



“SMS Texting to Enhance Exclusive Breastfeeding among Adolescent Mothers”

San Pedro Sula, Honduras

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In loving memory of
and dedication to
Dra. Lul Janania
A beautiful colleague
who was passionate
about working with
youth and children and
had a fervent zeal to see
every child breastfed.

1954 to 2012

Introduction

Background:

- Rates of exclusive breastfeeding (EBF) in Honduras are low. With 60% of the Honduran population < 24 years of age, the prevalence of adolescent pregnancies is increasing. Adolescent mothers may be less likely to breastfeed successfully. Cell phone access is high in Honduras, especially among adolescents, making it a potentially effective tool for providing adolescent mothers with breastfeeding (BF) support.

Introduction

Objectives:

- The primary objective of this study was to determine if breastfeeding support provided to adolescent mothers through breastfeeding clubs and text messages could increase rates of EBF to 6 months. The secondary objectives were to determine if BF support could increase mothers' BF knowledge and self-efficacy, and positive attitudes towards BF.

Methods

Study design and methods:

BP2

- This randomized controlled trial aimed to target 500 adolescent mothers giving birth at the Leonardo Martínez maternal hospital in urban San Pedro Sula, Honduras.

The intervention included the following activities:

BP5

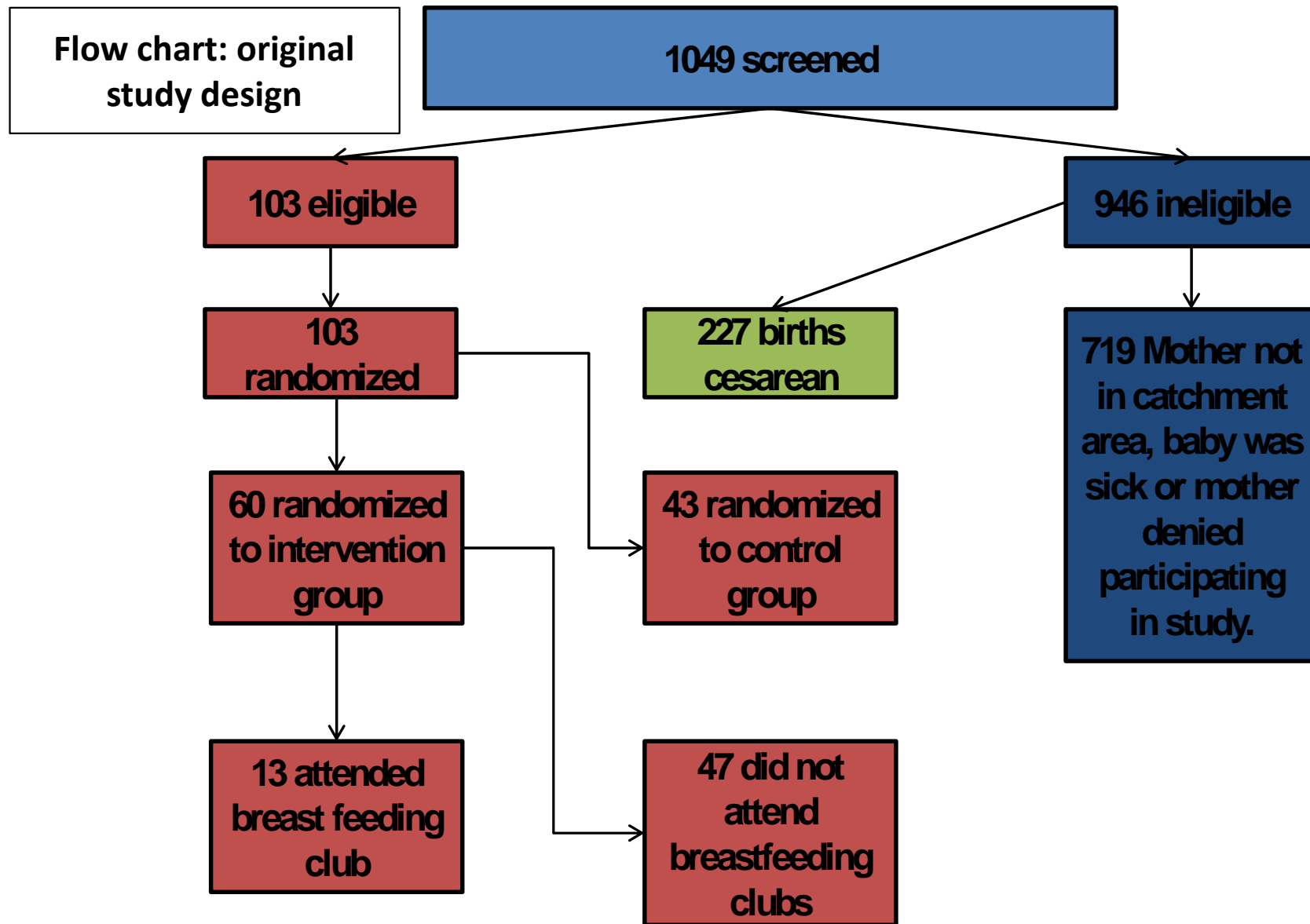
- Hospital staff of the adolescent health maternity unit underwent 24 hours of training on lactation management to refresh their knowledge, empower the staff and dispel any myths.
- Distribution of illustrated BF flash cards to mothers upon discharge from the hospital.
- Training of community health promoters (CHPs) to lead the BF clubs, BF clubs met twice a month where mothers were counseled and advised on BF.
- Provision of cell phones to mothers who did not own a cell phone, text messages promoting and providing tips about BF as well as messages reminding mothers to attend baby checkup visits, and follow up phone calls from CHPs to mothers who were identified as needing extra BF support.
- The interventions began at birth and continued until 6 months postpartum (pp). Data were scheduled to be collected at the time of the mother's.

BP6

- Eligibility criteria included: adolescent mothers; aged 13-19; who have given birth naturally at the urban maternal hospital, Leonardo Martínez; live in the metro area of San Pedro Sula; voluntarily chose to participate in the study; and, signed the consent form. Exclusion criteria included: adolescent mothers whose baby required extended hospital care; who lived outside the San Pedro Sula area.
- Recruitment of the adolescent mothers in the ward at the hospital Leonardo Martínez were from January 17-April 22, 2012. The three month follow-up phone calls to the mothers both in the intervention and control group began April 17th 2012. This was suspended due to the change in the study design.

Results, contd.

- The study aimed to enroll 500 mother-infant pairs, however, only 60 were randomized to the intervention group and 43 were randomized to the control group. Only 13 of the 60 attended at least one BF club.
- Various challenges prevented successful implementation of the study and therefore the study was stopped.
- Challenges to enrollment included lower than expected birth rates, mothers being ineligible due to living outside of the study catchment area, and mothers not wanting to participate in a research study.



Results, contd.

- Challenges to intervention implementation included poor attendance at BF club meetings because mothers found it difficult to find transportation and cultural practices prevented mothers from leaving the home within the first 40 days pp. Challenges to intervention implementation and data collection included mothers not being reachable by phone for various reasons (not answering their phone, removing the SIM cards from the study phones, or phones being switched off or not charged).
- Conducting home visits for data collection was not feasible due to insecurity/safety issues in this high-crime area as well as difficulty locating women's homes. The home addresses mothers provided were often incomplete due to the low educational and literacy levels of the adolescent mothers as well as the mothers' residence in very poor areas of the city where exact street names and addresses did not exist.

Conclusions

- As a result of the challenges mentioned, a new study was designed that aimed to identify factors that prevented and facilitated adolescent mothers' attendance at BF clubs.

Doer/Non-doer Analysis

Background:

Due to the various challenges of implementing a randomized controlled trial to examine if breastfeeding (BF) support provided through BF clubs and cell phones could improve BF rates among adolescent mothers, a qualitative study was designed to better understand the barriers to successfully implementing the BF club component of the intervention.

Doer/Non-doer Analysis

- Tool developed by the Academy for Educational Development (AED) in 1998
- A Rapid Assessment Tool for Social Marketing Programs
- Tool to help understand which of many possible motivators for behavior is the most important among your target audience
- Systematically compares people who “do” a particular behavior (the doers) and those who “do not do” the behavior (the non-doers).
- Recommended sample size = 300 participants interviewed through individual surveys
- Tom Davis, MPH from Food for the Hungry adapted the AED Doer/Non-doer Analysis tool to create a tool called Barrier Analysis, including additional behavioral determinants with a recommended sample size of= 45 doers, 45 non-doers

Doer/Non-doer Analysis

Objectives:

Identify factors as either facilitators or barriers to an adolescent mother's ability to respond to mobile phones to receive important health information and to participate in breastfeeding support club meetings.

Determinants

Determinants are variables which influence social behaviors

The main determinants used in this study include:

– *Perceived Consequences*

- *What are the advantages/good things that will happen if I perform the behavior?*
- *What are the disadvantages/bad things that will happen if I perform this behavior?*

– *Self-Efficacy*

- *What makes it difficult/impossible to perform the behavior?*
- *What makes it easier to perform the behavior?*

– *Social Norms*

- *Who do you think would disapprove of you doing this behavior?*
- *Who do you think would approve of you doing this behavior?*
- *Of the responses to these questions, which individual(s)/groups is most important to you?*

Results of a Doer/Non-Doer Analysis

- Responses may include ideas for strategies on how to make the behavior easier or more appealing, and could provide clues for improving behavior change communication messaging.
- Looking at who approves or disapproves of the behavior may provide important information on how to develop an intervention.
- Responses may reveal that you may need to work with an audience other than the one you thought you'd need to work with. You may first have to work with the “influential” to change their attitudes.

