Original Article

FAMILY AND COMMUNITY PRACTICES RELATING TO INFANT FEEDING IN CENTRAL TOGO: A study preceding implementation of the family and community component of the «Integrated Management of Childhood Illness» strategy (C-IMCI).

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ABSTRACT:

The aim of this study was to assess neonate and infant feeding practices in the central region of Togo before implementation of the community component of the «Integrated Management of Childhood Illness» (C-IMCI) strategy. It was a cross-sectional study from 29th March to 8th April 2004 and included a random sample of 983 households, 506 caretakers and 733 under-five children. Using the Epi-info and SPSS softwares, this study assessed mainly breast feeding, the use of breast milk substitutes and weaning practices.

It was noted that out of the 733 children, 52% were males and 48% females, 27% less than one year and 21.6% between 12 and 23 months. After delivery, 29.3% of infants were breastfed within one hour, and 75.6% within the first 24 hours. Only 78.4% of the children received colostrum after birth. It was also noted insufficient breast milk flow in 53.1% of the mothers and water was the main substitute for breast milk in 21% of the children. If 57.7% of the children were exclusively breastfed for the first 6 months, only 9.5% of the infants were breastfed up to the 23rd month. Complementary foods were introduced at an average age of 6 months with water, pap, «diuri» (a plant decoction), and at an average age of 11 months with other family foods. Altogether, 65% of mothers stopped breastfeeding between 18 and 30 months for varying reasons : 7% because of pregnancy, 6% due to insufficient breast milk flow, 3% professional constraints and 3% death.

From this study we recommend that sustained efforts have to be made on the sensitization of mothers during C-IMCI implementation on cultural practices that do not support optimal feeding of the neonate and young infant.

KEY WORDS: Breastfeeding - Feeding - Breast milk substitutes - Neonate - Infant - C-IMCI - Togo.

ALIMENTATION DES NOUVEAU-NES ET DES ENFANTS DANS LA ZONE CENTRALE DU TOGO: Pratiques familiales et communautaires avant la mise en œuvre de la composante familiale et communautaire de la stratégie «Prise en Charge Intégrée des Maladies de l'Enfant» (PCIME-C).

RESUME :

Le but de cette étude était d'étudier les pratiques familiales et communautaires relatives à l'allaitement maternel, à la diversification alimentaire et à l'arrêt de l'allaitement de l'enfant dans la région centrale du Togo, avant la mise en œuvre de la composante familiale et communautaire de la stratégie «prise en charge intégrée des maladies de l'enfant» (PCIME-C). Il s'est agi d'une étude transversale descriptive menée du 29 mars au 08 avril 2004 simultanément dans cinq districts de cette zone, auprès d'un échantillon aléatoirement constitué de 983 ménages dont 733 enfants de moins de cinq ans. Nous avons étudié principalement la conduite de l'allaitement maternel, les substituts de lait maternel utilisés en cas de retard de montée laiteuse, de diversification alimentaire jusqu'à cessation de l'allaitement. Sur les 733 enfants, 52% de garçons et 48% de filles, pris en charge par 983 ménages, 27% avaient moins d'un an et 21,6% de 12 à 23 mois. Un nouveau-né sur cinq a été allaité dans l'heure suivant sa naissance et plus des ¾ des enfants avant la 24ème heure. Le colostrum a été donné d'emblée à l'enfant dans 78,4% des cas et rejeté dans 21,5%. Le retard de montée laiteuse a été observé dans 53,1% et l'eau, le principal substitut de lait maternel utilisé (21%). L'allaitement maternel exclusif de 0 à six mois a été pratiqué pour 57,7% des enfants. Seulement 9,5% des enfants étaient encore allaités au 23ème mois de vie. La pratique de l'allaitement artificiel n'a été observée que pour 3% des enfants. L'eau, les bouillies, le plat familial et le « diuri », décoction à base de plusieurs plantes et écorces, composaient la diversification alimentaire. L'âge moyen d'introduction dans celle-ci a été de six mois pour l'eau, le « diuri » et les bouillies, et de 11 mois pour le plat familial. L'enfant a cessé d'être allaité dès l'âge de 18 à 30 mois (65%), pour plusieurs raisons diversement associées dont une nouvelle grossesse de la mère (7%), une insuffisance lactée (6%), des contraintes professionnelles maternelles (3%) ou le décès maternel (3%). Nous concluons que l'allaitement maternel exclusif de l'enfant de 0 à 6 mois et la diversification alimentaire sont bien pratiqués par la majorité des mères dans la zone d'étude mais la durée de l'allaitement maternel reste insuffisante eu égard à la stratégie mondiale pour l'alimentation du nourrisson et du jeune enfant. La sensibilisation des mères sur la durée de l'allaitement maternel, la qualité de la diversification alimentaire et un arrêt définitif de l'allaitement aussi tardif que possible, demande encore des efforts soutenus.

