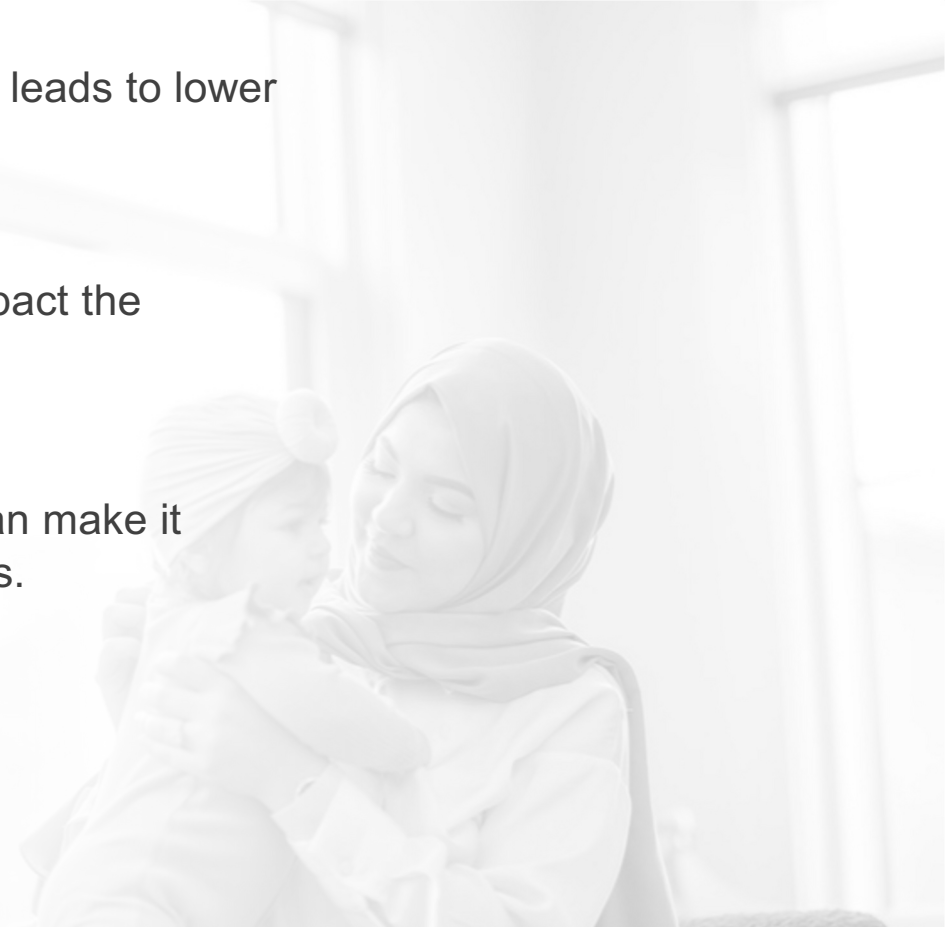
Insufficient knowledge about the benefits and importance of breastfeeding leads to lower breastfeeding rates.

2. Socio and Cultural Norms

Norms and stigmas surrounding breastfeeding can create barriers and impact the initiation and continuation of breastfeeding.

3. Workplace and Societal Support

The lack of supportive policies and breastfeeding-friendly environments can make it challenging for mothers to breastfeed while balancing other responsibilities.



The role of breastfeeding in achieving the United Nations Sustainable Development Goals (SDGs)



Breastfeeding is a **natural and low-cost way** of feeding babies and children. It is affordable for everyone and does not **burden household budgets** compared to artificial feeding. Breastfeeding can also contribute to **higher financial income** for breastfed adults. Breastfeeding contributes to **poverty reduction**.



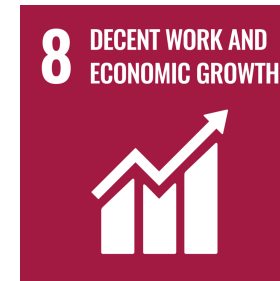
Breastfeeding helps **combat malnutrition**, addressing the goal of **eliminating hunger** and achieving **food security**.



