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IDENTIFICATION OF RISK FACTORS FOR SHORTER BREASTFEEDING DURATIONS IN MEXICO CITY THROUGH SURVIVAL ANALYSIS

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Abstract

The objective of these analyses is to identify risk factors for shorter breastfeeding durations in Mexico City. Subjects were recruited in two large public hospitals. In the Hospital General (n=333) all women roomed-in with their infants and the hospital had a breastfeeding promotion program in place. In the Hospital de la Mujer women were interviewed in either a rooming-in ward (n=185) or in a ward for "high-risk" women (n=247) where the newborn and the mother had little contact with each other. Participants were followed-up in their homes at 1.4 mo and at 4.2 mo and attrition was 45%. Multivariate survival analyses showed that maternal employment, being a teenaged mother and low maternal motivation for breastfeeding were risk factors for shorter breastfeeding durations. The impact of the maternity ward on breastfeeding was modulated by maternal education and an index of household belongings.

KEY WORDS: breastfeeding, human lactation, infant feeding determinants, maternity wards, Mexico, survival analysis, urban

Introduction

Recent trends suggest that by the year 2000, 80% of the population of Latin America will be living in urban areas (1,2). This is of public health relevance because in these areas there is a clear trend towards the early introduction of supplementary bottles accompanied by short breastfeeding duration. Illustrative is the case of Mexico where a large number of individuals do not receive for sufficient time (3) the well-documented immunological (4), nutritional (5) and contraceptive (6) advantages of breastfeeding. Furthermore, this situation is even more pronounced in metropolitan than in smaller urban areas (3).

Mexico City has now become the largest megalopolis in the world (20 million inhabitants) and is experiencing one of the worst rates of initiation and duration of breastfeeding among developing nations (3,7). Therefore an understanding of the determinants of breastfeeding in Mexico City is an important public health priority. Several studies have looked at the determinants of breastfeeding in Mexico City (8-11) and other metropolis like Guadalajara (12-14) and in smaller urban areas (15,16). However, the studies from Mexico City are either outdated (8-10), have been retrospective (8-10), have only included primiparas (11) and/or they have concentrated on specific areas of the city (8,10). For this reason, it is important to study the determinants of breastfeeding in Mexico City using updated, longitudinal and generalizable information.

The main goal of these analyses is to identify in a

prospective fashion socio-economic, cultural, behavioral and biological determinants of breastfeeding among low-income women from Mexico City.

The data presented form part of a larger study to document the cost-effectiveness of hospital based breastfeeding promotion efforts in Brazil, Honduras and Mexico. The study was conducted by the International Science and Technology Institute under the auspices of the USAID Latin American and Caribbean Health and Nutrition Sustainability Project.

Methodology

Study design

The study design (Figure 1) involved the participation of women that delivered in two large public hospitals (7,000-12,000 deliveries per year) located in Mexico City, operated by the Ministry of Health and serving a population without access to social security health benefits. In the Hospital General (HG, n=333) all the women roomed-in with their infants and the hospital had a breastfeeding promotion program in place. In the Hospital de la Mujer the women were interviewed in either a rooming-in ward (HM-RI, n=185) or in a ward for "high-risk" women (HM-NUR, n=247) where the newborn and the mother had little contact with each other. All c-section cases in this hospital were assigned to the "high risk" ward. Participants were followed-up in their homes at 1.4 mo and at 4.2 mo and attrition was 45%.

Exclusion criteria

All women delivering in the hospitals at the time of data collection were included unless: the infant had birth defects that prevented normal suckling, the mother had medical conditions such as eclampsia, HIV infection, psychological problems, deafness, breast anomalies, and/or used certain medications (lithium, thyroid and chemotherapy drugs). Subjects were also excluded if the mother or the infant were included into the intensive care unit, or if the mother planned to give her newborn for adoption.

Survey instruments

All data was collected in 1992 and 1993 through pre-tested surveys. Four survey forms were used: hospital record, hospital exit, first home visit, and second home visit. The hospital record form was used to abstract information from clinical files. The information retrieved included birthweight, gestational age, drugs and anesthetics used during labor and delivery, type of birth, birth attendant, infant feeding orders and medication and length of hospital stay.

The hospital exit survey was used to interview mothers before hospital discharge. Detailed information was collected on maternal recall of exposure to hospital practices and activities related to breastfeeding, maternal knowledge and plans for infant feeding, previous breastfeeding history, prenatal care, demographic characteristics, and socioeconomic status. Care was taken to get a complete home address. This included identifying landmarks, public transportation, and drawing a map to facilitate

locating the home.

Home surveys were used to collect data on infant feeding practices, infant and maternal health, breastfeeding problems, maternal recall of post-hospitalization exposure to breastfeeding information and advice, demographic characteristics, socioeconomic status, and contraceptive use.