MOTS CLES: Allaitement maternel - Alimentation - Substituts de lait maternel – Nouveau-né - PCIME-C - Enfant - Togo.

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I- INTRODUCTION

Seven out of ten deaths of under-five children in developing countries are due to at least one of the following conditions : malaria, acute respiratory infection, diarrhea, measles ; and in 60% of cases, there is underlying malnutrition which increases mortality. More than two thirds of these deaths are often associated with inappropriate feeding practices, especially in the first year of life. Malnourished infants who survive are often sick, and suffer all their lives the harmful consequences of retarded growth [1-3].

As many other developing countries, Togo has been engaged in the implementation of the «Integrated Management of Childhood Illness» (IMCI) strategy which aims at reducing under-five mortality, as well as the frequency and severity of childhood diseases. Its community component (C-IMCI) aims at developing, promoting and supporting family practices vital for the survival, growth and development of the child [4-7].

To facilitate follow-up and evaluation of C-IMCI implementation in the central region of Togo, a baseline survey was conducted to make available indicators regarding the social environment of the child, household and the community. This study assesses practices related to breast feeding, complimentary feeding and weaning in the central region of Togo.

II- METHODS

With a surface area of 16,326 km^2 (29% of Togo's territorial area), the districts of Tchamba, Tchaoudjo, Sotouboua, Blitta and East Mono occupy the central part of Togo [8], and was the setting of this study. The estimated population of these five districts was 553, 000 inhabitants (11.2% of Togo's population) in 2003. Clusters previously considered in the former 2000 Multiple Indicators Cluster Survey/UNICEF Survey [9], constituted our baseline sample. Out of 1,000 randomly drawn households, 983 were effectively surveyed. The number of households surveyed in each district (33% urban and 67% rural) was proportional not only to the number of inhabitants but also to the size of the cluster.

This cross-sectional baseline survey, on a sample representative of the target population, was carried out simultaneously in the five districts from 29th March to 8th April 2004. As data collection tools, three separate questionnaires were used : one each for the child, caretaker and household. These tools were elaborated with due consideration of the socio-cultural context of the area under study. The field surveyors were trained and pre-testing of the questionnaires done from 19th to 21st March 2004, after the survey was approved by the Togolese Ministry of Health.

For the analysis of data regarding initiation, exclusiveness and duration of breast feeding; time of introduction and kinds of complementary foods and breast feeding cessation, Epi Info (Version 6.0) and Statistical Package for the Social Sciences (SPSS) version 11 softwares were used. The Chi-square ($\div^2$) test with a threshold statistical significance at 5% was applied to compare the variables.

III- CONCEPT DEFINITIONS

District: a clearly defined geographic area with a population of 50,000 to 300,000 inhabitants where a local administration is responsible for the central administrative duties.

Household: a group of people living in a residential ward under the authority of a single person called «household head».

«Diuri»: concoction prepared from at least one of the seven plants (*Monodora myristica, Paullinia pinnata, Pteleopsis suberosa, Securinega virosa, Tnnea bateri, Uvaria chamae, Xylopia aethiopica)*. It is usually mixed with pap and given to the child by traditional force-feeding or with a spoon, and is believed to treat or prevent «intestinal wounds».

Traditional gavage feeding : consists of forcefully introducing foods into the child's mouth, with the child laid on the extended lower limbs of his/her seated mother, and with the child's head slightly more inclined backwards than the rest of body.

IV- RESULTS

Out of the 983 households heads surveyed, 73% (718) were males, 53 % (521) monogamous, 50% illiterate and only 1.5% had education beyond secondary level. In terms of age, 87.5% of all household heads are older than 25 years (Table I). Their main economic activities were farming (57.7%), public administration (16%) and trading (13.5%). A household had seven people on average. Nine out of ten caretakers were women and mothers, more than half had never gone to school and of those

with education only 0.2% are educated to tertiary level. (Table II). The socio-demographic data of the 733 children showed that in 97% of them their two parents were alive and kindergarten education was poor (Table III).

