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### INTEGRATIVE LITERATURE REVIEW ARTICLE

# NEWBORN HOME VISIT\* A VISITA DOMICILIAR AO RECÉM-NASCIDO VISITA DOMICILIARIA AL RECIÉN NACIDO

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### **ABSTRACT**

Objective: to analyze the scientific production on newborn home visit. Method: this is a bibliographic study, type integrative literature review, from 2014 to 2018, on the CAPES Periodical Portal and the Virtual Health Library. Data were analyzed using simple statistics and the Content Analysis technique. Results: studies were performed on the African continent (37%); published in the United Kingdom (48%); quantitative (66%); randomized controlled (25.9%). In the Content Analysis, the following categories were listed: << Health improvement strategies >>; << Global models for the development of home visits to the newborn and their impacts >> and << Barriers and difficulties in carrying out home visits >>. Conclusion: it is clear, despite the lack of identification of a scientific standardization regarding home visits to the newborn, that there is global evidence of the benefits to maternal and neonatal health, especially in developing countries. Descriptors: Infant-Newborn; House Calls; Primary Prevention; Child Care; Health Promotion; Primary Health Care.

### **RESUMO**

Objetivo: analisar a produção científica sobre visita domiciliar ao recém-nascido. Método: trata-se um estudo bibliográfico, tipo revisão integrativa da literatura, com recorte temporal 2014-2018, no Portal de Periódicos CAPES e na Biblioteca Virtual de Saúde. Analisaram-se os dados utilizando a estatística simples e a técnica de Análise de Conteúdo. Resultados: desenvolveram-se os estudos no continente africano (37%); publicados no Reino Unido (48%); quantitativos (66%); randomizados controlados (25,9%). Elencaram-se, na Análise de Conteúdo, as seguintes categorias: << Estratégias de melhoria da saúde >>; << Modelos globais para o desenvolvimento das visitas domiciliares ao recémnascido e seus impactos >> e << Barreiras e dificuldades para a realização da visita domiciliar >>. Conclusão: percebese, a despeito da não identificação de uma padronização científica relativa à visita domiciliar ao recém-nascido, que há evidências globais dos benefícios à saúde materna e neonatal, sobretudo, nos países em desenvolvimento. Descritores: Recém-Nascido; Visita Domiciliar; Prevenção Primária; Cuidado da Criança; Promoção da Saúde; Atenção Primária à Saúde.

### RESUMEN

Objetivo: analizar la producción científica en visita domiciliar a recién nacido. Método: se trata de un estudio bibliográfico, tipo revisión integradora de la literatura, con un marco temporal 2014-2018, en el Portal Periódico CAPES y la Biblioteca Virtual en Salud. Los datos se analizaron mediante estadísticas simples y la técnica de Análisis de Contenido. Resultados: se realizaron estudios en el continente africano (37%); publicado en el Reino Unido (48%); cuantitativo (66%); estudios controlados aleatorios (25,9%). En el Análisis de Contenido, se enumeraron las siguientes categorías: << Estrategias de mejora de la salud >>; << Modelos globales para el desarrollo de visitas domiciliarias al recién nacido y sus impactos >> y << Barreras y dificultades para realizar visitas domiciliarias >>. Conclusión: está claro, a pesar de la falta de identificación de una estandarización científica con respecto a las visitas domiciliarias al recién nacido, que hay evidencia global de los beneficios para la salud materna y neonatal, especialmente en los países en desarrollo. Descriptores: Recién Nacido; Visita Domiciliaria; Prevención Primaria; Cuidado del Niño; Promoción de la Salud; Atención Primaria de Salud.

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### INTRODUCTION

Primary Health Care / PHC is characterized by a set of actions aimed at health promotion, disease prevention, treatment rehabilitation, based on overcoming fragmentation of systems to effectively reach resolution in health care. It is known that these actions, which will determine the context of public health in the regions, are of increasing relevance on the world stage. them, surveillance stands characterized by articulated actions aimed at controlling the determinants of health risks or damage, including individual or collective approaches, from the perspective comprehensive care.<sup>1</sup>

One of the strategies of health surveillance is the Home Visit (HV) to approach and monitor the health needs of the population. The World Health Organization (WHO) presents the HV as an applied strategy for the prevention of infant morbidity and mortality, recommending that it be performed on the newborn and their family in the first week of life.<sup>2</sup>

HV is pointed out as a common and growing practice in many countries due to its ability to impact the improvement of indicators related to maternal and child health, with the potential for health promotion, disease prevention and consequent reduction in morbidity and mortality.<sup>3-5</sup> The approach of health professionals to the newborn and his family is configured, in a complex moment of transition in the family routine that demands attention and care, a strategy for the (re) knowledge of the complications that require referral for their resolution.<sup>6</sup>