By promoting breastfeeding, we can improve the **overall health and well-being** of both infants and mothers, contributing to better **health outcomes**.

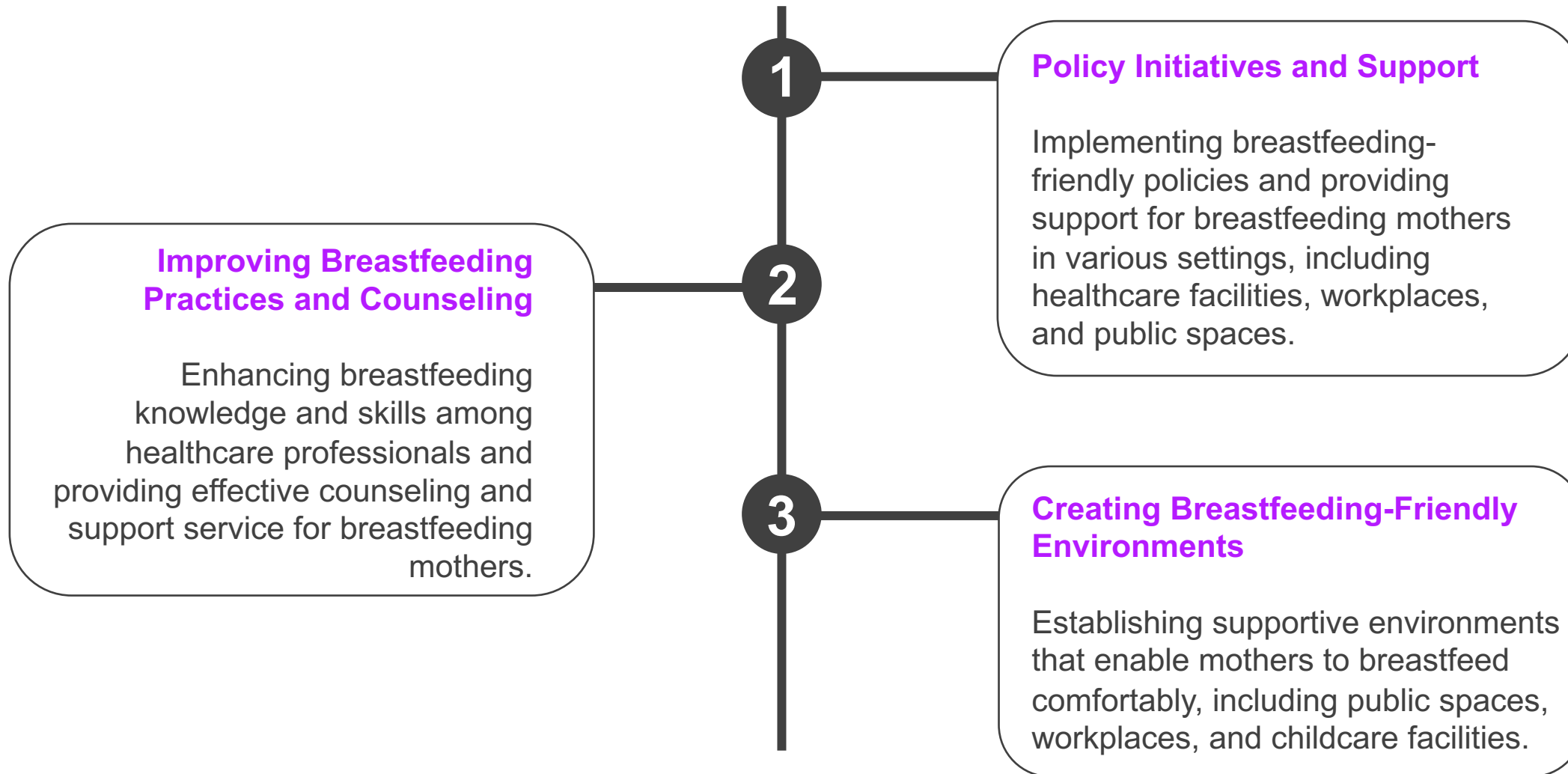


Breastfeeding positively impacts **cognitive development**, which is crucial for achieving **quality education** and **lifelong learning**.



