Research Issues in Child Health and Child Care

Proceedings of a workshop held in Accra, Ghana, 22-26 September 1986
The International Development Research Centre is a public corporation created by the Parliament of Canada in 1970 to support research designed to adapt science and technology to the needs of developing countries. The Centre's activity is concentrated in six sectors: agriculture, food and nutrition sciences; health sciences; information sciences; social sciences; engineering and earth sciences; and communications. IDRC is financed solely by the Parliament of Canada; its policies, however, are set by an international Board of Governors. The Centre's headquarters are in Ottawa, Canada. Regional offices are located in Africa, Asia, Latin America, and the Middle East.

The Institute was first established in 1962 as the Institute of Statistics in the University of Ghana to provide a program of teaching and research in statistics with particular reference to the methodology of collection and analysis of official statistics and to advise interested bodies on statistical design, analysis, and computer programing. A U.N. Statistical Training Centre established at Achimota in 1961 to run a middle-level Statistical Training Programme for public servants in Africa was brought under the auspices of the Institute in 1966. In 1969, the Institute was expanded to include research activities in the Social Sciences and was renamed the Institute of Statistical, Social and Economic Research (ISSER). ISSER now serves as the research wing of the Faculty of Social Studies, University of Ghana. Its work is oriented toward applied research. ISSER's broad objective is to serve as the centre for comprehensive and sustained research in the social sciences by providing fundamental and applied research in the field of the social sciences to establish the basic information essential for effective socioeconomic development. Within the University, the Institute's role is to generate data and research material to support the teaching programs in the economic and social sciences and to disseminate research findings to practitioners in the field of social and economic development.

Il existe également une édition française de cette publication.
Research Issues in Child Health and Child Care

Proceedings of a workshop held in Accra, Ghana, 22–26 September 1986

Editor: Fiona Mackenzie
Associate Editor: Kodwo Ewusi

Jointly organized by the International Development Research Centre and the Institute of Statistical, Social and Economic Research, University of Ghana

/Child care/, /health/, /child mortality/, /West Africa/ - /research methods/, /organization of research/, /vital statistics/, /human nutrition/, /women's status/, /primary health care/, /health indicators/, /measurement/, /research needs/, /data collecting/, /conference reports/, /lists of participants/, references.

UDC: 613-053.2

ISBN: 0-88936-523-7

A microfiche edition is available.

The views expressed are those of the authors and do not necessarily reflect the views of IDRC or ISSER. Mention of proprietary names does not constitute endorsement of the product and is given only for information.
Abstract

This workshop brought together West African health scientists and social scientists to discuss methodological and conceptual issues in the study of infant and child health and mortality, and to identify new research needs. Health and social scientists from the Gambia, Ghana, Nigeria, and Sierra Leone attended the workshop. Emphasis was placed on evaluation of research design and procedures for analyzing the determinants of child health rather than on the presentation of findings. Discussions and papers focused on four central themes: conceptual frameworks more appropriate to local contexts, questions of scale and measurement, the search for indicators of child health, and directions for future interdisciplinary research. This publication is intended to serve as a record of the proceedings of the workshop and to promote further communication and interaction among researchers working in the area of infant and child mortality and health.

Résumé

Cet atelier réunissait des spécialistes de la santé et des sciences sociales de l'Afrique occidentale qui ont discuté de problèmes méthodologiques et conceptuels liés à l'étude de la santé et de la mortalité du nouveau-né et de l'enfant, et qui ont cerné de nouveaux besoins en matière de recherche. Des spécialistes des sciences de la santé et des sciences sociales de la Gambie, du Ghana, du Nigéria et de la Sierra Leone y participaient. On a mis l'accent sur l'évaluation de la conception de la recherche et sur les procédures d'analyse des déterminants de la santé des enfants, plutôt que sur la présentation des conclusions de travaux de recherche. Les discussions et les communications ont porté sur quatre grands thèmes : paramètres conceptuels mieux adaptés au contexte local, questions d'envergure, la recherche d'indicateurs de la santé des enfants et les orientations futures de la recherche interdisciplinaire. Cette publication a pour objet de faire le compte rendu des délibérations et en même temps de promouvoir la communication et les interactions entre les chercheurs dans le domaine de la mortalité et de la santé des nouveau-nés et des enfants.

Resumen

Este taller reunió a científicos del campo de la salud y las ciencias sociales para discutir cuestiones conceptuales y metodológicas en el estudio de la salud y mortalidad infantiles y para identificar nuevas necesidades investigativas. Asistieron al taller científicos de la salud y las ciencias sociales de Gambia, Ghana, Nigeria y Sierra Leona. Se hizo más énfasis en la evaluación del diseño y los procedimientos investigativos para analizar los determinantes de la salud infantil que en la presentación de los resultados. Las discusiones y documentos se centraron en cuatro temas: marcos de trabajo conceptuales más apropiados para los entornos locales, cuestiones de escala y medición, búsqueda de indicadores de salud infantil y pautas para la investigación interdisciplinaria futura. El propósito de esta publicación es el de registrar las sesiones del taller y promover una mayor comunicación e interacción entre los investigadores que trabajan en el campo de la salud y mortalidad infantiles.
CONTENTS

Foreword ..........................................................vii

Introduction ........................................................1

Keynote address: Infant and child mortality and morbidity: reflections on theoretical and methodological issues
Diana Oya Sawyer ...............................................3

Conceptual framework for the study of child health and child care
K. Venkatacharya and Tesfay Teklu .............................11

Socioeconomic determinants of child health in Ghana
Patrick A. Twumasi ............................................26

