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SELECT ANNOTATED BIBLIOGRAPHY FOR AN EVALUATION OF KB-GIZI--THE  
INTEGRATED FAMILY PLANNING/NUTRITION PROGRAM IN INDONESIA

by  
William D. Drake, Ph.D.  
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June 1984

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## INTRODUCTION TO BIBLIOGRAPHY

The following selective annotated bibliography has been prepared to facilitate evaluation of the KB-GIZI--Integrated Family Planning and Nutrition Program--in Indonesia. Emphasis has been placed on evaluations of family planning and/or nutrition and health programs in Indonesia; evaluations of integrated family planning and nutrition and health programs in Southeast Asia; studies of socioeconomic factors thought to be identifiers of differentials in family planning behavior or nutritional status of preschoolers and mothers; and studies which make a major contribution to the development of evaluation techniques to be used in family planning or mother and child health programs.

The bibliographic search proceeded at three levels: the Nutrition Planning Library and documents collection at Community Systems Foundation were perused; the University of Michigan's Graduate Library, the Southeast Asia Studies Library, the Public Health Library, and the Population Studies Library were searched; and computerized data base searches were conducted by the reference department of the University of Michigan Graduate Library. Two computerized data bases were found to be appropriate, namely, *Population Bibliography* and *Sociological Abstracts*.

*Population Bibliography* is represented as the largest data base available on socioeconomic aspects of population topics. It is international in scope with emphasis on developing countries, and indexed by subject terms drawn from the Carolina Population Center's Population/Family Planning Thesaurus, 2nd edition. Access is provided to journal articles (from about 550 journals), monographs, technical reports, reprints and unpublished documents, annual reports, and government documents.

*Sociological Abstracts* is represented as covering the world's literature in sociology and related disciplines. It is updated five times annually, covering about 1,500 journals and other serial publications, both domestic and international each year. As of December 1983, the data base maintained some 135,000 records.

The bibliographic search strategies were conceptually the same for both data bases. For each data base search the proper citations were identified by "intersecting" a set delimited by geographic boundaries, a set delimited by keywords which we would logically associate with family planning, and a set delimited by keywords which we would logically associate with nutrition and maternal and child health. This strategy generated 234 citations from *Population Bibliography* and 45 from *Sociological Abstracts*. From these computerized lists, approximately 75 citations and 12 citations respectively, were selected for our bibliography. The search was limited to the past five years with some notable exceptions.

Annotations in this bibliography are not necessarily our own. Whenever possible, authors' or publishers' abstracts were used. *Sociological Abstracts* provides users with abstracts for each citation requested; however, *Population Bibliography* does not offer this service.

## BIBLIOGRAPHY

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- Arnold, Jesse C. and R. W. Engel. Report on Alternative Nutrition/Health Intervention Effects and Cost-Effectiveness. Virginia Polytechnic Institute and State University. Prepared for USAID, Contract AID/ASIA, C-1136, Philippines, December 1980. Part II, November 1981.
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- Atkinson, Linda, E. Sol Chafkin, L. Chen, et al. Child Survival/Fair Start. New York, N.Y.: Ford Foundation Working Paper. 1983, 48 pp.
- Austin, James E. and Marian F. Zeitlin, eds. Nutrition Intervention in Developing Countries: An Overview. Cambridge, Mass.: Oelgeschlager, Gunn and Hain, Publishers, Inc., 1981. 225 pp. Harvard Institute for International Development. Appendix A: Selected Bibliographies on Types of Nutrition Intervention; Appendix B: Intervention Design Checklists. Index.

Austin and Zeitlin's overview introduces a 5-vol. collection of 7 studies, the first of which is devoted to supplementary feeding; the others concern nutrition education, fortification, formulated food, consumer food price subsidies, agricultural production, and integrated nutrition and health-care programs. The studies are based on surveys of 201 nutrition projects, complemented by field case studies and a literature review. Study I identifies key target groups (children 6-36 mos. and pregnant and lactating women from low-income families) and presents a composite list of anthropometric, clinical, and socioeconomic at-risk factors. It concludes that priority for participation in a feeding program should always be given to severely malnourished preschoolers. Next preference should be given to the moderately malnourished, to the mildly malnourished, and then to preschool siblings and mothers of participants. Ideally, all preschoolers should be eligible, and if resources are available, all women of childbearing age may be enrolled.

Bairagi, Radheshyam. On Error in the Estimate of Malnutrition due to Bias and Random Error in Anthropometry and Age. Ithaca, N.Y.: Cornell Nutritional Surveillance Program, Working Paper Series, No. 17, June 1983. 7 pp. Tables.

Bairagi, Radheshyam, Barry Edmonston, and Abdul Hye. The Influence of Nutritional Status on Age Misstatement for Young Children in Rural Bangladesh. Ithaca, N.Y.: Cornell Nutritional Surveillance Program, Working Paper Series, No. 27, July 1983. 21 pp.

Bairagi, Radheshyam, Barry Edmonston, and Awal Dad Knan. Age Misstatement for Children: A Problem for Interpreting Anthropometric Measures in Bangladesh. Ithaca, N.Y.: Cornell Nutritional Surveillance Program, Working Paper Series, No. 18; June 1983. 16 pp. Tables.

Bakker, J. I. Social Organization and Social Welfare in Two Sub-Districts of Southeast Sulawesi, Indonesia. Ontario, Canada: University of Guelph, 1983. Association Paper, Rural Sociological Society Conference.

An analysis of social organizational structure and social welfare needs in two subdistricts (kecamatan) of southeast Sulawesi Province (Sulawesi Tenggara), based on research conducted in Indonesia, May-Aug 1982. After a brief description of the project area, the population structure of the two subdistricts is examined in terms of sex ratios, age pyramids, occupational structure, etc. The settlement pattern is described in ideal typic terms, and the cultural setting of the subdistricts is presented. The status of women is considered, and available social welfare services are estimated in terms of water supply, health services, education, information and communication systems, languages, housing types, and resettlement potential. In conclusion, constraints to socioeconomic development in this relatively isolated region are discussed.

- Baldwin, George B. "The McCormick Family Planning Program in Chiang Mai, Thailand," Studies in Family Planning, Vol. 9, No. 12, 1978, pp. 300-313.
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- Barten, Jeannette, B. A. Supit, and P. Harianto. Village-based Family Planning in North Sulawesi. Chestnut Hill, Mass.: Pathfinder Fund, 1981. 20 pp.
- Baseline Data Survey on Integrated Family Planning and Nutrition Program in Bali. Bali: University of Udayana, 1980.
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- Basta, Samuel S. and A. Churchill. Iron Deficiency Anemia and the Productivity of Adult Males in Indonesia. Washington, D.C.: World Bank Staff Working Paper No. 175.
- Hecker, Stanley, R. Chowdhury, A.K.M. Alauddin, et al. "Determinants of Natural Fertility in Matlab, Bangladesh," Population Association of America Annual Meeting, Pittsburgh, Pa., April 1983. Chapel Hill, N.C.: University of North Carolina, Collected Papers, Vol. 1, pp. 175-209.
- Berelson, Bernard and Robert H. Haveman. "On Allocating Resources for Fertility Reduction in Developing Countries," Population Studies, Vol. 34, No. 2, July 1980, pp. 227-237.
- Bernhart, Michael H. "Using Model Projects to Introduce Change into Family Planning Programs," Studies in Family Planning, Vol. 12, No. 10, 1981, pp. 346-352.
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Bilsborrow, Richard, Arjun Adlakha, et al. Analyzing the Determinants of Fertility: A Suggested Approach for Data Collection. Chapel Hill, N.C.: University of North Carolina, International Program of Laboratories for Population Statistics: Manual Series, no. 9, May 1982. 62 pp. 9320623. AID/DSPE-C-0025.

For a better understanding of fertility determinants, data should be collected on a wider set of variables in household fertility surveys, especially where husband and wife make joint decisions on childbearing. A set of five survey questionnaires are herein presented to stimulate in-depth analysis of fertility determinants in developing countries.

The household questionnaire covers housing materials and household occupants, facilities, and assets. The husband's questionnaire covers his background, number of marriages and children, family planning, occupation, and other household income. In addition to these, the wife's questionnaire includes fertility, birth interval data, and children's activities. The household enterprise questionnaire includes income from agriculture and forestry (farm land and capital, crop production, animal raising, along with farm expenses), and from non-farm business income and future prospects. The community questionnaire covers general characteristics, transportation, facilities, modernization, employment, agriculture and family planning.

Binamira, Ramon P. "Project Compassion: Its Process-Oriented Approach to Family Planning," Report of the Seminar on Regional Consultation on Updating the Motivation Strategy, October 1979. Colombo, Sri Lanka: International Planned Parenthood Federation, 1980, pp. 23-51.

Birth Interval Dynamics in Village Java. Gadjah Mada University, Population Institute, Ngaglik Study. Yogyakarta: Indonesian Population Institute, 1978. 76 pp.

Blumenfeld, Stewart, Maria-Bernadita Flores, et al. P.L. 480 Title II: A Study of the Impact of a Food Assistance Program in the Philippines. Washington, D.C.: Agency for International Development, Program Evaluation Report No. 6, August 1982. 147 pp.

The relatively high prevalence of malnutrition among pre-school children in the Philippines is a persistent and serious problem. This evaluation is designed to assess the nutritional impact, cost-effectiveness, and achievements of A.I.D.'s P.L. 480, Title II program in the Philippines and to produce information which will enhance the program's effectiveness.

It is concluded that the Maternal/Child Health (MCH) and Day Care programs are effective in combating the highest priority malnutrition (in children under 6), and so have the greatest nutritional impact (as evidenced by weight gains by beneficiaries), but that School Feeding addresses a lower nutritional priority and does so less effectively. MCH and, to a lesser degree, Day Care were also found to be the most cost-effective. The Food for Work program, while providing positive and equitable community benefits, failed to have a substantial or sustained impact on individual participant households. More regular delivery of commodities in greater amounts is required for optimum program effectiveness.

In future Title II allocations in the Philippines, MCH and Day Care should be accorded the highest priority, followed by the School Feeding and then Food for Work programs until the latter two programs are phased out. Other Child Feeding and Adult Feeding activities lack integrated developmental objectives and should have fifth priority, but on strictly humanitarian grounds. The Snack Food program should have the lowest priority, in spite of its revenue-generating potential, since its audience is adequately nourished and more economically advantaged.

Lessons learned include the need for better assessment of the long-term impact of supplementary feeding programs and for increased long-term, grass-roots involvement of nutritionists and nutrition planners in Title II decision-making. Experience also suggests that programs covering the family as a unit will be more cost-effective than those benefiting children alone.

Bolton, J. Malcolm, James P. Parado, and Francisco S. Razalo. "Innovations in Service Delivery in Bohol Project," Maternal and Child Health/Family Planning Program Technical Workshop Proceedings, October 31-November 2, 1979, New York City. Edited by Beth S. Atkins. New York, N.Y.: International Programs, Population Council, 1980, pp. 148-163.

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Bongaarts, John P. and Sharon Kirmeyer. Estimating the Impact of Contraceptive Prevalence on Fertility: Aggregate and Age-Specific Versions of a Model. New York: The Population Council, Dec. 1980. Center for Policy Studies Working Paper, No. 63.

Boynton, Willard H. and Evelyn Johnsen. Operational Study of the Integration of Maternal Child Health Services and Family Planning. A report to the Ministry of Health, Republic of Indonesia.

Brackett, James W., R. T. Ravenholt, and John C. Chao. "The Role of Family Planning in Recent Rapid Fertility Declines in Developing Countries," Studies in Family Planning, Vol. 9, No. 12, 1978, pp. 314-323.

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- Butz, William P., Jean-Pierre Habicht, Julie DaVanzo, et al. Improving Infant Nutrition, Health and Survival: Policy and Program Implications from the Malaysian Family Life Survey. Santa Monica, Calif.: Rand Corporation Malaysian Family Life Survey, 1981.
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- Cain, Mead. "Risk, Fertility, and Family Planning in a Bangladesh Village," Studies in Family Planning, Vol. 11, No. 6, 1980, pp. 219-222.
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As part of a series of comparative international studies, this report describes similarities and differences in levels and patterns of contraceptive use in 19 countries.

To make these comparisons, only contraceptive use, demographic, and control variables are used. Both ever-use (use at any time) and current use of contraceptives are assessed and a distinction is made between efficient (i.e., sterilization, IUD) and inefficient (i.e., rhythm, withdrawal) contraceptive methods. The demographic variables include the age of respondents and the number of living children, while control variables refer to four control groups of women: ever-married (includes "ever in union"); currently married; fecund (currently married women who are physiologically capable of having children, or who are pregnant, or who have been sterilized for contraceptive purposes); and exposed (all fecund women except those who are pregnant).

Information for the tables and graphs was collected through questionnaires designed to ascertain knowledge and ever-use of contraceptive methods in Bangladesh, Fiji, Indonesia, Jordan, Republic of Korea, Malaysia, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Colombia, Costa Rica, Dominican Republic, Guyana, Jamaica, Mexico, Panama, and Peru.

Generally speaking, the Asian and Pacific countries reveal lower percentages of ever-use than the Latin American and Caribbean countries, where contraceptive programs began earlier and are already highly developed in several countries. However, Asian and Pacific countries tend to be skipping the stage where inefficient methods predominate, as the ever-use of efficient methods is surprisingly higher. The pill is the most frequently reported method in all countries except Sri Lanka (rhythm), and the Philippines and Peru (rhythm and withdrawal).

Tables and charts are provided for ever-use and current-use by type of method and individual methods. Eight references (1980) are listed along with the statistical tables.

Chandrasekaran, C. and Albert I. Hermalin, Eds. Measuring the Effect of Family Planning Programmes on Fertility. Paris: IUSSP and OECD Development Centre, 1975. 570 pp.

Chan, Onn Fong, Kim Kwang Woong, and Gayl D. Ness. Integration and Family Planning Programme Performance: An Interpretive Summary of Research Projects in Malaysia and the Republic of Korea on the Determinants and Impact of Integration in Family Planning Programmes. Bangkok: Economic and Social Commission for Asia and the Pacific, 1982. 25 pp.