Trained interviewers, who were not associated with any of the hospitals, were recruited to administer the surveys. Supervision visits were made in all countries to ensure the accuracy and completeness of questionnaires. About 5% of all households were revisited and the questionnaires re-applied by the field supervisor. Supervisors met regularly with interviewers to clarify any questions or concerns regarding the interviews. Women were classified as "lost to follow-up" if they could not be found after three attempts to locate them at the address they provided in the hospital.

Data management

All data was entered weekly into Epi Info (17) in each country following routine quality control procedures. At the end of the data collection period all data and surveys were sent to the USA coordinating center. An inspection of the data entered and completed survey forms revealed that the data management and collection met the highest standards of quality.

Analytical strategy

Dependent variable

The infant feeding status at the first and second follow-up

was determined based on a 24 h structured recall applied to the mother. An infant was considered to be breastfed (BF) if he/she received breast milk during the previous 24 h. If the child was not BF, mothers were asked to report the age at which the child had been completely weaned from the breast.

Explanatory variables

The explanatory variables were selected based on our previous analytical work (18) and their public health relevance of the variables.

Socio-economic and social support

An additive socio-economic status (SES) index was generated based on the following household belongings (present=1, absent=0): TV, refrigerator, car, telephone and radio. The remaining socio-economic variables included in the analyses were: maternal education (yrs of formal schooling), current maternal employment outside of the household, and the availability of a flush toilet in the household. A woman was considered to have more social support for infant feeding if the infant's father was living with her during the study.

Infant feeding intentions

This construct was represented by the planned (as reported in the hospital exit interview) BF duration. In the rare event that a mother was not planning to breastfeed at all (9/765=1%) she was entered zero as value for this variable.

Demographic and biomedical

Maternal parity and age, infant gender and birth weight and

type of delivery were also included in the analyses.

Statistical analyses

All analyses were carried out using the SPSS for Windows statistical package (19). Population background characteristics were compared across countries using the chi-square statistic for categorical and one-way analysis of variance (ANOVA) for continuous variables. Bi-variate associations between the independent variables and breastfeeding at 1 mo and 4 mo were explored using chi-square analyses. Bi-variate analyses were restricted to subjects that were followed throughout the study.

Multivariate survival analysis (Cox model) was used to identify risk factors for shorter BF durations. The independent variables consisted of all the explanatory variables listed above and the two way interactive terms between the hospital of delivery and each of the independent variable. Type of delivery (c-section vs vaginal) was entered in the bivariate but not in the multivariate models since this variable is confounded with the maternity ward.

Independent variables were entered as dichotomous in the survival models. An exception was parity which was entered as continuous to avoid multicollinearity problems with maternal age which was entered as dichotomous. Previous exploratory analyses indicated that being a teenager was more strongly associated with breastfeeding success than being a primiparous woman. The cutoff points used for continuous variables were based on the median. An exception was maternal age

which was based on a teenager (≤ 18 yrs) vs adult (> 18 yrs) classification.

The model was run with and without planned BF duration at the time of the hospital interview. The sample size was maintained constant in both models. Full models were reduced using backward stepwise procedures and the survival curve patterns were generated for the interpretation of significant main effects and interactions. Whereas in the bivariate analyses the outcome variable is categorical (BF vs not BF), in the survival analyses the outcome is based in the actual duration of BF. The BF duration of subjects that were still breastfeeding when they were lost to follow-up or that were still breastfeeding at the end of the study was based on the age of the infant at the time when he/she was last seen. In both instances, breastfeeding duration was identified as a censored value in the survival models. All subjects that were ever followed-up were included in order to maximize the sample size in the survival models.

Results

Subjects

The socio-economic and demographic characteristics of the sample are typical of low-income women of childbearing age from Mexico City (Table 1). Subjects were in their early twenties, the majority of them were multiparae and had about 2 children alive. On average, women had completed elementary school but many of them had not completed high school. Most of the households had access to a flush toilet (94%) and only three quarters lived with

the infant's father, many of them in free unions. One out of five women were usually employed outside their household. In terms of biomedical characteristics the incidence of c-section deliveries was 26%, the average birth weight was 3.1 kg and infant gender was evenly distributed in the sample.

Women were planning to BF the study child for 8 mo which was close to the 7 mo BF duration with the previous child reported by multiparas.

Bivariate

Women that delivered in the HMNUR ward tended to be less succesful with BF at 1 mo than their counterparts in the HG and HMRI wards. Current maternal employment, breastfeeding plans and the availability of a flush toilet in the household were identified as risk factors for not BF at both 1 mo and 4 mo. Teenaged mother (vs adult) and primiparity emerged as risk factors for not BF at 4 mo. The association of BF with maternal age was stronger than with parity (Table 2).

Multivariate

The coefficients of the reduced survival model are presented on Table 3.

Teenaged women BF for shorter periods of time than adults (age at which 75% of infants were no longer BF: 25 d vs 52 d) (Figure 2). Maternal employment outside of the household at 1 mo was inversely associated with BF (14 d vs 52 d) (Figure 3). Women who planned to BF longer were more successful with BF (60 d vs 25 d) (Figure 4).

