

# PREVALENCE OF USE OF CHILDREN'S FORMULAS IN INFANTS CARED FOR IN PRIMARY HEALTH CARE

## PREVALÊNCIA DO USO DE FÓRMULAS INFANTIS EM LACTENTES ATENDIDOS NA ATENÇÃO PRIMÁRIA A SAÚDE

**Luiane Rose Santos da Silva** - nanny.rss.mns@gmail.com

Nutritionist. Resident in Clinical Nutrition with an emphasis on Pediatrics and Nutritional Therapy, Federal University of Recôncavo da Bahia.

**Tialla Ravenna Santos de Oliveira** - tiallasantos@yahoo.com

Nutritionist. Specialist in Health Management. Master's student in Health of the Black and Indigenous Population, Federal University of Recôncavo da Bahia.

**Daniela Freire Sousa Ribeiro** - danisaj@gmail.com

Nutritionist. Specialist in food management and nutrition. Master in Microbiology from the Federal University of Recôncavo da Bahia-UFRB

**Jerusa da Mota Santana** - jersanutri@ufrb.edu.br

Adjunct Professor of the Nutrition Course, Health Sciences Center, Federal University of Recôncavo da Bahia.

**ABSTRACT: Introduction:** The supply of infant formulas to children under six months of age is prevalent in Brazil and when used indiscriminately and without nutritional prescription can cause harm to children's health. **Objective:** To identify the prevalence of infant formula in infants treated in Primary Health Care in a municipality in the Southwest of Bahia. **Methodology:** Cross-sectional study, carried out with 75 children and their mothers in Health Centers in the city of Jequié, Bahia, from March to August 2018. Social, economic, health and breastfeeding data were collected and the introduction of others food, such as infant formula. Descriptive statistics were used for data analysis. **Results:** Most mothers had low education, income less than one minimum wage, married/stable union, evangelical and race/color: brown/black. It was identified that 58.7% of mothers received guidance on infant feeding while still in the maternity ward, but the prevalence of infant formula supply was 42.3%. **Conclusion:** This study revealed a high prevalence of the use of infant formula in children under 6 months of age, despite the mothers having received guidance on the importance of exclusive breastfeeding in the maternity ward, suggesting the need to promote and support breastfeeding from prenatal care, in order to reduce the use of infant formula and promote exclusive breastfeeding.

**Keywords:** Breastfeeding; Child nutrition; Formulated foods.

---

## INTRODUCTION

According to the World Health Organization (WHO) and the Ministry of Health (MS), children up to six months of age should be fed exclusively with breast milk (LM), that is, without the offer of any other liquid or solid food, with the exception of drug vitamin supplementation. And from the sixth month of life it is recommended the introduction of food with the offer of fresh or minimally processed foods (subjected to some process, but that do not involve aggregation of substances to the original food)<sup>(1-2-3)</sup>.

Exclusive breastfeeding (AMEX) is a protective factor for adequate infant growth and development<sup>(1)</sup>, offers nutrition and immunization<sup>(4)</sup>, maturation of cells and intestinal microbiota<sup>(5-6)</sup>, with positive repercussions on the formation of eating habits<sup>(7)</sup> in immediate and later cycles of life.

Despite these benefits, it is observed that the practice of exclusive breastfeeding (AMEX) in Brazil still falls short of that recommended by the WHO/MS. Current epidemiological data reveal that the prevalence AMEX increased from 2.9%<sup>(8)</sup> to 45.7%<sup>(9)</sup> among children under six months of age, with important regional differences, with the northeast region having the lowest percentage.

In the impossibility of AMEX, the second recommended option for feeding infants is infant formula (FI)<sup>(2)</sup>, this is nutritionally balanced according to the stage of life, being the starting formula (FP) being the one whose composition has been changed or specially formulated to meet the specific needs arising from physiological changes and/or temporary or permanent diseases and/or for the reduction of the risk of allergies in individuals predisposed to infants up to the sixth month of life (5 months and 29 days)<sup>(10-1)</sup>.

Epidemiological data with Brazilian children under 6 months reveal a prevalence of the use of IF in the order of 29.3%, indicating that most of the time the introduction of this complement is carried out without having contraindications of breast milk<sup>(11)</sup> and also happens in the maternity hospital<sup>(12-13)</sup>.