Breastfeeding women who are supported by their employers are **more productive** and **loyal**. Maternity protection and other workplace policies can enable women to combine breastfeeding and their other work or employment. Decent jobs should cater to the needs of breastfeeding women, especially those in **precarious situations**.

Strategies to promote breastfeeding for SDGs



Conclusion

Breastfeeding plays a critical role in achieving the SDGs by promoting better health, reducing child mortality, and supporting overall well-being.

It is essential for individuals, communities, and governments to prioritize and support breastfeeding to ensure a brighter and more sustainable future for all.

Join the movement toward achieving the SDGs by advocating for breastfeeding!



Benefits for child health

Esther Nyokabi Kimani
Doula and Lactation Specialist, Kenya

Breastmilk – liquid gold

Breastmilk provides the best nutrition, immune protection, and regulation of growth, development, and metabolism for the human infant.

Breastmilk – crucial for development

The first 1,000 days refers to a child's life from conception until 24 months. The time when the brain, body, and immune system grow and develop

- Pregnancy – 270 days
- Year 1 – 365 days
- Year 2 – 365 days

Breastmilk is the most crucial source of nutrition for the first 2 years of the infant's life

Breastmilk – immunological properties

- Breastmilk provides protection against infection and allergies. Breastfed babies typically get sick less often than babies who do not receive breastmilk. Colostrum is the infant's first immunization.
- Contains Immunoglobulin (Antibodies): IgG, IgA which have an important role of enhancing mucosal immunity and thus protecting the GI tract from foreign antigens/microorganisms and providing environment-specific immunoprotection.
- Decreased risk of otitis media, diarrhea, respiratory tract infections, necrotizing enterocolitis, SIDS, atopic dermatitis, asthma, celiac disease, crohn's disease and ulcerative colitis, late onset sepsis in pre-term infants, type 1 & 2 diabetes, etc.

Breastmilk – nature's perfect aid for growth and development

- Breastmilk composition changes dynamically, adapting to each infant's nutritional, developmental and immunological needs. It supports the infant's growth round the clock. Thyroid hormones (TSH, T3, T4) help regulate metabolism and other functions, epidermal growth factors stimulate cell growth, development and maturation of GI tract, etc.
- Breastmilk contains taurine, an amino acid essential for brain growth. It contains omega-3 (n-3) polyunsaturated fatty-acids (PUFAs) necessary for optimal brain development. Human milk contains relatively high levels of n-3 PUFAs, which are essential to visual, motor, and cognitive development. Children who are breastfed score higher on IQ tests and on standardized school tests.
- Better jaw and teeth formation – the infant uses more facial muscles and breastfeeding encourages proper facial development, less tooth decay, fewer speech problems.

Breastmilk – effect on gut microbiome

- Breastfeeding plays an important role in establishing a healthy microbiome – the intestinal ecosystem of over 100 trillion living organisms which includes bacteria, viruses and fungi that aid in digestion, synthesis of vitamins, and defending the body against other pathogens.
- Breastmilk contains beneficial bacteria and prebiotics (feeding at the breast directly increases the transfer of beneficial organisms).
- Beneficial gut bacteria play a role in regulating anxiety, mood, cognition and pain via the brain/gut axis.
- Studies have linked breastfeeding with a lower occurrence of obesity in children and adults. Breastmilk has higher levels of leptin (hormone involved in the regulation of appetite and calorie intake and how much energy the body uses).

Breastmilk – establishing infants' sleep-wake cycle

- Breastmilk may help babies set their circadian clocks thanks to hormones like glucocorticoids and melatonin that pass from the mother's plasma to her milk
- Breastmilk contains components that keep changing through the day. Breastmilk concentrations of fat, proteins and amino acids, among others, differ dramatically from day to night.
- The list of milk components thought to promote sleep includes melatonin, vitamin B12, nucleosides, nucleotides such as 5'-adenosine monophosphate and 5'-guanosine monophosphate and tryptophan. Concentration varies through the day.