Therefore, it is essential that the HV occurs after hospital discharge so that the continuity of appropriate care is guaranteed. It will also favor the construction of the bond between the family and the health team, promoting family strengthening and autonomy and privileging safe home care for the newborn.<sup>7</sup>

Home visit initiatives implemented to promote development and quality child care were registered by international scientific publications, prioritizing families / mothers in greater social and economic vulnerability.<sup>5</sup>

It is informed that, in Brazil, the HV is one of the attributions of the health professionals who work in Primary Health Care, among which the community health agent stands out,

however, it can also be conducted by any professional of the Care team. Primary Health Care (PHC) and its implementation is recommended in the first week of life.<sup>8</sup>

However, it was observed, in this scenario, that occurrences of neonatal complications persist, especially early ones, such as: avoidable deaths; the non-implementation of the HV strategy to all families and the absence of a multidisciplinary approach.<sup>9</sup>

From this perspective, the relevance of the analysis of national and international publications that address home visits to the newborn is highlighted. Thus, this study seeks to answer the question: "What is the state of the art, nationally and internationally, regarding the HV to the newborn?".

#### **OBJECTIVE**

• To analyze the scientific production on home visits to newborns.

### **METHOD**

It is a bibliographic study, like an integrative literature review, following the steps: elaboration of the guiding question; establishment of criteria for inclusion and exclusion of studies and search in the literature; data collection by defining the information to be extracted from the selected studies / categorization of the studies; critical analysis of the included studies; interpretation of results and presentation of the integrative review through the synthesis of knowledge.<sup>10</sup>

Publications from 2014 to 2018 were selected, without language restriction. The following criteria were defined for inclusion: works derived from research; original articles and systematic reviews. The level of evidence of the study was carried out through the GRADE system - manual for grading the quality of evidence and strength of recommendation for decision making in health.

The following were excluded: research and experience reports in the format of graduation course, specialization and research reports; original articles and experience reports published in other media, other than scientific journals; theoretical essay articles, reflections, non-systematic bibliographic reviews, letters, reviews, editorials, books, book chapters and newsletters; studies that did not meet the objective of this research and studies that are not available entirely online.

Primary data were collected between January 3 to February 2, 2019 with the application of the strategy, according to PICO, in which:  $P_{Population} = newborn$  or neonate;  $I_{Intervention} = home \ visit$ ;  $C_{Comparisson} = not \ applied$ ;  $O_{Outcome} = health$ . The following search strategy was used: (("Newborn" OR Neonate) AND "Home Visit" AND Health). It was decided, in relation to the databases, after previous survey of the quantity and relevance of the

publications, through the CAPES Periodical Portal - Coordination for the Improvement of Higher Education Personnel, on the website <a href="http://www.periodicos.capes.gov.br/">http://www.periodicos.capes.gov.br/</a>, from which three scientific publications from 15 previously selected were analyzed, and by the Virtual Health Library (VHL / BIREME), website <a href="https://www.regional.bvsalud.org">www.regional.bvsalud.org</a>, with the analysis of 24 out of 77 selected, as shown in the flow diagram of figure 1.

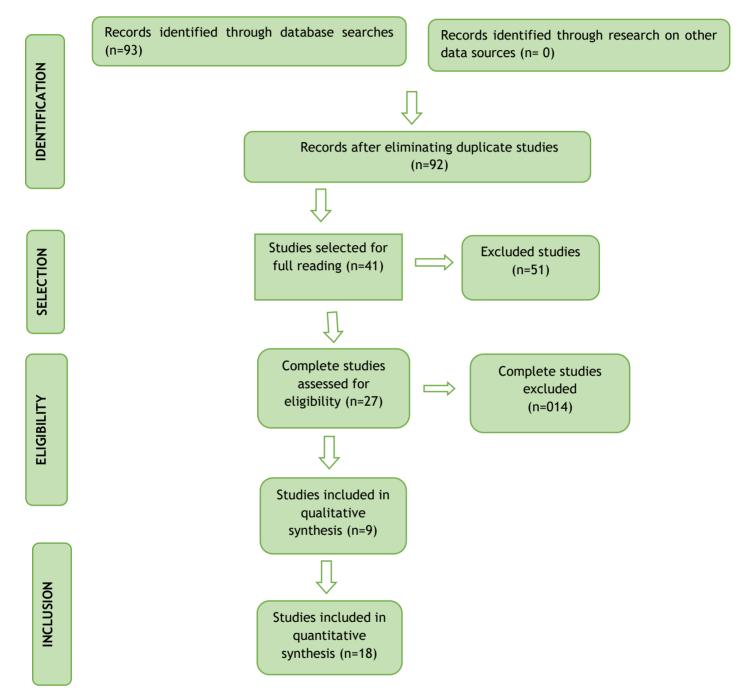


Figure 1. Flowchart of study selection adapted from Preferred Reporting Items for Systematic Reviews and Meta-Analyzes (PRISMA 2009). Curitiba-PR, Brazil, 2018.