According to breast feeding practices at birth, only three neonates out of ten were breastfed within one hour after delivery and 75.6% of newborns had their first breast feed within the first 24 hours after delivery (Figure 1). There was a significant association (p = 0. 000) between the initiating of breastfeeding and the mother's level of education (Table IVa). Colostrum was given to the newborns in 78.4%, and discarded or used for other cultural purposes in 19.2% of the cases. It was declared insufficient breast milk flow in 53.1% of cases and that water was the main breast milk substitute in one out of five children (Table IV b). Exclusive breast feeding was practised in 57.7% of children of 0 to 6 months, but only 9.5% of mothers breastfed up to 23 months of life. Almost all infants (97%) did not receive bottle feeding. Complementary feeding started at averagely 6 months of life, with water and 'diuri', and then family foods at 11 months (Table V). The mothers said that breast feeding was stopped once the child had reached «weaning age», at an average age of 18 months (65%). Other reasons for early weaning were : pregnancy (7%), insufficient milk flow (6%), professional constraints (3%) and death of the mother (3%).

Table I- Distribution (%) of the household heads according to sex, age, level of education, matrimonial status and residence.

Indicators	District					Residence		Total	
	Blitta	East-Mono	Sotou-boua	Tcham-ba	Tchaou-djo	urban	rural	%	n
Sex									
Males	71,1	76,3	71,4	80,0	70,8	68,7	75,5	*73,0*	718
Females	28,9	23,7	28,6	20,0	29,2	31,3	24,5	*27,0*	265
			χ^2 = *5,626 ; p = 0,229.*			χ^2 = *5,321; p = 0,021*			
Age (years)									
15 - 19	0.0	0.0	1,2	0,7	1,8	0,6	1,1	*0,9*	9
20 - 24	3,2	1,5	4,1	2,1	5,1	4,8	2,8	*3,6*	35
25 - 29	4,7	7,4	6,2	3,6	8,3	6,0	6,5	*6,3*	62
30 - 34	15,3	8,1	12,9	6,4	10,8	14,0	9,7	*11,2*	110
35 - 39	15,8	5,9	11,2	6,4	12,3	12,3	10,3	*11,0*	108
40 - 44	11,6	15,6	12,4	11,4	14,1	11,7	13,8	*13,0*	128
45 - 49	11,1	17,8	15,8	10,0	9,0	13,4	11,9	*12,4*	122
50 - 54	8,4	15,6	9,5	12,1	8,7	10,3	10,3	*10,3*	101
55 - 59	10,0	5,2	5,0	10,7	6,9	7,4	7,3	*7,3*	72
≥ 60	16,8	18,5	20,3	25,0	13,7	17,1	18,8	*18,2*	179
unknown	3,2	4,4	1,2	11,4	9,4	2,6	7,6	*5,8*	57
			χ^2 = *87,525 ; p= 0,000*			χ^2 = *19,267;p= 0,037*			
Level of education									
Illiterate	40,0	60,0	36,1	77,1	50,2	40,5	55,2	*49,9*	491
Primary	37,9	27,4	36,1	15,7	23,1	27,6	29,3	*28,7*	282
Secondary	21,6	11,1	26,6	7,1	23,5	28,5	15,0	*19,8*	195
University	0,5	1,5	1,2	-	3,2	3,4	0,5	*1,5*	15
			χ^2 = *91,070 ; p = 0,000*			χ^2 = *43,485;p = 0,000*			
Matrimonial status									
Unmarried	6,8	1,5	2,5	1,4	5,8	5,7	3,0	*4,0*	39
Married Monogamous	50,0	46,7	58,5	47,9	56,0	54,4	52,2	*53,0*	521
Married polygamous	26,3	32,6	29,5	41,4	25,6	25,9	32,1	*29,9*	294
Divorced or staying apart	6,3	5,9	5,0	1,4	2,9	3,7	4,6	*4,3*	42
Widow	10,5	13,3	4,6	7,9	9,7	10,3	8,1	*8,9*	87
			χ^2 = *40,865 ; p = 0,001.*			χ^2 =*8,855; p = 0,065.*			
Total (%)	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	-
(n)	**190**	**135**	**241**	**140**	**277**	**351**	**632**	-	**983**

Table II- Distribution (%) of caregivers according to district, residence, sex, age, level of education and parental relationship with the child.