Sánchez, C. L. et al. 2009. The possible role of human milk nucleotides as sleep inducers. *Nutr. Neurosci.* 12(1), 2-8.
Arslanoglu, S. et al. 2012. Potential chronobiotic role of human milk in sleep regulation. *J. Perinat. Med.* 40, 1–8.

Breastfeeding – psychological & mental health benefits

- Creates a bonding experience because it promotes skin-skin contact, holding, touch. Experts say that this positive bonding in the early years helps lessen social and behavioral problems in later years.
- The frequent close interaction and attachment between mother and baby has a nurturing effect, thus modelling positive behavior.
- Breastfeeding supports infants' physical and emotional wellness by helping sooth and calm the infant and lowers incidences of colic.
- Beta-endorphins – help newborns deal with the stress of birth and adjust to life outside the womb.

Breastmilk – other amazing benefits to infants

- **Foods mothers eat change the flavor of their breastmilk**

Sweet, bitter, sour, salty, umami – the flavors infants are exposed to via breastmilk contribute to their unique set of taste preferences. Infants exposed to a wide variety of flavors from healthy, nutrient-rich foods – first through amniotic fluid and later through breastmilk – can lead to healthier food choices and optimal health later in life.

- **Breastmilk heals from the outside in**

Thanks to its antibodies, a few drops of breastmilk can help treat cuts, soothe diaper rash or even help infants with eye and ear infections.

- **Breastfeeding continues to benefit toddlers**

Breastmilk in the second year contains significant concentrations of total protein, lactoferrin, lysozyme, immunoglobulin, and fats.

Conclusion

“If a multinational company developed a product that was a nutritionally balanced and delicious food, a wonder drug that both prevented and treated disease, cost almost nothing to produce and could be delivered in quantities controlled by the consumers' needs, the very announcement of their find would send their shares rocketing to the top of the stock market. The scientists who developed the product would win prizes and the wealth and influence of everyone involved would increase dramatically. Women have been producing such a miraculous substance, breastmilk, since the beginning of human existence.”

Gabrielle Palmer



Benefits for maternal health

Mili Wanjiru Karina

IBCLC, Maternal and Child Health Expert, Kenya

Benefits of breastfeeding on maternal health

The offer of the maternal breast to the baby is an unquestionable right of mothers and is of fundamental importance. However, the maternal benefits of breastfeeding are often neglected, especially in public health campaigns.

Benefits are both **short term** and **long term**.





Benefits of breastfeeding for mother’s health

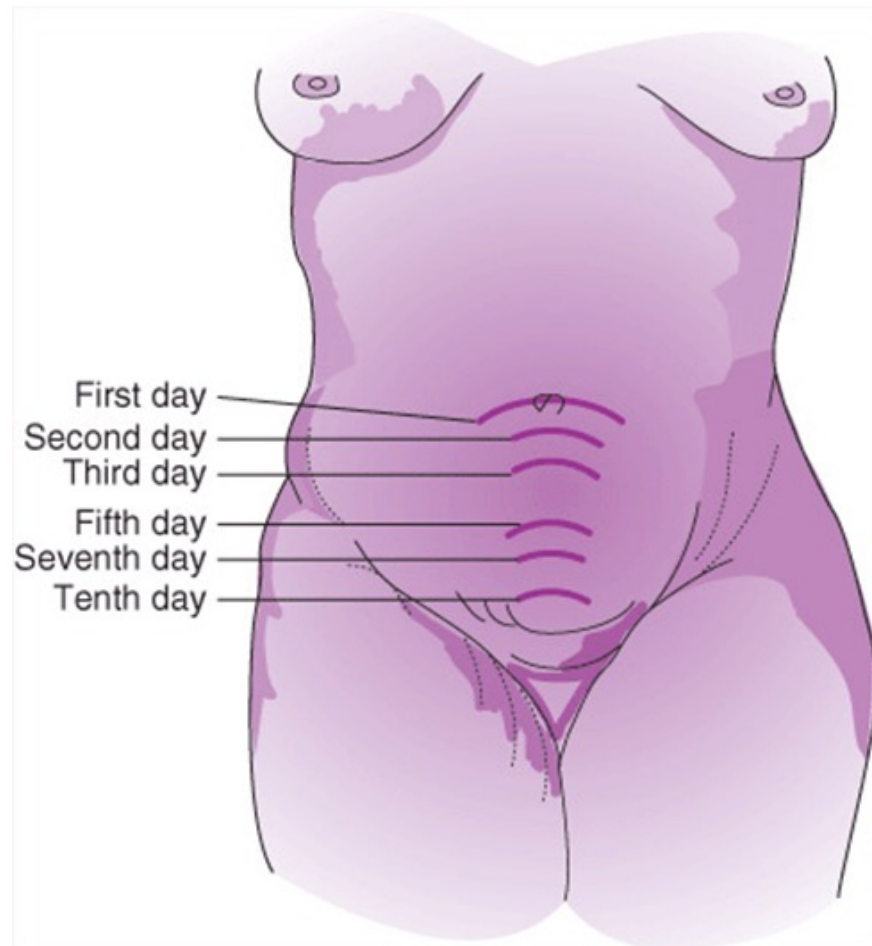
Table 1 Benefits of breastfeeding for the mother’s health