All studies identified in the search strategy were initially evaluated, after applying the inclusion criteria, with the analysis of titles and abstracts. The publication was read in its entirety, in situations where the titles and abstracts were not sufficient, ending this stage of the search with 27 works included in the integrative review.

Then, a support tool was applied for the extraction and analysis of study data, in the

Microsoft Office Excel® program, composed of the following variables: year; title; authors, training and attachment; nature of the study; goal; methodology; main results of interest and conclusions. The extraction and analysis steps were carried out by two independent reviewers.

Data was evaluated and organized using simple statistics and the Content Analysis technique in the Thematic Categorical

Analysis modality, in three phases: preanalysis; the exploration of the material and the treatment of the results obtained.<sup>11</sup>

In the pre-analytic, a floating reading was used for the appropriation of the content, approximation of the particularities and systematization of the main ideas. Next, the material was explored with a thorough reading, grouping nuclei of meaning to structure the categories. The categories were built by convergence, considering the analysis variables: objectives; of the results: discussion and conclusion of scientific publications. Finally, the results obtained treated using an interpretative process.<sup>11</sup> The theoretical support of this review was developed from the approach to the categories.

To guarantee quality, reliability and scientific rigor, the findings of publications by two researchers were reviewed, meeting some possible recommendations from the PRISMA checklist.

### **RESULTS**

In this chapter, the variables analyzed in this review are presented, from the profile of the studies according to the traced variables to the structured categories for analysis.

## ♦ Characterization of publications on the theme of HV to the newborn

The 27 selected studies between 2014 and 2018 were published, distributed year by year as follows: 2014 - eight studies (29.6%); 2015 - six studies (22.2%); 2016 - five studies (18.5%); 2017 - two studies (7.4%) and 2018 - six studies (22.2%), as shown in figure 2.

Item	Year and place of study	Authors	Professional who visits	Title	Level of evidence (GRADE)
1	2014 - Brazil	Santos, Balamunit, Souza, Rosseto. <sup>7</sup>	Nurse	Perception of mothers of premature babies about home visits before and after discharge.	Low
2	2014 - Asia- Paquistan	Lassi, Das, Salam, Bhutta. <sup>3</sup>	Community agent	Evidence from community level inputs to improve quality of care for maternal and newborn health: interventions and findings.	High
3	2014 - Brazil	Mazzo, Brito, Santos. 12	Nurse	Nurses' activities during the postpartum home visit.	Low
4	2014 - China	Chen, Quiong, van Velthoven, Yanfeng, Shuyi, Ye, <i>et al</i> . <sup>13</sup>	Specialized maternal and child health	Coverage, quality of and barriers to post-natal care in rural Hebei, China: a mixed method study.	High
5	2014 - Sub- Saharan Africa	Penfold, Manzi, Mkumbo, Temu, Jaribu, Shamba, <i>et</i> <i>al</i> . <sup>14</sup>	Trained volunteers	Effect of home-based counselling on new born care practices in southern Tanzania one year after implementation: a cluster-randomized controlled trial.	High
6	2014 - Asia/India	Mazumder, Taneja, Bahl, Mohan, Strand, Sommerfelt, et al. <sup>15</sup>	Community agent	Effect of implementation of integrated management of neonatal and child hood illness program on treatment seeking practices for morbidities in infants: cluster randomized trial.	High
7	2014 - Africa- Ghana	Manu, Asbroek, Soremekun, Gyan, Weobong, Tawaih- Agyemang, <i>et al</i> . <sup>16</sup>	Trained volunteers or professionals	Evaluatingtheimplementationofcommunityvolunteerassessmentandreferralofsick babies: lessons learned from the Ghana New hints home visits cluster randomized controlled trial.	High
8	2014 - Africa- South Africa	Tomlison, Doherty, Ijumba, Jackson, Lawn, Persson, <i>et</i> <i>al</i> . <sup>17</sup>	Community agent	Good start: a cluster randomizes defectiveness trial of an integrated, community-based package for maternal and new born care, with prevention of mother-to-child transmission of HIV in a South African town ship.	High
9	2015 - Africa and Asia	Kozuki, Guenther, Vaz, Moran, Soofi, Kayemba, et al. <sup>18</sup>	Community agent	A systematic review of community-to-facility neonatal referral completion rates in Africa and Asia.	High
10	2015 - Africa- Kenya	Mascarenas, Wurzburger, Garcia, Tomedi, Mwhanthi. 19	Community agent	The promise of home visitation community health workers in rural Kenya: A protective effect that reduces neonatal illness.	High
11	2015 - Sub- Saharan Africa	Duysburgh, Kerstens, Kouanda, Kaboré, Yugbare, Gichangi, <i>et al</i> . <sup>20</sup>	Not informed	Opportunities to improve post-partum care for mothers and infants: design of context-specific packages of postpartum interventions in rural districts in four sub-Saharan African countries.	Moderate
12	2015 - United States	Miller. <sup>5</sup>	Nurse	Projected Outcomes of Nurse-Family Partnership Home Visitation During 1996-2013, USA.	High
13	2015 - Africa- Uganda	Waiswa, Pariyo, Kallander, Akuze, Namazzi, Ekirapa- Kiracho. <sup>21</sup>	Trained volunteers	Effect of the Uganda New born Study on care-seeking and care practices: a cluster-randomized controlled trial.	High
14	2015 - United States	Parker, Warmuskerken, Sinclar. <sup>22</sup>	Nurse	Enhancing neonatal wellness with home visitation.	High
15	2016 - Africa- Ghana	Pitt, Tawiah, Soremekun, Asbroek, Manu, Tawaih- Agyeman, <i>et al</i> . <sup>23</sup>	Community agent	Cost and cost-effectiveness of newborn home visits: findings from the New hints cluster-randomized controlled trial in rural Ghana.	High