The non-fed infant needs frequent nutritional monitoring, with evaluation of the scope of nutritional needs, monitoring of growth and development so that they happen as close as possible to the standard recommended by the WHO for healthy children in EMA <sup>(14-1)</sup>.

Thus, this study aims to identify the prevalence of infant formula supply in infants treated in primary health care in a municipality in the Southwest of Bahia.

## METODOLOGY

### **Study design, population and sample.**

This is a cross-sectional study, carried out in three Health Centers and a Family Health Unit (USF), in the municipality of Jequié, Bahia, from March to August 2018. The study was conducted with a sample of 75 children with the consent of their legal guardians. The sample size is determined based on the estimate of the population proportion, according to the Siqueira formula (2001):  $[(n= N.Z2. p. (1-p) / Z2. P. (1 - p) + e2. (N-1)]$ , adopting the sampling error of 5%, 95% confidence interval. Clinically healthy children up to six months of age were included in the study, accompanied by their guardians, who were registered in the Growth and Development-CD program of the health service. Children with heart disease, palatine alteration and other pathologies that interfere with the nutritional status are excluded.

### **Characterization of the municipality.**

Jequié, a municipality in the southwestern state of Bahia, located 365 km from Salvador, in the border zone between the caatinga and the forest zone. According to the census carried out by the Brazilian Institute of Geography and Statistics (IBGE), in 2022, the city has an estimated population of 158,812 thousand inhabitants. The city has 83 health establishments that provide care to the SUS, 54 of which are public units of health services, among them 21 Family Health Units (USF) and 6 Basic Health Units (UBS).

### **Data collection and variable definitions.**

Data collection took place during the follow-up of children under 6 months of age, in the Childcare services of the Health Centers, in accordance with the coordination of the units.

During the collection, the person responsible for the child was informed about the objectives of the research. After signing the Free and Informed Consent Form - TCLE, a semi-structured interview was conducted containing sociodemographic information, obstetric and neonatal <sup>50</sup>

history, breastfeeding pattern and use of infant formulas. It was considered exclusive breastfeeding when the child was fed only with breast milk, being asked if the mother offered only breast milk to the child, if not it was asked what other foods were offered.

For the characterization of the use of IF, those responsible were informed about the concept of IF, being later asked if it was offered over the six months IF to a child and if so, what type. In addition, it was questioned whether the day before infant formula was offered to the child. The definition of exclusive breastfeeding used are those adopted MS and WHO. The definition used for milk formula for children under 6 months of age are those adopted by the Food and Agriculture Organization of the United Nations (FAO)/WHO and the European Society for Paediatric Gastroenterology Hepatology and Nutrition (ESPGHAN).

### **Study variables.**

The main variable of this study is the offer of infant formula before 6 months, categorized into (yes and no) and the covariates for characterizing the study population are: Marital Status (married/union, stable or single)]; Religion (Catholic, evangelical, non-practicing Christian); Maternal schooling (incomplete elementary school, complete elementary school, incomplete high school, complete high school, incomplete higher education, complete higher education, postgraduate degree]; Family Income (< 1 minimum wage, 1 minimum wage, 1 to 2 minimum wages, 3 to 4 minimum wages); Race/Color (white, black, brown, yellow); Child Sex (female or male); Birth Weight [(low birth weight (1,500g To 2,499g), insufficient birth weight (2,500 to 2,999g), adequate birth weight (3,000g to 3,999g), macrosomy, ( $\geq 4000g$ )], Offer of Infant Formula before 6 months (yes and no), Offer of Infant Formula on the day before the research (yes and no); Exclusive Breastfeeding (yes and no); Nutritional Guidelines (yes and no).

### **Statistical analysis and ethical conditions.**

Descriptive analysis was performed, being a percentage for categorical and average variables and standard deviation for quantitative variables.

The prevalence of the supply of infant formula was carried out by means of the following calculation: total of children under 6 months exposed to infant formula / total of children under 6 months participating in the research, multiplied by 100 (one hundred). The data found were tabulated and analyzed in the SPSS Software version 17.0, the results were distributed in graphs and tables.

This study was approved by the Research Ethics Committee of the State University of Southwest Bahia on December 20, 2017 under CAAE number 80935617.7.0000.0055, opinion

No. 2,450,667, complying with the standards and requirements of research involving human beings established in resolution No. 466/2012 and 510/2016 of the National Health Council.