Results of a Doer/Non-Doer Analysis

- Some ways to use the results:
 - Promote & advertise advantages
 - Decrease things that make the behavior difficult to perform
 - Increase support of the behavior among others who disapprove
 - Have people who approve be facilitators of the behavior

Doer/Non-doer Analysis

Study Design and Methods:

Attempts were made to contact mothers by cell phone who had been randomized to the intervention group. If a mother was reached and was interested in participating in the qualitative study, she was then interviewed at a location of her choosing.

**Flow chart: Doer/Non-
doer Analysis**

**60 adolescent mothers from intervention
group**

**29 mothers did
not undertake
the
questionnaire**

**31 mothers
completed the
questionnaire**

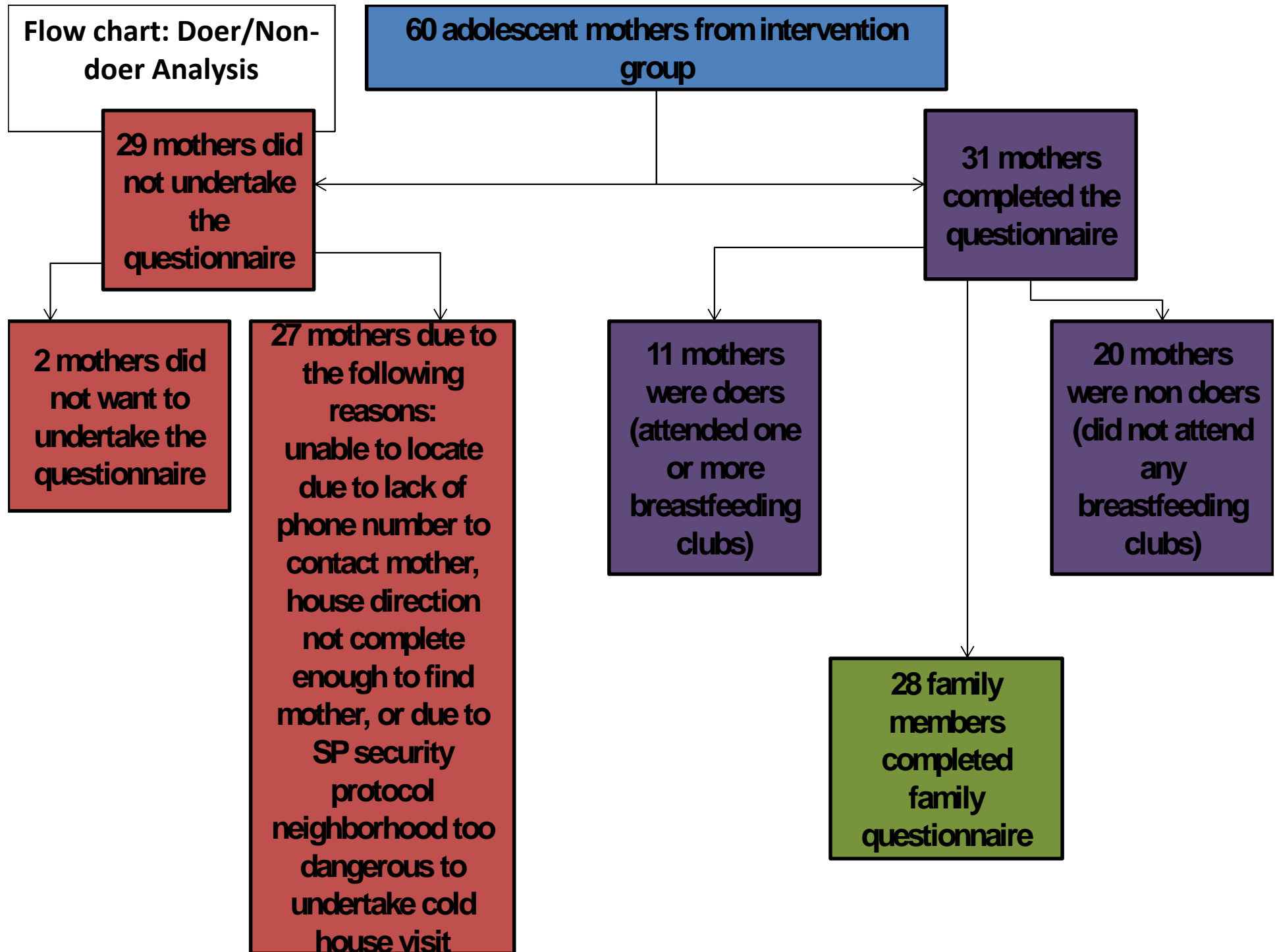
**2 mothers did
not want to
undertake the
questionnaire**

**27 mothers due to
the following
reasons:
unable to locate
due to lack of
phone number to
contact mother,
house direction
not complete
enough to find
mother, or due to
SP security
protocol
neighborhood too
dangerous to
undertake cold
house visit**

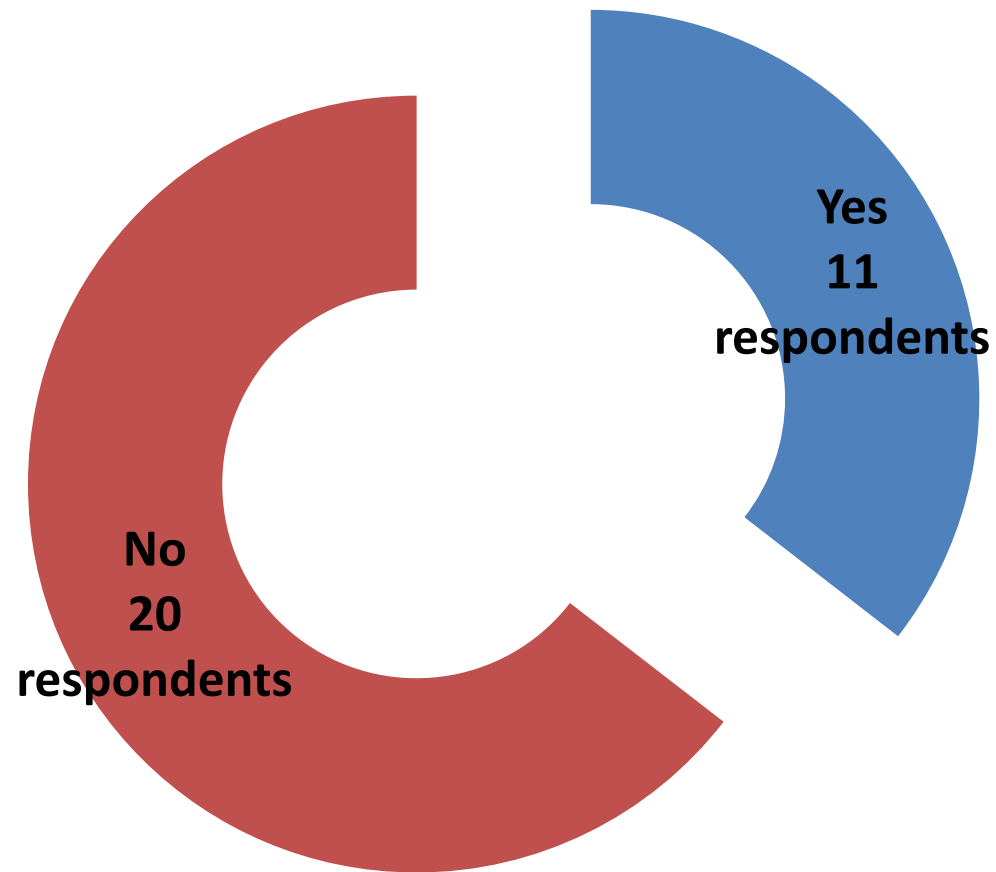
**11 mothers
were doers
(attended one
or more
breastfeeding
clubs)**

**20 mothers
were non doers
(did not attend
any
breastfeeding
clubs)**

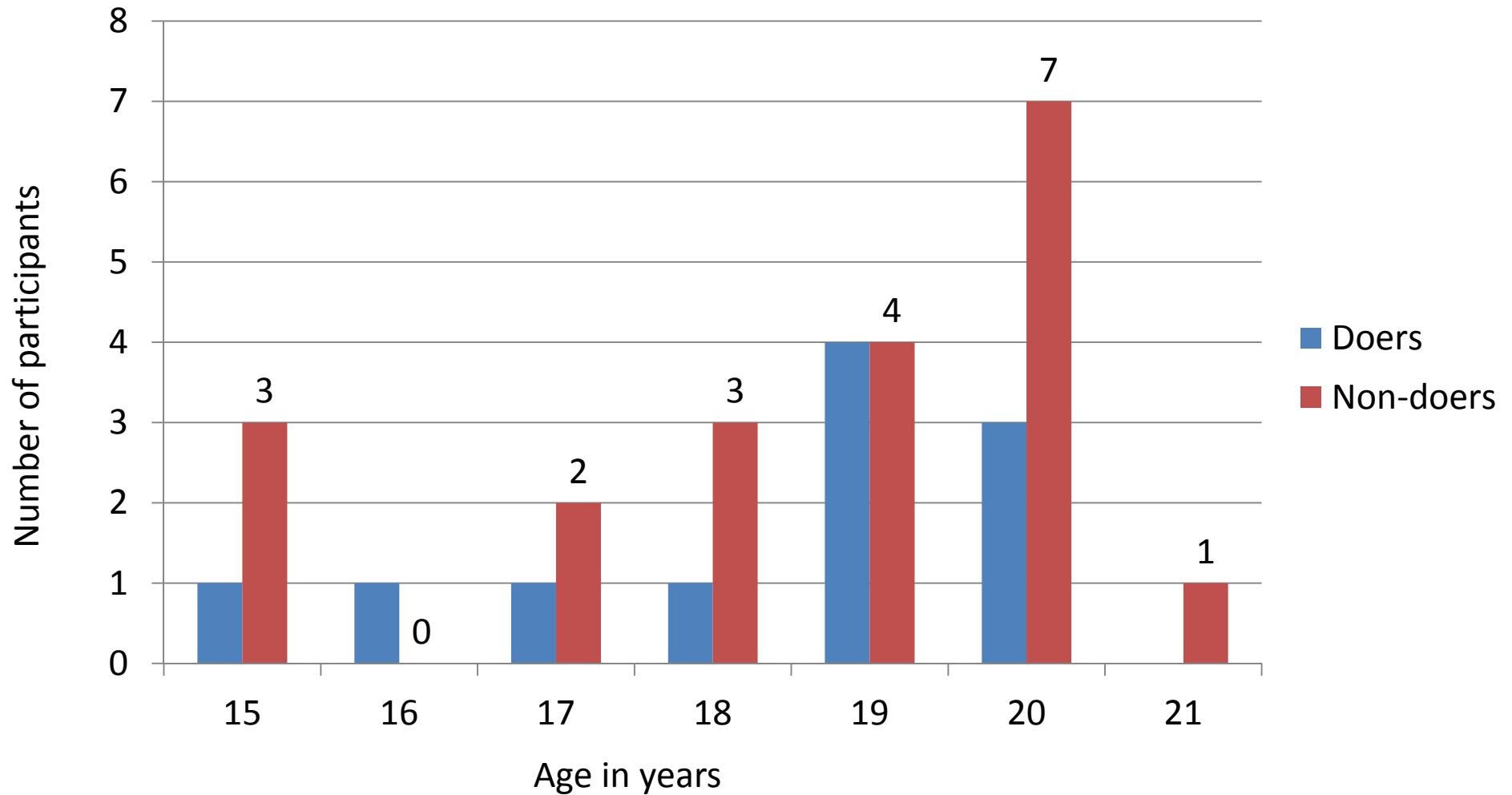
**28 family
members
completed
family
questionnaire**



