



World Health
Organization

Indicator Sheet

EXCLUSIVE BREASTFEEDING RATE

MoNITOR  **R**

The MoNITOR logo icon consists of a green circle containing a white heartbeat line (EKG) that ends in a heart shape.

CONCEPT AND DEFINITION

Concept Breastfeeding is one of the most important preventive health measures for both mother and child. WHO recommends exclusive breastfeeding for the first six months of life (and sustained for up to two years) to ensure optimal health for newborns (1). Breastfeeding provides essential nutrients to newborns, immunologic protection, and ensures optimal growth and development; it is economical, safe, and is associated with reduced newborn mortality and morbidity (2). Breastfeeding protects infants from infection and disease, such as diarrhoea and pneumonia. Breastfeeding is also good for mothers; it helps mothers form attachment and bonding with their newborns and allows women to space their children and reduces the risk of ovarian and breast cancers (2,3). WHO recommends that all mothers are supported to breastfeed as soon as possible after delivery, and within the first hour, in order to support continued breastfeeding to six months or longer (3).

The number of infants 0–5 months (< 6 months) of age who are fed exclusively with breast milk during a specified reference period is expressed as a percentage of the total number of infants 0–5 months (< 6 months) of age in the same period (4).

Definition **Unit of measurement:** Percentage (%)

Level of indicator use: Population-based at global, national and subnational (first or second administrative level)

Monitoring and evaluation framework: Outcome

Domain: Risk factors and behaviours

Continuum of care: Postnatal care

MEASUREMENT GUIDANCE

Data sources

There is one common data source for this indicator: population-based household surveys.

Population-based household surveys

The main source of data for this indicator has been through population-based household surveys collected through nationally or subnationally representative and structured questionnaires, such as:

- Demographic Health Surveys (DHS) (5)
- Multiple Indicator Cluster Surveys (MICS) (6)
- Reproductive Health Surveys (RHS)
- Other household surveys.

Population-based household survey data are the preferred data source for this indicator given the complexity of measurement to follow infants from birth to 6 months of life, especially in settings where utilization of health facility services is not very high (e.g. settings with a high prevalence of births occurring at home) or where private health sector data are excluded from routinely collected administrative data sources.

Key source of data: Depending on survey methodology,¹ the key source of data is either: (a) eligible women of reproductive age (15–49 years) are identified in the household survey for inclusion and interviewing using an individual women’s questionnaire; or (b) eligible children under the age of 5 years old (0–59 months) are identified in the household survey for inclusion and interviewing using an individual child’s questionnaire. Eligible woman or children under 5 are considered eligible for the survey if they are either usual residents or visitors of the household who stayed there the night before the interview.

In the DHS Phase VII (5), eligible women (between 15 and 49 years old) who had a live birth during a specified reference period, typically 2–5 years prior to the time of interview, are asked “*Did you ever*

¹ The MICS questionnaire asks mothers/primary caregivers of all eligible children under the age of 5 years old about exclusive breastfeeding. In the DHS, eligible women (15–49 years old) are asked questions about exclusive breastfeeding for all living children who reside with them in the household that they have given birth to in the two years preceding the survey interview.

breastfeed (NAME)?”, where “name” refers to the name of the live birth the individual woman had during the same reference period. For currently living children who reside with the woman in the household, a 24-hour recall of all solid and/or semi-solid foods and liquids consumed is asked similar to the description below for the MICS survey.

In the MICS (6), mothers or primary caregivers of the eligible children under 2 years old at the time of the survey interview are asked “*Has (NAME) ever been breastfed?*”, where “name” refers to the name of child. If the child was ever breastfed, women are then asked “*Is (NAME) still being breastfed?*” If the child is still being breastfed and is currently under 1 or 2 years of age, mothers/caregivers are asked to provide a 24-hour recall of all solids or liquids consumed by the infant the day prior to the interview, including drinking and/or eating any of the following² during the prior day or night:

- a. *Anything from a bottle with a nipple?*
- b. *Oral rehydration solution (ORS)?*
- c. *Vitamin or mineral supplements or any medications?*
- d. *Breast milk?*
- e. *Plain water?*
- f. *Juice or juice drinks?*
- g. *Clear broth?*
- h. *Infant formula?*
- i. *Milk?*
- j. *Any other liquids?*
- k. *Yoghurt?*
- l. *Fortified baby food?*
- m. *Foods made from grains?*
- n. *Pumpkin, carrots, squash, or sweet potatoes that are yellow or orange inside?*

² It is recommended that this list be customized for country and local contexts for liquids and solids that are available, including availability of local fruits and vegetables and brand names of infant formula and/or yoghurt.

- o. White potatoes, white yams, manioc, cassava, or any other foods made from roots?*
- p. Any dark green, leafy vegetables?*
- q. Ripe mangoes, papayas, or other vitamin-A rich foods?*
- r. Any other fruits or vegetables?*
- s. Liver, kidney, heart, or other organ meats?*
- t. Any other meat, such as beef, pork, lamb, goat, chicken, or duck?*
- u. Eggs?*
- v. Fresh or dried fish or shellfish?*
- w. Any foods made from beans, peas, lentils, or nuts?*
- x. Cheese or other food made from milk?*
- y. Any other solid, semi-solid, or soft foods?*

If consumption of any liquids or solids is mentioned, mothers/ caregivers are then asked: *“How many times did (NAME) eat any solid, semi-solid or soft foods yesterday during the day or night?”*

The Ministry of Health (MoH) and National Statistical Offices (NSO) typically conduct household surveys and compile, analyse and report the results for this indicator in collaboration with the survey programme (e.g. DHS, MICS, RHS) and funding agency.