## RESULTS

75 children were evaluated, most of them male (60%) and with adequate birth weight (70.7%). The mothers mostly had incomplete high school (44%), lower income equal to a minimum wage (73.4%), evangelical (57.3%), race/color: brown/black (79.9%) and were married/stable union (74.7%), (Table 01).

**Table 01-** Sociodemographic characterization of guardians and children under 6 months, Jequié (BA), 2018.

Variables	n°	%
Marital Status		
Married/stable union	56	74,7
Single	19	25,3
Religion		
Catholic	20	26,0
Evangelical	43	5,3
Non-practicing	12	16,0
Maternal education		
< High school	33	44,0
Complete high school	32	42,7
Incomplete higher education	5	6,7
Complete higher education	5	6,6
Familiar Income		
< 1 minimum wage	29	38,7
1 to 2 minimum wages	41	54,7
3 to 4 minimum wages	5	6,7

Color/Race		
White	7	9,3
Black/brown	64	85,3
Yellow	4	5,3
Child's sex		
Feminine	30	40,0
Masculine	45	60,0
Birth weight		
Low birth weight (LBW)	8	10,7
Insufficient birth weight	12	16
Adequate birth weight	53	70,7
Fetal macrosomia	2	2,7

**Source:** Prepared by the author, 2018.

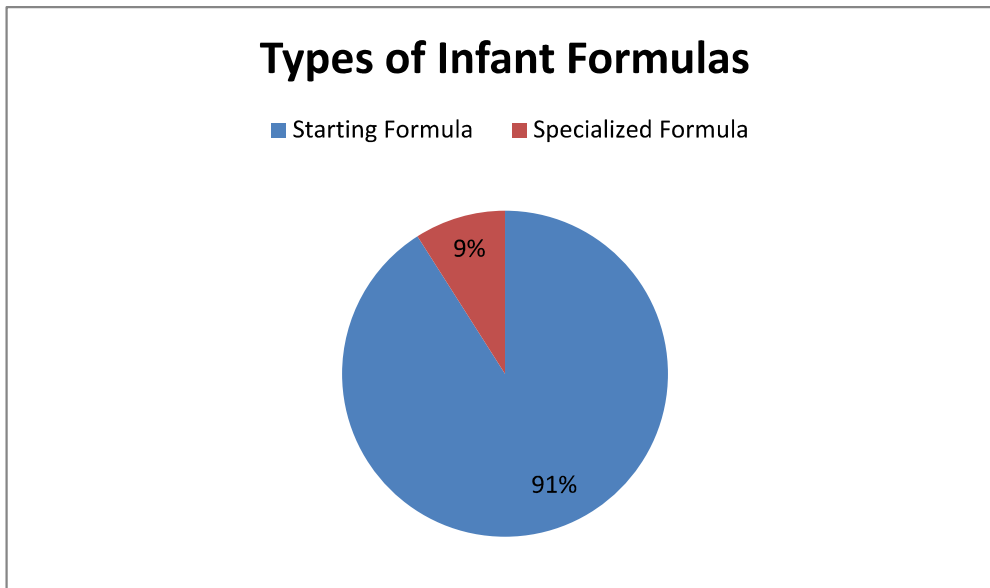
It was identified that 58.7% of mothers received guidance on exclusive breastfeeding still in the maternity hospital. Despite these guidelines, the prevalence of EMA until the sixth month of life was 36%. As for the supply of infant formula before the child's six months of life, there was a prevalence of 42.7%. In addition, it was identified that the day before the interview 56% of the children consumed IF (Table 02).

**Table 02-** Prevalence of the use of infant formula and exclusive breastfeeding in children under months of age, Jequié (BA), Brazil, 2018.

Variables	Yes n (%)	No n (%)
Offer of infant formula before 6 months	32 (42,7%)	43 (57,3%)
Infant formula offer the day before	42 (56,0%)	33 (44,0%)
Exclusive breastfeeding	27 (36%)	48 (64%)
Guidance on AMEX*	44 (58,7%)	31 (41,3%)

**Source:** Prepared by the author, 2018.

Of the children using infant formula, it was observed that 91% of them used starter formula and 9% specialized formula (Graph 01).



Source: Prepared by the author, 2018.