Summarized in this paper are two research projects in Malaysia and the Republic of Korea on the determinants and impact of integration in family planning programmes. The main conclusion is that integration can help to improve family planning services, but it must be carefully planned; all parties to the integration should be included in the planning; and integration works best when family planning is linked to another service similar to it. It is difficult to link family planning to services that are different in character in the major target population, or in the degree of government support or emphasis.

Chang, Ming-Cheng, Ronald Freedman, and Te-Hsiung Sun. "Trends in Fertility, Family Size Preferences, and Family Planning Practice: Taiwan, 1961-80," Studies in Family Planning, Vol. 12, No. 5, 1981, pp. 211-228.

Chaurasia, A. R. "Correlates of Social and Health Status with Family Planning Performance in India," Journal of Family Welfare, Vol. 29, No. 1, September 1982, pp. 60-65.

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- Clark, L. and J. Mason. Methodological and Analytical Issues in the Philippine National School Survey of Nutritional Status. Ithaca, N.Y.: Cornell Nutritional Surveillance Program, December 1983. 10 pp.
- Cochrane, Susan Hill and K. C. Zachariah. Infant and Child Mortality as a Determinant of Fertility: The Policy Implications. Washington, D.C.: World Bank Staff Working Paper No. 556, 1983. 44 pp.
- An illustrative analysis that suggests infant mortality may be an important component of a fertility reduction program in countries where mortality is high and few couples are able to have the number of surviving children they desire.
- Cochrane, Susan H. Fertility and Education: What Do We Really Know? Baltimore: The Johns Hopkins University Press. 1979. 186 pp.
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- Conde, Julian, M. J. Paraiso, and V. K. Ayassou. The Integrated Approach to Rural Development, Health and Population. Paris, France: Organization for Economic Co-operation and Development, 1979. 159 pp.

Contraceptive Prevalence Survey; Model Questionnaire. Westinghouse Health Systems, 1978, 44 pp. Text also available in Spanish and French. 932000624. AID/pha-C-1194.

Contraceptive Prevalence Survey (CPS) is an international research program designed to assist developing countries in carrying out periodic surveys of use and knowledge of family planning. This document presents a model questionnaire designed to elicit contraceptive information from the survey universe, i.e., all women of reproductive age (15-49) regardless of marital status. If it is culturally inappropriate to interview women who are unmarried, the target population may be restricted to women who are sexually active or legally or consensually married.

The CPS "respondent's profile" is derived from 12 questions. Age and date of birth are asked to determine whether the respondent is within the survey universe. Marital status, which serves as a surrogate measure of sexual activity, is asked at the end to avoid interviewer and respondent bias because of the sensitive nature of certain questions. Place of residence is asked to determine rural/urban or regional breakdowns of contraceptive use. Questions are asked on education, work, and ethnic background to compare contraceptive use throughout societal strata. Questions on pregnancies and live births and number of living children by sex are asked to verify parity differentials, establish a crude birth rate, and identify women who do not need contraception. Desire for additional children is determined to indicate a respondent's potential for contraceptive use and to differentiate contraceptive spacers from non-spacers. Questions on the knowledge and use of contraceptives are the most important in the survey and serve as analytical focal points for all other variables. Questions are also asked on the availability of contraceptives used (cost and transportation to and convenience of location) in order to assess program work load and measure the relative contributions of public and private contraceptive sources and to gain insights into the reasons for non-use. Finally, the reason for non-use is explicitly asked. This question also verifies whether the respondent is currently active sexually.

Contraceptive Prevalence Surveys: A New Source of Family Planning Data. Population Reports, Series M, No. 5, 1981.

Coombs, Philip Hall. Meeting the Basic Needs of the Rural Poor: The Integrated Community-based Approach. New York, N.Y.: Pergamon Press, 1980. 816 pp.

Cross, Anne, R. Sullivan, and M. Jeremiah. "Indirect Estimation of Infant Mortality from Contraceptive Prevalence Surveys," Population Association of America Annual Meeting, Pittsburgh, Pa., April 1983. Chapel Hill, N.C.: University of North Carolina, Collected Papers, Vol. 2., pp. 475-498.

"A Cross-Cultural Study of Menstruation: Implications for Contraceptive Development and Use." World Health Organization Task Force on Psychosocial Research in Family Planning, Special Programme of Research, Development and Research Training in Human Reproduction. Studies in Family Planning, Vol. 12, No. 1, 1981, pp. 3-16.

Cuca, Roberto. Evaluation of Family Planning Programs Using Service Statistics. Washington, D.C.: World Bank Staff Working Paper No. 137.

Darroch, Russell K., Paul A. Meyer, and Masri Singarimbun. Two Are Not Enough: The Value of Children to Javanese and Sundanese Parents. Honolulu: East-West Population Institute, East-West Center; Yogyakarta: Gadjah Mada University, 1981. VIII, 86 pp., bibliography, map, tables. Papers of the East-West Population Institute, No. 60-D. (Current studies on the value of children).

The aim of this study was to collect information on the positive and negative aspects of having children as perceived by 1,001 Sundanese and 1,031 Javanese currently married women between 15 and 40 years of age. Husbands of half of the women were also interviewed. Data were collected on number and relationship of children in the household, family planning attitudes and practices of respondents, awareness of population issues, family size and composition, and child loss. The primary focus was on the perceived advantages and disadvantages of children, ages at which children cost the most, and qualities desired in children.

DaVanzo, Julie and William P. Butz. Birthspacing, Fertility, and Family Planning: Policy and Program Implications from the Malaysian Family Life Survey. Santa Monica, Ca.: Rand Corporation, Family in Economic Development Center, November 1981.

David, Henry F. "Incentives, Reproductive Behavior, and Integrated Community Development in Asia," Studies in Family Planning, Vol. 13, No. 5, 1982, pp. 159-173.

Deutsch, Elizabeth B. Reproductive Health Care Habits of Laotian Women. Evanston, Illinois: Northwestern University, 1983. Illinois Sociological Association.

Theories in the sociology of knowledge and social construction of reality are applied to immigrant Laotian women, a refugee group with a social and cosmological world view radically different from mainstream United States society. One aspect of this world view, the childbearing cycle, is singled out for investigation; it begins at social or physical puberty, ends with menopause, and includes most of the rites of passage through which a normal female must pass. An attempt is made to relate these rites of passage to

mainstream United States life, including the health care system. Analysis shows the development of rationales by the Laotians, in terms of which the difficulties of childbearing in a new culture are sorted out, analyzed, and manipulated in order to provide social and cosmological stability to an immigrant group adrift in a very different environment.

The Development and Evaluation of an Integrated Health Delivery System in Thailand: A Description of the DEIDS/Thailand Project (1975-1982).

Drake, William D. and Robert J. Timmons. Combating Malnutrition: Program Characteristics that Improve Chances for Success. Ann Arbor: Community Systems Foundation, Prepared for the Asian Population, Health and Nutrition Officers Conference, Singapore, May 21-24, 1984. 84 pp.

Drake, William D., Roy I. Miller, and Robert J. Timmons. Effect of Classification Errors Upon Evaluation Outcomes: Nutrition Programs Revisited. Ann Arbor: Community Systems Foundation, March 1984. 65 pp.

Misclassification of program participants' nutritional status arises from imperfect correspondence between an anthropometric score and the underlying phenomenon of malnutrition and inability to repeat the measurement process with exacting precision. Because malnutrition has a complex etiology and manifests itself differentially in individuals, there are no flawlessly accurate measures, however costly. Although field protocol could theoretically be maintained with precision, it is improbable. Thus, it is warranted, and perhaps critical, to consider the consequences of misclassification and to derive procedures for adjusting for its presence.

Seven sources of error in classifying nutritional status have been identified: 1) imperfect correspondence between measure and malnutrition; 2) inappropriate standards and/or classification; 3) incorrect measurements due to faulty measurement devices, measurement variation between and within subjects and observers, and inaccurate estimates of age; 4) recording errors; 5) transcription errors; 6) coding or keying errors; 7) and errors introduced during analysis. Because of imperfect sensitivity (the probability of correctly diagnosing a malnourished individual) and imperfect specificity (the probability of correctly diagnosing a healthy individual) of an anthropometric measure, observed point prevalence and change in observed prevalence of malnutrition are biased. Mathematical expressions of observed point prevalence or change in prevalence as a simple function of the true prevalences(s) and the sensitivity and specificity of the measure can be used to make corrections.

Typically, we overestimate point prevalence because of imperfect sensitivity and specificity. When sensitivity and specificity are equal and constant over time, we underestimate the true change in prevalence; when sensitivity and specificity differ but remain constant over time, we also underestimate the true change in prevalence; and in the general case where sensitivity and specificity differ and vary over time, true prevalence can be under- or overestimated, or estimated in the opposite direction of the true change. The differences between observed change and true change in prevalence when applied to 8 nutrition data sets representing different prevalence rates bear out these results. We note that the assumptions to these mathematical relationships are violated when applied to malnutrition and other real-world phenomena.

Without specific knowledge suggesting sensitivity and specificity change over time, it is perhaps most reasonable to assume they remain constant or do not vary significantly over time. If this is true, there will always be an understatement of the true changes in malnourishment during the course of a project. Until the necessary field work can be done, a reasonable estimate of sensitivity and specificity in typical nutrition programs is between .70 and .80. When sensitivity and specificity are .75 and constant over time, only half of the true change in prevalence is reported. When comparisons are made between nutrition programs using nutritional status as an indicator, sensitivity and specificity estimates should be included. It is reasonable to assume that sensitivity and specificity will be higher for programs with superior data gathering and handling protocol. Evaluators should, on the other hand, make every effort to estimate sensitivity and specificity should there be evidence that suggests the probabilities would change over time.

The study concludes with guidelines for adjusting results obtained in an impact analysis. They are as follows: 1) select an approximation of values for sensitivity and specificity 2) determine if there is clear evidence pointing to a change in either sensitivity or specificity over time; 3) using the best estimate for sensitivity and specificity over time, use the appropriate correction formula to compute the adjustments to prevalence rates; 4) reassess the resultant estimates of sensitivity and specificity; 5) and report both unadjusted changes in prevalence and corrected changes.

Drake, William D., Roy I. Miller, and Donald A. Schon. Community-Level Nutrition Interventions: An Argument for Reflection-In-Action. Draft, June 17, 1982. 76 pp.

Drake, William D., Roy I. Miller, and Donald A. Schon. "Nutrition Intervention and Evaluation: A Call for Reflection-In-Action," Food and Nutrition Bulletin, Vol. 5, No. 2, July 1983, pp. 2-9.

Drake, William D., Roy I. Miller, and Donald A. Schon. "The Study of Community-Level Nutrition Interventions: An Argument for Reflection-In-Action," Human Systems Management, Vol. 4, No. 2, 1983, pp. 82-97.

- Drake, William D., Roy I. Miller, and Margaret Humphrey. Final Report: Analysis of Community-Level Nutrition Programs. Volume I. Ann Arbor: Project on Analysis of Community-Level Nutrition Programs, Community Systems Foundation, October 1980. 171 pp.
- Drake, William D., et al. Nutrition Programs in Sri Lanka Using U. S. Food Aid (An Evaluation of P. L. 480 Title II Programs). Ann Arbor: Community Systems Foundation, October 1982. 106 pp.
- Dunlop, David W. Toward a Health Project Evaluation Framework. Washington D. C.: U.S. Agency for International Development, Bureau for Program and Policy Coordination, Office of Evaluation, Special Study, No. 8, June 1982. 35 pp.

Despite the increasing importance of health programs, there is little hard evidence that they lead to improved health status. To determine if primary health care is in fact working, this report presents a conceptual framework for evaluating such projects.

First, the authors describe the problems related to current health project/program evaluations, including the assumed linear flow of impacts, attribution, feedback and indirect impacts, and time as an important variable in evaluation. Emphasizing the subtlety and long-term nature of the evaluation process, the authors then develop five concepts: (1) the use of the economic concepts of investment and consumption rather than such measures as morbidity and mortality to gauge final project impact; (2) the importance of context and constraint analysis; (3) the growing claim of recurrent health program costs on national budgets; (4) equity considerations; and (5) the essential importance of a dynamic evaluation system which incorporates the above ideas. Finally, the authors discuss a series of practical issues which must be addressed before any evaluation strategy can be defined, namely, attribution of impact, timing of impact measurement, audience differences, data availability, and information costs. Attached are a 57-item bibliography, a list of generic questions for an economic evaluation of primary health care projects, and a proposed set of measures/indicators for health project evaluation.

- Dunlop, David W. and Christine Adamczyk. A Comparative Analysis of Five PL480 Title I Impact Evaluation Studies. Washington D.C.: U.S. Agency for International Development, December, 1983.

East Java Baseline Survey. Surabaya: Nutrition Study Center, 1982.

- Edmonston, Barry James. "Demographic and Maternal Correlates of Infant and Child Mortality in Bangladesh," Journal of Biosocial Science, Vol. 15, No. 2, April 1983, pp. 183-192.

- Estimates of Fertility Using the Bogue-Palmore Regression Technique. Bangkok: Economic and Social Commission for Asia and the Pacific, 1983. 6 pp.

This paper concentrates on an equation, calculated by Palmore, expressing the fetal fertility rate as a function of a child-women ratio, the infant mortality rate, the percentage of women aged 20-24 who are ever-married, and the percentage of the population in the youngest age group. This method appears to estimate fertility for the period 0-4 years before the census or a period slightly closer to the census date.

Evenson, Robert E., Barry Popkin, et al. "Nutrition, Work, and Demographic Behaviour in Rural Philippine Households," Rural Household Studies in Asia. Edited by Hans P. Binswanger, et al. Singapore: Singapore University Press, 1980, pp. 289-366.

Evenson, Robert E., Barry Popkin, et al. Nutrition, Work, and Demographic Behavior in Rural Philippine Households: A Synopsis of Several Laguna Household Studies. New Haven, Conn.: Economic Growth Center, Yale University, 1979. 76 pp.