Immediate	Long-term
Uterine involution Reduced bleeding Reduced infection Lactational amenorrhea Reduced adiposity and weight Reduced postpartum depression Reduced stress and anxiety Improved body image	Reduced: cancer (breast, ovarian, endometrium) endometriosis, diabetes, osteoporosis, blood pressure and cardiovascular diseases, metabolic syndrome, rheumatoid arthritis, Alzheimer disease and multiple sclerosis

Breastfeeding and the Benefits of Lactation for Women’s Health

Luiz Antonio Del Ciampo¹ Ieda Regina Lopes Del Ciampo²

Involution of the uterus



Early suckling causes uterine contractions which accelerate the return of the uterus to its normal size, therefore faster postpartum recovery.

Lactation Amenorrhea

Exclusive breastfeeding helps with pregnancy spacing as a rise in oxytocin and prolactin suppresses ovulation and fertility.

For this to be fully effective:

- Mother should be exclusively breastfeeding
- Baby is below 6 months
- No menses

Postpartum mood disorders



Emotional Bonding

Research studies have shown the oxytocin helps to stimulate the bond of mother and baby, improve maternal emotional wellbeing.

Approximately 13% of mothers experience postpartum depression. Interestingly, their levels of oxytocin have been found to be lower compared to mothers without depression.

Jonas W, Woodside B. Physiological mechanisms, behavioral and psychological factors influencing the transfer of milk from mothers to their young. *Horm Behav* 2016;77:167–181. Doi: 10.1016/j.yhbeh.2015.07.018

Weight loss



For breastfeeding, the body utilizes approximately 2,100 KJ/day ($\approx 500\text{cal/day}$) which causes an average weight loss of 450 g per month! Adipose tissue accumulated during pregnancy greatly reduces. The metabolic workload associated with breastfeeding is high leading to lower probability of developing coronary diseases.

A study conducted on 314 mothers in Mexico found that those who were exclusively breastfeeding had a weight reduction of 4.1 kg compared to those who did not breastfeed, thus reducing the risk of type 2 diabetes.

Self-esteem and satisfaction of body image were greater.

López-Olmedo N, Hernández-Cordero S, Neufeld LM, García-Guerra A, Mejía-Rodríguez F, Méndez Gómez-Humarán I. The associations of maternal weight change with breastfeeding, diet and physical activity during the postpartum period. *Matern Child Health J* 2016;20(02):270–280. Doi: 10.1007/s10995-015-1826-7

Cardiovascular diseases

- Women who breastfeed for long periods of time, 7–12 months after the first delivery, have a **28%** lower risk to develop **vascular diseases** compared with women who never breastfed.
- These findings are also associated with the weight loss and metabolic work to which the maternal organism is submitted for the daily production of milk, which may persist even after weaning.
- Women with a total breastfeeding time of **more than 2 years** had a **23%** lower probability of developing **coronary diseases** than women who never breastfed.