Methodological and operational problems in the collection of data on infant and child mortality Rebecca Appiah .........40

Child health and child care in Pelotas, Southern Brazil: methodology and results of a longitudinal study
Fernando C. Barros, Cesar G. Victora, and J. Patrick Vaughan ............................................48

Issues in an examination of the relationship between maternal education and child mortality Bamikale J. Feyisetan ........66

Measuring child mortality from maternity histories collected at time of childbirth: the EMIS surveys
Cheikh S.M. Mbacké ............................................77

Research Proposals and Preliminary Findings .........................95

Operations research and MCH/FP health care delivery
Charlotte N. Gardiner ...........................................96

An alternative approach to vital events registration in Ghana: the Suohum experience G.A. Ashitey and
A.O.C. Nettey-Marbell ...........................................97

Survey of correlates of mortality in Sierra Leone
H.B.S. Kande ..........................................................98

Culture and health: lessons from data collection on child health in Ghana S.R. Ubomba-Jaswa ........................100

Infant mortality and second-year death rates in the Gambia, 1973 and 1983, and a vaccination compliance survey
M. Yamah ..........................................................101
Infant and child mortality, environmental factors, and the socioeconomic status of women in two rural centres in the western part of Nigeria: a research proposal

Folsade Iyun ................................................. 102

The determinants of infant and child health and survival in Sierra Leone: a research proposal

Fatu Yumkella .......... 104

Infant and child health in the Gambia: overview of a research proposal

M.S. Jeng and M. Yamueh ................. 104

Population, food production, and nutrition in a northern savannah village of Ghana

G. Benneh .............................................. 105

Population, health, and nutrition in Upper East Region, Ghana, with special reference to child health and child care

G. Benneh, R. Orraca-Tetteh, P.A. Twumasi, and J.S. Nabila .................................................. 106

Summary and Reflections

Fiona Mackenzie ......................... 108

Participants .......................................................... 115

Observers .......................................................... 117
On the basis of the data thus collected, the extent to which production units in the village could satisfy their food requirements throughout the year from their own fields was determined. Results indicated that 64% of the production units would not be able to meet their annual food requirements from their cultivated plots in the village. They would thus go hungry during certain periods of the year unless able to supplement output from their fields with purchases, with gifts from relatives, or with produce from other cultivated fields outside the village. Under prevailing land tenure arrangements in the area, a farmer can borrow land in another village to supplement home produce. Data on such produce from fields outside the village were not collected.

Although there are opportunities for supplementing the food produced in the village, the study underlines the extent to which the vacuum must be filled before the majority of production units can maintain the desirable level of calorie intake throughout the year. It is the inadequacy of these opportunities for meeting the challenge that results in hunger and malnutrition in the area, a situation that has a particularly severe effect on the nutritional status of children.

Population, Health, and Nutrition in Upper East Region, Ghana, with Special Reference to Child Health and Child Care

G. Benneh, R. Orraca-Tetteh, P.A. Twumasi, and J.S. Nabila

It has now been established that no meaningful national planning for any country can take place without a clear recognition of the interrelationships between demographic, biosocial, and economic trends. The relationships between population, health, and nutrition have therefore received attention from both social and medical scientists. Rapid population growth in Ghana continues to put a great constraint on food supply and the provision of social services in general. Food shortages in many rural areas are known to have adverse effects on the nutritional and health status of the population. Factors of family size, marital status, age structure, staple foods, education, culture, and dietary habits are all determinants of better or poor health. It was within this context of the multifaceted aspects of population and socioeconomic development that the research project was designed.

The study, which focused on the Navrongo District in the Upper East Region of Ghana, aimed to unravel the web of interrelationships among the population, health, and nutrition variables. A particular concern was to evaluate the role of intermediate variables at different levels of the individual, the household, and the community. This paper focuses on the issues concerned with field research, particularly the methods and problems of data collection in this savanna environment, with specific reference to child health and child care. It is also meant to demonstrate the benefits to be derived in the field from multidisciplinary studies on population, nutrition, and health. The research findings were therefore not to be highlighted in line with the theme of the seminar.

The major data sources were hospital statistics, censuses, household surveys (using anthropometric measurements, questionnaires, interviews, observations, and panel discussion methods). The main objective of the questionnaire administered at the household level was
to determine the socioeconomic status of parents. Thus, questions concerned level of income, occupation, and education. The questionnaire also sought to define the demographic characteristics of the household. In addition, questions were asked on nutritional behaviour such as food given to children, age of weaning, breastfeeding, nutrition during pregnancy. Individual household and community variables that impinged directly on health care were obtained and analyzed. The type of water source, storage facilities, quality and quantity of water usage, how often children were washed, and how often clothes were cleaned were determined. Data also were obtained on health care use and facilities available in the community and in the district towns.

Three methods were used to assess the nutritional status of children in the area. The first involved a physical examination to detect signs of ill health. Second, anthropometric measurements were made and compared with standards. Third, data on food consumption patterns of the child were obtained through dietary recall and dietary history methods by interviewing the mother. The quality of the diet of the child in relation to desirable foods for health and growth was evaluated.

The main field problems were selecting adequate and reliable sample groups, nonresponse, inability of respondents to give reliable and valid answers, and cooperation. Respondents also tended to generalize their answers when specific answers were required.

The researchers thoroughly discussed developing an "integrative model" (a priori) before going to the field. This is a critical aspect of interdisciplinary research that must be dealt with before the actual field work takes place. It offers researchers the opportunity to determine and seek data that can readily be analyzed in a holistic manner to arrive at more meaningful and balanced results.