Indicators	District					Residence		Total	
	Blitta	**East-Mono**	**Sotou-Boua**	**Tcham-Ba**	**Tchaou-Djo**	**urban**	**rural**	**%**	**N**
Sex									
ales	10.3	16.7	3.4	0.0	6.4	7.9	6.0	***6.5***	33
Females	89.7	83.3	96.6	100.0	93.6	92.1	94.0	***93.5***	473
		$\chi^2 = 18.781; p = 0.001.$				$\chi^2 = 0.566 ; p = 0.452.$			
Age (years)									
Less than 15	0.0	0.0	0.0	1.6	0.0	0.0	0.3	*0.2*	1
15 – 19	6.4	0.0	6.8	1.6	9.6	3.6	7.1	*6.1*	31
20 – 24	30.8	16.7	28.4	4.7	15.4	22.1	19.7	*20.4*	103
25 – 29	28.2	13.3	20.3	15.6	34.6	20.0	26.2	*24.5*	124
30 – 34	10.3	25.0	21.6	31.3	16.7	23.6	18.6	*20.0*	101
35 – 39	17.9	20.0	14.2	26.6	14.1	17.1	16.9	*17.0*	86
40 – 44	5.1	8.3	4.7	10.9	6.4	5.7	6.8	*6.5*	33
45 – 49	1.3	1.7	1.4	3.1	1.3	0.7	1.9	*1.6*	8
50 years and above	0.0	15.0	2.7	4.7	1.9	7.1	2.5	*3.8*	19
		$\chi^2 = 92.239 ; p = 0.000.$				$\chi^2 = 12.649 ; p = 0.125$			
School attendance									
Yes	69.2	26.7	62.2	15.6	40.4	44.3	47.3	*46.4*	235
No	30.8	73.3	37.8	84.4	59.6	55.7	52.7	*53.6*	271
		$\chi^2 = 67.160 ; p = 0.000.$				$\chi^2 = 0.362 ; p = 0.54$			
Level of education									
None	30.8	73.3	37.8	84.4	59.6	55.7	52.7	*53.6*	271
Primary	48.7	21.7	41.2	10.9	25.6	22.9	34.7	*31.4*	159
Secondary	20.5	5.0	21.0	4.7	14.1	21.4	12.3	*14.8*	75
Higher	0.0	0.0	0.0	0.0	0.7	0.0	0.3	*0.2*	1
		$\chi^2 = 71.244 ; p = 0.000.$				$\chi^2 = 10.769 ; p = 0.013.$			
Parental relationship with the child									
None	0.0	0.0	0.7	0.0	0.0	0.0	0.3	*0.2*	1
Baby sitter	1.3	0.0	1.4	3.1	1.9	0.7	1.9	*1.6*	8
Father/Mother	97.4	81.7	91.2	90.6	92.3	90.0	91.8	*91.3*	462
Grand parents	1.3	15.0	4.7	6.3	4.5	7.9	4.6	*5.5*	28
Other parents	0.0	3.3	2.0	0.0	1.3	1.4	1.4	*1.4*	7
		$\chi^2 = 22.367 ; p = 0.132.$				$\chi^2 = 3.230 ; p = 0.520.$			
Total (%)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	-
(n)	**78**	**60**	**148**	**64**	**156**	**140**	**366**	-	**506**

Table III- Distribution (%) of children according to sex, age, parental relationship with the household head, level of education, and situation of parents.