Fajans, Peter. The Training of Community Nutrition Workers in Indonesia's Family Nutrition Improvement Program. University of Hawaii School of Public Health, Preventive Medicine Residency Program, May 1982. 34 pp.

Family Planning Association of India. "Motivational Strategy: Malur Rural Project," Report of the Seminar on Regional Consultation on Updating the Motivati<sup>n</sup> Strategy, October 1979. Colombo, Sri Lanka: International Planned Parenthood Federation, 1980, pp. 79-94.

"Family Planning in the 1980's: Challenges and Opportunities." Recommendations of the International Conference on Family Planning in the 1980's, Jakarta, Indonesia, 26-30 April 1981. Studies in Family Planning, Vol. 12, No. 6/7, 1981, pp. 251-256.

Faruqee, Rashid R. Analyzing the Impact of Health Services--Project Experience from India, Ghana, and Thailand. Washington, D.C.: World Bank Staff Working Paper No. 546. 1982. 44 pp.

Appraising and evaluating the impact of a health project involves two major disciplines, health and economics, and requires four categories of reliable health indicators: environment (socio-economic conditions and health policies), inputs (services offered), outputs (services received) and outcome (changes in mortality, morbidity and nutritional status). This paper reviews what three important controlled experiments reveal about their indicators: Narangwal in India, Danfa in Ghana, and Lampang in Thailand. The experiences of three non-experimental projects--with no control groups--are also reviewed. Outcome measures and output indicators are best for indicating the impact of services.

Faruqee, Rashid R. Integrating Family Planning with Health Services: Does It Help? Washington, D.C.: World Bank Staff Working Paper No. 515, 1982. 44 pp.

- Faruqee, Rashid R. Source of Fertility Decline: Factor Analysis of Inter-country Data. Washington, D.C.: World Bank Staff Working Paper No. 318, February 1979. 46 pp.
- Faruqee, Rashid R. and Ethna Johnson. Health, Nutrition, and Family Planning in India: A Survey of Experiments and Special Projects. Washington, D.C.: World Bank Staff Working Paper No. 507, 1982. 97 pp.
- Feranil, Alan B. Fertility Perceptions and Intentions of Husbands and Wives. Edited version. Singapore: SEAPRAP, 1980. 135 pp. (SEAPRAP research report #46.)
- Ferry, Benoit. Breastfeeding. International Statistical Institute, World Fertility Survey. WFS Comparative Studies, Cross National Summaries, No. 13, 1981. 43 pp. 931057000. AID/CSD-3606.

To help researchers determine more precisely the inhibiting effect of breastfeeding on fertility, this report presents and analyzes data from 19 Asian and Latin American countries responding to a World Fertility Survey questionnaire on BF levels and patterns.

Patterns for the two continents contrast markedly for both the last closed birth interval and the open interval. The median duration of breastfeeding is generally 1-2 years in Asia and 6 months in Latin America (except for Peru). Surprisingly, breastfeeding duration did not differ according to the child's sex even in countries where male children are preferred.

The survey partially solves the complex problem of linking breastfeeding with mortality by restricting some analyses to surviving children. Much more work is needed in this area, however. The data's doubtful reliability, e.g., as evident in the different biases obtained for the open and closed intervals, makes it difficult to analyze breastfeeding trends in detail, as does restricting analysis to demographic variables.

Also discussed is a method employing data on the current breastfeeding status of children born in the recent past, including the open, the last closed, and even prior intervals. Disadvantages of this method include the inaccurate imputation of children's birth dates; the use of the child as the unit of analysis, causing duplicate representation of most fertile women; and heightened sampling variability. Other complications, specific to the closed interval analysis, include the unexplained longer duration of breastfeeding for older women.

Future needs include developing techniques to identify and measure phenomena more precisely and conducting comparative analysis of the impact of breastfeeding duration on birth intervals--a question which survey data from 20 additional countries should help clarify. Further study is also needed on the impact on birth intervals of related factors, e.g., contraception

and post partum amenorrhoea. The authors note that changes in fertility levels and patterns necessarily include changes in intermediate variables and so recommend that population programs examine the only partially understood biological and sociological factors underlying observed fertility behavior. Numerous figures and charts are included.

Field, John O., Roy I. Miller, and William D. Drake. Kottar: Malnutrition Intervention and Development in a South Indian District, Volume II. Ann Arbor: Community Systems Foundation, Project on Analysis of Community-Level Nutrition Programs, January 1981. 72 pp. Appendices.

Fifth Conference of the Asian Parasite Control Organization--the Integrated Family Planning Project--November 6-10th, 1978. Jakarta, Indonesia. Tokyo, Japan: Proceedings, Asian Parasite Control Organization, 1979. 508 pp.

Files, Laurel A. "A Reexamination of Integrated Population Activities," Studies in Family Planning, Vol. 13, No. 10, 1982, pp. 297-302.

First American Conference on Integrated Programs (CAPRI I), Bogota, Colombia, August 11-14, 1980, 199 pp. Sponsored by Japanese Organization for International Cooperation in Family Planning and Asociacion Pro-Bienestar de la Familia Colombiana.

Fisher, Andrew A. and Raymond W. Carlow. "Family Planning Field Research Projects: Balancing Internal against External Validity," Studies in Family Planning, Vol. 14, No. 1, 1983, pp. 3-8.

Flieger, Wilhelm and Imelda Pagtolun-an. Assessment of Fertility and Contraception in Seven Philippine Provinces: 1975. Washington, D.C.: U.S. Agency for International Development, Bureau of Science and Technology, Office of Population (Sponsor). Papers of the East-West Population Institute, No. 77, November 1981. 154 pp. 932064800. AID/DSPE-C-0002.

In 1976, sample surveys of fertility and contraceptive practice were conducted in seven Philippine provinces to test the governments's (now abandoned) Total Integrated Development Approach to family planning (FP). This report documents some of the findings of this survey, which covered the number and socioeconomic characteristics of the household population, the marriage and pregnancy histories of ever-married women between 15 and 54, and the FP histories of all married women between 15-54.

Although birth rates in the seven provinces in 1975 were generally high (35/1000), fertility levels varied markedly, especially between urban and rural populations. Only slight declines in fertility rates occurred during the first half of the 1970's, and these were traceable to the small proportion of urban women who delayed marriage after exposure to prolonged and more

extensive education and nonagricultural work. Timing of marriage emerged as the key factor explaining urban-rural fertility differentials. Marital fertility rates were uniformly high in all residential strata, suggesting that the fertility behavior of married women, whether urban or rural differed little in the recent past.

As of 1975, contraceptive practice had had little effect in reducing fertility levels. While modern contraceptives were used effectively by some of the more educated women, contraceptive prevalence rates were low in the more traditional rural areas, due in part to the persistence of the large-family ideal; inadequate contraceptive knowledge among women, leading to a widespread fear of contraceptive side-effects and high dropout rates among users; and a general aversion to innovation.

Up to 1975, the response to modern FP methods had been most positive among women experiencing the greatest amount of social transformation. This seems to suggest that the "cafeteria" approach to FP used to that date, with its lack of closer links to changes in other spheres of life, is not the most effective in rural areas. The Government's plan to couple FP with related and more broadly defined development efforts offers better prospects for reducing the country's population growth rate.

An analysis of the survey data's reliability and a 49-item list of references (1938-76) are included.

Foreit, K. G., K. S. Koh, and M. H. Suh. "Impact of the National Family Planning Program on Fertility in Rural Korea: A Multivariate Areal Analysis," Studies in Family Planning, Vol. 11, No. 3, 1980, pp. 79-90.

Freedman, Ronald, Siew-Ean Khoo, and Bondan Supraptilah. Modern Contraceptive Use in Indonesia: A Challenge to Conventional Wisdom. World Fertility Survey, Scientific Reports 20, March 1981. 37 pp. (PN-AAK-336/AID/CSD-3606).

Data from the Indonesian Fertility Survey, analyzed in this sample study, indicate that a vigorous national family planning program has led to a surprisingly rapid increase in the use of modern contraceptives across all social and demographic strata, especially among the very poor. In the study, a multivariate analysis was conducted of 5,504 exposed women aged 15-49 from six regions in Bali and Java (which together comprise 67% of Indonesia's population) to determine the role of the following independent socioeconomic variables as differentials of current contraceptive use: region, number of living children, wife's age and education, husband's occupation, and standard of living. Also included are analyses in terms of the desire for more children, region of residence, and community-level characteristics.

Region was found to have the strongest link to current contraceptive use, a finding worth pursuing for its importance for fertility programs worldwide. Number of children and wife's desire to have no more children also led to high use rates, as might be expected, but only small variance in use can be explained by the joint effect of the independent variables or by the spouses'

occupations. High rates of use (38%) among the poorest families contradict the conventional wisdom (which was, however, borne out in a Thailand study) that contraceptive use among the poor is low due to the economically motivated desire of the poor for a large number of children. Reasons suggested by the authors for the high use level in Indonesia are the poor's contact with those having a higher standard of living and, possibly, coercive pressure from local officials. These same forces may also explain the greater than expected use of contraceptives found in villages lacking modern amenities. If coercion was indeed applied, however, contraceptive use rates (as distinct from merely accepting contraceptives) may have been overestimated. The report includes 17 references, 16 tables, and one appendix on sampling error.

Frenzen, Paul, D. Hogan, and P. Denis. "The Impact of Class, Education, and Health Care on Infant Mortality in a Developing Society: The Case of Rural Thailand," Demography, Vol. 19, No. 3, August 1982, pp. 391-408.

"Fresh Thinking on Fertility." Population Division of the United Nations Department of International Economic and Social Affairs, to the Expert Group Meeting in New Delhi. Populi, Vol. 10, No. 1, 1983, pp. 13-35.

Garcia, J. B., et al. Nutritional Effects of Rural Development: An Assessment as Part of the Planning of a Large-scale Development Project in Palawan, Philippines. Ithaca, N.Y.: Cornell Nutritional Surveillance Program, Working Paper Series, No. 12, April 1983. 28 pp. Tables.

Gardiner, Peter. An Analysis of the 1980 Census Age Distribution of Indonesia. Yogyakarta: Gadjah Mada University, Population Studies Center, July 1983. 44 pp. Indonesian Population Dynamics Project, Working Paper No 26.

This analysis serves as a useful starting point for determination of an acceptable age-sex structure for Indonesia in 1980 which can be used as a basis for general and sectoral population projection over the next few decades.

Gardiner, Peter and Mayling Oey. Morbidity and Mortality in Java 1880-1940: Some Observations Based on the Colonial Reports. Yogyakarta: Gadjah Mada University, Population Studies Center, July 1983. 14 pp. Indonesian Population Dynamics project, Working Paper No. 25.

This paper suggests that if one wants to justify arguments of "relatively" low or declining mortality in the latter part of the 19th and early 20th century in Java, explanations must be sought in the broader social and economic sphere rather than in medical or public health innovations designed to reduce mortality or control the impact of specific epidemic diseases.

- Ghosh, Shanti. "Child Health--A Motivating Force for Family Planning," Journal of Population Research, Special Issue, Dec., 1974, pp. 33-40.
- Gilmore, Judith W., et al. Morocco: Food Aid and Nutrition Education. Washington, D.C.: Agency for International Development, Project Impact Evaluation Report No. 8, August 1980.
- Glassman, Marc B. and John A. Ross. "Two Determinants of Fertility Decline: A Test of Competing Models," Studies in Family Planning, Vol. 9, No. 7, 1978, pp. 193-197.
- Gopalan, C. Naidu and A. Nadamuni. "Nutrition and Fertility," Lancet, 2(7786), Nov. 18, 1972, pp. 1077-1079.
- Gorosh, Martin E. "Improving Management through Evaluation: Techniques and Strategies for Family Planning Programs," Studies in Family Planning, Vol. 9, No. 6, 1978, pp. 163-168.
- Griffiths, Marcia. Growth Monitoring of Preschool Children: Practical Considerations for Primary Health Care Projects. Washington, D.C.: American Public Health Association, Primary Health Care Issues, Series I, Number 3, October 1981.

The experience of hundreds of primary health care and nutrition projects in countries throughout the developing world shows that growth monitoring significantly improves preventive health care by:

- identifying malnourished children and predicting mortality and morbidity risk in time to save lives;
- enabling workers to target limited food supplies to the most vulnerable children and to recommend other interventions accurately;
- providing reliable data for evaluating specific interventions and overall program effectiveness and for tracking community and regional progress;
- teaching families through participation in monitoring activity how diet affects health and motivating them to implement dietary improvements; and
- involving communities and families in informed decision-making and preventive action initiatives.

Moreover, since growth monitoring is inexpensive and can be implemented by minimally-trained workers in any setting, it can be an appropriate component of virtually any health care program.

This paper shows planners how to maximize the benefits of growth monitoring by matching program objectives, resources, and demographic and cultural contexts with the options presented concerning anthropometric indicators, nutritional status classification systems, measurement tools, and record-keeping systems. Practical guidelines are established for program organization, worker training, collection and use of aggregate growth monitoring data, and nutrition education during monitoring sessions.

An analysis of each anthropometric indicator's ability to predict mortality risk and to evaluate intervention effectiveness concludes that weight-for-age most inclusively identifies children with mortality risk, while weight-for-height provides the most accurate picture of intervention effectiveness.

The systems designed to classify children as adequately or inadequately nourished, their reference populations, and the statistical procedures they use are examined and compared. Program planners are advised to choose a classification system that is compatible with resources available to treat identified children and that keeps client and staff morale in mind.

Planners are shown how to select recording systems (cards) that record the information required by each project, can be understood by clients as well as by workers, and facilitate community and regional profiles. Various cards are described, their advantages and disadvantages in use discussed, and ordering information provided.

Eight measuring instruments are evaluated and rated according to nine criteria. Additional detailed discussion follows on the manufacture and use of arm circumference measurement tapes, the effects of choosing various scale types and models, and the manufacture and use of length/height measuring boards. A description of each instrument, sources of directions for making tools, and manufacturers' addresses are provided in Appendix A.