A significant interaction was identified between maternity ward and maternal education (Figure 5). Whereas in the HM-RI ward women with less education BF longer than their more educated counterparts (105 d vs 25 d) in the HM-NUR ward the inverse relationship was observed (30 d vs 45 d). Maternal education did not have an impact on BF success in the HG.

Maternity ward and socio-economic status also interacted (Figure 6). Whereas women from HM-RI with lower SES BF less than their higher SES counterparts (25 d vs 60 d) the opposite was true in HM-NUR (83 d vs 25 d). SES did not have an impact on BF success in HG.

Excluding breastfeeding plans from the model, maintaining the sample size constant, did not shed more light into our understanding of breastfeeding determinants in this population since it resulted in a loss of statistical power to detect significant risk factors.

Discussion

Results indicate that socio-economic, demographic, and attitudinal variables were associated with breastfeeding success in Mexico City.

Maternal employment outside of the household was inversely associated with breastfeeding success. This finding together with the upward trend towards the incorporation of women into the formal work sector suggests that policies involving infant feeding support for working women should be an important component of the Mexican breastfeeding promotion program.

Teenaged mothers were less likely to be successful with breastfeeding than their adult counterparts. It is possible that teenagers have less social support and therefore they need to be prime targets for breastfeeding promotion efforts. This is of public health relevance since ≈ 20 % of pregnancies in Latin America occur among teenaged girls (20).

Women who were planning to breastfeed their infants longer when they were interviewed in the maternity ward ended up doing so for longer than their less motivated counterparts. This finding indicates that breastfeeding motivation should be routinely assessed prenatally and/or during the hospital stay. Women with poor motivation for breastfeeding should be targeted by well designed breastfeeding promotion interventions.

The impact of c-sections on breastfeeding success was not tested in the multivariate models because this variable is confounded with the maternity ward. A previous analysis (18) conducted within the only group that included vaginal and c-section deliveries (i.e. HG), however, indicated that c-section was not a risk factor for earlier termination of breastfeeding.

The impact of maternal education on breastfeeding was moderated by the maternity ward. In the HMNUR ward more educated women were more successful with breastfeeding than their less educated counterparts. It is possible that only the more educated were able to succeed with breastfeeding after delivering in a maternity ward with a non-conducive environment for breastfeeding. By contrast, in the HMRI ward higher maternal

education was a risk factor for shorter breastfeeding durations. One possibility is that the program in this hospital targeted more properly women with lower levels of education. It is also possible that women with lower levels of education had less risk factors for shorter breastfeeding duration that could not be totally accounted for through statistical adjustments.

An interaction between socio-economic index and maternity ward was also identified. In contrast with maternal education, it was the women with highest socio-economic status within the HMRI ward that breastfed longer and the opposite was true in the HMNUR ward. The inconsistent patterns of association when comparing the SES index and maternal education interactions with maternity ward is difficult to explain. However it suggests, at the very least, that these two socio-economic indicators might be capturing two different constructs that are important predictors of breastfeeding behavior.

The statistically significant interactive terms suggest that breastfeeding is a complex behavior involving an interaction between the characteristics of the maternal/child dyad and the environment in which breastfeeding takes place (21). Through these interactive terms we were able to detect the presence of risk factors that are maternity ward specific.

The identification of breastfeeding determinants presented in this report has improved our understanding of determinants of infant feeding choices in Mexico City. There are, however, some methodological considerations that need to be taken into account

for the interpretation of results. Almost half of the sample was lost to follow-up which questions the external validity of the findings. Previous bias analyses have indicated that women that were lost to follow-up were of lower socio-economic status (18). This suggests that our findings might not apply to the most socio-economically disadvantaged subjects of the population.

In conclusion, we identified socio-economic, demographic, and attitudinal risk factors for shorter breastfeeding durations. Maternal employment, being a teenaged mother and low motivation for breastfeeding were risk factors for shorter breastfeeding durations. The impact of the maternity ward on breastfeeding was modulated by maternal education and an index of household belongings. These interactions illustrate the importance of context and population characteristics when we try to understand the impact of promotional efforts on a complex behavior such as breastfeeding.

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References

1. Uauy, R.,Chateauneuf,R. and Valiente,S., Food and nutrition problems in urbanized Latin America:Misdirected development. In White,P.L. and Selvey,N., eds. Malnutrition:Determinants and consequences. Alan R. Liss, NY pp:29-43, 1984.

2. Solomons,N.W. and Gross,R.,Urban nutrition in the tropics:A call for increased attention to metropolitan population in the developing world. Food and Nutrition Bulletin (9)2:43-44,1987.

3. Perez-Escamilla, R. and Dewey, K.G., The epidemiology of breastfeeding in Mexico: urban vs rural areas. Bull Panam Health Org 26(1):30-36, 1992.

4. Jason, J.M. et al., Mortality and infectious disease associated with infant-feeding practices in developing countries. Pediatrics 74(4):702-727, 1984.