## DISCUSSION

Although most of the mothers in this study report having received guidance on exclusive breastfeeding still in the maternity hospital, a high prevalence of supply of infant formula in children under 6 months was identified, with PF for healthy children being the most used. These data indicate that the practice of EMA falls short of the recommendations of the Ministry of Health (MS) and the World Health Organization (WHO).

EMA is a protective practice for the health of the infant, capable of favoring the full potential for child growth and development. The absence of this practice has a negative impact on the cognitive, emotional, affective and immune development of the child, increasing the risk of nutritional deficit, cramps, food allergies <sup>(12)</sup>.

Amid the negative aspects related to breastfeeding time below the recommended <sup>(15)</sup>. The insertion of infant formula into the habits of the infant can also lead to some impacts considered negative on the family budget, which may vary between 20 and 30% in the middle of the minimum wage. It is also emphasized the expenses in the acquisition of items such as materials for hygiene, cooking gas and utensils for the preparation of these formulas <sup>(10)</sup>.

As in this study, national and international research records the supply of IF as a frequent practice in children under 6 months of age in various social contexts and worldwide <sup>(13-14)</sup> and often being an disruptor of exclusive breastfeeding <sup>(5)</sup>.

This reality is also found in several regions of Brazil with a prevalence of IF supply in the first months of life, ranging from 39.6% in Rio Grande do Norte <sup>(17)</sup>, 50% in the Amazon <sup>(18)</sup> and 78.9% in Mato Grosso do Sul <sup>(10)(18-19)</sup>.

In an intervention study developed in the State of Minas Gerais, it was possible to observe 54

that 48% of the children referred from the maternity hospital to a program of the municipality that provided IF to families in situations of social risk, began to use these formulas exclusively, even mothers presenting adequate milk production without contraindication to breastfeeding <sup>(18)</sup>.

The aforementioned work infers the need for evaluations of actions to encourage breastfeeding and prescription of IF in the practices of public health networks, because programs for families at social risk are important, but Candido et al <sup>(19)</sup>, describes prescriptions without contraindications, favoring the increase in the use of IF. In addition, scientific evidence records that the use of IF indiscriminately and without adequate nutritional prescription is associated with oral diseases, such as mouth breathing, malocclusion, change in the bite and cavities <sup>(20)</sup>, reduction of appetite regulation, which may result in childhood obesity <sup>(21)</sup>, alteration of intestinal microbiota <sup>(6)</sup>, constipation, colic and allergy to cow's milk protein <sup>(22)</sup>.

The high supply of IF has been justified in the scientific literature by the absence or insufficient guidance on breastfeeding and the lack of a support network since the prenatal period <sup>(16)</sup>. In this study, most mothers were still oriented in the maternity hospital for exclusive breastfeeding, however it is not known how these guidelines were carried out and nor if they were also offered in prenatal care. Therefore, it is emphasized the importance of prenatal care in the promotion and support of the EMA and promotion of a more individualized care, which serves women in a more specialized and humanized way, identifying their support network and including it in the process of care and support for breastfeeding <sup>(16)</sup> and at all levels of health care. In the tertiary care network, the Child-Friendly Hospital Initiative (IHAC) stands out. Scientific studies reveal that in hospitals that are friends with the child there is less prescription of IF and greater incentive of EME <sup>(23-24:26)</sup>. In the city where this study was conducted, there is no HAH, which may be reflecting in the results found.

Studies that analyze the BHAH portray that its success in promoting breastfeeding is related to the training of health teams, focusing on humanization and strengthening multidisciplinary care, listening to women without judgment, respecting them, supporting them and caring for them in their entirety.

Prenatal counseling has also proved to be extremely important, and it has been shown to be an intervention that increases the self-efficacy of breastfeeding of mothers, favoring better targeting of breastfeeding issues in the postpartum <sup>(27-28)</sup>.

It is recognized that the network of factors associated with the outcome under study is complex and needs to be understood in its entirety. Scientific evidence reveals several social and health determinants associated with the higher risk of introducing IF before the child's six months of life, among these stand out: marital status, education, age, parity and race/color<sup>(25-26-27)</sup>.

Thus, it is observed that those responsible for single children, with a low educational level



(26) under the age of 29 years, primiparous mothers(25) and brown race/color(29) are more likely to offer IF in the feeding of infants.