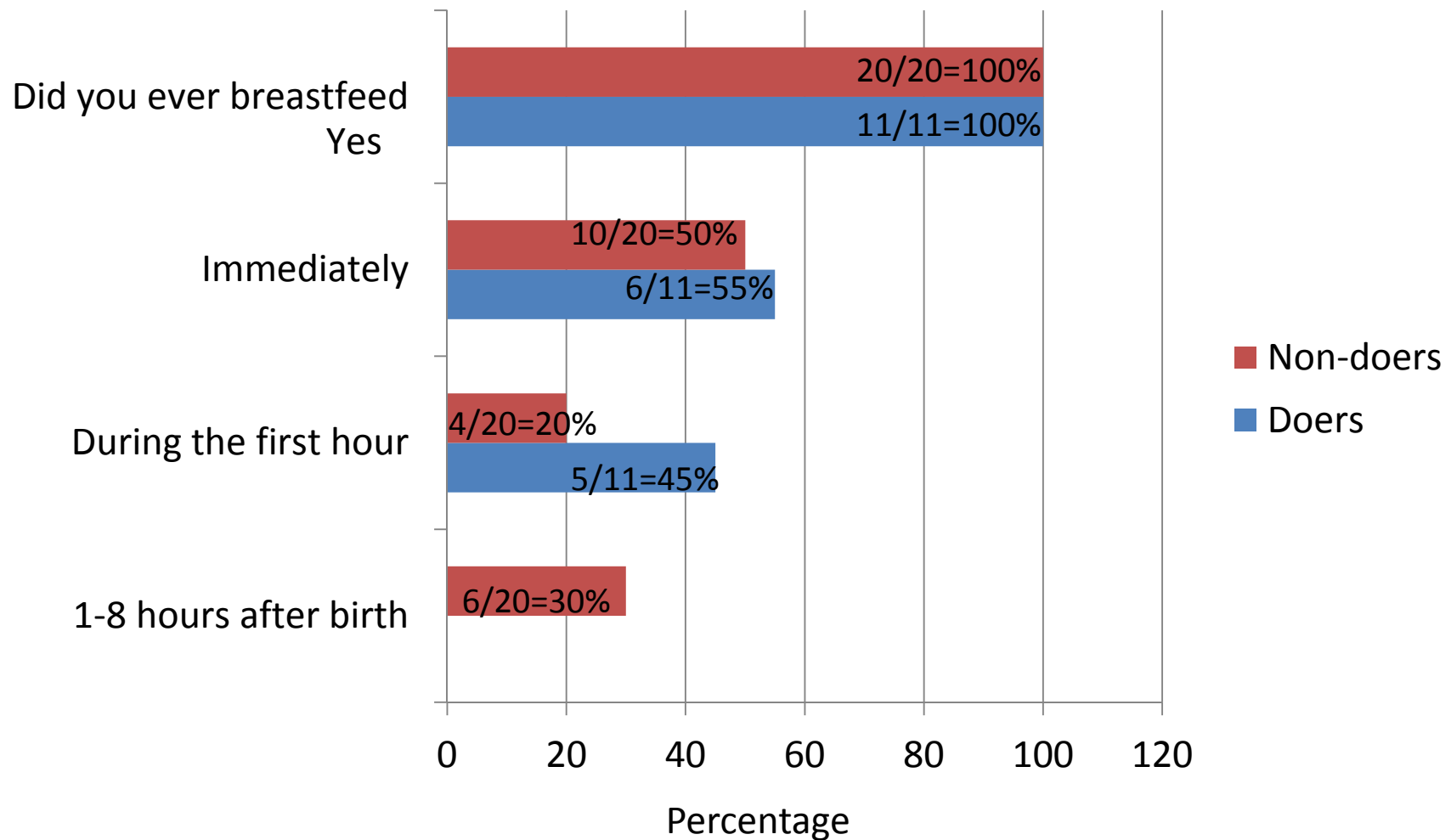
Breastfeeding Club Attendance



Ages of Participants

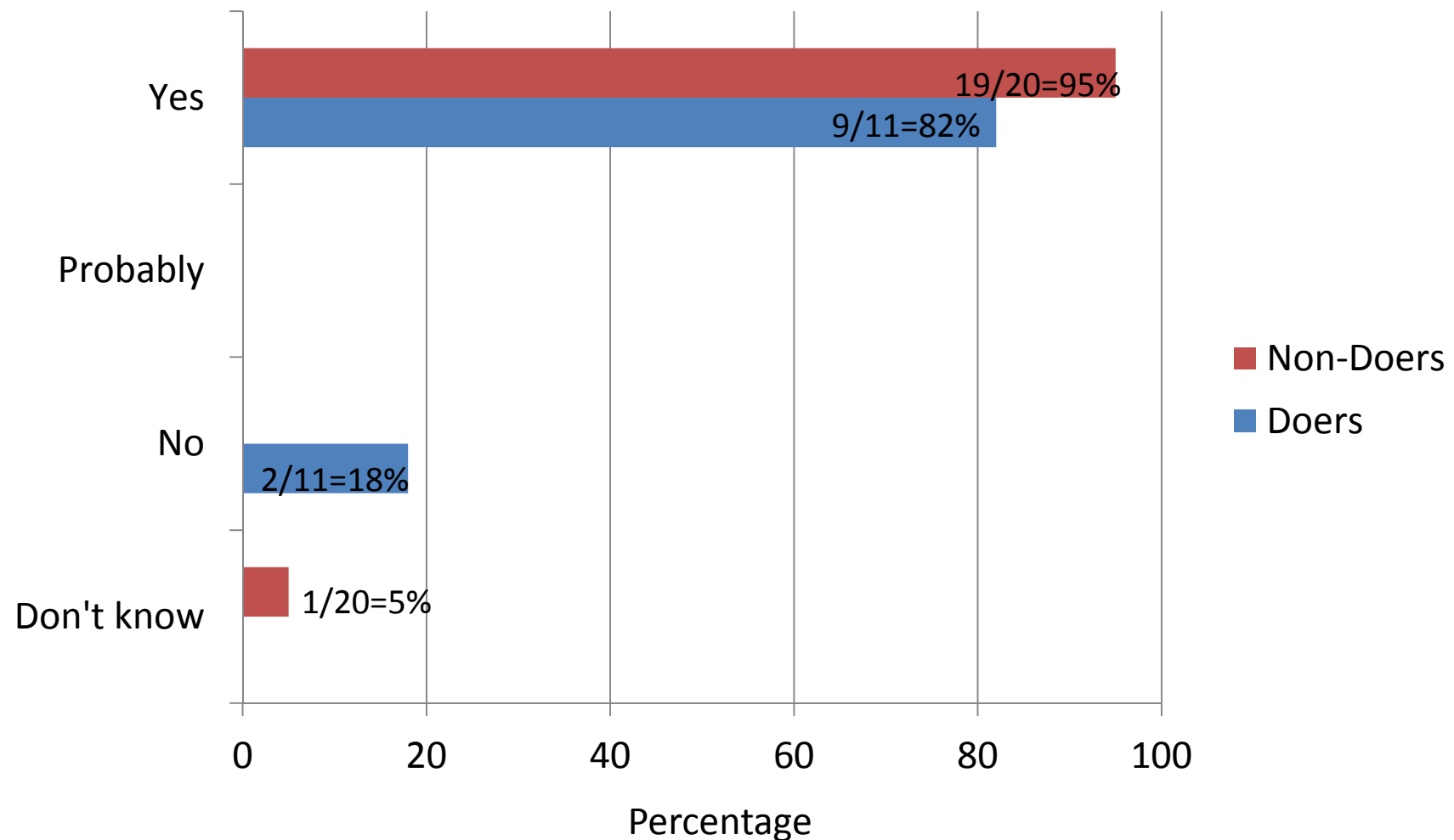


Breastfeeding Practices

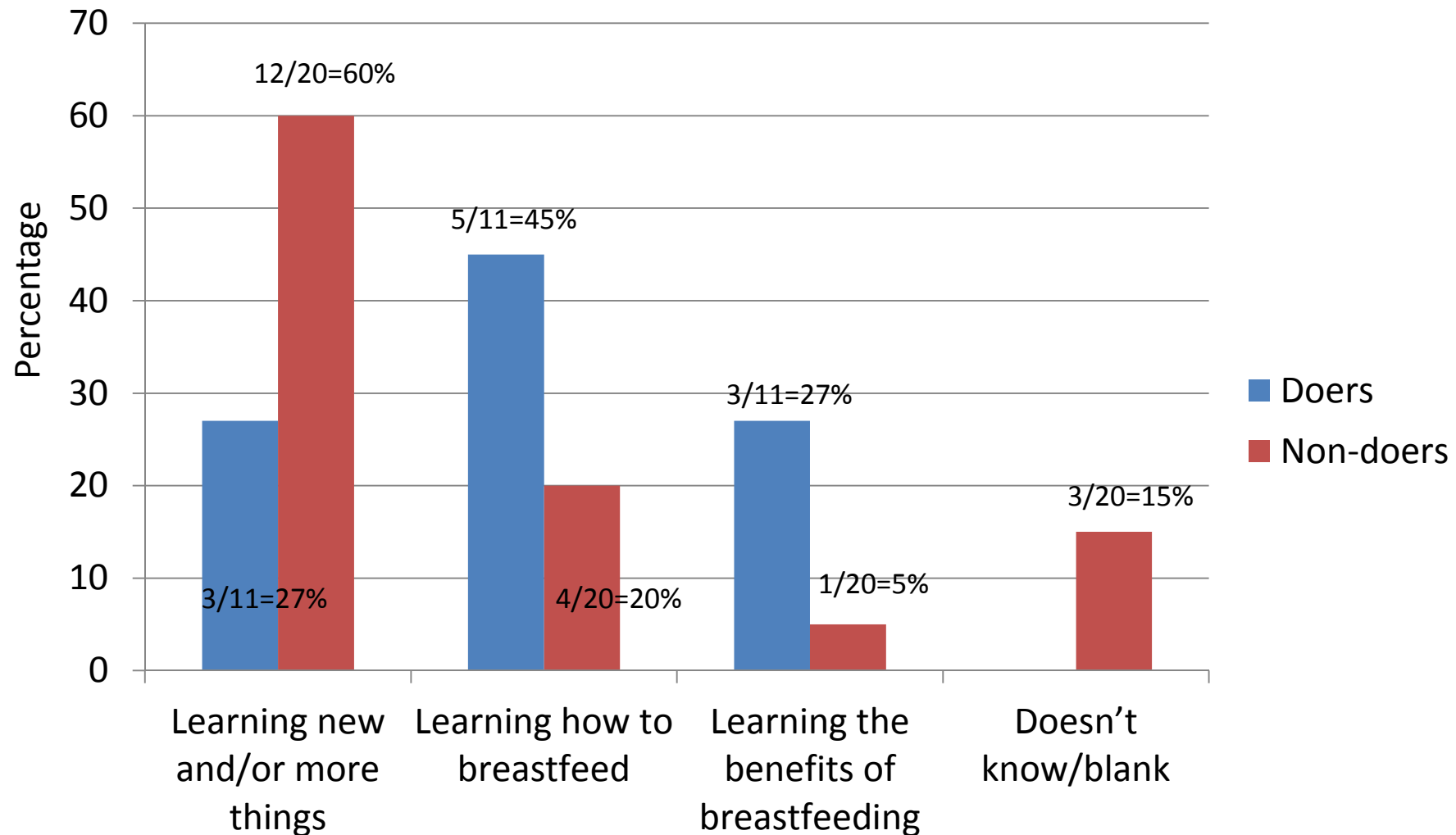


Doers: With your present knowledge, money, and skills, would it have been possible for you to attend two breastfeeding clubs a month?