5. Pierse,P., Van Aerde,J. and Clandinin, M.T., Nutritional value of human milk. Progress in food and nutrition science 12:421-447, 1988.

6. Perez, A., Labbok, M.H., Queenan, J.T. Clinical study of the lactational amenorrhea method of family planning. Lancet 339:968-970, 1992.

7. Pérez-Escamilla, R., Breastfeeding patterns in Latin America and the Caribbean, Bull of PAHO 27(1):32-42, 1993.

8. Vega Franco,L., Toca,T. and Torres Muñoz, F., Alimentación al seno en las clases populares de la ciudad de México. Salúd Pública de México Epoca 5(19)2:227-232, 1977.

9. Avila,H., Arroyo,P., García,D., Huerta,F., Díaz,R. and

Casanueva,E., Factors determining the suspension of breast-feeding in an urban population group. Bull Pan Am Health Organ 14(3):286-292,1980.

10. Mariscal Abascal,C., Sori M.,J., Rey,L., Bautista O.,O. and Fiscal T.,M. Estudio sobre la lactancia materna un una área suburbana. Boletín Médico del Hospital Infantil de México 34(4):777-786,1977.

11. Avila-Rosas, H., Toussaint-Martinez de Castro, G. and Gutierrez-Calderon, E. Indicadores del establecimiento de la lactancia en mujeres primíparas. Perinatol Reprod Hum (Mexico) 4:137-146, 1990.

12. Vega López, M.G. and González Pérez, G. Factores maternos asociados a la duración de la lactancia en áreas periféricas de Guadalajara, México. Bol. Of. Sanit. Panam. 115:118-127, 1993.

13. Magaña,A. et al., Aspectos epidemiológicos de la lactancia materna en una población derechohabiente del IMSS en México, Bol. Of. Sanit. Panam. 90(3), 1981.

14. Santos-Torres,I., Vásquez-Garibay,E. and Nápoles Rodríguez,F., Hábitos de lactancia materna en colonias marginadas de Guadalajara. Boletín Médico del Hospital Infantil de México 47(5):318-323,1990.

15. Perez-Escamilla, R., Segura-Millán, S., Pollitt, E. and Dewey, K.G., Effect of the maternity ward system on the lactation success of low-income urban Mexican women. Early Human Development 31:25-40, 1992.

16. Pérez-Escamilla, R., Segura-Millán, S., Pollitt, E. and

Dewey, K.G. Determinants of lactation performance across time in an urban population from Mexico, Soc Sci & Med 37(8):1069-1078, 1993.

17. Centers for Disease Control and World Health Organization. Epi Info. Version 5, 1991.

18. Pérez-Escamilla, R., Lutter, C., Wickham, C., Philipps, M., Treviño, S. and Sanghvi, T. Effectiveness of breastfeeding promotion efforts in Mexico City, ISTI report, 1994.

19. Norusis, M.J., SPSS for Windows, Release 5.0, Michigan, USA, 1992.

20. World Bank. Investing in health. World Development Report. New York: Oxford University Press, 1993.

21. Segura-Millán, S., Dewey, K.G. and Pérez-Escamilla, R. Factors associated with perceived insufficient milk among low-income Mexican mothers, J of Nutrition 124:202-212, 1994.

Table 1. Descriptive characteristics (N=765)

variable	score
<u>demographic</u>	
maternal age (yrs)	23.6±5.4 (n=694)
children alive[2] (#)	1.8±1.8 (n=765)
primiparae (%)	39% (295/765)
infant sex (% F)	50% (381/764)
<u>socio-economic</u>	
maternal education (yrs)	6.8±2.9 (n=762)
socio-economic index[3]	2.2±1.2 (n=765)
flush toilet (%)	94% (714/762)
married[4] (%)	76% (368/482)
usually employed outside the household (%)	18% (138/760)
<u>biomedical</u>	
c-section delivery (%)	26% (183/699)
birth weight (kg)	3.1±0.46 (n=700)
<u>previous BF experience and plans</u>	
BF duration with previous infant (mo pp)	6.8±7.3 (n=477)
planned breastfeeding duration (mo pp)	7.9±4.7 (n=580)

(1) mean ± sd, (2) including study child, (3) SES index: TV + radio + refrigerator + telephone + car (4) law, church or free union

Table 2. Bivariate associations between independent variables and any breastfeeding (BF) success