Despite the identification of the factors associated with the supply of IF before the first six months of the child's life, which is not the focus of this study, it was descriptively observed that most of the women participating in this study were of race/brow/black color, low education and low income, raising the hypothesis of possible interfering factors in this practice, despite the guidance on breastfeeding having been offered to the group still in the maternity hospital.

The limitations of this study are the absence of a deepening of data on the offer of infant formula among mothers who reported having offered FI on the day before the research. This variable was collected in a simple way (yes and no) and type of IF offered, without having information about prescription, professional guidance, preparation of the IF, quantity and duration of use. It is also noteworthy as a limitation of the study the small number of the sample, which did not allow the use of statistical tests.

Having as potential data on the prevalence AMEX is still low, portraying this reality in the region. In addition to highlighting the need for scientific production and discussion on the impacts of the use of IF and actions that reduce this panorama and encourage EME.

## CONCLUSION

This study recorded a high prevalence of IF supply in children under six months of age followed in the Primary Health Care of a municipality in the northeast of Brazil, revealing that the AMEX is still below that recommended by national and international health agencies. In addition, this study raises hypotheses of possible social factors interfering in the practice of the child's feeding in this period, such as race/color (brow/black), low education and low income.

In this way, these data indicate the need to improve and strengthen actions on EME in all care networks, focusing on the continuing education of health professionals who accompany pregnant women and women in the postpartum so that they are sensitive, empathetic and recognize the woman in their entirety, empowering her and placing her as a protagonist in the act of breastfeeding, thus favoring the reduction of the prevalence of the use of infant formulas as substitutes of EME.

It is highlighted the need for new studies that deal with the prevalence of the use of infant formulas in Brazil, especially in the northeast given the incipience of the data in these regions, in addition to encouraging the investigation of social factors interfering in the practice of infant feeding.

# REFERENCES

1. BRASIL. Ministério da Saúde. Guia alimentar para crianças brasileiras menores de 2 anos. MS, 2019.
2. BRASIL. Ministério da Saúde. CNES: Cadastro Nacional de Estabelecimentos de Saúde. Brasília. 2021. Disponível em: <http://cnes.datasus.gov.br/pages/estabelecimentos/consulta.jsp>. Acesso em: 10/09/2021;
3. WORLD HEALTH ORGANIZATION. Collaborative study team on the role of breastfeeding on the prevention of infant mortality: effect of breastfeeding on infant and child mortality due to infectious diseases in less developed countries: a pooled analysis. *Lancet*, v. 355, p. 451-455, 2000;
4. KOLETZKO B *et al.* Nutritional Care of Preterm Infants: Scientific Basis and Practical Guidelines. *World Review of Nutrition and Dietetics Home*, v. 110, p. 110s -177s, 2014; DOI 10.1159/000358466c. Disponível em: <https://doi.org/10.1159/000358466c>. Acessado em 06/09/2021;
5. MORAIS, M.B. Signs and symptoms associated with digestive tract development. *Jornal de Pediatria*, v.3, p. 46s -56s, 2016. DOI 10.1016/j.jpmed.2016.02.008. Disponível em: <https://doi.org/10.1016/j.jpmed.2016.02.008>. Acessado em 18/10/2021;
6. ZANELLA, A. *et al.* Influence of own mother's milk and different proportions of formula on intestinal microbiota of very preterm newborns. *Plos one*, v.14(5), 2019. DOI 10.1371/journal.pone.0217296. Disponível em: <https://doi.org/10.1371/journal.pone.0217296>. Acessado em 18/12/2021.
7. KOLETZKO B, *et al.* Cuidados Nutricionais de Bebês Prematuros.
8. Base Científica e Diretrizes Práticas. *World Rev Nutr Diet*. Basileia, Karger,2021, vol 122, pp XIII-XIV (DOI: 10.1159/000514773)
9. BOCCOLINI, C. S *et al.* Tendência de indicadores do aleitamento materno no Brasil em três décadas. *Revista De Saúde Pública*, v. 51, p. 108, 2017. DOI 10.11606/S1518-8787.2017051000029. Disponível em <https://doi.org/10.11606/S1518-8787.2017051000029>. Acessado em 20/09/2021.
10. ENANI – Estudo Nacional de Alimentação e Nutrição Infantil: Resultados Preliminares – Indicadores de aleitamento materno no Brasil – Rio de Janeiro; 2020. 9 p.
11. Brasil M da SaúdeS de AP à SaúdeD de P da Saúde. Guia alimentar para crianças brasileiras menores de 2 anos [Internet]. Brasília, DF: Ministério da Saúde; 2019. 265 p. Disponível em: [http://189.28.128.100/dab/docs/portaldab/publicacoes/guia\\_da\\_crianca\\_2019.p](http://189.28.128.100/dab/docs/portaldab/publicacoes/guia_da_crianca_2019.p) df. Acesso em: 01/11/2023.
12. BRASIL. Sociedade Brasileira de Pediatria. Manual de Alimentação: orientações para alimentação do lactente ao adolescente, na escola, na gestante, na prevenção de doenças e segurança alimentar. 4ª. ed. - São Paulo: SBP, 2018, p. 32s-40. Disponível em: [https://www.sbp.com.br/fileadmin/user\\_upload/pdfs/14617a-PDManualNutrologia-Alimentacao.pdf](https://www.sbp.com.br/fileadmin/user_upload/pdfs/14617a-PDManualNutrologia-Alimentacao.pdf). Acesso em: 10/09/2021;