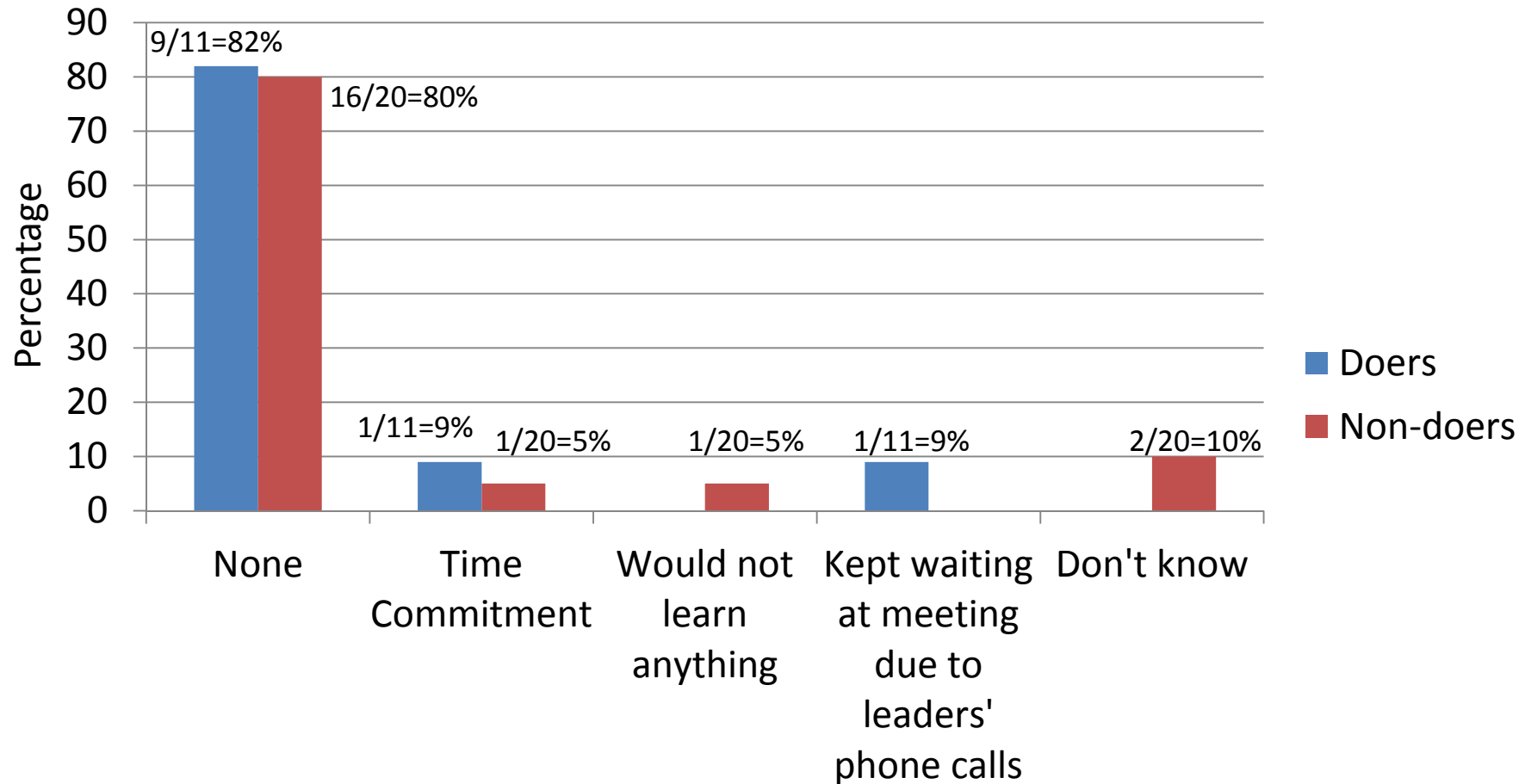
Non-doers With your present knowledge, money, and skills, do you wish you had attended at least one breastfeeding club?



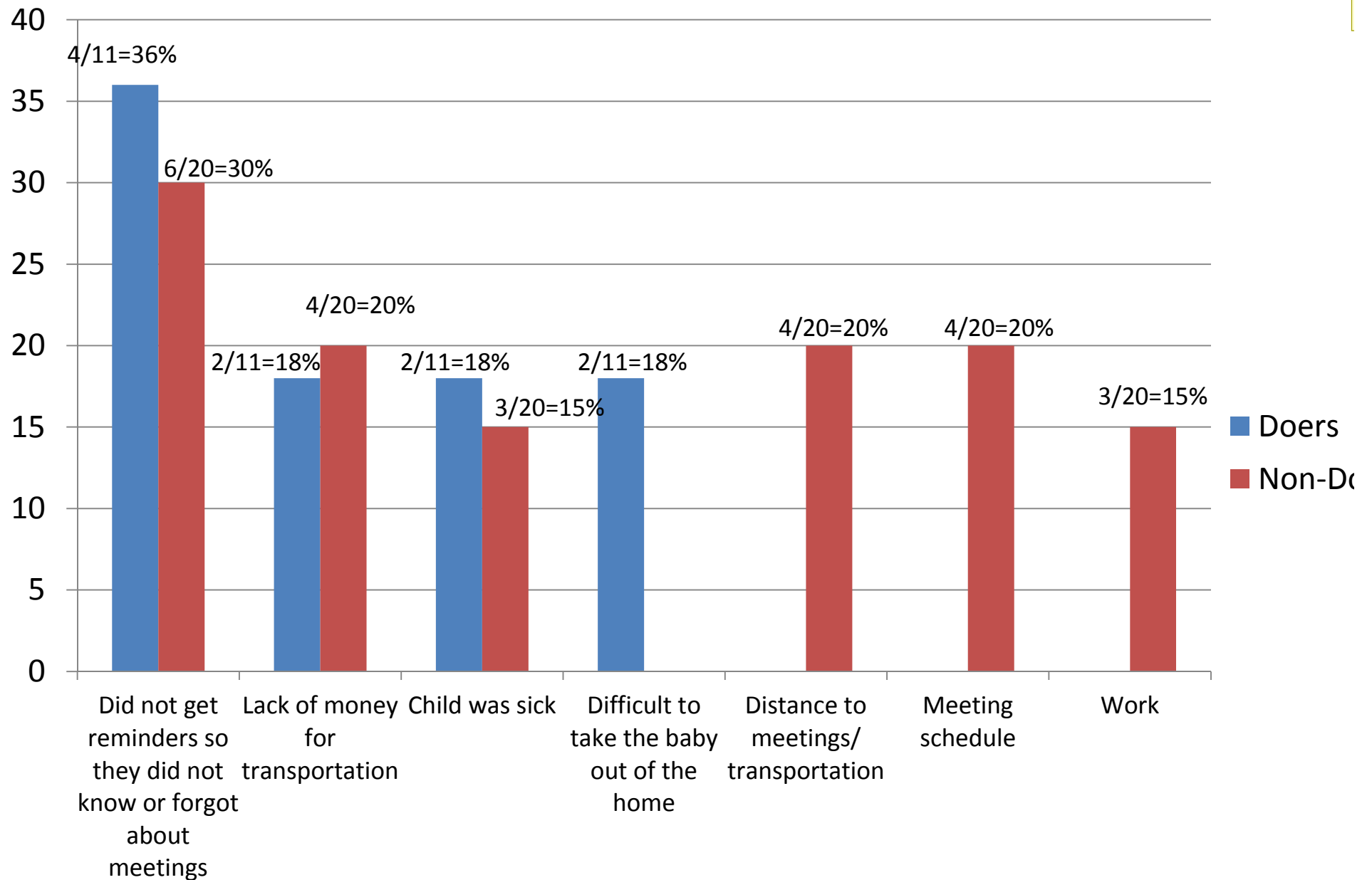
What were (or would have been for Non-doers) the advantages of attending breastfeeding clubs?