The responsibilities of program managers, communities, and families are specified in a rationale for effective program organization. Guidelines are presented for establishing periodicity, selecting participants, setting up monitoring sessions, using growth monitoring to target recipients of food programs, and motivating and supporting community and family initiatives.

Planners are shown how to use growth monitoring activities to teach improved nutrition. Successful behavior-oriented messages along with strategies for message formulation and for insuring mothers' active participation are presented.

The section on training workers describes skill objectives, the rationale for action-oriented, practical training and on-site practice, workable techniques for each segment of training, and references to training courses for instructors. Appendix B presents a measuring protocol to be used during training.

Finally, the value of aggregated growth monitoring data for program planning, implementation, and evaluation is reviewed. Planners are shown how community profiles assess intervention impact, demonstrate progress to communities, and help communities identify, solve, and prevent problems.

Gulati, B. "Integration of Family Planning with Maternity and Child Health Services," Aspects of Population Policy in India, New Delhi, India: Council for Social Development, 1969, pp. 119-123.

- Gulick, Frances Anderson. "Parity, Contraception and Infant Mortality; A Note on Some Parallel Relationships," Proceedings of All-India Seminar on Demography and Statistics, Varanasi, India. Edited by S. N. Singh. Varanasi, India: Demographic Research Centre, Banaras Hindu University, 1972, pp. 21-50.
- Gwatkin, Davidson R. and Sarah K. Brandel. "Mortality and Fertility Links," Populi, Vol. 9, No. 2, 1982, pp. 38-51.
- Habicht, Jean-Pierre, J. B. Mason, and R. Martorell. Growth and Socioeconomic Change. Geneva: For Meeting on Purpose, Use, and Interpretation of Anthropometric Indicators of Nutritional Status, October 12-14, 1983. 22 pp.
- Habicht, Jean-Pierre, Linda D. Meyers, and Cavell Brownie. "Indicators for Identifying and Counting the Improperly Nourished," American Journal of Clinical Nutrition, Vol. 35, May 1982, pp. 1241-1254.
- Hadi, Pangestu, R. Soebekti, and N. Sutoto. "Family Planning Program in Mojokerto: An Integrated Approach," Maternal and Child Health/Family Planning Program Technical Workshop Proceedings, October 31-November 2, 1979, New York City. Edited by Beth S. Atkins. New York, N.Y.: International Programs, Population Council, 1980, pp. 239-241.
- Heiby, James, Gayl Ness, and B. Pillsbury. A.I.D.'s Role in Indonesian Family Planning: A Case Study with General Lessons for Foreign Assistance. Washington, D.C.: Agency for International Development, Evaluation Report No. 2, 1979.
- Heller, Peter S. and William D. Drake. Malnutrition, Child Morbidity and the Family Decision Process. Ann Arbor: The University of Michigan, September 1976. Discussion Paper No. 58, Center for Research on Economic Development. 43 pp.
- Herrin, Alejandro N., "Rural Electrification and Fertility Change in the Southern Philippines," Population and Development Review Vol. 5, No. 1, March 1979, pp. 61-86.

A marked fertility decline was recorded for Misamis Oriental Province in the southern Philippines during a period of rapid and significant socioeconomic change. Government records revealed a drop in the birth rate from a high of 46 per 1,000 population to a low of 30 within 4 years (1971-1975). Implementation of a large-scale rural electrification project in the area facilitated social and economic investments leading to significant improvements in agriculture, business, and industrial productivity; employment opportunities; health and medical services; and education facilities. Increased household incomes and greater opportunities for savings and investment may have reduced children's value to parents as productive agents and old-age security, thereby creating reasons for limiting childbearing through contraception.

- Huber, Douglas, et al. "Oral and Injectable Contraceptives: Effects on Breast Milk and Child Growth in Bangladesh," Research Frontiers in Fertility Regulation. Edited by Gerald I. Zatzuchni et al. Hagerstown, Md.: Harper and Row, 1980, pp. 27-135.
- Hue, B. Q. "Paramedical Personnel Use in Family Planning in South East Asia," Contraceptive Delivery Systems, Vol. 1, No. 4, Oct. 1980, pp. 319-324.
- Huffman, Sandra, et al. "Lactation and Fertility in Rural Bangladesh," Population Association of America Annual Meeting, Atlanta, Ga., April 13-15, 1978. Collected papers, Vol. 4, 1978, pp. 100-122.
- Huffman, Sandra, et al. "Nutrition and Postpartum Amenorrhea in Rural Bangladesh," Population Association of American Annual Meeting, St. Louis, Mo., Apr. 21-23, 1977. Collected papers, Vol. 5, 1978, pp. 168-169.
- Hugo, Graeme J. "Sources of Internal Migration Data in Indonesia: Their Potential and Limitations," Majalah Demografi Indonesia, No. 17, July 1982, pp. 23-52.
- To assist in the development of migration studies in Indonesia, this paper critically summarizes existing secondary sources of population mobility data which have some potential for future analysis. Further work on them would be productive of new insights into Indonesian population movements, their causes and implications. Much of the data reviewed is incomplete and inaccurate, yet they can add to the knowledge of Indonesian population mobility.
- Hull, Terence H. and Valerie J. Hull. "The Relation of Economic Class and Fertility: An Analysis of Some Indonesian Data," Population Studies, Vol. 31, No. 1, pp. 43-57.
- Hull, Valerie J. "The Ngaglik Study: An Inquiry into Birth Interval Dynamics and Maternal and Child Health in Rural Java," World Health Statistics Quarterly, Vol. 36, No. 2, 1983, pp. 100-118.
- Hull, Valerie J. The Positive Relation Between Economic Class and Family Size in Java: A Case Study of the Intermediate Variables Determining Fertility. Yogyakarta: Population Institute, Gadjah Mada University, 1976.
- Hull, Valerie J. Women, Doctors, and Family Health Care. Yogyakarta, Indonesia: Gadjah Mada University, 1979. 28pp. Population Studies Center Working paper series No. 20.
- Hull, Valerie J. "A Study of Birth Interval Dynamics in Rural Java," Nutrition and Human Reproduction, Edited by W. Henry Mosley. New York, N.Y.: Plenum Press, 1978, pp. 433-459.

Igarashi, Tadataka. "Some Notes on Methods of Age Estimation: An Attempt in a Sundanese Village, West Java." Southeast Asian Studies, Vol. 20, No. 2, Sept. 1982, pp. 260-284. Text in Japanese, summary in English.

This paper presents first a brief analysis of the age data collected directly from the inhabitants of a Priangan-Sundanese village, which shows that their age reporting is so strongly biased that age data based solely thereon could be detrimental to demographic and biosocial studies. The author then describes his attempt to obtain age estimates and some of the difficulties encountered in the field. Individuals' ages were estimated by a combination of the usual techniques. Although each technique used has some weak points, their combination may provide reasonable, if not precise, estimates of age.

"Indonesia Country Report," Maternal and Child Health/Family Planning Program Technical Workshop Proceedings, Oct. 31-Nov. 2, 1979, New York City. Edited by Beth S. Atkins. New York, N.Y.: International Programs, Population Council, 1980, pp. 28-73.

The Indonesia Family Planning Program Basic Strategies. Jakarta: National Family Planning Coordinating Board, January 16, 1978.

Indonesia Fertility Survey, 1976, Principal Report, Volumes I and II. Jakarta: Government of Indonesia, Central Bureau of Statistics, 1978.

Integration of Health and Family Planning in Village Sub-centres. India. Rural Health Research Centre, 5th Narangwal Conference, Narangwal, Nov. 1970.

International Planned Parenthood Federation. Planned Parenthood and Women's Development: Lessons from the Field. London, England: International Planned Parenthood Federation, 1982.

Islam, Shamina. "Gono Shaystha Kendra (People's Health Centre): A Micro Approach to Educate Village Women in Bangladesh," International Sociological Association, Canada, 1978.

Preliminary findings from an ongoing empirical study of village women in Bangladesh are presented. The purpose is to elicit responses of village women to a pilot information education program in rural Bangladesh. People's Health Centre in Savar, Dacca is an innovative pilot project intended to reach the village masses by developing an integrated health care and family planning service, where village women constitute the priority clientele. Its importance lies in its venture to elicit responses from women, who are as yet the most unstudied group in any development effort in the country. An attempt will be made through in-depth interviewing at several levels with village women, to identify the

degree to which the program is meeting its objective. Results will be descriptive, and the main focus will be in key areas, such as women's level of participation, their varied nature of participation according to some socioeconomic level, and their perception of forces related to this development effort that affect their lives.

Jain, Anrudh K. and John Bongaarts. "Breastfeeding: Patterns, Correlates, and Fertility Effects," Studies in Family Planning, Vol. 12, No. 3, 1981, pp. 79-99.

Janowitz, Barbara and D.J. Nichols. The Determinants of Contraceptive Use, Reproductive Goals and Birth Spacing in Relation to Mortality, Breast-feeding and Previous Contraceptive Behavior. International Fertility Research Program, 1980. 117 pp. 932061600. AID/DSPE-G-0012.

To determine the extent to which pregnancy intervals, desired fertility levels, and future contraceptive plans are determined by previous contraceptive behavior, a study was made of 20,000 women who delivered at selected maternity hospitals in Iran, Egypt, the Sudan, and Nigeria. Results of that study are presented and analyzed in this report.

Following the presentation of comparative demographic profiles of each of the four groups and a summary description of the relationship among the variables, the variables are subjected to standard linear regression analysis with pregnancy intervals, fertility intentions, and contraceptive plans as dependent variables.

The study found that pregnancy intervals can be significantly increased by prolonged breastfeeding and shortened by infant mortality insofar as the latter curtails breastfeeding. The desire for additional children, pregnancy intervals, and the use of contraceptives are also affected by the survival of the previous children. In Teheran, for example, women whose last pregnancy ended in a surviving live birth have a probability 24% less of wanting an additional child than women whose last pregnancy ended in a spontaneous abortion, non-surviving live birth, or a stillbirth. Furthermore, the expectation that some babies will not survive encourages women to plan extra, compensating births. This is especially true of women whose last child did not survive.

The authors conclude that policies designed to reduce stillbirths, spontaneous abortions, and infant child mortality will lower the birth rate to the extent that the relationship between child survivorship and contraceptive use is strong and the practice of breastfeeding is prevalent. Similarly, improved child survivorship will lower the probability that women will want additional children. The strategy of lowering fertility by reducing child mortality, it is noted by way of conclusion, appears especially promising in developing societies with high levels of infant and childhood mortality and political-cultural barriers to the widespread acceptance of modern contraceptive practices.

An interpretation of regression results and a comparison of selected results with those obtained using a Logit analysis are appended with 16 references (1969-79).

- Japanese Organization for International Cooperation in Family Planning. Manual: Integrated Family Planning and Parasite Control Project in Malaysia. Tokyo, Japan: JOICFP document series, No. 1., 1979, 133 pp.
- Japanese Organization for International Cooperation in Family Planning/ Intergovernmental Cooperation and Coordination in Population and Family Planning in Southeast Asia. Integrated Approach at Grassroots Level towards Family Planning and Health Programme with Particular Emphasis on Nutrition and Parasite Control: A Report on the Joint JOICFP/IGCC Workshop on an Integrated Approach at Grassroots Level Towards Family Planning and Health Programme with Particular Emphasis on Nutrition and Parasite Control, held in Genting Highlands and Kuala Lumpur, Malaysia, 23-25 March 1977.
- Jesudason, Victor and K. R. Ambujadevi. "Relationship Between Socio-economic Factors, Demographic Characteristics and Nutritional Status of Pregnant, Lactating and Weaning Mothers," Journal of Family Welfare, Vol. 25, No. 1, Sept. 1978, pp. 3-19.
- Johnson, J. Timothy. "Influences on Family Planning Acceptance: An Analysis of Background and Program Factors in Malaysia," Studies in Family Planning, Vol. 10, No. 1, 1979, pp. 15-24.
- Jones, Gavin W. "Fertility Levels and Trends in Indonesia," Population Studies, Vol. 31, No. 1, pp. 29-41.
- Kar, Snehendu Bikash. "Communication Research in Health and Family Planning Programmes in India," International Journal of Health Education, Vol. 13, No. 3, 1970, pp. 94-102. Ann Arbor, Mich.: Dept. of Population Planning, School of Public Health, University of Michigan, 1970. Population reprint series, no. 32.
- Karyadi, Darwin and Samir Basta. Nutrition and Health of Indonesian Construction Workers: Endurance and Anemia. Washington, D.C.: World Bank Staff Working Paper No. 152.
- Kasto. Fertility Behaviour in Sriharjo. Yogyakarta: Population Studies Center, Gadjah Mada University, 1981. XVII, 84 pp., bibliography, map, tables. Monograph series of the Population Studies Center, Gadjah Mada University No. 4.

The purpose of this study is to elaborate on the fertility differentials in Mojolama and Kedung Miri, two hamlets in the village of Sriharjo in Yogyakarta. In the two hamlets, although the socio-economic conditions were different, the fertility levels were nearly the same. They were lower than in other provinces of Java. Factors associated with the lower levels of fertility were

mainly because the majority of the women adopted the traditional methods of family planning, particularly abstinence and prolonged breast-feeding. However, based on the average number of desired family size which was higher compared with the average number of children still living, it can be expected that, in the future, fertility level will tend to be higher.

Kattakayam, Jacob John. State Institute Encyclopaedic Publications, Thycaud Trivandrum. "Women, Power and Innovation: A Study of Women's Organizations and Social Change," International Sociological Association. Conference, Canada, 1982.