16	2016 - Africa	Kananura, Tetui, Mutebi, Bua, Waiswa, Kiwanuka, <i>et</i> <i>al</i> . <sup>24</sup>	Agente comunitário	The neonatal mortality and its determinants in rural communities of Eastern Uganda.	High
17	2016 - Various countries	Lassi, Middleton, Bhutta, Crowther. <sup>25</sup>	Not informed	Strategies for improving health care seeking for maternal and newborn illnesses in low- and middle-income countries: a systematic review and meta-analysis.	High
18	2016 - Africa- Uganda	Ayiasi, Kolsteren, Batwala, Criel, Crach. <sup>26</sup>	Health Professional	Effect of Village Health Team Home Visits and Mobile Phone Consultation son Maternal and Newborn Care Practices in Masindi and Kiryandongo, Uganda: A Community-Intervention Trial.	High
19	2016 - United States - Boston	Awindoago, Smith, Litt. <sup>27</sup>	Nurse	Predictors of care giver satisfaction with visiting nurse home visits after NICU discharge.	High
20	2017 -United States	Casey, Irby, Withers, Dorsey, Li, Rettiganti M. <sup>28</sup>	Multiprofessional team	Home Visiting and the Health of Preterm Infants.	High
21	2017 - Nepal	Mâlqvist, Pun, Kc. <sup>29</sup>	Health professional	Essential newborn care after home delivery in Nepal.	
22	2018 - Africa- Ethiopia	Amare, Scheelbeek, Schellenberg, Berhanu, Hill. <sup>30</sup>	Community agent	Early postnatal home visits: a qualitative study of barrier sand facilitators to achieving high coverage.	Moderate
23	2018 - Brazil	Lucena, Guedes, Cruz, Santos, Collet, Reichert. <sup>31</sup>	Nurse	First week comprehensive health of the newborn: actions of nurses from the Family Health Strategy.	Low
24	2018 - Afghanistan	Edmond, Yousufi, Anwari, Sadat, Staniczai, Higgins- Stelle, <i>et al</i> . <sup>32</sup>	Community agent	Can community health worker home visiting improve care-seeking and maternal and newborn care practices in fragile estates such as Afghanistan? A population-based intervention study.	High
25	2018 - Africa, India and Asia	McPherson, Hodgins. <sup>33</sup>	Not informed	Postnatal home visitation: Lessons from country programs operating at scale.	High
26	2018 - Brazil	Maia, Lima, Vezzini, Tamburlini. <sup>4</sup>	PHC Team Professional	Innovative home visits and maternal and child health.	High
27	2018 - Brazil	Medeiros, Costa.9	Nurse	Postpartum period: the importance of home visits for nurses in Primary Health Care.	Low

Figure 2. Distribution of scientific publications of the Integrative review according to year and country of publication, name of the authors, professional who carries out the visit, title and level of evidence. Curitiba (PR), Brazil, 2019.