What were (would have been for Non-doers) the disadvantages of attending breastfeeding clubs?

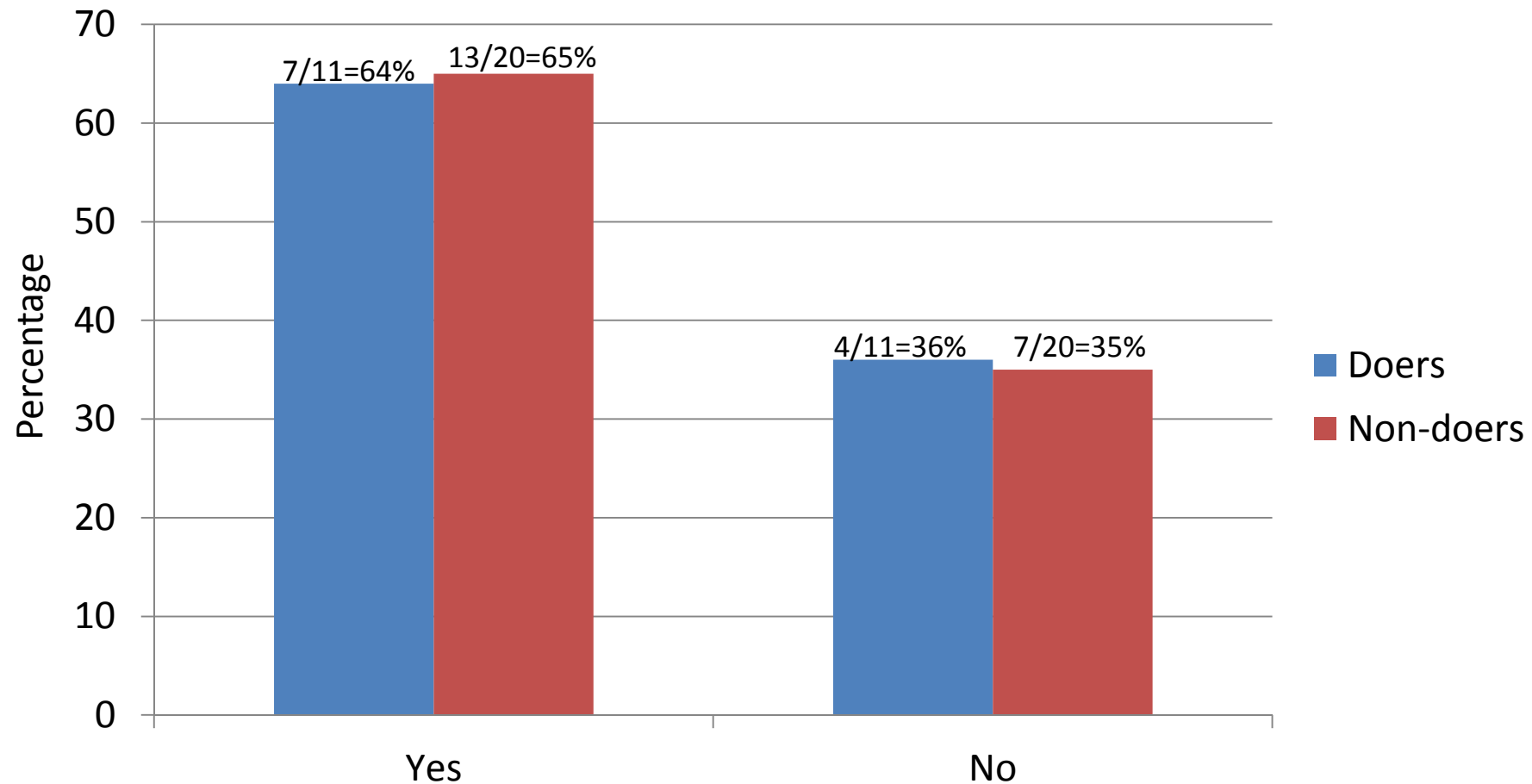


What were the most important reasons why you did not attend the breastfeeding clubs?

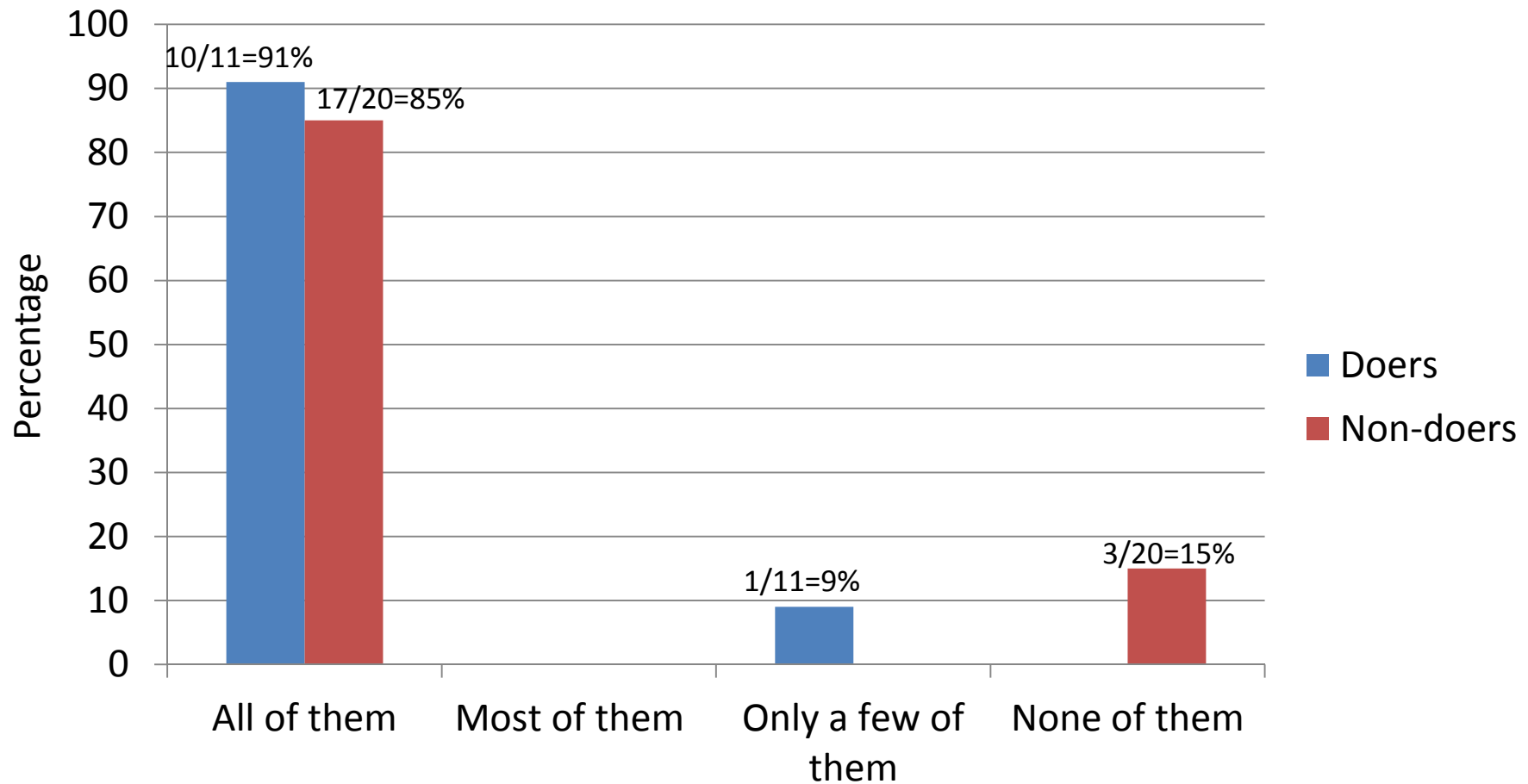


Honduras Cultural Barrier

Do you believe that during the first 40 days after your baby's birth that you should not leave the house?