	1 mo (n=423)	4 mo (n=423)
maternity ward	p=0.10	
HG	137/173(79%)	100/173(58%)
HMRI	82/103(80%)	62/103(60%)
HMNUR	103/147(70%)	72/147(49%)
maternal age[1]		p≤0.001
< 18 yrs	53/74(72%)	29/74 (39%)
≥ 18 yrs	242/311(78%)	188/311(61%)
primiparae		p=0.02
yes	200/259(77%)	79/164(48%)
no	122/164(74%)	155/259(60%)
infant sex		
F	158/205(77%)	109/205(53%)
M	164/218(75%)	125/218(57%)
maternal education[3]		
< 7 yrs	146/197(74%)	110/197(56%)
≥ 7 yrs	175/224(78%)	123/224(55%)
socio-economic index[4]		
< 2	81/100(81%)	61/100(61%)
≥ 2	241/323(75%)	173/323(54%)
flush toilet	p=0.09	p=0.03
yes	302/401(75%)	217/401(54%)
no	20/22 (91%)	17/22 (77%)
married		p=0.06
yes	248/319(78%)	184/319(58%)
no	72/102(71%)	48/102(47%)
employed outside the household	p≤0.0001	p<0.001
yes	15/33 (45%)	22/59 (37%)
no	307/390(79%)	212/364(58%)
type of delivery		
c-section	82/107(77%)	57/107(53%)
vaginal	214/279(77%)	161/279(58%)
birth weight[5]		
< 3.1 kg	142/190(75%)	106/190(56%)
≥ 3.1 kg	156/198(79%)	114/198(58%)
planned BF duration	p=0.001	p=0.005
< 6 mo	63/95 (66%)	43/95(45%)
≥ 6 mo	184/223(83%)	139/223(62%)

ses index:TV + radio + refrigerato + telephone + car

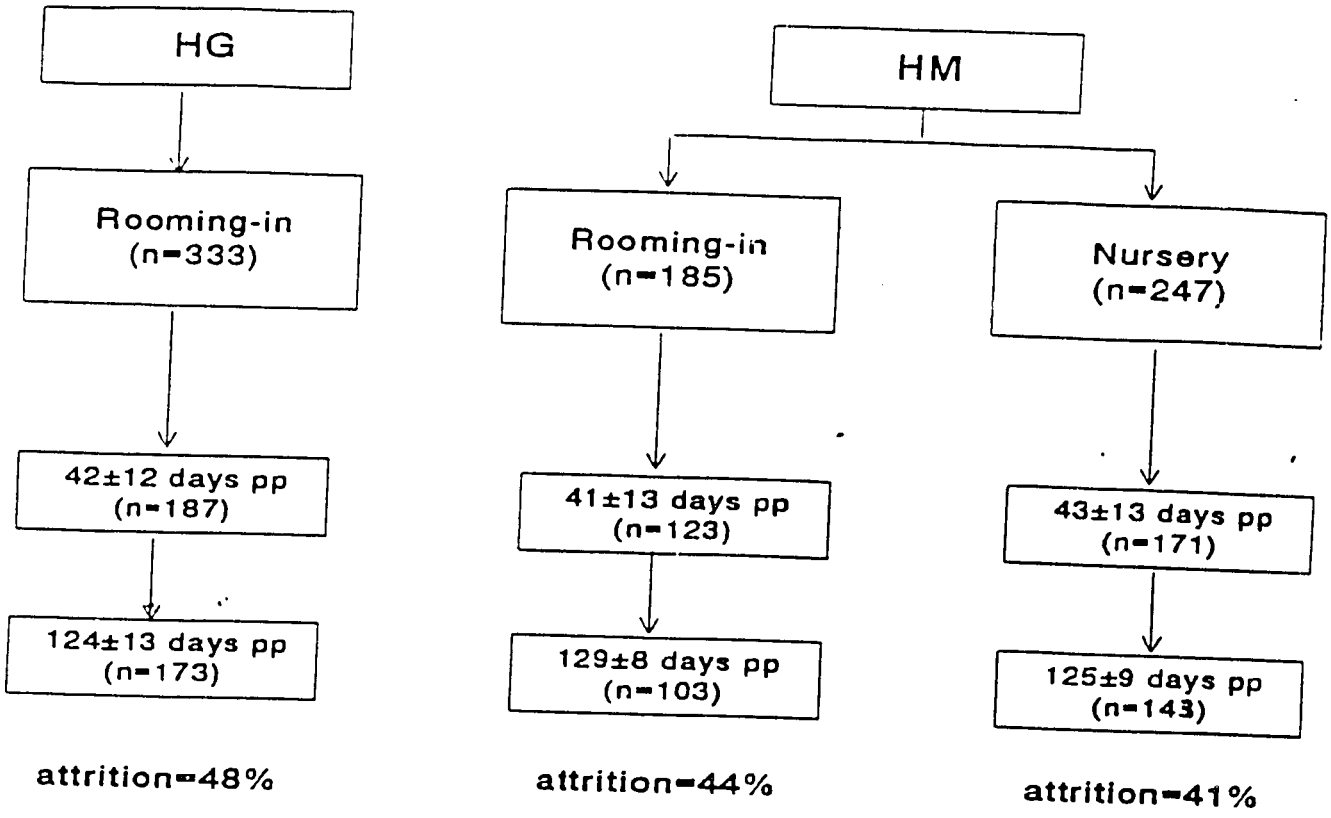
Table 3. Multivariate[1] associations between independent variables and any breastfeeding (BF) success (n=317).