Regards to continents of development of the selected studies, nine (33.3%) publications came from the American continent, of which: five (18.5%) are from South America, specifically from Brazil, and four are from North America (14.8%), all from the United States; from the African continent, there were ten studies (37.0%), nine (33.3%) specifically from countries in the Sub-Saharan Africa region, and the Asian continent came up with four studies (14.8%).

For some studies, more than one region was involved, namely: one study (3.7%) in Africa and Asia; a study (3.7%) in Asia and India; a study (3.7%) in Africa, Asia and India; one (3.7%) included several countries and different continents.

In addition, with respect to the variable that indicates the professional responsible for

the HV in Brazil, four publications (80%) address it by the professional nurse and one (20%) proposes that it be carried out by any member of the PHC team at the place. In the United States of America, a study (25%) attributed the visit to a multidisciplinary team and the others (75%) to nurses; in Asia, the performance of the HV to the newborn is performed by community health agents or by some health professional, whereas in China, it is evidenced by a maternal and child health professional; in Africa, the continent of most studies, the HV is carried out by community health workers, by health professionals, by volunteers trained by professionals or both.

It is evident that the journals in which most of the analyzed articles were published belong to the area of Sciences and Health, 13 of which are from the United Kingdom (Figure 3).

Journal	Num. of Publications	Country of origin	Area
Investigation and Education in Nursing	1	Colombia	Nursing
Brazilian Journal on Health Promotion	1	Brazil	Health promotion
Journal of the Northeast Nursing Network	1	Brazil	Nursing
BMC PUblic Health	6	United Kingdom	Science
The Lancet Global Health	1	United Kingdom	Health
Reproductive Health	2	<b>United States</b>	<b>Human Reproduction</b>
Nursing Journal UERJ	1	Brazil	Nursing
Gaúcha Nursing Journal	1	Brazil	Nursing
Clinical Pediatrics	1	United States	Pediatrics
Scandinavian Journal of Public Health	1	United States and the United Kingdom	Public health
Education for Health	1	United Kingdom	Health education
British Medical Journal	1	United Kingdom	Medicine
Health Policy and Planning	1	United Kingdom	Health Policy and Planning
Tropical medicine and International Health	1	United Kingdom	Medicine and Health
Prevention Science	1	Switzerland	Public health
Global Health Action	2	Sweden	Health and Epidemiology
Nursing for Women's Health	1	United States	Nursing and health
PlosOne	1	United States and the United Kingdom	Science
Journal of Perinatology	1	United States	Perinatology
Journal Global Health	1	United Kingdom	Health

Figure 3. Distribution of the articles of the integrative review according to their respective journals, number of publications, country of origin and professional area of the journal. Curitiba (PR), Brazil, 2019.

Papers were published by 186 authors, with an average of six authors per paper, and only one article (3.70) was authored only. Most authors are discriminated in just one publication; 22 researchers are authors of two studies and 12 are authors of three.

As for authorship, it was impossible due to the significant difficulty in obtaining information regarding the institutional link and the authors' performance, the synthesis of this variable. Finally, it is pointed out, regarding the nature of the studies, that the approach was predominantly quantitative (66.6%) in 18 studies, also featuring the qualitative (18.5%) and mixed (7.4%) approach. It should be noted that the study design with the highest occurrence was the randomized controlled trial, with seven studies (25.9%), and three (11.1%) publications are systematic reviews.

## ♦ Categories of publications on HV for newborns

It is explored, by the organized categories, the HV as a strategy for the qualification of health, for the approximation and development of the health service - family bond, however, there are difficulties that permeate its realization. Thus, for the

subsequent discussion, as shown in Table 3, the following categories were organized: 1. Strategy for improving the health level of the maternal, child and general population; 2. Global models for the development of home visits to the newborn and their impacts; and 3. Barriers and difficulties in performing the HV.