Indicators	District					Residence		Total	
	Blitta	East-Mono	Sotou-boua	Tcham-ba	Tchaou-djo	urban	Rural	%	n
Sex									
Males	53.2	49.5	54.4	50.0	51.5	51.6	52.1	*52.0*	381
Females	46.8	50.5	45.6	50.0	48.5	48.4	47.9	*48.0*	352
		χ^2 = 0.903; p = 0.924				*χ^2 = 0.015; p=0.903*			
Age (months)									
Less than 12	26.6	34.7	21.1	22.2	29.9	23.9	28.1	*27.0*	198
12 – 23	22.3	17.9	23.9	15.6	23.0	20.2	22.0	*21.6*	158
24 – 35	23.4	18.9	18.9	20.0	19.7	21.8	19.3	*19.9*	146
36 – 59	27.7	28.4	36.1	42.2	27.4	34.0	30.6	*31.5*	231
		χ^2 = 16.314 ; p = 0.177				*χ^2=2.064 ; p=0.559*			
Parental relationship with household head									
Father	43.6	61.1	56.7	65.6	59.5	57.4	57.8	*57.7*	423
Mother	14.9	14.7	16.7	22.2	29.2	17.6	22.9	*21.6*	158
Sister / brother	10.6	2.1	0.0	0.0	0.4	1.6	1.8	*1.8*	13
Grand-parents	26.6	21.1	21.7	10.0	9.1	20.2	14.7	*16.1*	118
Aunt / uncle	2.1	1.1	3.3	1.1	1.5	2.1	1.8	*1.9*	14
Other parents	0.0	0.0	1.7	1.1	0.4	1.1	0.6	*0.7*	5
Other relationship	2.1	0.0	0.0	0.0	0.0	0.0	0.4	*0.3*	2
		χ^2 = 110.236 ; p=0.000				*χ^2=5.879 ; p=0.437*			
Present educational level									
Yes	1.1	0.0	4.4	3.3	2.9	4.8	2.0	*2.7*	20
No	1.1	1.1	1.1	2.2	1.1	1.1	1.3	*1.2*	9
Not at school age	97.9	98.9	94.4	94.4	96.0	94.1	96.7	*96.0*	704
		χ^2 = 6.663 ; p = 0.573				*χ^2= 4.078 ; p = 0.130*			
Situation of parents									
All alive	96.8	95.8	97.8	96.7	96.7	93.1	98.2	*96.9*	710
Father alive	1.1	1.1	1.1	1.1	1.1	3.2	0.4	*1.1*	8
Mother alive	2.1	3.2	0.6	2.2	2.2	3.2	1.5	*1.9*	14
Both dead	0.0	0.0	0.6	0.0	0.0	0.5	0.0	*0.1*	1
		χ^2 = 5.788 ; p = 0.926				*χ^2=15.663; p=0.001*			
Total (%)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	***100.0***	-
(n)	**94**	**95**	**180**	**90**	**274**	**188**	**545**	-	**733**

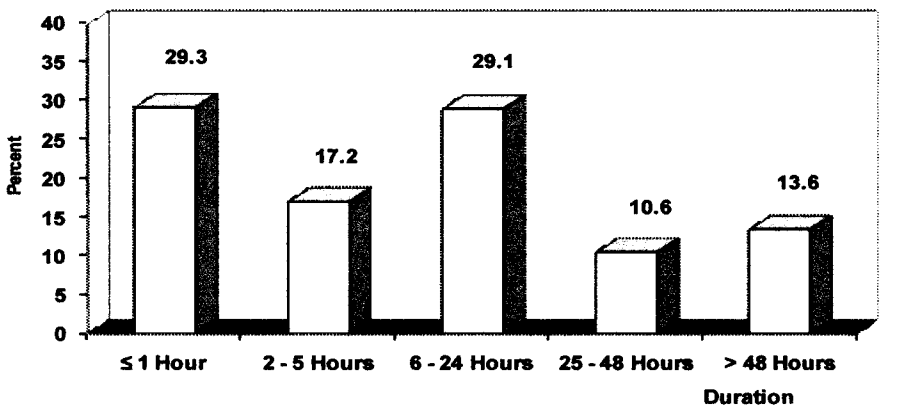

Figure 1- Distribution of the children according to the time elapsed before initiation of breast feeding (n=733).

Table IV (a) - Distribution (%) of the initially breastfed infants, according to district, residence and of sex of children, level of education and age of the mothers.