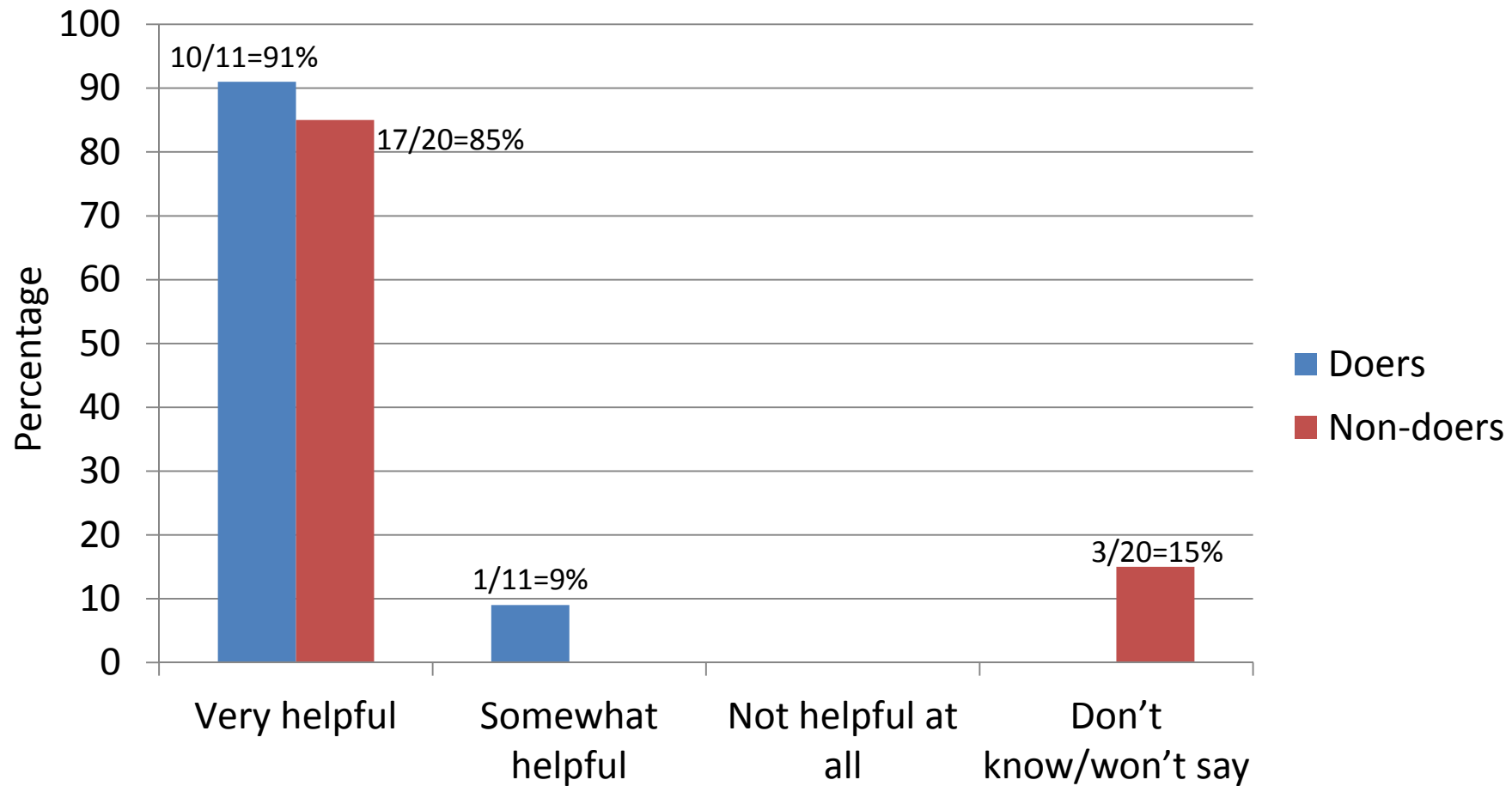


How many of the text messages that you received did you read?



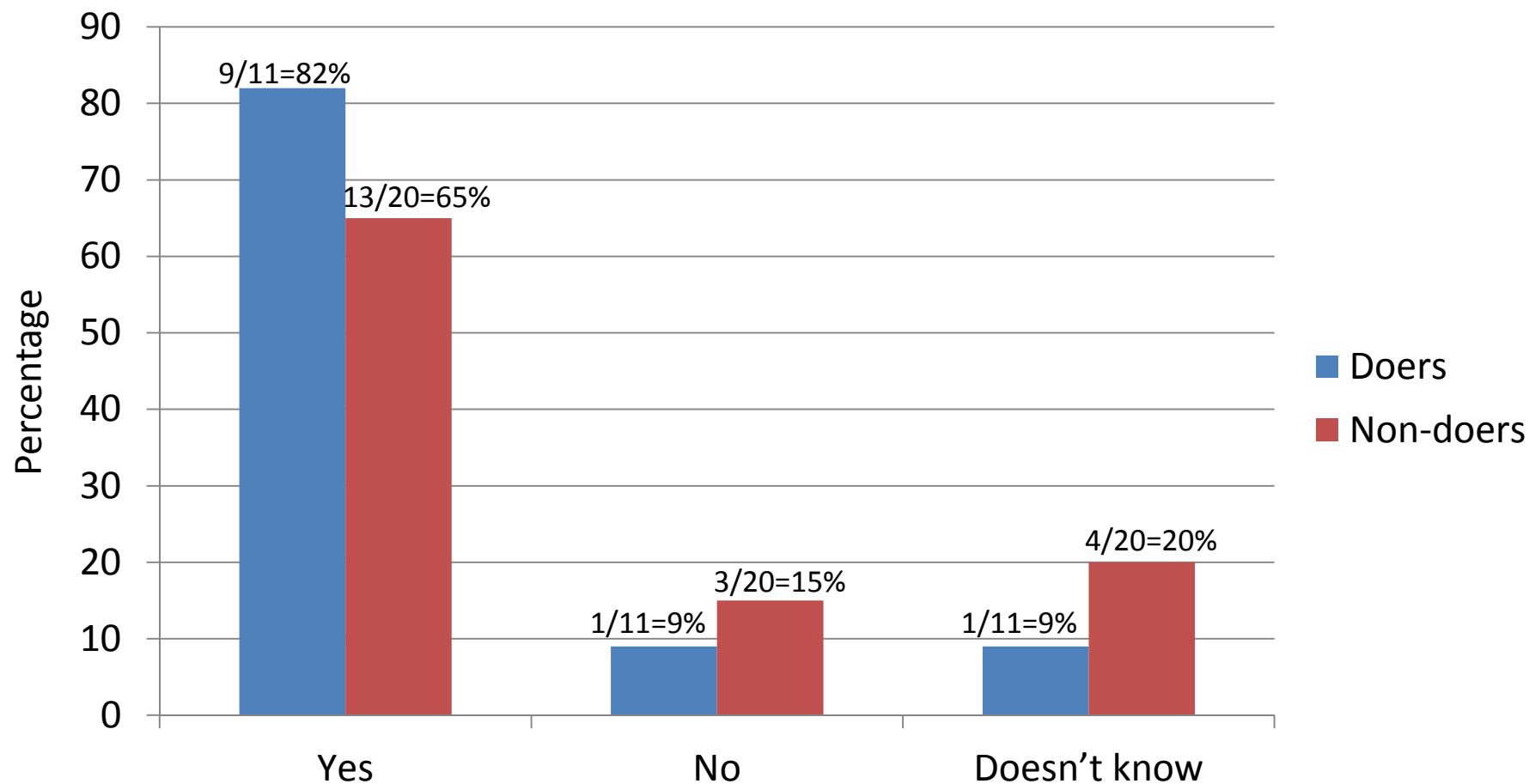
Note: 3 respondents reported receiving no text messages

Do you think text messages that promoted breastfeeding helped you breastfeed?