Column 1 - Analysis Categories	Column 2 - Defining aspects
1 Strategy for improving the health level of the maternal, child and general population	Health Promotion and prevention actions constitute pillars for health improvement strategies.¹ Since Health Promotion "is a process of empowering the community to act to improve their quality of life and health, including greater participation in controlling this process".³⁴ Prevention of disease or event is the early visualization of risks, with making decisions that can remove or reduce the effects of possible damage. Being a continuous process, a path to be followed in order to achieve greater and greater effectiveness in controlling eminent risk.¹
2 Global models for the development of Home Visits to Newborns and their impacts 3 Barriers and difficulties in carrying out home visits	The approach to the family must consist of moments, allowing health professionals to naturally establish, from the approach and interaction, the bond with the user / family, thus providing the necessary interventions.¹ Difficulty, is attributed to what is considered difficult, laborious, arduous or laborious, or prevents the accomplishment of something.¹ The barriers and difficulties, on the other hand, hurt the essential principles of Primary Health Care, such as: longitudinality, which aims at the organization of the service and the strengthening of the relationship (bond) between staff and service users, by breaking the continuity; and, the coordination principle, which refers to the ability of primary care providers to coordinate the use of services in the territory and, at other levels of care.³5

Figure 4. Analysis categories according to their concepts and defining aspects.

### **DISCUSSION**

Most of the studies included in this review were published in UK journals, developing them on the African continent, which is justified by the high mortality rates in the Sub-Saharan Africa region and the worldwide interventions by health organizations to improve indicators. It is noteworthy that Uganda, for example, had a high Neonatal Mortality Rate, with 44.7% of deaths occurring within six hours after delivery; 30.9%, in the early neonatal period and 24.5%, in the seven to 28 day period, reinforcing the need to implement practices for the prevention and promotion of neonatal care. Among these practices, it is worth highlighting the HV programmed in a timely manner, which, despite the clear lack of standardization, reduced the risk of death of newborns by 70%.36

Some studies have listed (barriers and difficulties, how many?) Barriers and difficulties for carrying out the visit, with a consensus on the perception of improved health conditions through prevention and promotion achieved with the strategy.

In China, in 2009, despite the government's definition of a policy for the provision of free

services related to postnatal care, in a survey of 1601 participants, only 110 (8%) received their first HV in time opportune during the first week of life and 165 (13%), in the puerperal period until the 42nd day, and the reasons for this low proportion, according to the perception of the participants, were: lack of knowledge about postnatal care (65%) and no appreciation of the need (24%), considering that the HV was performed by a maternal and child health professional.<sup>13</sup>

## ♦ Category 1 - Strategy to improve the health level of the maternal, child and general population

Through the HV to the newborn, the provision of personalized health care to the population in their homes is favored and the performance of health agents in primary care is able to mobilize the community and transmit knowledge, 3,14,21 thus raising the satisfaction and quality of life of families. 27,31

It is understood that, in the family's perception, the HV, from the perspective of support, encourages and empowers them for care, considering that hospital discharge occurs in a protocol manner, most of the time, disregarding living conditions and competence of parents / family.<sup>4,7,14,17,31</sup> It is known that the visit is a viable strategy for

promoting the safe transition of care, for mothers and their newborns, from hospital to home, <sup>22</sup> considering their scenarios, life contexts and cultures.

HV is presented as a strategy that enables health promotion and disease prevention through health education aimed at providing care, assessing and monitoring the warning signs and referrals of newborns at risk, provided that health services are of good quality for care. It is also an opportunity to promote breastfeeding, encouraging supporting early breastfeeding, with the maintenance of the exclusive offer; 3-5,17,21-2,27 promoting family planning<sup>17</sup> and increased immunization coverage; 3,5,17,28 favoring health education with a focus on baby care, 6,26,32 like caring for the umbilical stump<sup>13-4</sup> and bathing home, 14,21 at the newborn including observation of danger signs<sup>13,17,22</sup> family members and guardians seek, with the support of the health service, adequate and timely care and the consequent impact on reducing neonatal and infant morbidity and mortality. 3,20,28-30

Through the approximation of health professionals to the newborn and his family, mediated by the HV, the strengthening of the bond with the health teams is promoted, improving the use of health services for monitoring and prevention, thus reducing hospitalizations for complications, as well as emergency consultations. It was considered, in a study projecting the results of performing HV to families in the pre and postnatal period, that the strategy can reduce smoking, complications in pregnancy and injuries in childhood, improving child care for the development of language, increasing the proportion of breastfeeding and compliance with immunization schedules. It is possible, due to this set of aspects, to generate savings in financial investments in health due to the reduction of visits for the treatment of acute situations, in addition to preventing or preventing the occurrence of: about 500 infant deaths; 10,000 premature births; 4,700 thousand incidents abortions; 42 mistreatment; 36,000 incidents of violence against intimate partners; 90,000 violent crimes by young people; 36,000 youth arrests and 41,000 person-years of substance abuse by youth.<sup>5</sup>