An effort to discover the ways in which women's organizations can introduce and institutionalize new patterns of behavior in a traditional society. In Kerala, India, women's associations called Mahila Samajams (MSs) function throughout the state as independent units. Research was conducted on six MSs in the Trivandrum district. The major programs of the MSs were identified and listed: (1) self-employment programs (tailoring, food processing, etc.); (2) health-care programs (maternity, sanitation, hygiene and general health); (3) child-care programs (on feeding, immunization, common ailments); (4) an applied nutrition program (distribution of free milk, vitamins and food supplements to pregnant women and children); and (5) cultural programs. Two of the MSs run nursery schools. A sample of 300 women beneficiaries and 30 women staff of the MSs was interviewed. Questions asked related to frequency and purpose of visit to the MS, type, quality, and quantity of services used, changes in behavior after contact with the MS, and attitude change in areas where behavior cannot be measured. It was found that new norms are better accepted and incorporated into behavior patterns when they are learned in the context of a felt need or in a reality situation rather than when they are received as advice out of context. Such norms are easily institutionalized. There was close association between acceptance of new norms and frequency of visit to the MS. Small informal discussion groups were found most effective in communicating new ideas and having them accepted.

Keehn, Martha ed. Bridging the Gap: A Participatory Approach to Health and Nutrition Education. Westport, Conn.: Save the Children, May 1982. 103 pp.

Trying out new participatory ways of working at the community level, this manual describes simple techniques by which field staff can be trained to approach local communities more sensitively and to involve them more fully in achieving better health and nutrition. The techniques and materials have been field tested in more than one country and in some instances by more than one agency. Most of them were used in a series of training workshops conducted in Indonesia and the Dominican Republic during the period 1979-1980.

Khoo, Siew-Ean and Harijati Hatmadji. "Fecundity, Reproductive Health and Socioeconomic Status in Indonesia," Population Association of America Annual Meeting, Washington, D.C., Mar. 26-28, 1981. Collected Papers. Chapel Hill, N.C.: Carolina Population Center, University of North Carolina, Vol. 5, 1981, pp. 511-533.

Knodel, John. An Evaluation of the Methodology for Analyzing the Patterns and Determinants of Breast Feeding and Mortality in the Near East. Washington, D.C.: American Public Health Association. 1981. 21 pp. 936590000. AID/DSPE-C-0053.

Two prototype analyses of data on breastfeeding and infant mortality in Jordan form the basis of an A.I.D./University of North Carolina project to analyze the patterns and determinants of breastfeeding and IF in the Near East. This report evaluates data analysis methodologies used in the pilot project.

Omissions in breastfeeding data make analysis of breastfeeding trends in Jordan impossible. To provide overall information on breastfeeding practices, however, the use of the current status method of estimating mean duration of breastfeeding in categories comparable to those used in the infant mortality analysis is strongly recommended, as are checks on the multivariate analysis used to control sample selection bias and repetition of the analysis in categories comparable to the infant mortality analysis for the individual variables. Data on pill use, maternal labor force participation, and education should be interpreted with caution. Misreporting duration of breastfeeding has been alleviated by separately analyzing dichotomous dependent variables employing an X function. A standard statistical estimation procedure has been employed to define dichotomous variables, but the analysis needs to be amplified and its results presented in more comprehensible language.

Knodel, John and Nibhon Debavalya. "Breastfeeding in Thailand: Trends and Differentials, 1969-79," Studies in Family Planning, Vol. 11, No. 12, 1980, pp. 355-377.

The prototype analysis of infant mortality is on the right track, but could be improved in several ways: (1) by finding ways to avoid age misstatement in neonatal and postnatal deaths; (2) by comparing mortality rates obtained in this study with those available from other sources; (3) by extending the analysis to include child and infant mortality; (4) by modifying the multivariate analysis to assess the total effect of the variables; and (5) by converting multivariate analysis results to a more comprehensible format.

- To improve the project overall, the authors recommend: (1) increasing coordination between the two components by using either weighted or unweighted samples for the multivariate analysis, using comparable socioeconomic and demographic variables, and sharing common data problems; (2) noting cross-country differences in defining variables; (3) introducing a variable representing a region of a country in both project components; (4) making results more comprehensible to non-experts; and (5) submitting a combined final report for comparison purposes and as a policy aid. Appended is a list of contacts.
- Kumar, R. "The Effects of an Integrated MCH/FP Programme on Fertility," Demography India, Vol. 11, No. 2, July-Dec. 1982, pp. 244-252.
- Kumari, J., Rao Rajani, and T. Venkateswara. "Family Planning and Increased Fitness of the Child to Survive," Journal of Family Welfare, Vol. 28, No. 3, March 1982, pp. 77-81.
- Kurup, Nagaralli R. S., A. Varghese, M. O. Govindachari, and M. H. Gundurao. "Evaluation of Maternal and Child Health and Family Planning Programme in Madura Mills Limited," Bulletin of the Gandhigram Institute of Rural Health and Family Planning, Vol. 10, No. 1, May 1975, pp. 1-179.
- Laing, John E. "Effects of the Philippine Family Planning Outreach Project on Contraceptive Prevalence: A Multivariate Analysis." Studies in Family Planning, Vol. 12, No. 11, 1981, pp. 367-380.
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- Latham, Michael C. The Decline of the Breast: An Examination of Its Impact on Fertility and Health, and Its Relation to Socioeconomic Status. Ithaca, N.Y.: Cornell International Nutrition Monograph Series, No. 10, Cornell University, 1982. 79 pp.

Levinson, F. J. and D. L. Call. Nutrition Intervention in Low-Income Countries: A Planning Model and Case Study. Ithaca, N.Y.: Cornell University and Department of Agricultural Economics, New York State College of Agriculture, Prepared for USAID, 1970.

The primary target group for nutritional intervention is the low-income preschool child. The secondary target group consists of adult production workers whose caloric intake is a factor limiting productivity. Optimal nutritional intervention programs require specific national nutrition policies and an effective delivery system. These are discussed in terms of a model that describes the sources, functioning, and effects of programs. General requisites for a successful national program include a minimum foreign exchange outlay, political acceptance, timely implementation, and continuing evaluation of the programs. The model is discussed in terms of its application to two ongoing nutritional intervention programs. The first is the wheat atta fortification program initiated in 1970 in Bombay. The second is the child feeding program operated by the Bombay Municipal Corporation with the assistance of CARE. These represent two significantly different approaches to a single target populace. Some 24 aspects and effects of the two programs are compared and discussed. The authors caution that the data presented are a somewhat artificial application of the model, since the programs are not independent of other nutritional intervention programs in India. But the comparative data, together with a discussion directed to planners of intervention programs, tend to imply that both Bombay programs could be improved. The child feeding program is reaching no low-income preschool children; the atta fortification program is reaching only 12% of them.

Lubis, Firman, et al. "One-Year Experience with NORPLANT Implants in Indonesia," Studies in Family Planning, Vol. 14, No. 6/7, 1983, pp. 181-183.

Lucas, David and Helen Ware. "Fertility and Family Planning in the South Pacific," Studies in Family Planning, Vol. 12, No. 8/9, 1981, pp. 303-315.

Luthra, Nirupama. "Socio-Economic Correlates of Child Growth," Guru Nanak Journal of Sociology. Vol. 4, No. 1, April 1983, pp. 76-84.

An attempt to assess the relationship between the physical and social growth of children in India and the socioeconomic background of parents is described. The sample (number of cases not given) was composed of parents and their children, categorized according to occupational and educational criteria into two discrete groups. Physical growth of the children was determined through nutritional and height and weight indicators established by the Indian Council of Medical Research. Social growth was estimated through the use of the Vineland Social Maturity Scale. The children of poor parents were found to be differentiated from their richer peers both by lower nutrition and lower social maturity.

- Mahmud, M. Syoib. Knowledge, Attitude and Practice of Family Planning of an Ethnic Chinese Community in Katamadya Palembang, South Sumatra. Singapore: SEAPRAP, 1979. (Report #57.)
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- Martin, Linda G., et al. "Co-variates of Child Mortality in the Philippines, Indonesia, and Pakistan: An Analysis Based on Hazard Models," Population Studies, Vol. 37, No. 3, 1983, pp. 417-432.
- Mason, John. Proposed Guidelines for Designing Evaluation for Nutrition and Health Programmes. Ithaca, N.Y.: Cornell Nutritional Surveillance Program, April 9, 1983. 27 pp.
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- Mason, John, Jean-Pierre Habicht, H. Tabatabai, and V. Valverde. Nutritional Surveillance. Geneva: World Health Organization, 1984.

Activities that have come to be known as nutritional surveillance constitute one of several ways of gaining the knowledge required to ensure adequate nutrition. Nutritional surveillance means keeping watch over nutrition in order to make decisions that will lead to improvement in nutrition in populations. The concept stems from disease surveillance, with which it has several principles in common, but it is related to a wider range of possible actions in several sectors of government. The focus in this book is on actions to alleviate protein-energy malnutrition in developing countries.

Recently, the purposes of nutritional surveillance have been defined as: health and development planning, usually at national level; programme management and evaluation; and timely warning and intervention to prevent short-term food consumption crises. These purposes are not mutually exclusive, but impose different requirements on the design of nutritional surveillance systems. They provide the basic structure of this book.

The need for nutritional surveillance stems from the recognition that the major cause of malnutrition in the world is poverty. Poverty causes malnutrition through inadequate food availability in households (and perhaps inappropriate distribution within the household) and through unsanitary living conditions and inadequate access to health services. These interrelations can be regarded as flows of resources determining nutritional status as an endpoint. This concept helps to define points of intervention and data needs.

Improvement in nutrition is one of the objectives of basic needs planning, of health for all, and of food and nutrition planning. The measurements used in nutritional surveillance include many of those defined as health status indicators, particularly with respect to the nutritional status of children and mortality data. The same measurements are useful for assessing the effects of development programmes.

A feasible strategy for tackling health and nutrition problems involves: enhancing the positive effects on nutrition of development policies and programmes that are already occurring or being planned for primarily economic and political reasons; rationalizing and effectively carrying out specific targeted programmes mainly in the conventional health and nutrition fields; and preventing short-term critical reductions in food consumption. Support for this strategy is the main *raison d'être* of nutritional surveillance. Success depends on numerous considerations, many of which are political, but knowledge of nutritional problems, their causes and how they are changing, can help in many relevant decisions.

Decisions are required in the context of both national policies and particular programmes. Decisions on national policies concern resource allocation by area and sector, legislative measures (e.g., prices), and programmes. Nutritional surveillance provides for better-informed decisions within these areas. Development programmes require choices on targeting by area and socioeconomic group, and on the possible effects of different activities on nutrition. Health and nutrition programmes need similar decisions: on targeting by area, and on relevance of activities to causes of malnutrition. Timely warning and intervention programmes to tackle acute food shortages need data to trigger appropriate interventions.

Mason, John, Fredrick Trowbridge, and John Haaga. Defining Nutritional Data Needs. Ithaca, N.Y.: Cornell Nutritional Surveillance Program, Working Paper Series, No. 25, December 1983. 18 pp.

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- McNicoll, Geoffrey. Notes on the Local Context of Demographic Change. New York: The Population Council, Center for Policy Studies, Working Papers, No. 98, June 1983. 24 pp.
- McNicoll, Geoffrey and Moni Nag. Population Growth: Current Issues and Strategies. New York: The Population Council, Center for Policy Studies, Working Papers, No. 79, February 1982. 32 pp.
- McNicoll, Geoffrey and Masri Singarimbun. Fertility Decline in Indonesia I. Background and Proximate Determinants. New York: The Population Council, Center for Policy Studies, Working Papers, No. 92, November 1982. 91 pp.
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- Meade, Melinda S. "Potential Years of Life Lost in Countries of Southeast Asia," Social Science and Medicine, Vol. 14D, No. 3, September, 1980, pp. 277-281.
- A measure of potential years of life lost (PYLL) is used to compare causes of death among several Southeast Asian countries to determine their positions in the epidemiological transition. PYLL reduces the relative importance of degenerative diseases that affect older people. Statistical data from the World Health Organization are used to compute PYLL for Hong Kong, Singapore, and Thailand. These countries appear to be well into the epidemiological transition. The need for research and health programs may be lagging behind vital developments.
- Measuring Change in Nutritional Status: Guidelines for Assessing the Nutritional Impact of Supplementary Feeding Programmes for Vulnerable Groups. Geneva: World Health Organization, 1983. 101 pp.
- Measuring the Impact of Family Planning: A Short Guide. Paris: Development Centre of the Organization for Economic Co-operation and Development, 1977. 73 pp.
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- Mingsarn Santikarn. Fertility and Family Planning: A Case Study of Ngao District, Lampang, Thailand. Singapore: SEAPRAP, 1980. Report #45.
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- Nag, Moni, B.N.F. White, and R.C. Peet. "An Anthropological Approach to the Study of the Economic Value of Children in Java and Nepal," Current Anthropology, Vol. 19, No. 2, 1978, pp. 293-306.
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- Narujohn Iddhichiracharas, et al. "The User Perspective in Northern Thailand: A Series of Case Studies," Studies in Family Planning, Vol. 14, No. 2, 1983, pp. 48-56.

1980 Baseline Round of the East Java (Indonesia) Population Survey: A Summary of Results. Chapel Hill: University of North Carolina, International Program of Laboratories for Population Statistics, Dec. 1981. Summary Series No. 5. AID/CSD-2495.

This report describes the 1980 baseline round of the East Java Population Survey (EJPS) and presents major findings regarding age, sex, marriage, fertility, contraception, and mortality.

Survey findings show that East Java has a relatively young population--37% are under age 15 and less than 4% are over 65 years of age. Males slightly outnumber females. Marriage is virtually universal; the mean age at first marriage for a female is 19.9 years--an increase from 17.9 in 1961. Data show a persistent decline in East Java's fertility. Reference period data show a total fertility rate of 3.22 children per woman. For all of East Java, 42% of women reported that they were current users of contraception, an increase from 12% in 1973 and from 32% in 1976. Data on infant and adult mortality and on crude birth rate are unclear, but should be clarified by later rounds of the EJPS. A 14-item list of references is appended.

Notes on the Estimation of Fertility Levels and Trends for Small Geographic Areas in Indonesia Based on 1971 and 1980 Population Censuses. Bangkok: Economic and Social Commission for Asia and the Pacific, September 1983. 10 pp.

This note considers data available for fertility estimation from the 1971 and 1980 censuses, techniques usually employed for this purpose, and possible avenues for comparative estimates.