Note: 3 respondents did not receive text messages

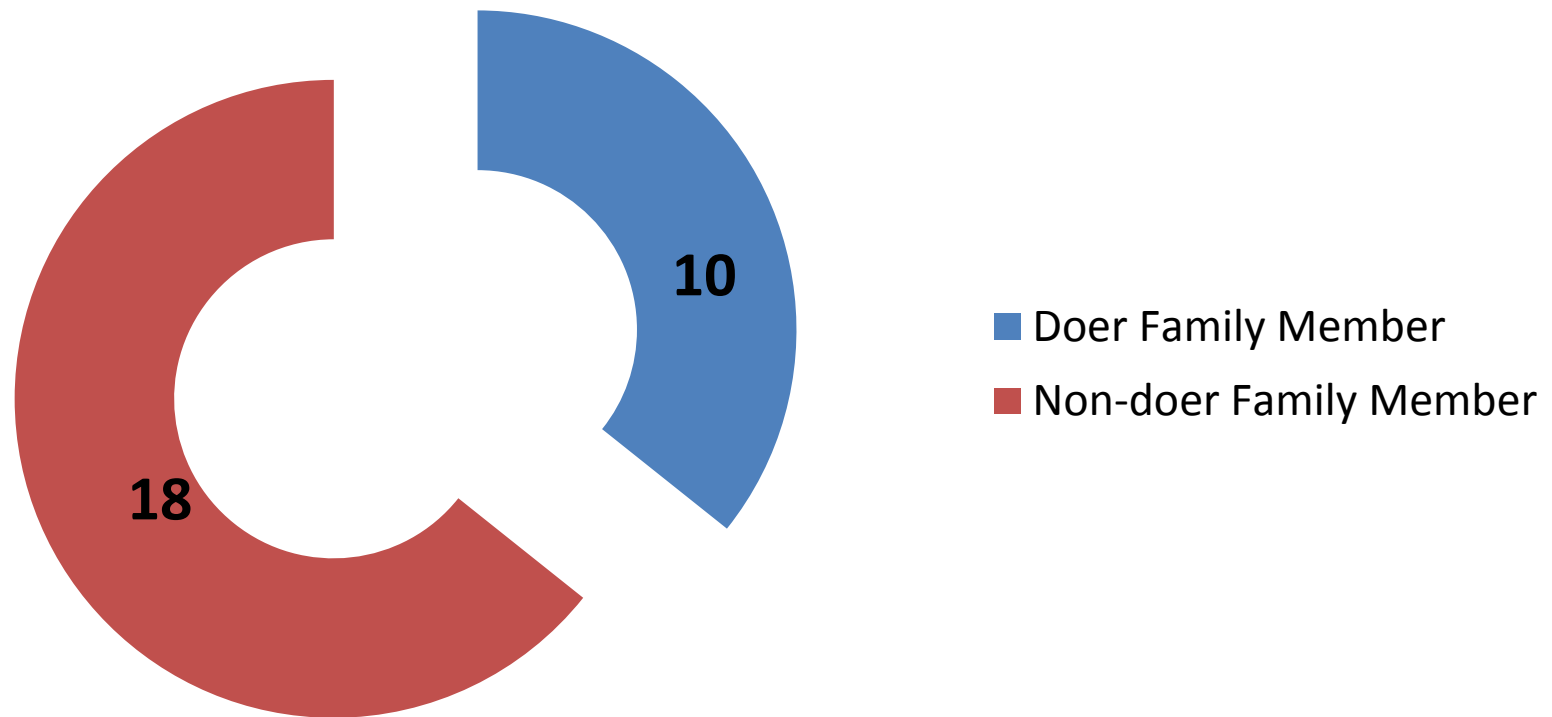
Do you think the text messages helped you exclusively breastfeed your baby?



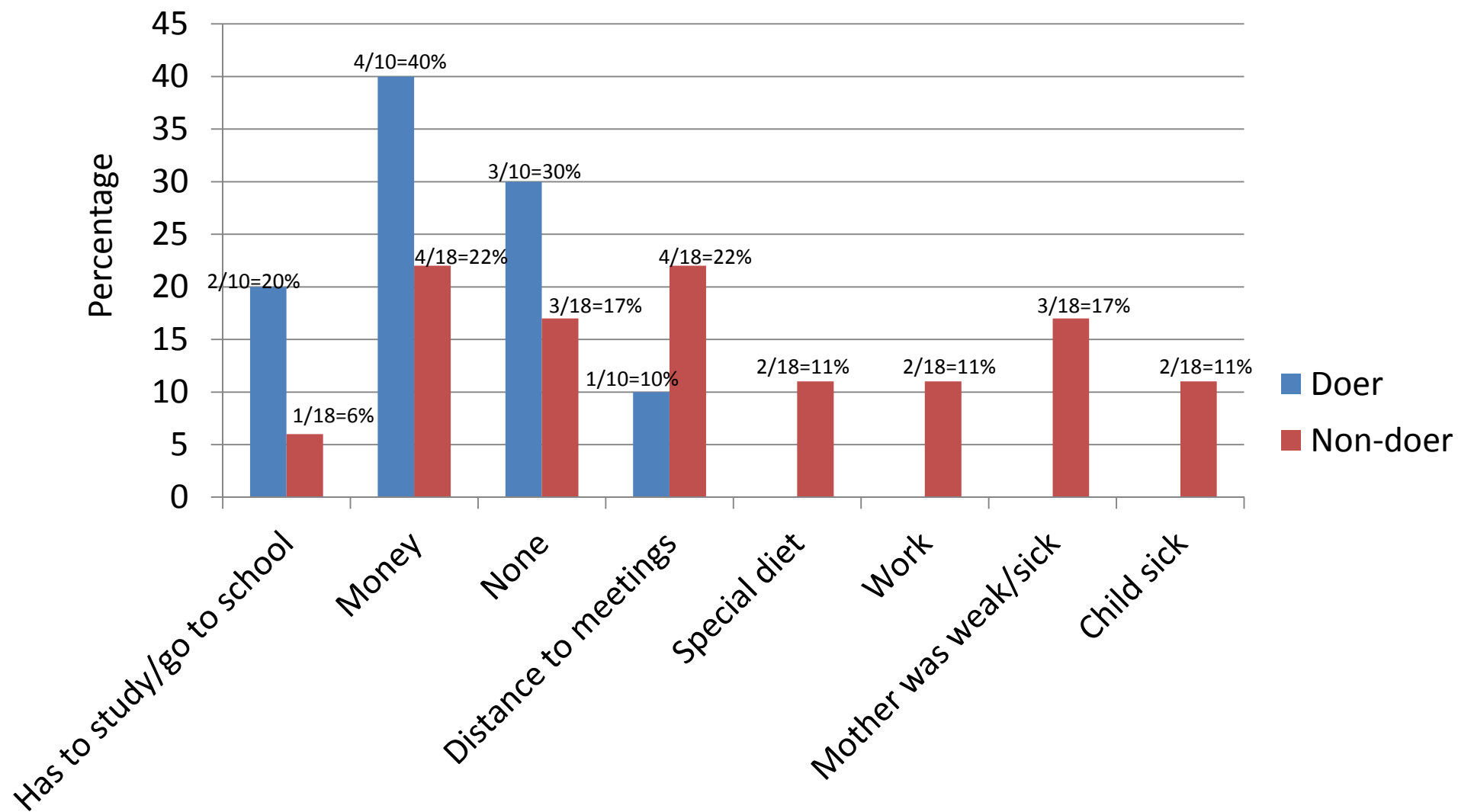
Note: 3 Non-doers did not receive text messages