Protects against breast cancer

Breastfeeding Mode and Risk of Breast Cancer: A Dose–Response Meta-Analysis

[Mishel Unar-Munguía, PhD](#), [Gabriela Torres-Mejía, PhD](#), [...], and [Teresita González de Cosío, PhD](#)   [View all authors and affiliations](#)

[Volume 33, Issue 2](#) | <https://doi.org/10.1177/0890334416683676>

The study found that exclusive breastfeeding among parous women reduces the risk of breast cancer compared with parous women who do not breastfeed exclusively.

Breastfeeding averts breast cancer development

Figure 3

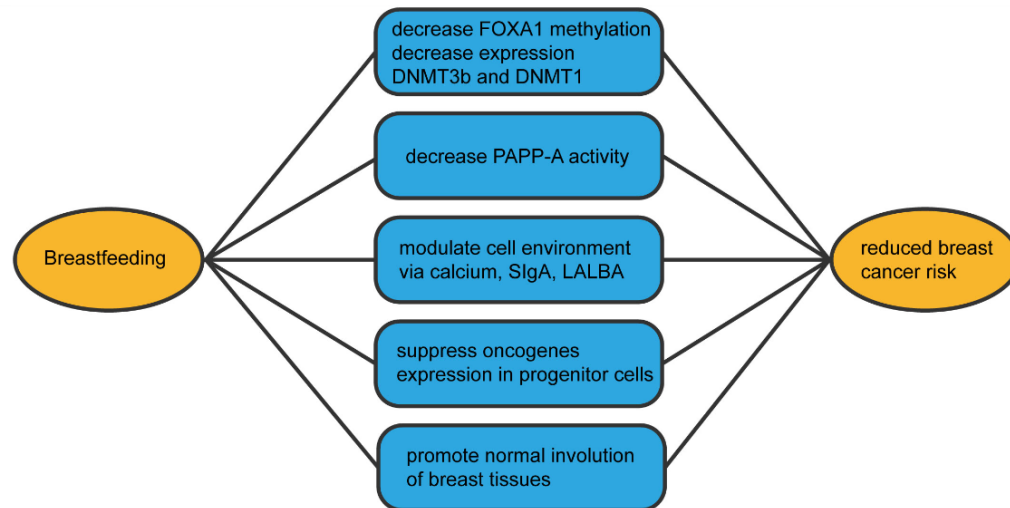





Figure 3 The mechanisms by which breastfeeding reduces the incidence of breast cancer.

Front. Oncol., 07 September 2023

Sec. Breast Cancer

Volume 13 - 2023 | <https://doi.org/10.3389/fonc.2023.1257804>

The role of breastfeeding in breast cancer prevention: a literature review

 Yulong Chen¹  Pengli Jiang²  Yongqin Geng^{3*}

More research required

Questions raised regarding breastfeeding reducing the risk of breast cancer: (Chen et al., 2023)

- How much breastfeeding is required to mitigate risk?
- Is three months sufficient?
- Is the first or last pregnancy more pivotal, or is complete breastfeeding month duration key to risk reduction?
- What are the potential confounding effects of menarche age on breastfeeding associations, alongside other lifestyle factors such as oral contraceptive use, alcohol consumption, and body mass index?

Conclusion

Lactation plays an important role in maternal recovery from pregnancy and can determine multiple aspects of maternal health in later life.

Prenatal education on breastfeeding is of paramount importance and the benefits for both maternal and infant health and wellbeing. As well as encouraging mothers to seek breastfeeding support early.



Q&As



Closing remarks

Certificates of Attendance

If you wish to receive a certificate of attendance for this workshop, completion of The Global Health Network Workshop feedback survey is required. Certificates will only be issued to participants who have attended 80% of the workshop.

Link to the feedback survey: www.LactaHub.org/Certificate

Please include the title of the event *Exploring the benefits of breastfeeding and breastmilk* and the code *071123* when requested.

Certificates will automatically be emailed to those eligible within one month of the workshop.



Thank you very much!

The recording of this LactaHub workshop will be available soon on:

www.LactaHub.org/LactaWebinar

We would like to thank all the expert participants for their time and dedication to bring you this free LactaHub workshop.

Illustration by Nadja Stadelmann