Indicators	Time elapsed before initiating breast feeding					Total	
	≤ 1 hour	2 – 5 hours	6 – 24 hours	25 - 48 Hours	> 48 hours	%	*n*
District							
Blitta	47.9	14.9	20.2	07.4	09.6	100.0	*94*
Est-Mono	17.9	07.4	32.6	24.2	17.9	100.0	*95*
Sotouboua	38.9	16.1	39.4	03.9	01.7	100.0	*180*
Tchamba	13.3	25.6	35.6	12.2	13.3	100.0	*90*
Tchaoudjo	25.9	19.3	21.9	10.9	21.9	100.0	*274*
			$\chi^2 = 115.668$; $p = 0.000$				
Residence							
Urban	27.7	19.7	30.9	09.6	12.2	100.0	*188*
Rural	29.9	16.3	28.4	11.0	14.3	100.0	*545*
			$\chi^2 = 2.142$; $p = 0.710$				
Sex							
Males	27.3	16.8	29.7	10.8	15.5	100.0	*381*
Females	31.5	17.6	28.4	10.5	11.9	100.0	*352*
			$\chi^2 = 2.977$; $p = 0.562$				
Level of education of mothers							
Illiterate	23.5	16.1	32.9	10.9	16.6	100.0	*404*
Primary	34.9	17.9	26.0	10.6	10.6	100.0	*235*
Secondary	41.8	20.9	20.9	06.6	09.9	100.0	*91*
University	00.0	00.0	00.0	100.0	00.0	100.0	*3*
			$\chi^2 = 49.551$; $p = 0.000$				
Age of mothers (years)							
Less than 15	50.0	00.0	00.0	00.0	50.0	100.0	*2*
15 – 19	37.1	14.3	28.6	02.9	17.1	100.0	*35*
20 - 24	36.4	18.9	23.8	09.1	11.9	100.0	*143*
25 - 29	25.5	12.7	38.2	11.5	12.1	100.0	*165*
30 – 34	29.8	22.6	28.0	08.9	10.7	100.0	*168*
35 – 39	26.2	17.5	26.2	12.7	17.5	100.0	*126*
40 – 44	23.2	14.3	32.1	12.5	17.9	100.0	*56*
45 – 49	33.3	08.3	08.3	16.7	33.3	100.0	*12*
50 and more	26.9	15.4	26.9	19.2	11.5	100.0	*26*
			$\chi^2 = 36.452$; $p = 0.269$				
Total							
%	***29.3***	***17.2***	***29.1***	***10.6***	***13.8***	***100.0***	-
n	**215**	**126**	**213**	**78**	**101**	-	**733**

Table IV (b) -Distribution (%) of the children with breast milk substitute in case of late milk flow, according to district, residence, sex, level of education of the mothers.

Indicators	Use of substitutes in case of late milk flow						Total	
	Not late	Nothing	Artificial milk	Water	Glucose	Others	%	n
District								
Blitta	72.3	18.1	01.1	04.3	00.0	04.3	100.0	*94*
Est-Mono	05.3	35.8	02.1	32.6	02.1	22.1	100.0	*95*
Sotouboua	73.3	21.1	00.0	03.3	02.2	00.0	100.0	*180*
Tchamba	46.7	16.7	00.0	32.2	00.0	04.4	100.0	*90*
Tchaoudjo	42.3	13.5	07.3	30.3	00.0	06.6	100.0	*274*
			$\chi^2 = 236.922$; $p = 0.000$					
Residence								
Urban	49.5	21.8	02.7	18.6	02.1	05.3	100.0	*188*
Rural	49.5	18.3	03.3	21.7	00.4	06.8	100.0	*545*
			$\chi^2 = 7.436$; $p = 0.190$					
Sex								
Males	46.7	20.2	02.6	22.6	00.3	07.6	100.0	*381*
Females	52.6	18.2	03.7	19.0	01.4	05.1	100.0	*352*
			$\chi^2 = 8.191$; $p = 0.146$					
Level of education of mothers								
Illiterate	40.8	18.6	03.5	29.7	00.2	07.2	100.0	*404*
Primary	58.3	20.4	03.0	11.1	01.3	06.0	100.0	*235*
Secondary	67.0	18.7	02.2	06.6	02.2	03.3	100.0	*91*
University	00.0	33.3	00.0	33.3	00.0	33.3	100.0	*3*
			$\chi^2 = 62.623$; $p = 0.000$					
Total (%)	***46.9***	***19.2***	***03.1***	***20.9***	***00.8***	***06.4***	***100.0***	-
(n)	**363**	**141**	**23**	**153**	**6**	**47**	-	**733**

Tableau V- Distribution of introduction infants fed on water, 'diuri', pap or other liquids and family foods according to district, residence, sex, means (standard deviations) of age (months).