Indicator definition and calculation: Information is collected in the questionnaire from the eligible women or mothers/caregivers based on a 24-hour recall of all solids and/or liquids consumed by the infant in the day or night prior to the interview. In order for the child to be considered “exclusively breastfed” the mother/caregiver must respond by saying that the child (a) is currently breastfeeding; (b) has had breast milk in the past 23 hours; and (c) has not received any other solids, semi-solids, or solid foods in the last day and night prior to the interview. The infant is allowed to have had vitamins, mineral supplements, medicine and/or ORS in the last day. Only children who are less than 6 months old at the time of the interview are included in the indicator calculation. The indicator is defined, as follows:

The percentage of mothers/caregivers of infants 0–5 months of age (< 6 months) who are fed exclusively with breast milk. The indicator consists of the following numerator and denominator:

Numerator: Number of infants 0–5 months of age who are exclusively breastfed.

Denominator: Total number of infants 0–5 months of age.

Frequency of measurement: Household surveys are typically conducted every 3–5 years.

Disaggregation at population level: By age (e.g. 0–1 month, 0–5 months), sex, place of residence (e.g. urban, rural), subnational administrative units (e.g. districts, provinces, regions), socioeconomic status (e.g. education level, household wealth quintile), age of woman at the time of delivery, births attended by skilled health personnel, number of antenatal (ANC) visits, timing of first ANC visit, and timing and location of the first postnatal health check.

Missing values: Missing or “don’t know” values for liquids and/or solids are assumed to indicate child is not exclusively breastfed.

INTERPRETATION AND USE

Interpretation

This indicator helps programme management at global, national and subnational levels by monitoring and evaluating whether safe motherhood and maternal and newborn health (MNH) programmes are on target with the levels and trends for exclusive breastfeeding. Monitoring this indicator demonstrates programme efforts for promoting and supporting breastfeeding in health facilities and communities for provision of MNH services, which is also a reflection of provision of recommended essential interventions immediately after birth. With that, it should be noted that exclusive breastfeeding should be measured in combination with early initiation of breastfeeding, which is an indication of sustained breastfeeding (7).

Common challenges

Data collected through household surveys

Unlike other maternal and newborn indicators, the strength of this indicator is that it does not suffer from the same issues of recall bias as it is asked according to a 24-hour recall of solids and liquids that the infant has consumed (8). However, asking only about liquids and solids consumed in the last 24 hours does not necessarily reflect accurate rates of exclusive breastfeeding. For example, an infant would be considered exclusively breastfed if they are currently breastfeeding and have not consumed any solids, semi-solids, or liquids in the last 24 hours, except for vitamins, minerals, medicines and/or ORS. However, this does not mean that the infant did not consume solids, semi-solids, and/or liquids more than 24 hours ago, and does not ascertain whether exclusive breastfeeding was maintained from birth to < 6 months of age. As a result, the 24-hour recall period to measure exclusive breastfeeding may slightly over estimate the percentage of exclusively breastfed infants.

Validation Studies

Technical work to improve the specificity of breastfeeding indicators (both early initiation and exclusive breastfeeding) would be beneficial, along with further evaluation of the usefulness of breastfeeding tracer indicators in measuring essential newborn care. Additional validation works are underway.

Published technical work to improve the specificity of this indicator has been conducted via the following:

Publications

Blanc AK, Diaz C, McCarthy KJ, Berdichevsky K. Measuring progress in maternal and newborn health care in Mexico: validating indicators of health system contact and quality of care. *BMC Pregnancy Childbirth*. 2016;16(1):255 (<https://doi.org/10.1186/s12884-016-1047-0>, accessed 22 October 2020).

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Willey B, Waiswa P, Kajjo D, Munos M, Akuze J, Allen E, Marchant T. Linking data sources for measurement of effective coverage in maternal and newborn health: what do we learn from individual- vs ecological-linking methods? *J Glob Health*. 2018;8(1):010601 (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5823029/>, accessed 22 October 2020).

GLOBAL MONITORING

Global database

The United Nations Children’s Fund (UNICEF) maintains databases for global monitoring and reporting on infant and young children feeding indicators, including the percentage of newborns who were breastfed within the first hour of life. UNICEF obtains data from nationally representative household surveys or routinely collected administrative data/services statistics. Before data can be included in the global databases, UNICEF undertakes a process of data verification that includes correspondence with field offices to clarify any questions regarding the reported statistics. More information about the global databases for early initiation of breastfeeding can be found at: <https://data.unicef.org/topic/nutrition/infant-and-young-child-feeding/>.

Key initiatives

Countdown to 2030 – Women’s, Children’s and Adolescents’ Health: <http://countdown2030.org/>

Every Newborn Action Plan (ENAP): http://apps.who.int/iris/bitstream/10665/127938/1/9789241507448_eng.pdf

Global Reference List of 100 Core Health Indicators (plus health-related SDGs), 2018: <https://www.who.int/healthinfo/indicators/2018/en/>

Global Strategy for Women’s, Children’s and Adolescents’ Health (2016–2030): <http://www.who.int/life-course/partners/global-strategy/en/>

WHO–UNICEF Global Breastfeeding Collective: <https://www.who.int/nutrition/topics/global-breastfeeding-collective/en/>

ADDITIONAL RESOURCES

UNICEF Data: Monitoring the Situation of Children and Women: Newborn care: <https://data.unicef.org/topic/maternal-health/newborn-care/>

Multiple Indicator Cluster Surveys (MICS): <http://mics.unicef.org>

The DHS Program: <http://www.dhsprogram.com/>

MEASURE Evaluation: Family Planning and Reproductive Health Indicators Database: Proportion of infants 0–5 months of age who are fed exclusively with breast milk: https://www.measureevaluation.org/prh/rh_indicators/womens-health/bf/proportion-of-infants-0-5-months-of-age-who-are

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