Nutrition Profile of Pregnant and Nursing Mothers in Bali. Bali: University of Udayana, 1981.

O'Connor, Marion. "An Optimal Social Investment," Populi, Vol. 9, No. 4, 1982, pp. 29-35.

Ogawa, Naohiro. "Differential Fertility in Indonesia and the Philippines: A Multivariate Analysis," Southeast Asian Studies, Vol. 20, No. 2, Sept. 1982, pp. 179-205.

Drawing upon the data derived from the 1976 Indonesian and the 1978 Philippine Fertility Surveys, the present study identifies the sources of differential fertility both in Indonesia and the Philippines. To disentangle the effect of various socio-economic factors upon fertility changes in both countries, the author analyzes these data sets on the basis of multiple classification analysis. The statistical results of this study show that the development of Indonesia is still at a very early stage where the pattern of fertility changes is greatly influenced by a variety of non-developmental involuntary factors. In contrast, the Philippines is at a more advanced stage of socio-economic development and demographic transition where a number of voluntary factors have been considerably operating with regard to the relationship between fertility and development-related variables.

O'Muirheartaigh, C. A. Methodology of the Response Errors Project. World Fertility Survey. International Statistical Institute. Scientific Reports. No. 28, March 1982. 32 pp. 931054700. AID/CSD-3606.

Because response errors can seriously detract from the utility of any survey, the World Fertility Survey (WFS) has undertaken a cross-national project--based on studies in and fertility surveys of the Dominican Republic, Turkey, Peru, and Lesotho--to investigate the types and magnitudes of response errors and the implications of such errors for analysis of past, present, and future WFS surveys. This report, the first in a planned six-part series, describes the methodology employed in the project.

Noting that WFS data analyzed to date has been found quite accurate, the author describes the WFS approach to estimating both sampling error, arising because only a small portion of a population is interviewed, and response errors, deviations from true values. Response error may be uncorrelated (simple), due to unmeasured or transient sources, or correlated, indicating a systematic distortion in responses.

This project attempts to detect such errors through a three-stage process: Stage I, conducting the main survey by randomly allocating subsamples to each interviewer; Stage II, re-interviewing a subsample; and Stage III, subsequent re-interviewing in cases where discrepancies were observed between Stage I and Stage II data in order to determine the source of response error. The specific procedures employed in each country varied somewhat and are described in detail.

The author also presents a general statistical model, based on the work of Fellegi, for calculating response errors. Formulae are provided for calculating simple and correlated response variance, both separately and simultaneously, and for determining the interaction between the two. Derivation of an index of crude (i.e., bivariate) agreement is also given. Appended is a list of 23 references (1960-81).

Oratai Rauyajin. Induced Abortion: Facts and Prospects in Thailand. Singapore, 1979. SEAPRAP report #40.

Osborn, R. W. and W. A. Reinke. Community Based Distribution of Contraception; Review of Field Experience. Baltimore: Johns Hopkins University, School of Hygiene and Public Health and Johns Hopkins Population Center, January 1981. 230 pp. 932063200. AID/DSPE-C-0055.

It has been postulated that community-based distribution (CBD) of contraception can, at a reasonable cost, satisfy substantial unmet demand for effective fertility control. This report presents findings which validate this thesis and addresses the issue of how the CBD approach can be most effectively and efficiently applied.

First, the authors summarize the information available on 30 A.I.D. projects, including the rationale, chronology, content, and principal results of each project. Next, the paper focuses on seven substantive areas of interest identified in the initial review: efforts at demand stimulation; services mix and methods of delivery; manpower needs, development, and utilization; organizational arrangements; services support and supervision; and research and evaluation procedures. In addition, a review of commercial retail sales experience is presented because of its direct relevance to CBD projects. Finally, the findings from the first two stages of the review are interpreted and synthesized.

After initial implementation obstacles were overcome, the number of CBD projects has increased annually. Thirty were begun during 1974-79 and an average of 6-8 per year are currently being initiated. As the overall CBD concept has gained wider acceptance, projects have increased in size, number, and scope. Public and private CBD programs are culturally acceptable, affordable, and effective in raising contraceptive use from the 15% to the 30-35% level. Only one of the 30 projects was terminated because of poor performance.

Two questions are posed for further research: (1) How can the efficiency of CBD efforts be improved under local conditions? (2) How can the use level be increased to the 50-60% range necessary to have an impact on fertility rates? Recommended are the formalization of a periodic uniform project reporting system and budgeting format, and the development of standard data collection instruments and data analysis systems as well as guidelines for project development and administration.

Osteria, Trinidad S. "Variations in Fertility with Breast-feeding Practice and Contraception in Urban Filipino Women: Implications for a Nutrition Program," Nutrition and Human Reproduction. Edited by W. Henry Mosley. New York, N.Y.: Plenum Press, 1978, pp. 422-432.

Pabbadja, Sardin, et al. The Population and Family Planning Information Activities and Needs in Indonesia. Jakarta: National Family Planning Coordinating Board, Monograph No. 31, January 1982.

Parado, James P. "Experiences in the Bohol MCH/FP Project," Maternal and Child Health/Family Planning Program Technical Workshop Proceedings, October 31-November 2, 1979, New York City. Edited by Beth S. Atkins. New York, N.Y.: International Programs, Population Council, 1980, pp. 86-99.

Parado, James P., Nancy E. Williamson, and Eulalio Maturan. Final Report of the Bohol Project (1974-1979). Tagbilaran City, Philippines: Bohol Maternal and Child Health-Based Family Planning Project, 1980.

Peng, Tey Nai, et al. Factors Affecting Contraceptive Use in Peninsular Malaysia. World Fertility Survey, Scientific Report #23, Nov. 1981. (PN/AAK-335/AID/CSD-3606)

Peng, Tey Nai and Idris Abdurahman, International Statistical Institute. "Factors Affecting Contraceptive Use in Peninsular Malaysia," Scientific Reports, World Fertility Survey, No. 23, November 1981. 28 pp. 932054700. AID/CSD-3606.

The extent of contraceptive use among Malaysian women is encouraging and indicates a growing awareness of the benefits of family planning. Thus concludes this report on the determinants of contraceptive use in Peninsular Malaysia.

The authors first summarize Malaysian population and family planning programs and the 1974 Malaysian Fertility and Family Survey (MFFS), from which data on 4,458 exposed women was analyzed for this report. They proceed to discuss the findings of the MFFS regarding the net effect of marital status and duration, age, occupation, education, income, ethnicity, and residence on knowledge of and use of contraception. The authors next explain the method for selecting specific variables and for determining the separate effects of each variable. Current contraceptive use was chosen as the dependent variable; 22 demographic, background, socioeconomic, fertility preference, and perceived service availability variables were selected to be independent.

The direct and indirect determinants of contraceptive use are explored. Specifically, the authors found: (1) contraception is used more to limit (than to space) the number of children; (2) there is little sex preference for children; (3) ethnicity is a key determinant of residence and lifestyle and hence of contraception, with use greatest among Chinese, followed closely by Indians, and distantly by Malays; (4) husband's education and occupation and wife's education and income are equal, strong, and positive determinants of contraceptive use; (6) unmet need for contraception, as indicated by women wanting no more children but not using contraception, is considerable; and (7) 77% of women know of a contraception outlet and distance to the outlet is not a significant determinant of use. The authors conclude by recommending encouraging contraception among older and higher parity women, ethnic Malays, and less educated and poorer women.

The report includes 19 tables of data and a list of six references (1971-79); a list of the regression variables and their values is appended.

Phillips, James F. Analysis of Extant Survey and Census Data: Problems and Solutions. U.S. Agency for International Development, Bureau for Development Support, Office of Population, August 9, 1982. 26 pp. 9365900. AID/DSPE-C-0053.

An assessment, herein presented, was made of extant Jordanian survey and census data to explain why fertility is so high when use of contraception is also high.

According to the authors, this apparent paradox exists because contraception is but one of 11 variables which determine total fertility. Mediating toward high fertility in Jordan are a high proportion of people married, infrequent marital dissolution, high fecundability, short lactational amenorrhea, low intrauterine mortality, and high reproductive efficiency.

However, even when these other factors are taken into account, fertility in Jordan is still approximately 10% higher than expected. This discrepancy is likely due to overreporting of recent period of fertility and of current contraceptive usage. The authors recommend that the next fertility survey be a refined version of the 1976 Jordan Fertility Survey rather than the contraceptive prevalence survey favored by A.I.D.

Attached are a technical assistance report to USAID/J on data analysis problems at selected Jordanian research centers, and a report on technical assistance provided to the University of Jordan's Community Medicine Department.

- Phillips, James F. "Continued Use of Contraception among Philippine Family Planning Acceptors: A Multivariate Analysis," Studies in Family Planning, Vol. 9, No. 7, 1978, pp. 182-192.
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- Prema, K. and M. Ravindranath. "The Effect of Breastfeeding Supplements on the Return of Fertility," Studies in Family Planning, Vol. 13, No. 10, pp. 293-296.
- Puffer, Ruth R. Infant and Childhood Mortality in Indonesia. Paper presented at a Seminar on October 19, 1983 at The National Institute for Health Research and Development, Jakarta, Indonesia. 42 pp.
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- Rahman, Makhlisur, et al. "Contraceptive Distribution in Bangladesh: Some Lessons Learned." Studies in Family Planning, Vol. 11, No. 6, 1980, pp. 191-201.
- Reed, Fred W. "Family Planning Communication Research Possibilities in Indonesia," Maja-lah demografi Indonesia, tah. 9, no. 17, Juni 1982, pp. 53-63.

There has been a trend that most family planning communication programs are "flying blind." Decisions about what materials to produce are usually made without the benefit of systematic information about potential audiences. The purpose of this paper is to offer some ideas and guidelines for family planning communication research in Indonesia for the next few years. The needed research falls into three categories: (a) research to establish current levels of information, attitudes, motivation, legitimacy and involvement of various important audiences, (b) research on public relations and broad market strategy and (c) research on basic social science information about community structure, influence in communities, norm sending and the training process leading to attitudes and beliefs about family size, sex and reproduction.

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- Rohde, Jon E. Training Course for Village Nutrition Programs. 1977. 27 pp.
- Rohde, Jon E. and Robert S. Northrup. Mother as the Basic Health Worker: Training Her and Her Trainers. Yogyakarta: Rockefeller Foundation, May 1977. 40 pp. Presented at Bellagio Consultation: New Type of Basic Health Services World Wide and the Implication for the Education of other Health Care Professionals.
- Ross, John A. and Douglas H. Huber. "Acceptance and Prevalence of Vasectomy in Developing Countries," Studies in Family Planning, Vol. 14, No. 3, 1983, pp. 67-72.
- Rulison, Michael. Topical Investigation and Analysis of Nutritional Supplements in Family Planning Programs in India and Pakistan. Research Triangle Park, North Carolina: Research Triangle Institute, 1970. (For Near East/South Asia Office of Population Programs under U.S. Agency for International Development NES/460).
- Sadashivaiah, K. "Contraceptive Research on the Value and Cost of Children," Journal of Family Welfare, Vol. 28, No. 4, June 1982, pp. 25-32.
- Saeradji, Budi, et al. Contraceptive Use in Java-Bali: a Multivariate Analysis of the Determinants of Contraceptive Use. World Fertility Survey #24, February 1982. 24 pp. (PN-AAK-762/AID/CSD-3606.)
- Sahn, David E. Expanding the National Nutrition Program in Lombok (Indonesia)--Recommendations for Program Planning and Policy Making. Ann Arbor: Community Systems Foundation, 1983.
- Sahn, David E., Richard Lockwood, and Nevin S. Scrimshaw, Eds. Methods for the Evaluation of the Impact of Food and Nutrition Programmes. United Nations University, Tokyo, 1984.

Sahn, David E. and Robert M. Pestronk. A Review of Issues in Nutrition Program Evaluation. Washington, D. C.: A.I.D. Program Evaluation Discussion Paper No. 10, July 1981. 220 pp.

Saksena, Devendra N. Family Planning and Health Work at the Grass Roots: Some Issues and New Found Concerns in the Indian Context. Series C--Occasional Paper No. 20. Lucknow, India: Population Research Centre, Dept. of Economics, Lucknow University, 1979. 46 pp.

Salaff, Janet W. and Aline K. Wong. "Planning Birth for a Better Life: The Socioeconomic Bases and Policy Programs Underlying the Decline in Fertility in Singapore," American Sociological Association Conference Paper, 1983.

Singapore has begun an ambitious industrialization program accompanied by widely available social services to upgrade the quality of life with regard to industry, and to energize a market economy. Like other developing nations attempting to amass capital and reduce deep poverty, Singapore seeks to lower the population growth rate. Parents with fewer children can afford to buy more goods and services and raise their family living standard. They can better exploit social services (buy a public sector home, health care, and more schooling for each child), and improve the quality of the labor force. Thus, while promoting transnational corporation-led industrialization, Singapore also instituted penalties for large families. Attempts to reduce the size and costs of a dependent populace prompted a series of "disincentives" that restrict available social services to parents who bore their fourth or higher parity child after 1973. The effectiveness of the Singapore program is examined on the basis of interview data from 100 young Chinese couples. Findings show that many lower class families tend to have more children despite the socioeconomic disadvantages because they depend on family ties for many social needs.

Sangal, Satya Prakash. "Health and Family Planning Services for a Growing Population; A Prediction Model of Family Planning Acceptance and Its Implication for Health Services in Rural India." Dissertation. Ann Arbor, Michigan: University Microfilms, 1973.

Sastroamidjojo, Soemilah. "The Nutrition Component in the Integrated Project," Fifth Conference of the Asian Parasite Control Organization--the Integrated Family Planning Project--November 6-10, 1978. Tokyo, Japan: Proceedings, Asian Parasite Control Organization, 1979, pp. 267-278.

Sawhney, Nirmal and Navin Kuman Srivastava. "An Approach to Accelerate Acceptance of Family Planning Services in Rural Areas," PopCen Newsletter, Vol. 5, No. 3, June-July 1979, pp. 7-12.