Family Member Study

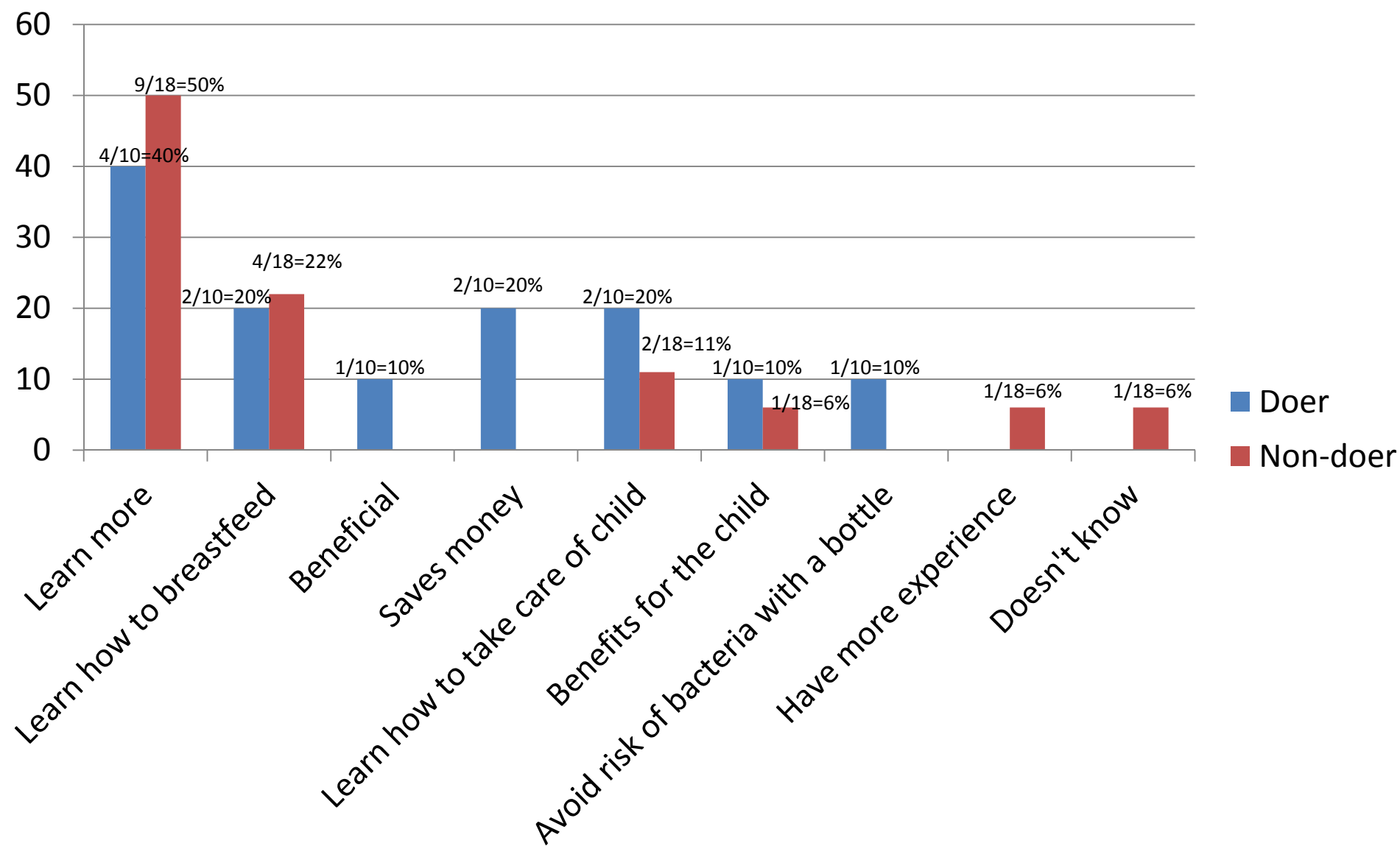
Family Member Study



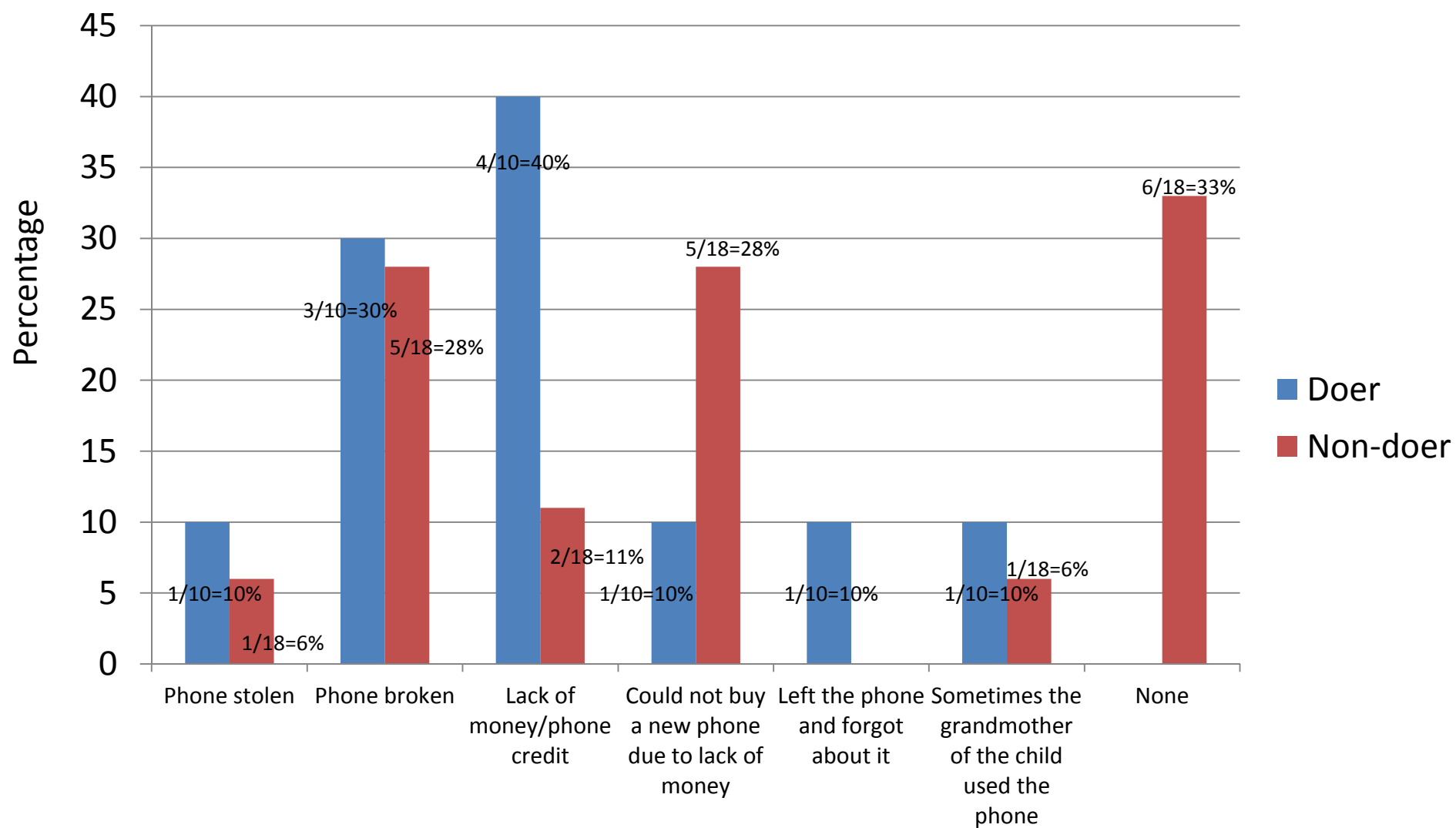
What are some of the things that made it difficult or impossible for (name of the mother) to attend the breastfeeding clubs?



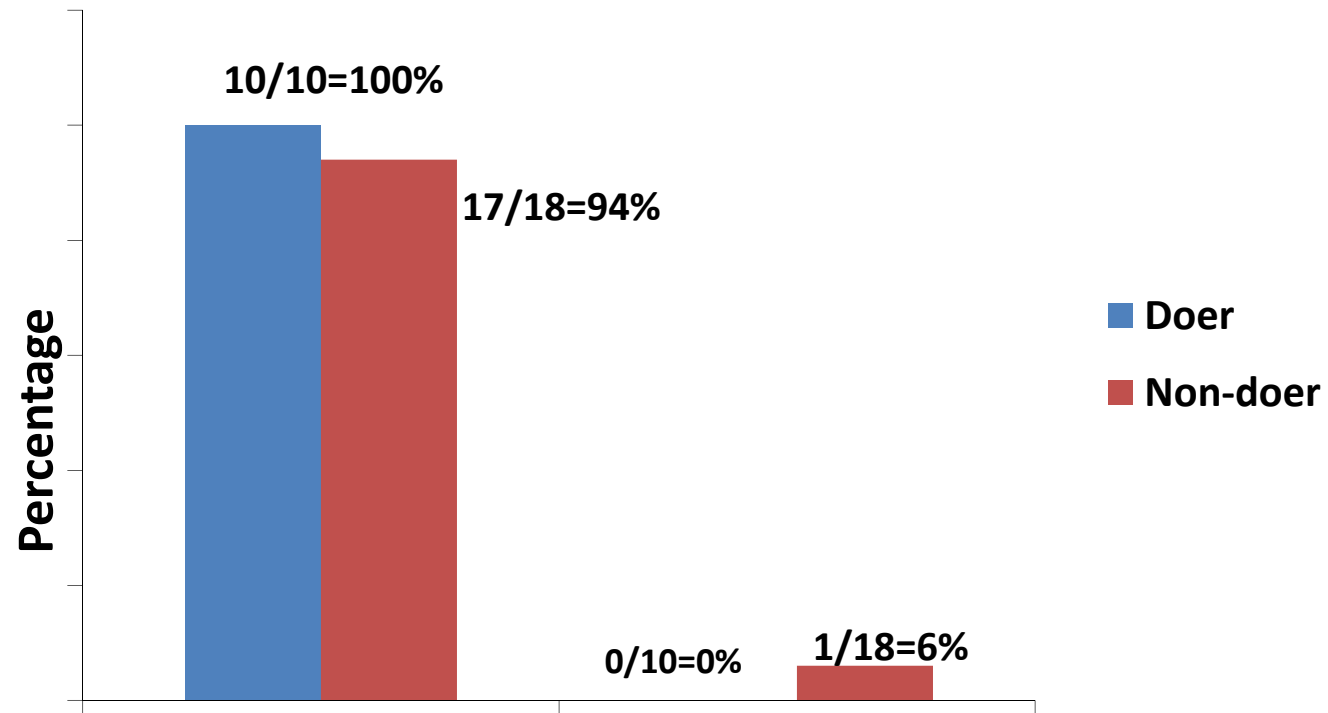
What do believe are the advantages and good things that would happen if (name of the mother) attended the breastfeeding clubs?



What are some of the things that made it difficult or impossible for (name of the mother) to use the cellular phone?



Would you have liked to have received the same messages and correct information on your cellular phone to help (name of the mother) with breastfeeding?



Doer/Non-doer Analysis Conclusions

There are major barriers to attendance at BF clubs by adolescents in this setting. Other strategies to provide BF support to this target group need to be investigated further.

Overall study conclusions

Results and Conclusions:

Although the original study plan was not achieved, Samaritan' Purse-Honduras (SP-H) obtained a wealth of information from the focus group discussion, the project implementation process, doer/non-doer analysis and family member survey with regards to breastfeeding enablers and barriers, mHealth and working with adolescent mothers.

Key findings include:

- When addressing sensitive issues with adolescents, it is essential to include the primary caretaker of the family. The primary caretaker is a key decision maker in the life of the adolescent mother, and greatly affects decisions and actions that the adolescent mothers take.
- Target or start the study when the adolescents are pregnant and include their partners or main caretakers and begin to talk to them early about breastfeeding and its benefits in order to dispel myths and help all understand the importance of exclusive BF.

- Visit the mother's home after the birth of the child, so that the promoter can see the mother in their home context and offer immediate breastfeeding support advice face-to-face.
- Consider holding breastfeeding club meetings at the school or another more convenient location, taking into account school hours and work schedules before establishing meeting schedules.
- Since the majority of both doers and non-doers believe women should not leave the house for the first 40 days after giving birth, it will be difficult to promote attendance at breastfeeding clubs during this critical period, necessitating identification of an alternate means of support and communication.

Implications for policy and programs

This study has created a platform to share lessons learned and, also, to advocate for further work in the area of IYCF issues in order to overcome myths, taboos, and mixed information about the importance of exclusive breastfeeding which is still very prevalent. The use of technology through mHealth is possible with adolescents, but the type of technology and method must be much more user friendly.

Program scale-up

- Education campaign related to general nutrition, to cover the issue of exclusive breastfeeding.
- Media education: Promoting exclusive breastfeeding through TV and radio spots as well as the implementation of street advertising banners to raise awareness of the issue of the importance of breastfeeding.
- Ensure that all gynecologists, pediatricians, family doctors and health care takers discuss the benefits of breastfeeding with an adolescent mother to be and her partner or principal care taker so that they all receive the appropriate information.

References

- Smith, William., (1998). *Comparing Doers and Non-Doers: A Rapid Assessment Tool for Social Marketing Programs, Washington, D.C.: Academy for Educational Development.*
- Davis Jr., Thomas P., (2004). *Barrier Analysis Facilitator's Guide: A Tool for Improving Behavior Change Communication in Child Survival and Community Development Programs, Washington, D.C.: Food for the Hungry.*
- A narrated presentation on Barrier Analysis:
<http://caregroupinfo.org/vids/bavid/player.html>