	code	ß (se)
maternity ward system (MWS)[*1]		
	HG-RI=1	
	HM-RI=2	
	HMUJ-NUR=3	
maternal age[1]		**p=0.008**
	≤ 18 yrs=1	0.29
	> 18 yrs=2	(0.11)
primiparae		
	yes	
	no	
infant sex		
	F=1	
	M=2	
maternal education[3]		
	< 7=1	
	≥ 7=2	
socio-economic index[4]		
	< 2=1	
	≥ 2=2	
flush toilet		
	yes=1	
	no=2	
married		
	yes=1	
	no=2	
employed at 1 mo		**p=0.001**
	yes=1	-0.42
	no=2	(0.13)
type of delivery		
	c-section=1	
	vaginal=2	
birth weight[5]		
	<3.1 kg=1	
	≥3.1 kg=2	
planned BF duration		**p=0.01**
	< 6 mo=1	0.25
	≥ 6 mo=2	(0.10)
MWS x maternal age		

MWS x maternal education	**p=0.06**
HG x maternal education	p=0.40 0.10 (0.12)
HMRI x maternal education	**p=0.02** -0.33 0.15
MWS x ses index	**p=0.07**
HG x ses index	p=0.95 -0.008 (0.12)
HMRI x ses index	**p=0.04** 0.29 (0.14)
MWS x flush toilet	
MWS x married	
MWS x employment	
MWS x delivery type	
MWS x birth weight	
MWS x planned EBF duration	
MWS x delivery type	

(1) Cox survival analyses, backward stepwise procedure.

STUDY DESIGN: MEXICO

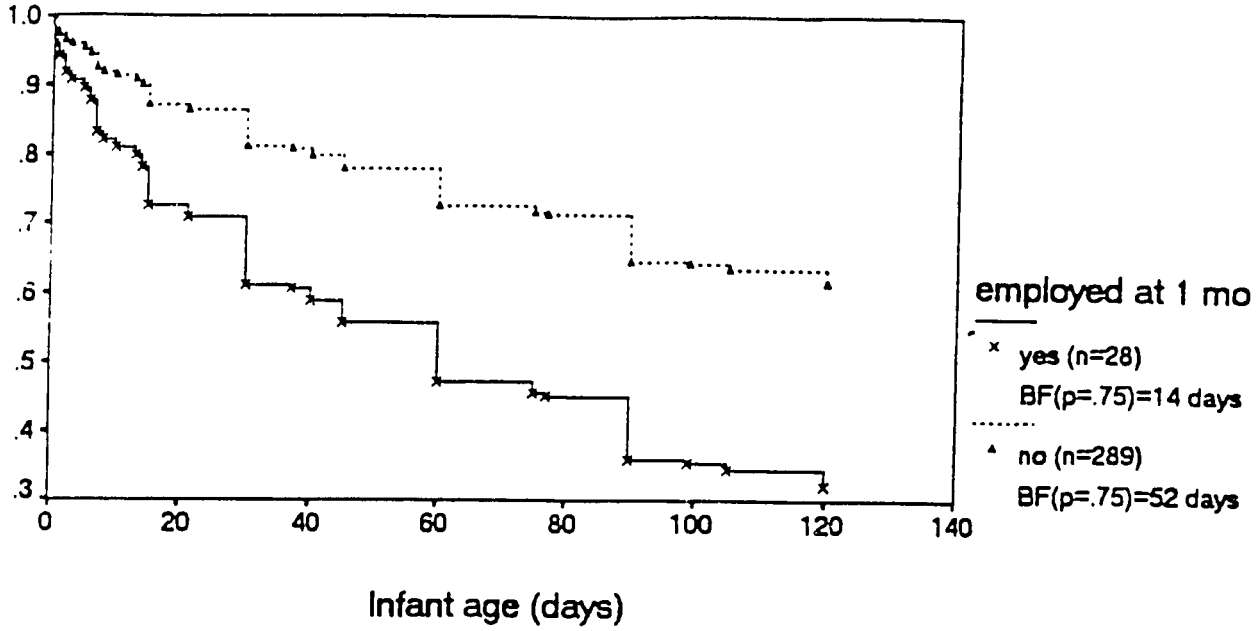


Note: There were 172 women (117 from H. General, 15 from H. Mujer-Rooming-In and 40 from H. Mujer-Nursery) that were interviewed in the hospital and later on excluded from the follow-up because they lived in remote or inaccesible areas of the city.

