

SOME DEMOGRAPHIC CHARACTERISTICS OF TWO RURAL COMMUNITIES IN SOUTHERN GHANA

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Summary

A study of the demographic characteristics of two rural villages in Southern Ghana in 1987 showed an average rate of natural population increase of 3.8 per cent compared to 3.2 per cent recorded nationally (1984 census data). The crude death rates and Infant Mortality rates were far lower than the figures usually quoted, although the birth rate was similar to the national average. It is suggested that if such rates exist in similar villages in Ghana, then official projections are underestimates and will have grave consequences on national development plans. It appears that Primary Health Care (PHC) has succeeded in reducing deaths but has not affected births. Family planning must therefore receive more attention.

Key Words: Crude Birth Rate, Crude Death Rate, Natural Rate of population increase.

Introduction

Many countries have formulated their own strategies to reduce morbidity and mortality and control population growth since the global strategy for achieving health for all by the year 2000 through Primary Health Care (PHC) was launched at the Thirty-second World Health Assembly in 1979.

The Epidemiology Unit of the Noguchi Memorial Institute for Medical Research has introduced selected PHC activities at Gomoa Fetteh and Gomoa

Onyadze/Otsew Jukwa in the Gomoa Effutu-Awutu District in the Central Region to improve the health of the rural communities within the context of PHC Strategies in Ghana. The objective of the study was to determine the following indicators for the two communities for the year 1987:

1. The Crude Birth Rates
2. The Crude Death Rates
3. Infant Mortality Rates
4. Natural Rates of Population Increases.

Subjects and Methods

The populations of Gomoa Fetteh and Gomoa Onyadze/Otsew Jukwa in the Gomoa Effutu-Awutu District in the Central Region were used for the study. Gomoa Fetteh is a coastal village whilst Gomoa Onyadze/Otsew Jukwa, a twin village is 52km from Gomoa Fetteh and a few kilometres inland. All houses were numbered and a population census was conducted in June 1986 in both rural communities. Two community health workers in each community visited homes monthly and recorded pregnancies and their outcome, all births (live and still births), all deaths and causes of deaths from 1st July, 1986 to 31st December, 1987.

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Results**Births**

Gomoa Fetteh recorded 43 live births from 1st July, (a day after the last census in 1986) to 31st December 1986. There were no still births. 41 (95%) of the infants were delivered by Traditional Birth Attendants (TBAs) whilst 2 (5%) were delivered at a clinic. There were 118 births in 1987 and all were live births. 111 (94%) were delivered by TBAs and 7 (6%) at a clinic. There were

38 live births from 1st July to 31st December 1986 at Gomoa Onyadze/Otsew Jukwa. 36 (95%) out of the 38 infants were delivered by TBAs and 2 (5%) at a clinic. Gomoa Onyadze/Otsew Jukwa also recorded 65 births in 1987 all were live births. 63 (97%) out of the 65 infants were delivered by TBAs and only 2 (3%) were delivered at a clinic. There were no maternal deaths and there was no incidence of neonatal tetanus in both communities during the period.

Table I

Birth and Death Rates - Gomoa Fetteh - Gomoa Onyadze/Otsew Jukwa - 1987

Village	Population	January - December 1987						Natural Rate of Population Increase/1000 Pop.
		Live Births	Deaths	1 Yr. Deaths	CBR/1000 Pop.	CDR/1000 Pop.	IMR/1000 Live Births	
Gomoa Fetteh	2407	118	18	6	49.0	7.5	50.8	41.5
Gomoa Onyadze/Otsew Jukwa	1360	65	18	4	47.8	13.2	61.5	34.6
Total/Average	3767	183	36	10	48.6	9.6	54.6	38

The denominators for Crude Birth Rate (CBR) and Crude Death Rate (CDR) are the populations at the end of June, 1987.

Deaths

There were 9 deaths from July 1st (a day after the last census in 1986) to December 31st 1986 and 18 deaths in 1987 at Gomoa Fetteh (Table I). Six out of the deaths in 1987 were infants.

The causes of infant deaths were fever (1) and measles (2). The two children who died from measles were not available for vaccination. Gomoa Onyadze/Otsew Jukwa recorded 8 deaths from 1st July to 31st December 1986 and 18 deaths in 1987. Four out of the deaths in 1987

were infants. The causes of infant deaths at Gomoa Onyadze/Otsew Jukwa in 1987 were fever (1), acute respiratory illness (1) and measles (2) (These children were not given measles vaccine before they developed the disease).

Natural Population Increase

The population of Gomoa Fetteh increased from 2 316 in June 1986 to 2 350 in December 1986 and by June 1987 it was 2,407. It rose to 2 450 in December 1987. Gomoa Onyadze/Otsew Jukwa had a population of 1,297 in June, 1986. The population reached 1 360 in June and by December 1987 it was 1 374.

The crude birth rates were 49/1000 population and 47.8/1000 population for Gomoa Fetteh and Onyadze/Otsew Jukwa respectively, in 1987.

The infant mortality rate for Gomoa Fetteh was 50.8/1000 live births during the same period. 7.5/1000 population and 13.2/1000 population were the crude death rates for the two communities. The natural rate of population increase for Gomoa Fetteh was 41.5/1000 population and 34.6/1000 population for Gomoa Onyadze/Otsew Jukwa for the year 1987 (Table I). The two communities put together recorded a rate of natural increase of 38.0/1000 population (3.8%).

Discussion

The crude birth rates (49.0/1000 population, 47.8/1000 population), the crude death rates (7.5/1000 population, 13.2/1000 population) and infant mortality rates of 50.8/1000 live births and 61.5/1000 live births recorded for the two communities indicate that more children are surviving whilst few people are dying resulting in a high rate of

population increase during the period. The natural rates of population increase in the two rural communities are higher than the national rate of 32.4/1000 population¹.

The infant mortality rates of 50.8/1000 live births and 61.5/1000 live births are lower than the national rate of 90/1000 live births¹ but compares favourably with infant mortality rate of 54/1000 live births recorded for one of the areas in the Danfa Project in 1972², long before the introduction of Primary Health Care activities to other parts of the country. If the results of this study are repeated for other communities then indications are that more children are surviving to celebrate their first birthday and that the infant mortality rate of 90/1000 live births being quoted for Ghana¹ may be an overestimation with consequent effect on rational planning of services for the increased number of children who are surviving. It appears that the primary health care activities have succeeded in reducing deaths but has not affected births. Family planning must therefore receive more attention in the two communities.

The results of this study have also shown that about 94 per cent of all infants were delivered by the Traditional Birth Attendants (TBAs) in the two communities. There were no maternal deaths and there was no incidence of neonatal tetanus. There is no doubt that TBAs will continue to provide services for a vulnerable group like the pregnant women and their new born babies in their environment. TBAs future development in the management of pregnancies and the outcome of of pregnancies will be crucial in the nation's effort to reduce maternal deaths, and prevent neonatal tetanus.

Natural rate of population increase instead of actual rate of population

increase was used in this study to demonstrate population growth. Natural rate of population increase takes into account births and deaths. It does not account for migration and has the tendency to underestimate/overestimate population growth in some circumstances. However it was found useful in comparing population growth in relation to births and deaths in the two communities to demonstrate the rate at which a rural population is replacing itself.

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References

1. WHO. World Health Statistics Annual, 1986.
2. Danfa Project, Ghana. Summary, Conclusions and recommendations from the final report. September 30, 1979; 5-7.