13. BRASIL. Ministério da Saúde. II Pesquisa de Prevalência de Aleitamento Materno nas Capitais Brasileiras e Distrito Federal. Brasília: MS, 2009. Disponível em: [http://bvsmms.saude.gov.br/bvs/publicacoes/pesquisa\\_prevalencia\\_aleitamento\\_materno.pdf](http://bvsmms.saude.gov.br/bvs/publicacoes/pesquisa_prevalencia_aleitamento_materno.pdf). Acessado em 20/10/2021;
14. FERREIRA, I. R. et al. Práticas alimentares de crianças de 0 a 24 meses de idade em uso de fórmulas infantis. Revista da Associação Brasileira de Nutrição, RASBRAN, v. 8, n. 1, p. 03-09, 2017 ISSN 2357-7894. Disponível em: <https://www.rasbran.com.br/rasbran/article/view/530>. Acessado em 02/12/2021;
15. PINHEIRO, J. M. F. et al. Prevalence on the complement in offering food to newborns. Revista Brasileira de Saúde Materna Infantil, v. 21 (03), 202. DOI 10.1590/1806-93042021000300008. Disponível em: <https://doi.org/10.1590/1806-93042021000300008>. Acessado em 21/11/2021.
16. ESPGHAN Committee on Nutrition, Agostoni C et al. Breast-feeding: A commentary by the ESPGHAN Committee on Nutrition. Journal of Pediatric Gastroenterology and Nutrition, v. 49 (1), p.112s-125s, 2009. DOI 10.1097/MPG.0b013e31819f1e05. Disponível em: <https://doi.org/10.1097/MPG.0b013e31819f1e05>. Acessado em 10/10/2021;
17. McCoy MB, Heggie P. In-Hospital Formula Feeding and Breastfeeding Duration. Pediatrics [Internet]. 2020. Disponível em: <https://dx.doi.org/10.1542/peds.2019-2946>. Acessado em 01/11/2023
18. MEIRELLES, C. A. *et al.* Justificativas para uso de suplemento em recém-nascidos de baixo risco de um Hospital Amigo da Criança. Cadernos de Saúde Pública, v.24(9), p. 2001–2012, 2008doi:10.1590/s0102-311x2008000900006. Disponível em: <https://doi.org/10.3390/nu8050279>. Acessado:18/12/2021;
19. NEVES, P. A. R. *et al.* Consumption of breast milk, formula and other non-human milk by children aged under two years: analysis of 86 low and middle-income countries. Public Health Nutrition, v. 16, p. 1–20, 2020. DOI 10.1017/s1368980020004061. Disponível em: <https://doi.org/10.1017/s1368980020004061>. Acessado em 18/10/2021; em 15/12/2021;
20. SOUZA, N.K.T. *et al.* Aspectos envolvidos na interrupção do aleitamento materno exclusivo. Brazilian Journal of Surgery and Clinical Research, v.24, p.126s-129s, 2018. Disponível em: [https://www.mastereditora.com.br/periodico/20181103\\_222837.pdf](https://www.mastereditora.com.br/periodico/20181103_222837.pdf). Acessado em 17/12/2021;
21. MOSQUERA, P. S. *et al.* Factors affecting exclusive breastfeeding in the first month of life among Amazonian children. Plos One, v. 14(7), 2019. DOI: 10.1371/journal.pone.0219801. Disponível em: <https://doi.org/10.1371/journal.pone.0219801>. Acessado em 18/10/2021;
22. CÂNDIDO, F. G. *et al.* Amamentação *versus* distribuição gratuita de fórmulas infantis pelo Sistema Único de Saúde. Einstein, v. 19, eAO6451, nov. 2021. DOI: 10.31744/einstein\_journal/2021AO6451. Disponível em: [https://doi.org/10.31744/einstein\\_journal/2021AO6451](https://doi.org/10.31744/einstein_journal/2021AO6451). Acessado em 22/12/2021.
23. CARVALHO, C. *et al.* Fatores sociodemográficos, perinatais e comportamentais associados aos tipos de leite consumidos por crianças menores de seis meses: coorte de nascimento. Ciência & Saúde Coletiva, v.22, p.11, 2017. DOI:10.1590/1413-