MATERNAL EMPLOYMENT

Mexico

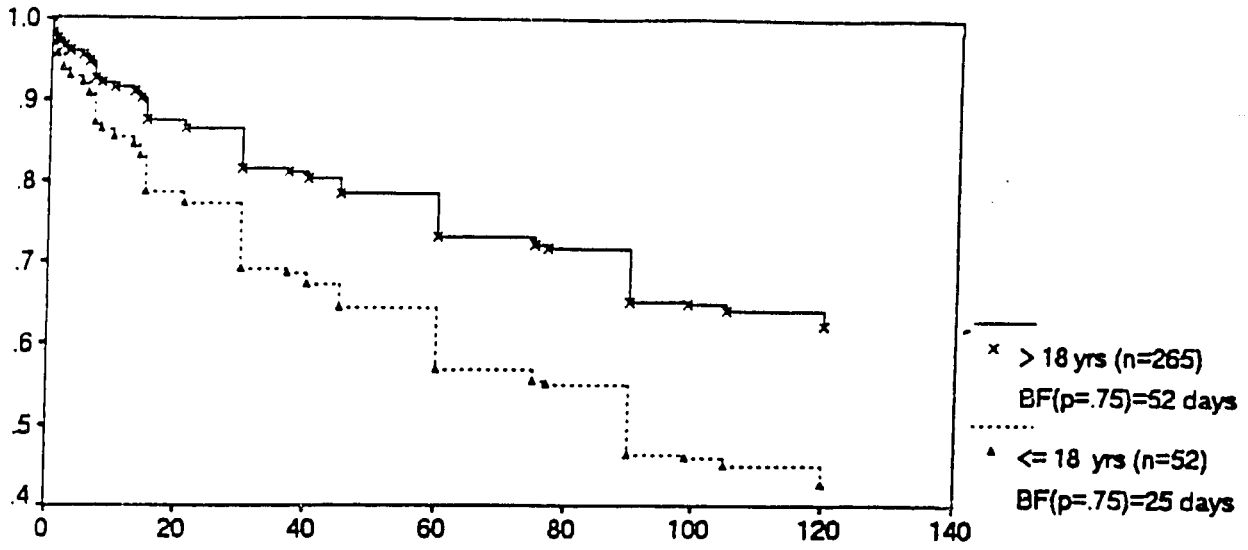
N=317



MATERNAL AGE

Mexico

N=317

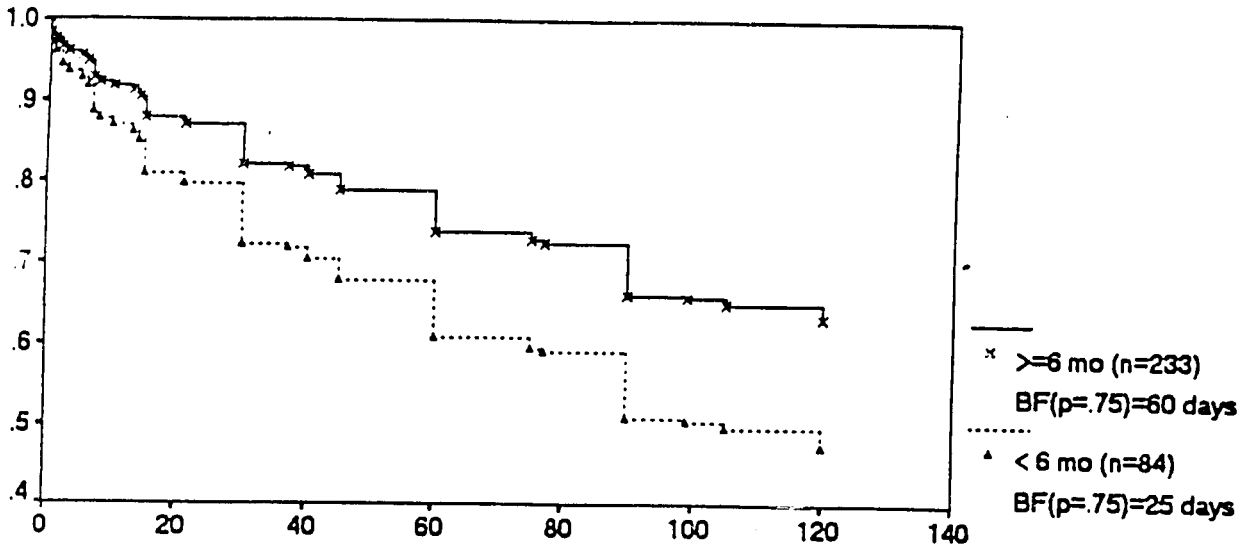


Infant age (days)