Thus, a considerable proportion of the global health problems, including preventable

deaths, <sup>3</sup> the number of emergency consultations and hospital admissions, would be resolved by the appropriate approach of the mother and newborn in the HV.<sup>1,3,27</sup>

Benefits can be brought<sup>9,21</sup> by HV as a strategy for approximation between the community and health teams, with promising potential in offering a range of services and also for reaching difficult-to-reach population groups.<sup>3</sup>

The bond is strengthened by collaborative relationships and direct contact in the domestic environment, promoting the improvement of home care for the newborn, 22 enabling, in different contexts, the early detection of problems, making referrals that positively impact the health and survival of newborns. 16

# ♦ Category 2 - Global models for the development of home visits to the newborn and their impacts

Different proposals were presented by the studies regarding the frequency of visits for the development of health promotion and disease prevention activities. In line with the WHO recommendation,<sup>2</sup> for a study conducted in Nepal, efforts to ensure accessibility and approach to the newborn and family in the first week of life.<sup>29</sup> In a proposal from Afghanistan, eight visits were carried out by trained volunteers, four in the pre-natal period and four in the post-natal period, on days 1 - 3 - 7- 28.32 It was proposed, in Ghana, Africa, to visit by trained volunteers, with five interventions, two during pregnancy and three first postpartum week, considered the period of greatest vulnerability for the newborn. 16

In Brazil, it is recommended that the first HV be performed on the newborn by a professional from the PHC team until the fifth day of life.<sup>8</sup>

It was identified, analyzing the performance of nurses in primary health care in Brazil, regarding assistance to the child and his family, that the child is monitored through childcare consultation and group consultations as a strategy to guide families, <sup>36</sup> nothing being mentioned about the HV.

Umlazi obtained positive primary outcomes in a settlement in the peri-urban region of South Africa, offering seven visits by health workers: two during pregnancy; one up to 48 hours after delivery; one during days 3-4 and 10-14 and during weeks three-four and seveneight; in addition to two extra visits for the low weight newborn. The positive results are related: expansion in the supply of breast milk and improvement in the anthropometric data of babies and their monitoring in health units.<sup>17</sup>

It was demonstrated, in a study carried out Africa and South Africa, that approximation with the visit of health agents during pregnancy led to mothers inclination to adopt a higher frequency to the clinic, in the first week of their newborn's life; 17 and, still, in Nepal, these visits with the connection of pregnant women to the services for the delivery of birth managed to reduce the birth rate at home from 79.2%, in 2006, to 46.5%, in 2014.<sup>29</sup> Better use of health services in Afghanistan has been achieved in a conflict region.32

It was pointed out, in studies, that home visits to newborns reduced the use of health services by urgency and night hospitalizations, thus showing their potential to mobilize health care with the reduction complications and the need to seek emergency services for homes, homes, families' contexts. 19

In order to meet the recommendation of the 2009 Joint Declaration, an analysis of postnatal visit programs implemented by government health services in Bangladesh, Ethiopia, Ghana, India, Indonesia, Malawi, Myanmar, Nepal, Pakistan, Rwanda, Sri Lanka and Uganda, noting that there is low compliance with standardization. It is exposed that the performance of HV within 48 hours after home birth, as recommended, does not exceed 20%, specifically in the places with the best rates,<sup>33</sup> exemplifying with Nepal where only 2.2% of women who had a home birth received the HV from a health professional in the first week after birth.<sup>29</sup>

In countries with limited financial resources, the approach by trained health workers or volunteers becomes a viable possibility. <sup>16</sup> It is pointed out that a proposal for an association between HV carried out by community agents and telephone support for contact with professionals, in Uganda in Africa, brought families and health teams closer together, improving the quality of care for the newborn and referrals of sick babies. <sup>26</sup>

Three visits are carried out, with the proposal of association between HV and

telephone contact with the health team, in Uganda, Africa, two of them during prenatal care: the first in the registration of the pregnant woman, to carry out education in care general conditions during pregnancy (use of supplements such as folic acid, mosquito nets for disease prevention, among others) and danger signs (bleeding, fever, loss of fluid), and the second four weeks after enrollment, for guidance and preparation for labor and necessary items for the baby's arrival, care for newborns, importance of starting breastfeeding in the first hour. Finally, a HV to support the family is scheduled to be performed within three days after delivery.<sup>26</sup>

Despite the variation in the world scenario of the proposals for Home Visiting programs and their intervals, in accordance with the WHO recommendation, it is convergent to all the studies and scenarios identified, that the offer of HV in the first week of life of the newborn occurs.