- 812320172211.28482015. Disponível em: <https://doi.org/10.1590/1413-812320172211.28482015>. Acessado em 03/11/2021;
24. BRAHM, P. et al. Benefícios de la lactancia materna y riesgos de no amamantar. *Revista chilena de pediatría*, v. 88(1), p. 07–1, 2017. DOI 10.4067/S0370-41062017000100001. Disponível em: 10.4067/S0370-41062017000100001. Acessado em 20/11/2021.
  25. DISANTIS, K. I. *et al.* Do infants fed directly from the breast have improved appetite regulation and slower growth during early childhood compared with infants fed from a bottle?. *International Journal of Behavioral Nutrition and Physical Activit*, v. 8(1), p. 89s – 90s, 2011. DOI 10.1186/1479-5868-8-89. Disponível em: 10.1186/1479-5868-8-89. Acessado em 20/11/2021.
  26. VANDENPLAS, Y. *et al.* Algorithms for managing infant constipation, colic, regurgitation and cow's milk allergy in formula-fed infants. *Acta Paediatrica*, v.104 (5), p. 449s-457, 2015. DOI 10.1111/apa.12962. Disponível em: <https://doi.org/10.1111/apa.12962>. Acessado em 18/12/2021.
  27. SILVA, O. L. O *et al.* The Baby-Friendly Hospital Initiative: increasing breastfeeding and decreasing infant mortality in Brazil. *Revista Brasileira de Saúde Materno Infantil*, v. 18(3), p. 481s–489s, 2018. DOI 10.1590/1806-93042018000300003. Disponível em: <https://doi.org/10.1590/1806-93042018000300003>. Acessado em 18/10/2021
  28. PÉREZ – ESCAMILA, R. *et al.* Impact of the Baby-friendly Hospital Initiative on breastfeeding and child health outcomes: a systematic review. *Maternal Child Nutrition*, v. 12 (3), p. 402s-417s, 2016. DOI 10.1111/mcn.12294. Disponível em: <https://doi.org/10.1111/mcn.12294>. Acessado em 06/12/2021;
  29. PINHEIRO, J. M. F. *et al.* Prevalência e fatores associados à prescrição/solicitação de suplementação alimentar em recém-nascidos. *Revista de Nutrição*, v.29(3), p.367s–375s, 2016. DOI10.1590/1678-98652016000300007. Disponível em: <https://doi.org/10.1590/1678-98652016000300007>. Acessado em 10/11/2021;
  30. PIERRO J *et al.* Fatores Associados à Formulação Suplementar de Amamentação infantil durante a internação hospitalar pós-parto. *Breastfeed Medicine*, v.11, p. 196-202, 2016 DOI 10.1089/bfm.2015.0091. Disponível em: <https://doi.org/10.1089/bfm.2015.0091>. Acessado em 06/12/2021;
  31. SHAFAEI, FS, MIRGHAFORVAND, M. & HAVIZARI, S. O efeito do aconselhamento pré-natal sobre a autoeficácia da amamentação e a frequência de problemas de amamentação em mães com amamentação anterior malsucedida: um ensaio clínico controlado randomizado. *BMC Women's Health* 20, 94 (2020). <https://doi.org/10.1186/s12905-020-00947-1>. Acessado em 05/04/2021;