Sebastian, E. V. "Integration of Family Planning with Maternal and Child Health, Nutrition and General Health Services," Population, Development and the Environment; Report of the Proceedings of the Indian Ocean Region Conference of the International Planned Parenthood Federation, Bombay, India, Dec. 9-15, 1972. Family Planning Association of India, 1973, pp. 102-107.

Selowski, Marcelo and Lance Taylor. The Economics of Malnourished Children: A Study of Disinvestment in Human Capital. Minneapolis: University of Minnesota, Prepared for USAID, December 1971.

If infant nutrition has an effect on the individual's future economic productivity, it represents one of the ways in which human capital formation affects income distribution--at least within limits imposed by race, class and other structures. However, infant nutrition has characteristics which sharply differentiate it from other types of investment in human capital, i.e., formal schooling, on the job training, etc.

First, infant malnutrition can hardly be compensated by later investment in human capital. On the job training is a much better substitute for a deficit in years of schooling than a deficit in preschool IQ.

Second, investments in human capital made later in life can, as a policy matter, be encouraged by improvements in capital markets (e.g., loans for high school or college education). This is not true for earlier investments in human capital, which are mainly determined by the family's income level. The most practical remedy for infant malnutrition is a redistribution of income toward the infant and his family; the cost of not undertaking this redistribution now is massive disinvestment in early human capital formation, and perhaps greatly increased distributional problems with a low income, low productivity segment of the population in the future.

Schima, Marilyn E., et al. Voluntary Sterilization: A Decade of Achievement. 283 pp. (PN-AAK-678/AID/PHA-G1128.)

Schutjer, Wayne, C. Shanon Stokes, and Gretchen Cornwell. "Relationships Among Land, Tenancy, and Fertility: A Study of Philippine Barrios," Journal of Developing Areas, Vol. 15, No. 1, October 1980, pp. 83-96.

Scrimshaw, Susan. Guidelines for Analysis of Indigenous and Private Health Care Planning in Developing Countries. Stanford Research Institute, E. H. White Company, International Health Planning Methods Series, Vol. 6, 1979. 47 pp. 931006700. RE/HEW/OIH-01-74.

To integrate health planning into overall economic planning, developing nations must assess the health care provided outside the public sector by indigenous (traditional) and by private, Western-trained practitioners. This manual provides a framework for such an assessment.

Chapter one summarizes the major reasons for including non-public health care providers in the total health sector assessment, e.g., a highly developed health infrastructure is frequently lacking and the deeply ingrained cultural health beliefs of the people minimize the applicability of Western medicine.

After detailing the nature and importance of such belief systems, a typology of indigenous and Western-oriented health practitioners is presented in terms of their curing roles (including specialization, selection and training, certification, professional image, expectation of payment, and "use" of supranatural powers) and their method of interacting with their patients. A brief discussion of health decision-making patterns indicates that the use of multiple health practitioners, when available, is common.

In the third chapter, the use of multiple practitioners is advocated as a way of integrating indigenous and Western-oriented health systems. Various approaches to integration--adaptation, accommodation, competition, replacement, and addition--are discussed.

Chapter four provides a methodology for a total health sector assessment. The first step is to explore existing knowledge and resources and includes gaining impressions from the community by consulting experts, reviewing social statistics, and taking community surveys. In the last-named, suggestions are given on the development of questionnaires and sampling methods and on selection and training of interviewers. For actual data collection and analysis, an outline of data to be gathered is provided along with recommendations for analysis and summarization. The author concludes that indigenous and private practitioners must be incorporated into developing country health care systems if the United Nations goal of minimal health services for all by the year 2000 is to be met.

A 40-item reference list (1955-78) is appended.

The Second Round (1981) of the East Java (Indonesia) Population Survey: A Summary of Results. Chapel Hill: University of North Carolina, International Program of Laboratories for Population Statistics, 1983.

Setiadi, Bernadette N. "The Relationship Between Selected Socio-Psychological Variables and the Decision to Practice Family Planning, Jakarta." In Population Change in Southeast Asia. Ed. Wilfredo F. Arce and Gabriel C. Alvarez. Singapore: Institute of Southeast Asian Studies, 1983, pp. 209-225.

Sikes, O. J. "Family Planning Perspectives," Populi, Vol. 9, No. 2, 1982, pp. 25-28.

Simmons, Ruth, Gayl Ness, and George B. Simmons. "On the Institutional Analysis of a Population Program," Population and Development Review, Vol. 3, Sept. 1983, pp. 457-474.

Simpson-Hebert, Mayling. "Special People as Midwives," Populi, Vol. 9, No. 2, 1982, pp. 34-37.

The Sixth Asian Parasite Control Conference--the Integrated Family Planning Project: Proceedings. Kuala Lumpur and Fraser's Hill, Malaysia, National Family Planning Board, Asian Parasite Control Organization, Japanese Organization for International Cooperation in Family Planning, and International Planned Parenthood Federation, Oct. 2-6, 1979. Tokyo, Japan: Japan Asian Parasite Control Organization, 1980. 331 pp.

Soebekti, R. and E. G. P. Soemartono Haran. "The Relevance of Mojokerto MCH-Family Planning Project to National Policies and Programs," Maternal and Child Health/Family Planning Program Technical Workshop Proceedings, October 31-November 2, 1979, New York City. Edited by Beth S. Atkins, New York, N.Y.: International Programs, Population Council, 1980, pp. 336-339.

Soekanto, Soerjon and Anidal Hasjir. "Community Participation in the Integration Project in Sawahlunto, West Sumatra, Indonesia," Fifth Conference of the Asian Parasite Control Organization--the Integrated Family Planning Project--November 6-10, 1978. Tokyo, Japan: Proceedings, Asian Parasite Control Organization, Organization, 1979, pp. 279-298.

Soeradji, Budi and Sri Harijati Hatmadji. "Contraceptive Use in Java-Bali: A Multivariate Analysis of the Determinants of Contraceptive Use," International Statistical Institute, World Fertility Survey. Scientific Reports, No. 24, Feb. 1982. 24 pp. 932054700. AID/CSD-3606.

Given the success of Indonesia's nascent family planning (FP) program and the ready availability of data, an in-depth study of contraceptive use in Indonesia has been sorely needed. Thus, against a review of population trends and policies in Indonesia, this report analyzes the factors affecting use of efficient methods of contraception.

Applying a multivariate analysis--using demographic, background, and socioeconomic variables--to data drawn from the 1976 Indonesia Fertility Survey, the 1973 Fertility-Mortality Survey, and the 1979 National Socio-Economic Survey, the authors found that 33.5% of exposed women were using efficient methods of contraception in 1976. This proposition, while high in view of the fact that ever-users of efficient methods constituted only 41.5% of exposed women, has been obtained in other countries with relatively new FP programs. However, contraceptive use peaked at ages 20-29 and then declined, possibly due to resistance among older, more traditional women.

In contradiction to previous reports, number of living children (especially sons) was strongly associated with contraceptive use. The desire not to have more children and the attainment of ideal family size were positively related to contraceptive use among 90% of exposed women. The analysis suggests that fertility preferences affect contraceptive use even when the influence of other variables is controlled. Contrary to the usual pattern, contraceptive use was slightly higher in rural than in urban areas, evidence of the FP program's rural strength. Contraceptive use was positively but not strongly linked to education (especially the husband's) and to wife's work experience.

In sum, demographic variables were most important in explaining contraceptive use, followed by background variables (especially province and language) and then by family and fertility variables. Socioeconomic variables had less importance and were often mediated through other variables. The strong regional differentials probably result from variations in the delivery of FP services and supplies or from differences in traditions, norms or infrastructure. Overall, findings indicate the success of the FP program. A list of 17 references (1956-81) and tables of data are provided.

Sommer, Alfred. Nutritional Blindness: Xerophthalmia and Keratomalacia. Keller (Helen): International, Inc.,; U.S. Agency for International Development, Bureau for Science and Technology, Office of Nutrition, 1982. 282 pp. 9310045. AID/TA-C-1321.

One of the oldest known human afflictions, nutritional blindness, remains a major clinical and public health problem. An easily preventable disease, it affects most acutely the depressed populations in developing countries. More than half a million children and countless adults are stricken each year.

The first comprehensive, thoroughly documented book on human xerophthalmia, this text provides a complete description of the pathologic, clinical, and epidemiologic dimensions. Based on an extensive research project in Indonesia, it also gives a full review of other studies and programs for prevention.

Major topics considered include the clinical manifestations of the disease and their evolution and diagnosis; the importance of vitamin A-protein interaction in determining the severity of the disease; factors responsible for corneal destruction; the value of oral vitamin A therapy; and steps and procedures for selecting intervention strategies.

Sixty-seven illustrations--including thirty-two color plates--enhance the text. A valuable reference for ophthalmologists, nutritionists, pediatricians, and public health professionals, the book will have special relevance for those working in developing countries. (Author abstract)

Sommer, Alfred, et al. "Increased Mortality in Children with Mild Vitamin A Deficiency," The Lancet, September 10, 1983, pp. 585-588.

Sommer, Alfred and H. Muhilal. "Nutritional Factors in Corneal Xerophthalmia," Archives of Ophthalmology, Vol. 100, March 1982, pp. 309-403. 9310045. AID/DSAN-CA-0267.

Nutritionally related corneal disease accounts for 250,000 new cases of blindness per year. Although vitamin A deficiency is clearly the basis for punctate keratopathy and corneal xerosis, the relative importance of vitamin A and protein deficiencies in the etiology of severe ulceration and keratomalacia is less certain. To help clarify this relationship, this report describes a study of the nutritional status of 162 patients in Cicendo, Indonesia with cases of keratopathy, ranging from mild xerosis through full-thickness necrosis (keratomalacia).

The patients underwent detailed ophthalmic, pediatric, and bacteriologic examinations. Six nutritional measures were used: prevalence of pedal edema; weight for height; serum levels of albumin, transferrin, vitamin A; and holoretinol binding protein (HRBP). Laboratory and statistical tests are described and variabilities explained.

The study found that even the most severe corneal alterations were compatible with normal indices of protein and anthropometric status, but not with normal serum vitamin A levels. Analysis suggests that interaction between vitamin A and protein status determines cellular adequacy of vitamin A metabolism, which virtually collapses in keratomalacia. Serum levels of HRBP were severely and uniformly depressed in all degrees of corneal involvement. It is concluded that although protein status seems to influence vitamin A metabolism in target cells, vitamin A availability appears to play the dominant role, since massive vitamin A therapy resulted in transient healing of viable corneal tissue. A 38-item list of references (1729-1982) is appended.

Sommer, Alfred, and H. Muhilal, and Ignatius Tarwotjo. "Protein Deficiency and Treatment of Xerophthalmia," Archives of Ophthalmology, Vol. 100, May 1982, pp. 785-787. 9310045. AID/DSAN-CA-0267.

In a controlled clinical trial of massive dose vitamin A therapy for xerophthalmia, holo-retinal-binding protein (holo-RBP) response was related to baseline protein status. Corneal healing was more commonly delayed or transient in children with protein-energy malnutrition (PEM), despite the vast majority achieving holo-RBP levels incompatible with severe corneal destruction. Correction of PEM is essential to ensuring a sustained clinical cure, and repeated massive vitamin A therapy is advisable until it occurs.

Sommer, Alfred and Tjakrasudjatma Sugana. "Corneal Xerophthalmia and Keratomalacia," Keller (Helen) International, Archives of Ophthalmology, Vol. 100, March 1982, pp. 404-411. 931004500. AID/DSAN-CA-0267.

Of the 5 million Asian children estimated to develop xerophthalmia each year, half a million develop substantial corneal involvement and a quarter of a million go blind. Corneal abnormalities include xerosis, xerosis with ulceration, keratomalacia (softening and ulceration), and scarring. Precise description of these changes and of their causes and pathogenesis has been limited by the lack of studies covering the full spectrum of the disease on large numbers of young children.

In the study reported here, 162 children (aged 1 month to 12 years) admitted consecutively to the Cicendo Eye Hospital in Bandung, Indonesia, with nutritional keratopathy (in degrees of severity inversely related to age) underwent detailed ophthalmic and pediatric examinations. Surface changes ranged from mild haziness through generalized xerosis and formation of thickened, keratinized plaques. Diffuse stromal edema occurred early in the disease. Stromal loss took two forms: relatively small, sharply demarcated, eccentric, non-infiltrated cylindrical ulcers of varying depth; and localized or generalized, usually full-thickness, necrosis. Sometimes all forms of involvement were present in the same individual and even the same eye. Traumatic separation of a keratinized plaque or decomposition of a dellen accounted for some instances of stromal barring, while in other cases, stromal melting appeared to progress below an intact epithelium.

Disturbed Vitamin A metabolism seems to lie at the heart of the problem. It also appears that unique mechanisms, besides the more obvious surface changes, account for some of the corneal changes in Vitamin-A deficient children and that primary and secondary infection have little involvement, despite reports to the contrary. All the children received massive doses of Vitamin A, either alone or together with supportive therapy, and the vast majority retained central corneal clarity in at least one eye. This favorable course is largely related to the focal, eccentric nature of early stromal loss. In many cases the area of irreversible damage is more limited than it initially appears, although the outlook is dismal for those with complete bilateral corneal necrosis.

Included are 24 color photographs depicting corneal abnormalities and 38 references (1729-1981).

Somphong Shevasunt and Dennis P. Hogan. Fertility and Family Planning in Rural Northern Thailand. Chicago: The Community and Family Study Center, The University of Chicago and the Faculty of Social Sciences and Faculty of Medicine, Chiang Mai University, 1979.

Somphong Shevasunt, Dennis P. Hogan, and Kwanchai Thai hong. "Fertility and Family Planning in Rural Northern Thailand," Studies in Family Planning, Vol. 9, No. 8, 1978, pp. 212-221.

Srinivasan, K. "Integration of Nutrition with Family Planning Programme," Population Centre--Bangalore Newsletter, Vol. 2, No. 2, Mar.-Apr. 1976, pp. 5-11.