## ♦ Category 3 - Barriers and difficulties to perform the HV

It is also understood that there are barriers and difficulties to perform the HV that are similar in different contexts such as: the lack of professionals; the professionals' lack of knowledge; difficulty of accessibility in some locations; lack of transport and lack of birth notification for visitors to proceed to the HV.<sup>13,30</sup>

In studies carried out in Brazil, it was demonstrated that nurses find it difficult to comply with the standards regarding the time and the integral approach of the family, data that demonstrate the need for permanent education regarding the realization of the HV the newborn and his family strengthening of comprehensive health care for PHC professionals, which is the guiding principle of care for the population.<sup>31</sup> It was also evident, in a study in Afghanistan, the need for improved training packages so that health workers can carry out health education during the visit.<sup>32</sup>

In sub-Saharan Africa, coverage of visits in the first postpartum days is found to be low, below 40%, even under the development of Non-Governmental Organizations (NGOs) programs, which have trained more than 30,000 workers in 2003, in addition to receiving support from community volunteers. There were, by government programs, fewer

numbers in terms of the offer related to visits.<sup>30</sup>

It was revealed, in a country with very different sociodemographic conditions from Sub-Saharan Africa, such as China, through the investigation of a study, that the cause of the low coverage of the HV was related to the shortage of personnel and transport, limiting the arrival of professionals to the homes, <sup>13</sup> demonstrating that the difficulty of access is an important factor for the low HV indices in a timely manner.

It was investigated, in China, in a survey with 1601 participants, that only 110 (8%) received the first HV at the appropriate time, that is, in the first week of life, and 165 (13%) in the puerperal period, until the 42nd day, and the reasons for this low proportion, according to the participants' perception, were: lack of knowledge about postnatal care (65%) and not appreciating the need (24%).<sup>13</sup>

were following identified when investigating barriers in Africa: physical issues, related to accessibility transportation; issues related to notification of birth and due to the availability of the visitor, however, physical issues limit the performance of visits in a timely manner due to difficulty of access, rain, but the moderate natural conditions may not be limiting. This is exemplified in mountainous communities where people said it was common to perform the HV, on the other hand, in a flat and accessible community, residents said that they were not visited, 30 concluding, in this perspective, by the cultural valorization of the HV strategy to the newborn.

It is believed that the HV may not occur due to the low number of professionals for the proportion of births; 13,30 the organization strategy for the HV is not effective to meet the demand or the fact that some agents remain at the health center all day and do not waste their time for the HV external work. As regards the quality of the approach, a study carried out in Africa found a deficit in quality when the health worker had a temporary work contract, a situation that reduces the intensity of establishing a link with the community. 30

In the realm of information, HV is essential when learning about birth, and this fact was treated as a key to its realization. In this context, it is necessary to implement an alert mechanism, so that visitors are aware of the

event and provide the visit, and the delay in the arrival of information makes it impossible to carry out the visit in the early neonatal period.<sup>30</sup>

It was shown, in a study carried out in four sub-Saharan African countries (Burkina Faso, Kenya, Malawi and Mozambique), that the interventions carried out for the care of maternal and child health are similar in different places, as well as health needs are similar and are related to the expansion of availability and provision of home services in the postpartum period. It is known that this is essential for the reduction of maternal and infant mortality and morbidity, which are still unacceptably high in this region.<sup>20</sup>

In this sense, it is alerted to the need for operational guidance so that countries design strategies appropriate to the context, encouraging the adaptation of recommendations to the country's experience. Quality guidelines on hospital discharge should be invested, considering that many countries are unable to perform an early postnatal approach, respecting the window of opportunity. At the global level, it is recommended to evaluate robust evidence to support the proposed interventions.<sup>33</sup>

It is warned, however, that the HV approach cannot reach its full potential in increasing neonate survival if there is no good quality of health services available for care. It is discussed, as an essential factor, the strengthening of the link of commitment and dedication between those who "evaluate and refer" and those who serve.<sup>16</sup>

### CONCLUSION

Studies have shown that research regarding the performance of the HV during the postpartum period does not have a uniform or standard professional interval to perform it, however, they point out that it is an effective intervention, however, it is not yet incorporated into the routine of health teams, with contradictory difficulties described for the implementation of actions and barriers, often behavioral barriers to be overcome.

It becomes evident that specific policies for postpartum care are fragile, there are gaps in the scientific standardization to proceed with HV for newborns and their families, It is important to recognize these gaps and involve relevant stakeholders to design and select sustainable, context-specific intervention

packages as a substantial measure for improving indicators and reducing child morbidity and mortality, especially in developing countries.

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