Indicators	District					Residence		Sex		Total
	Blitta	East-Mono	Sotou-boua	Tcham-ba	Tchaou-djo	urban	rural	Males	Females	
Water										
Mean	5.2442	5.5128	5.1563	9.2603	5.8485	6.2727	5.8358	6.0709	5.8271	*5.9555*
Standard deviation	0.91954	3.02691	0.71416	9.62062	3.63688	5.21846	3.98523	4.61813	4.05251	*4.35744*
Median	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	*5.0000*
Total	86	78	160	73	165	154	408	296	266	*562*
"Diuri"										
Mean	5.6667	5.4375	5.2647	7.6567	5.5797	6.2871	5.7243	5.9774	5.7964	*5.8895*
Standard deviation	0.96609	1.75000	1.91361	7.17857	2.11291	4.88741	3.08457	3.18368	4.19917	*3.70714*
Median	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	*5.0000*
Total	21	16	102	67	138	101	243	177	167	*344*
Pap or other liquids										
Mean	5.9390	5.8732	5.4575	7.0145	5.7862	6.0000	5.8448	5.8188	5.9574	*5.8858*
Standard deviation	1.51818	2.66688	1.87780	5.07732	2.56896	3.07060	2.67811	2.42783	3.12548	*2.78499*
Median	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	*5.0000*
Total	82	71	153	69	159	141	393	276	258	*534*
Family foods										
Mean	10.6351	9.0704	8.9542	15.8571	11.8421	11.7323	10.5828	10.7220	11.0848	*10.8968*
Standard deviation	4.53170	4.15872	4.02657	7.89114	5.55120	6.38258	5.24989	5.31992	5.88964	*5.59846*
Mean	12.0000	7.0000	7.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	*12.0000*
Total	**74**	**71**	**131**	**56**	**133**	**127**	**338**	**241**	**224**	***465***

Out of the 733 under-five children 74.4% were from the rural and 25.6% from the urban areas. This disparity is because of the unequal distribution of Togo's population in the rural and urban areas as it has been reported that 7 out of 10 Togolese live in rural areas [10]. The average size of the surveyed households (7 people), was similar to the average national size (8 people) [8]. The same comparison applies to the proportion of under-five children : 12% versus 13.7% for the whole country in 2000 [9].

The high illiteracy rates and low income of the household heads and caretakers, which are factors likely to show behavioural change and openness to innovations in individual practices concerning hygiene, nutrition and family health, had seemingly no impact on breastfeeding practices.

Besides, the predominance of women coupled with the fact that 9 out of 10 caretakers were mothers, might illustrate their awareness to healthcare, feeding and dressing of children. However, our study revealed the following points : breast feeding in the first 24 hours (75%), feeding with colostrum (78%), exclusive breast feeding up to 6 months of life (57.7%), non-utilization of bottle feeding (97%) and the mean age of introducing of complementary feeding at six months.

The proportion of newborns breastfed within the first hour of life was 29.3% in our study, against 20% according to TRAORÉ et al, in Burkina-Faso [11]. This is largely insufficient according to the ten conditions for optimal successful breast feeding [12]. More than 78% of newborns in our study received colostrum at birth, against 44.8% in Togo in 1995 [13] and 14.7% in Burkina-Faso in 1998 [12] where discarding colostrums was a widespread practice due to cultural factors.

Water (sugared or not), was the main breast milk substitute given to the children in 21% of the cases when there was insufficient breast milk flow at birth, and this exposed the child to hypoglycaemia and diarrhoea which is frequent in our context [14]. Other substitutes noted were industrial milk (3.1%), glucose (0.8%) and other liquids (6.4%). Difficulties in initiating breast feeding could explain the early stopping of breast feeding and the occurrence of complications as protein energy malnutrition. Inappropriate substitution of breastfeeding might be partly due to the lack of breast milk banks and poor information of the mothers on the best options of breast milk substitutes as recommended [3].

The proportion of exclusively breastfed children of 0 to 6 months in our study was 57.7%, against 62% in Burundi and 84% in Rwanda [15], and only 6% in Burkina-Faso, 8% in Mali, 10% in Côte-d'Ivoire and 17% in Central Africa [16]. In France, out of the 45% of mothers who chose to breastfeed, only 12% exclusively breastfed up to 6 weeks of life and 3% up to 4 months [17]. According to the World Heath Organization (WHO), less than 35% of infants, worldwide, are exclusively breastfed in the first 4 months of life [3].

On the other hand, in Burundi 85.1% of infants were still breastfed up till 20 to 23 months of age [18], our study also showed that breast feeding was not sufficiently prolonged, as only 9.5% of infants were still breastfed between 18 and 23 months of life. This is far below standard norms for infant feeding as recommended by the WHO, which recommends that infants be breastfed up to at least 2 years of age. Besides, in our study, mothers abandoned breast feeding early, once the infant was able to eat family foods between the 12th and 18th months of life ; and bottle-feeding was observed in 3% of the mothers against 0.2% in Burkina-Faso [19], and 23% in Morocco [20]. This low rate of bottle-feeding in our study, might be the result of not only mass sensitization campaigns led by the health authorities against inappropriate feeding practices of newborns and infants but also the poor socio-economic status conditions of the population who often can not afford breast milk substitutes.

