

MAIN RESULTS OF A SURVEY BASED ON  
THE PARISH REGISTERS OF KONGOUSI -  
TIKARE (Mossi Country, Upper Volta)  
1978

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MAIN RESULTS OF A SURVEY BASED ON THE PARISH REGISTERS  
OF KONGOUSSI-TIKARE (MOSSI COUNTRY, UPPER VOLTA, 1978)

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(translated by M. MULLER)

During the first Seminar of African Historical Demography in 1977, a communication was presented about the use of Parish Registers for African demography (1). Some other participants raised this question in their papers and our paper did not seem very clear. When it was obvious for us that we gave an account of reality, the paper was considered as mentioning only a possibility. It is the reason why we take advantage of the publication of the first results given by a survey to present them as a first publication (2) at the Seminar. These results add to the already published results of the surveys about FAKAO and REO (3).

METHOD

It consists of a NON-INDEPENDENT coupling of two sources of facts : a transcription of Parish Registers and other parish documents as well as a retrospective field survey. The objective of this survey is, on the one hand, to gather a maximum of reliable information about the whole people indicated by the transcription and, on the other hand, to specify the successive events (such as stillborn children) lived by women who were still residing and surviving during the survey as well as to know the events which are not mentioned in parish documents (such as breast-feeding...)

The non-independent coupling of the two sources is chosen because it makes the survey easier and cheaper. Anyway, independence could be an illusion.

The method consists of two successive phases :

- the first phase is a transcription of the demographic events along with their precise dates which are mentioned as religious acts in the parish registers. The non-correspondence between religious sacraments and demographic events is always noted in the parishes (for example : the date of birth is always noted with the date of christening).

- the second phase is a field survey which aims at :

- . improving the quality and quantity of demographic facts collected with the help of parish registers which allow to get over the weak points inherent in the documents such as the non-registration of customary unions and the children born from them and the under-registration of the births of children who die in their infancy.

- . obtaining additional information about women's behaviour towards their fertility from a quantitative point of view (breast-feeding) and a qualitative point of view (contraception).

Every survey (Fakao, Reo, Mariatang, Kongoussi-Tikare) gathered specific information depending upon local conditions and the field of interest of each demographer.

The survey concerning Kongoussi-Tikare whose results are given here used three kinds of documents :

- the "woman card" called "Henry card" (according to its creator, Louis HENRY, INED, France) which makes it possible to register the information concerning the woman's fertility (for the description of this document, see the European works dealing with historical demography).

- a questionnaire about unions which gives information related to husbands and concubines.

- a questionnaire about the last birth which gathers the information as reliable as possible about the women's practice and behaviour towards their fertility and breast-feeding.

The whole observation covered 56 villages and two computer files were set up :

- a file of 2003 units (mother + children) for the analysis of fertility and the global study of the relations existing between fertility, weaning and infant mortality.

- a file of 9794 units (children) for the specific analysis of infant and child mortality.

The computer files were standardized in order to allow a comparative analysis. This was possible in spite of the specific variables derived from the various surveys.

### RESULTS

The quantitative contribution of the two sources can be appreciated by considering the whole 9794 children according to whether the birth data result from the analysis of registers or from the field survey.

Table 1

Situation in 1978	Birth data resulting from		
	Analysis of registers	Field survey	Total
Live births	.81	.19	1.00
Deceased	.57	.43	1.00
Total	.77	.23	1.00

The quantitative contribution of the survey improves very much the transcription of the registers. So, the attention of historians and specialists in African matters must be drawn to this point.

If we are interested in the quantitative aspects and if we consider the number of children per woman (8.2 children for a woman over 45 years), we are almost certain that, from a statistical point of view, the survey did not leave out any birth. Moreover, we can state that the parish registers cover 3/4 of the demographic events.

The precision can be appreciated according to whether the birthdays have been expressed in terms of day, month and year.

Table 2 : BIRTHDAYS RECORDED ACCORDING TO THE PRECISION (9794 Children)

	KNOWN	UNKNOWN	TOTAL
Day	.67	.33	1.00
Month	.81	.19	1.00
Year	.97	.03	1.00

It must be pointed out that, when the month was not mentioned in the survey, it was asked for the season of the event. Out of 8474 birth months, 1496 (18 %) were estimated through this method(4). This information presents a bias because of the non-correspondence between the agricultural calendar and the civil calendar from year to year.

These points being specified, let us see some results :

Births

- 5 % of the births are twin-births ;
- sex ratio at birth amounts to 104 males against 100 females;
- the births do not show any seasonal movement ;
- the following table gives some information about sterility which is increasing with the number of children :

Table 3 : PARITY PROGRESSION RATIO

$q_0$	$q_1$	$q_2$	$q_3$	$q_4$	$q_5$	$q_6$	$q_7$	$q_8$	$q_9$	$q_{10}$
.99	.99	.98	.99	.94	.91	.91	.83	.66	.68	.52

FERTILITYTable 4 : NUMBER OF CHILDREN BORN IN RELATION TO THE CURRENT AGE OF THE WOMAN

Woman's birthday	Age of the woman at the moment of the survey					
	20-24	25-29	30-34	35-39	40-44	45+ years
20	.6	.6	.5	.4	.4	.5
25		2.4	2.2	2.0	2.0	2.1
30			3.8	3.8	3.8	3.7
35				5.4	5.5	5.3
40					6.9	6.8
45						7.5
(Number)	(302)	(411)	(394)	(298)	(199)	(345)

This table shows that fertility was highly stable during the last 30 years as expressed by the number of children that women get at their different birthdays.