BF PLANS

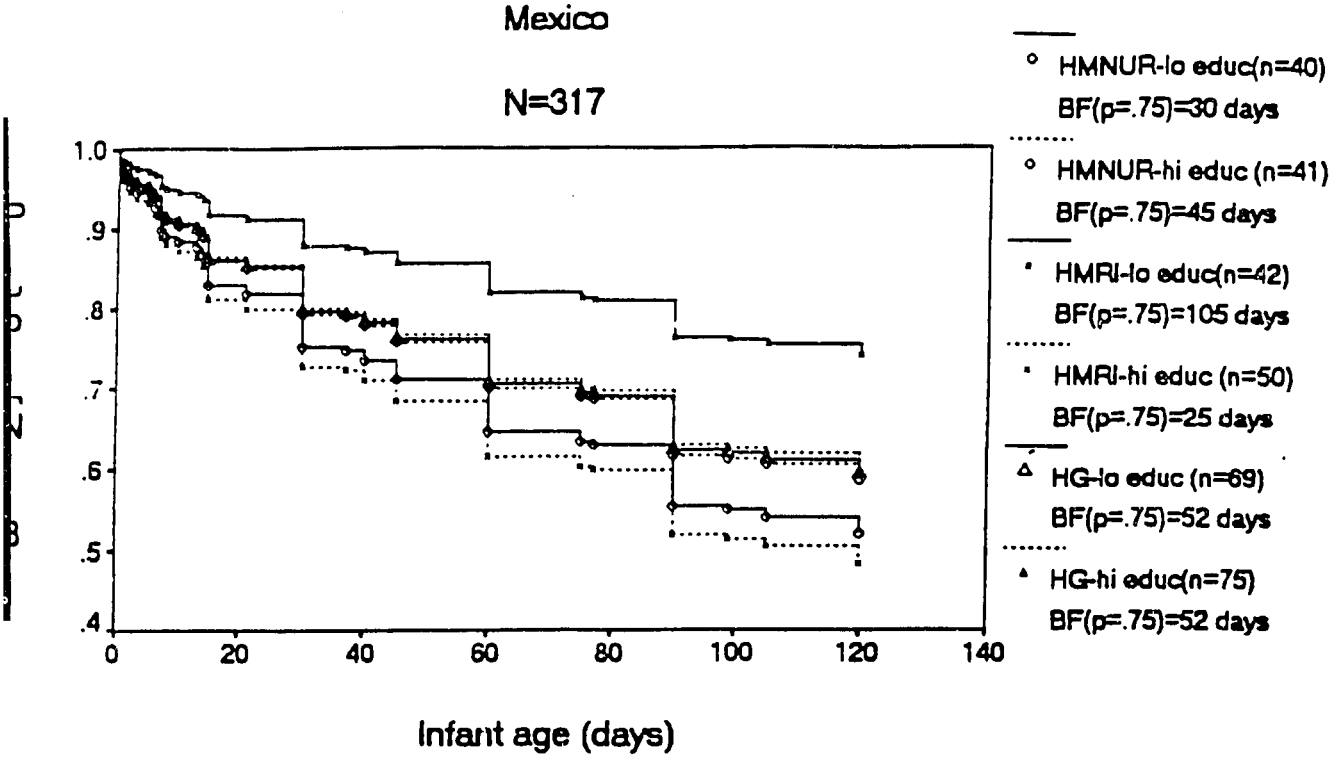
Mexico

N=317



Infant age (days)

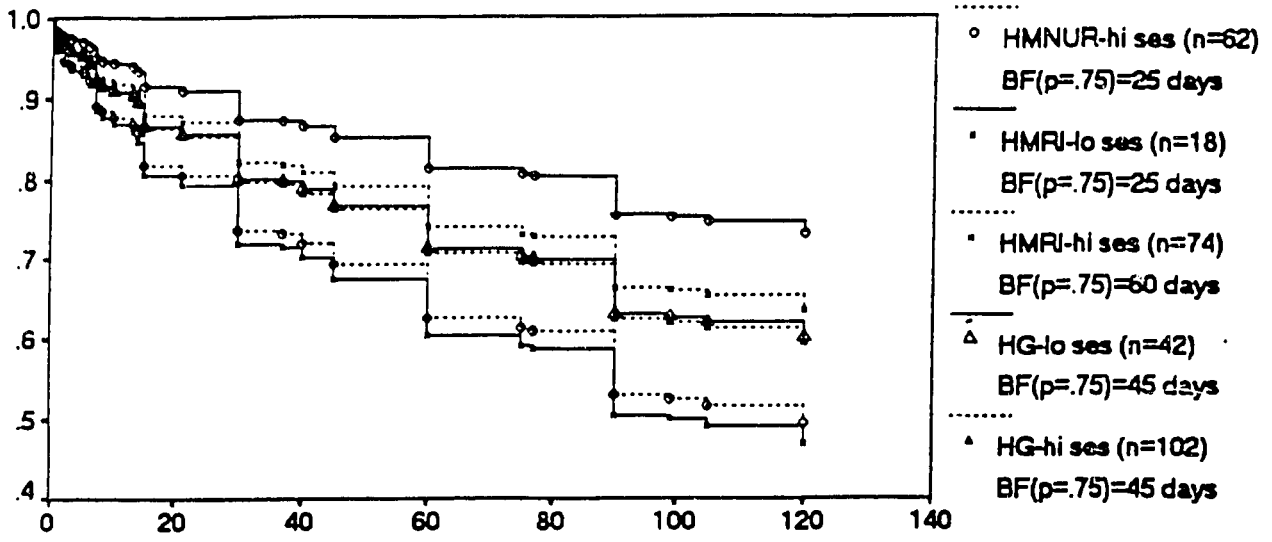
HOSPITAL x MATERNAL EDUCATION



HOSPITAL x SES

Mexico

N=317



Infant age (days)