The mean age of introducing complementary foods in our study was 6 months for water, «diuri» and pap and, 11 months for family foods. This introduction was done at the average appropriate ages according to the WHO recommendations [3], but because of the lack of information, the choice of the different complementary foods was inappropriate. Water, pap and «diuri» given to infants as from 6 months of age do not provide the child with sufficient energy, proteins and micronutrients for adequate growth.

In this study, two thirds of mothers declared that they stopped breast feeding once the infant reached the «weaning age» or for the following reasons : a new pregnancy (6.5%), insufficient breast milk flow (6.3%), and professional constraints (3%). In Morocco, the main reasons for early weaning were insufficient milk flow (28%), health of the mother (24%), a new pregnancy (10.7%) and professional constraints [20].

VI- CONCLUSION

Early feeding with colostrum, breast feeding in the first 24th hours of life, exclusive breast feeding in the first 6 months of life, non-utilisation of bottle-feeding, the mean age of complementary feeding (at 6 months of life) and breast feeding cessation at 18 to 24 months were the major findings of this study. Although three quarters of the women surveyed, introduced breastmilk within the first 24 hours, only a dismal 9.5 % continued breastfeeding until 23 months as recommended by the WHO. As in other African countries, complimentary food was introduced to majority of children at 6 months but the quality of the cereal substitute can be improved in terms of protein content. The non-utilisation of bottle feeding in as many as 3% is encouraging and may be the platform on which to build the C-IMCI.

However, sustained efforts have to be made on sensitization of mothers on optimal feeding of the infant and the young child on :
- the initiation of breastfeeding,
- the exclusiveness of breastfeeding for the first 6 months of life,
- the duration of breast feeding which should be prolonged as much as possible beyond 2 years,
- the time of introduction and the quality of complementary foods ■

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Authors' footnotes

The adoption by families and communities of key practices that improve child survival, growth and development, constitutes the ultimate goal of the C-IMNCI, which includes internationally recognized 16 key family practices to which Togo added the 17th which is «birth registration».
They are in four main groups:

A. Promotion of the physical growth and mental development of the child (4 key practices) ;
B. Prevention of disease (4 key practices);
C. Appropriate home care (5 key practices);
D. Out-of-home care seeking (4 key practices).

The following is the list of those 17 key family practices:

A. Promotion of physical growth and mental development of the child

1. Breast-feed exclusively until the age of six months.
2. Start complementary feeding from the age of six months and continue breast-feeding up to two years or beyond.
3. Ensure that children receive adequate micronutrients from foods, and through administration of supplements.
4. Promote the physical growth as well as the mental and social development of the child, by responding to his/her needs through conversation, games and stimulating the family environment.

B. Prevention of the disease

5. Complete the child's vaccinations (BCG, DPT, OPV, Haemophilus influenzae b, Hepatitis B virus, Measles, Yellow fever) before his / her first anniversary.
6. Ensure proper stool disposal of adults and children at an appropriate place, and wash hands after defecation, before cooking and before feeding the child.
7. Protect children against malaria by ensuring that they sleep under insecticide treated bed nets.
8. Adopt and support appropriate behavior concerning HIV/AIDS and people affected by HIV/AIDS, including orphans.

C. Appropriate home care

9. Continue to feed as frequently as possible and give more liquids, including breast milk to children when they are sick.
10. Administer to sick children appropriate home treatment against infections, and ensure that mothers buy their drugs at the village pharmacy.
11. Act appropriately to prevent and manage wounds and accidents in children.
12. Prevent child abuse and neglect, and respond appropriately when they occur.
13. Ensure that men take an active part in the care of children and are involved in family reproductive health.

D. Out-of-home care seeking

14. Recognize when sick children need out-of-home treatment and that the services of the health care worker are sought.
15. Follow the advice of the health care worker concerning treatment, follow-up and referral.
16. Ensure that not only each pregnant woman gets appropriate antenatal and postnatal care but also

that her newborn gets appropriate care during the first six weeks after delivery.

17. Declare all births at the civil registry

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