Table 5 : ACTUAL FERTILITY RATE IN RELATION TO THE WOMAN'S AGE (per 1,000)  
( the figures which are between brackets are insignificant)

Woman's age	Periods				
	1953-57	1958-62	1963-67	1968-72	1973-77
15-19 years	271	271	307	267	305
20-24 "	372	347	347	352	349
25-29 "	341	361	352	375	351
30-34 "	344	343	374	346	334
35-39 "	(341)	305	309	319	277
40-44 "	(206)	(185)	(159)	175	188
45-49 "	(100)	( 90)	( 54)	21	16

Table 6 : BIRTH INTERVALS EXPRESSED IN TERMS OF MONTH

6.1. <u>In relation to the birth rank of the first child</u>												
<u>Birth rank</u>	1	2	3	4	5	6	7	8	9	10	11	Total
<u>Duration in months</u>	31.2	31.9	31.8	32.6	32.3	33.6	32.2	33.9	33.5	33.6	40.0	32.1

  

6.2. <u>In relation to the woman's age at the beginning of the interval</u>								
<u>Age</u>	<20 years	20-24	25-29	30-34	35-39	40-44	45+	Total
<u>Duration</u>	31.3	31.3	31.9	32.9	34.6	34.1	(29.4)	32.1

  

6.3. <u>In relation to the final size of the family</u>								
<u>Size</u>	<4	5	6	7	8	9	10	>11
<u>Duration</u>	43.2	41.4	40.1	37.6	34.8	33.2	31.3	29.6

The fertility rate decreases with the women's age and we notice that the average birth interval shows very well that there is no birth control. The average birth interval is 32.1 months.

#### INFANT AND CHILD MORTALITY

Table 7 : SEASONAL MOVEMENT OF THE CHILD MORTALITY ACCORDING TO THE MONTH OF THE DEATH

	JANU.	FEBR.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
(1)	80.9	82.5	132.6	126.2	129.4	77.6	72.8	118.1	74.4	106.7	95.4	103.5	1200
(2)	152.5		320.5		120.0		96.0	61.7	144.0	150.8	53.1	101.1	1200

(1) month of death derived from the register.

(2) period of death derived from the survey (agricultural calendar)

The deaths are expressed in terms of months through the registers or in terms of season during the survey. Table 7 gives the seasonal movement of the child mortality according to the precision (month or season) of the death. In spite of its bias, the second information is still valid.

Nowadays, it is well known that the Sahelian regions suffer a high mortality rate during the hot and dry season, that is to say

around March, which is confirmed by the above-mentioned data.

As far as 17 % of the deaths are concerned, their dates are unknown. In order to evaluate the mortality rate, we put forward three hypotheses :

- H1 : every death whose date is unknown was considered as occurring during the first year of life ;
- H2 : every death whose date is unknown was considered as occurring between the first and the fourth year of life ;
- H3 : half the deaths was considered as occurring during the first year of life and the other half between the first and the fourth year of life.

Table 8 : MORTALITY RATES per 1,000 BEFORE THE AGE OF FIVE.

	High hypothetical value(1)	Low hypothetical value(2)	Mean hypothetical value
0 year $1^q_0$	152	107	122
1-4 years $4^q_1$	116	171	151

We notice that the results depend highly upon the hypothesis considered. The mean hypothetical value (H3) was chosen for the rest of the analysis.

Table 9 : MORTALITY RATES BEFORE THE AGE OF FIVE ( Mean hypothetical value H3) IN RELATION TO THE WOMAN'S BIRTHDAY

Birthday	$1^q_0$	$4^q_1$
Before 1953	218	226
1953-57	170	228
1958-62	141	167
1963-67	99	134
1968-72	115	102
1973-77	81	-
Total		
Male children	127	147
Female children	117	154



We can observe from the tables concerning mortality rates that there is a sharp decrease in child and infant mortality (for males as well as for females).

From a geographic point of view, the detailed data allow to confirm the importance of the community clinics. But the beneficial effects of these community clinics are limited to the neighbouring villages.

We also notice that mortality affects more the first born child in a family than the following ones.

From a demographic point of view, the survey as described above makes it possible to determine a long term trend in infant and child mortality with a rather good accuracy and at a rather low price. As a matter of fact, it is hard to make long term follow up surveys, although they are more precise.

As far as the demographer and the historian are concerned, this type of survey allows to improve the knowledge concerning a recent past and to test the validity of written information.

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