Srivastava, J. N. "Socio-economic Determinants of Family Planning Acceptance in Madhya Pradesh," Demography India, Vol. 8, No. 1-2, Jan.-Dec. 1979, pp. 54-165.

Stinson, Wayne S., et al. "The Demographic Impact of the Contraceptive Distribution Project in Matlab, Bangladesh," Studies in Family Planning, Vol. 13, No. 5, 1982, pp. 141-148.

Stoeckel, John, R. Chowdhury and A. K. M. Alauddin. "Fertility and Socio-Economic Status in Rural Bangladesh: Differentials and Linkages," Population Studies, Vol. 34, No. 3, Nov. 1980, pp. 519-524. (United Kingdom)

Socioeconomic status differentials in fertility are examined using data collected from a daily registration system covering 117,000 persons in 132 villages of Matlab Thana, rural Bangladesh, during the period 1968-1970/71. The findings indicate that fertility was generally higher among women of higher socioeconomic status and the relation of SES to the intermediate variables is discussed as providing the linkages with high fertility. These include health status, breastfeeding, the enforcement of 'purdah', and migration.

Sullivan, J.M., et al. The Collection of Birth and Death Data: POPLAB Approaches. Chapel Hill: University of North Carolina, International Program of Laboratories for Population Statistics, 1981. Scientific Report Series No. 34.

Sullivan, J.M. and S.E. Wilson. The 1980 Baseline Round of the East Java Population Survey: A Final Report. Jakarta: Government of Indonesia, Central Bureau of Statistics, 1982. Technical Report No. 1.

Sullivan, J.M. and S.E. Wilson. The Second Round (1981) of the East Java Population Survey: A Final Report. Jakarta: Government of Indonesia, Central Bureau of Statistics, 1983. Technical Report No. 1.

Sumantri, S. and E. G. P. Soemartono Haran. "Information on the Health and Family Planning Context in Mojokerto," Maternal and Child Health/Family Planning Program Technical Workshop Proceedings, October 31-November 2, 1979, New York City. Edited by Beth S. Atkins. New York, N.Y.: International Programs, Population Council, 1980, pp. 177-187.

Surjaningrat, Suwardjono, et al. "Indonesia: East Asia Review 1978-79," Studies in Family Planning, Vol. 11, No. 11, 1980, pp. 320-324.

Surjaningrat, Suwardjono, Haryono Suyono, and J. S. Parsons. "Indonesia: East Asia Review, 1976-77," Studies in Family Planning, Vol. 9, No. 9, 1978, pp. 235-237.

- Sutoto, N. and E. G. P. Soemartono Haran. "Innovations in Service Delivery in the Mojokerto Project: A Village Based Network," Maternal and Child Health/Family Planning Program Technical Workshop Proceedings, October 31-November 2, 1979, New York City. Edited by Beth S. Atkins. New York, N.Y.: International Programs, Population Council, 1980, pp. 164-166.
- Suyono, Haryono. "Integrated Approach on Family Planning, Parasite Control and Nutrition," Fifth Conference of the Asian Parasite Control Organization--the Integrated Family Planning Project--November 6-10, 1978. Tokyo, Japan: Proceedings, Asian Parasite Control Organization, 1979, pp. 262-266.
- Suyono, Haryono, et al. "Family Planning Attitudes in Urban Indonesia: Findings from Focus Group Research," Studies in Family Planning, Vol. 12, No. 12, 1981, pp. 433-442.
- This article reports the findings of a research project, executed in the city of Jakarta. Because figures show that cities lag behind in contraceptive prevalence as compared to rural areas, BKKBN planners decided to develop a new strategy for urban family planning efforts. Research to prepare this was delegated to a commercial opinion-research firm. A program for focus group research was set up. The group interviews, held in an informal and anonymous setting, yielded sometimes surprising results.
- Suyono, Haryono and Thomas H. Reese, III. "Integrating Village Family Planning and Primary Health Services--the Indonesian Perspective," Fifth Conference of the Asian Parasite Control Organization--the Integrated Family Planning Project--November 6-10, 1978. Tokyo, Japan: Proceedings, Asian Parasite Control Organization, 1979, pp. 235-261.
- Swenson, Ingrid E. and Paul A. Harper. "The Relationship Between Fetal Wastage and Pregnancy Spacing in Bangladesh," Social Biology, Vol. 25, No. 3, Fall 1978, pp. 251-257.
- Syahrudin. Fertility Determinants in Sumatra. SEAPRAP, 1980. Research Report #44.
- Tabatabai, Hamid. Analytical Methods For Nutritional and Socio-economic Data. Ithaca, N.Y.: Cornell Nutritional Surveillance Program, Working Paper Series, No. 4, April 1983. 102 pp.
- Tabatabai, Hamid, et al. Changes in Nutritional Status in the Philippines from 1979 to 1980. Ithaca, N.Y.: Cornell Nutritional Surveillance Program, Working Paper Series, No. 13, October 1982. 16 pp. Tables.
- Tabatabai, Hamid, et al. Methods Used to Identify Priority Municipalities for Intervention Based on Operation Timbang and Socio-economic Data. Ithaca, N.Y.: Cornell Nutritional Surveillance Program, Working Paper Series, No. 7, September 1982. 20 pp. Tables.

Tabor, Steven, et al. Static and Dynamic Poverty Indicators: An Indonesian Example. Ithaca, N.Y.: Cornell Nutritional Surveillance Program, Working Paper Series, No. 9, May 1983.

This survey was conducted from July 1, 1983 to November 30, 1983. The objective of the survey was to formulate a growth plan for BKKBN's hardware, software and computer personnel to meet BKKBN's increasing computing needs in the next five years. In the hardware area, particular attention must be paid to problems of compatibility with the currently existing computer. Computing needs in the provinces as well as the degree of support existing in the provinces must also be considered in weighing the pros and cons of decentralization versus centralization strategies. Software needs include new software for the existing machine and for the machines being planned. In the personnel area, recruitment and training requirements (including short term training abroad and locally and long term training abroad) will be needed to support the growth in hardware and software.

Tanuwidjaja, Suganda, Emelia Suroto-Hamzah, and Anna Alisjahbana. Perinatal Mortality and Morbidity Survey and Low Birth Weight. Final Report III: Birthweight Distribution and Perinatal Mortality in Hospitals and Maternity Clinics in the Municipality of Bandung. Bandung: Fakultas Kedokteran Universitas Padjadjaran, April 1983.

Taylor, Howard Canning, Jr. and Allan G. Rosenfield. "A Family Planning Program Based on Maternal and Child Health Services," American Journal of Obstetrics and Gynecology, Vol. 120, No. 6, Nov. 15, 1974, pp. 733-745.

Teachman, Jay D., et al. "Continuation of Contraception on Java-Bali: Preliminary Results from the Quarterly Acceptor Survey," Studies in Family Planning, Vol. 11, No. 4, 1980, pp. 134-144.

Teachman, Jay D. and Pudjo Rahardjo. "Contraceptive Delivery Systems: An Evaluation of Clinic vs. Village in Indonesia," Evaluation Review, Vol. 4, No. 1, February 1980, pp. 75-92.

A major goal of community-based contraceptive delivery systems is to increase contraceptive prevalence among eligible women. This goal may be accomplished by recruiting more acceptors, increasing the duration of contraceptive use, or both. After a brief discussion of Indonesia's family planning program, evidence is provided that its village-based system is more successful than its clinic-based system in stimulating women to use contraception longer. This is especially true when comparing the effects of contraceptive resupply in the village versus that in the clinic. The advantage of the village becomes stronger after instituting controls for other factors which could influence contraceptive motivation.

Termsri Chumnijarakij, et al. "Factors Associated with Family Planning Acceptance in Bangkok Metropolis Health Clinic Areas (MHCs)," Contraception, Vol. 23, No. 5, May 1981, pp. 517-525.

Termsri Chumnijarakij, et al. "A Study of Contraceptive Choice and Use in Bangkok Metropolis Health Clinics," Contraception, Vol. 24, No. 3, Sept. 1981, pp. 45-258.

Thailand Population Research Inventory. Bangkok, Thailand: Population Clearing-House/Documentation Centre, Family Health Division, Ministry of Public Health, 1981. 61 pp.

Tien, Tan Soei.. Report on BKKBN's Computing Needs for the Next Five Years. Jakarta: USAID, February 1984.

Timmons, Robert J., Roy I. Miller, and William D. Drake. Targeting: A Means to Better Intervention. Ann Arbor: Community Systems Foundation, November 1983. 72 pp. Appendices.

In the last decade, humanitarian goals have played an increasing role in shaping the American non-military foreign assistance program. During this time, the United States Congress issued a mandate to channel resources to the neediest segments of the populations of the poorest countries in the world. Confronted with a growing emphasis on humanitarian concerns, the United States Agency for International Development (USAID) has developed methods of selecting beneficiaries from large population groups, that is, methods of targeting.

This document is the product of a major effort to consolidate our knowledge of the complex issues which confound the selection of an appropriate targeting strategy for a nutrition intervention. The paper draws from the literature, from a quantitative analysis, and from a decade of experience in nutrition planning to identify the costs and benefits of various targeting schemes. Supplementary feeding programs are emphasized in our discussion, especially in relation to maternal and child health projects.

Three broad categories of targeting schemes encompass all specific targeting strategies: targeting based upon geographic locations, targeting based on socioeconomic conditions of the family, and targeting based upon the characteristics of the individual child. From over twenty specific targeting strategies, ten of the most widely used schemes were selected for intensive analysis.

Data on over eight thousand children participating in nutrition programs in five different countries were monitored over time. Nutritional status for each child was observed longitudinally. Each specific targeting strategy was tested on every child. Results of these runs were then classified by type of targeting strategy.

Data on program costs were gathered from case studies and other reports. Program costs were subdivided into broad categories and data from each case study were assigned to the appropriate category.

Regardless of which targeting strategy is selected and no matter how well the scheme is implemented, there is a surprisingly large percentage of children who are not included in the program but who should have been based upon their ensuing nutritional status. We call this an error of exclusion. Depending on the local conditions and the targeting strategy employed, this exclusion error can be as high as 20.1%.

Similarly, regardless of the targeting strategy, there is a significant number of children included in the program who, in retrospect, probably did not need the services provided by the program. We call this an error of inclusion. Depending on the local conditions and targeting strategy employed, this inclusion error was as high as 84.1%.

Perhaps the most meaningful measure of any given targeting strategy is its error of exclusion (missed at-risk children) taken together with its error of inclusion (included children, not at-risk).

Results show that the most effective targeting strategy depends heavily on the amount of malnutrition in the population. When the amount (prevalence) is high, strategies which try to discriminate among families or among children within a particular community are less effective. On the other hand, when prevalence is low, the reverse is true.

Another critical determinant of the best targeting strategy is the amount of existing infrastructure in the region. If there is an ongoing program which is to receive supplementary feeding, targeting to individual children is more likely to be reasonable. The reason for this tendency is the relatively high cost of implementing a "stand-alone" targeting strategy.

Finally, the nature of the stated objectives of the local program, especially the relative emphasis between prevention and cure, influences the selection of the most appropriate targeting strategy. Use of anthropometrics is most appropriate for curative programs and child age is most appropriate for preventive programs. In neither instance is socioeconomic targeting within a community very helpful in isolating those preschoolers in need or at extreme risk of malnutrition from those who are more nutritionally well. Finally, in all cases, geographic targeting based on existing data and/or existing knowledge of a region is a useful first step.

Results of the cost analysis show that there is an extremely wide range of variation in relative cost within each category. For instance, commodity costs represent anywhere from 42 to 83 percent of the total program cost. Similarly, transportation, storage and handling costs can vary from 4 to 50 percent of the total. Variation in cost is due in part to supplement distribution distance and size and method of feeding but perhaps more importantly to the amount of infrastructure available for distribution and local program operation. For instance, in some cases in Africa, transportation cost per ton-kilometer varies fivefold -between \$.10 and \$.49.

Two tables which enumerate program cost elements in general, and targeting strategy costs in particular, are provided to help program planners include all relevant costs.

In order to embrace cost considerations, local conditions and the efficacy of different targeting strategies, twelve distinct scenarios were formulated. These scenarios encompass all possible situations which could be found in a country: high to low malnutrition prevalence, minimal to substantial logistical infrastructure and minimal to substantial on-site infrastructure. For each scenario, suggestions are made regarding the most appropriate targeting strategies.

Beyond the aforementioned specific recommendations there are two universal recommendations which may have especially significant policy implications:

- It is perhaps self evident that the most appropriate and cost-effective strategy varies dramatically depending upon the stated program goals and objectives, the specific observed rate of malnutrition, the country, the state of existing logistical infrastructure, and the status of on-site infrastructure. It may therefore be quite inappropriate to have specific guidelines which do not respond to these local, context specific conditions.
- The second general implication which can be derived from this study is an outgrowth of the large exclusion errors which were observed in the analysis phase of the study. To define at-risk populations as only those which have already been identified as malnourished ignores the dynamic nature of conditions in the developing world. Rather, at-risk populations should include those young children who may not be malnourished but who, because of age and environmental conditions, have a high likelihood of becoming malnourished.

Tsui, Amy, et al. Illustrative Functional Projections, 1975-2000: Indonesia. Chicago, Ill.: University of Chicago, Community and Family Study Center, 1979. 47 pp.

Tuladhar, J. M. and John Stoeckel. "The Relative Impacts of Vertical and Integrated FP/MCH Programs in Rural, Nepal," Studies in Family Planning, Vol. 13, No. 10, 1982, pp. 275-286.

Underwood, Barbara A. Supplementary Feeding Programs in Indonesia. A Home and Village Prepared Weaning Foods Project Consultant's Report, International Food and Nutrition Program, M.I.T., December 1982.

United Nations. Activating Inter-related links in Population, Food, and Nutrition Programmes: Theory and Practice. U.N. Economic and Social Commission for Asia and the Pacific, Bangkok, Thailand Division of Population, 1980. 36 pp.

United Nations Fund for Population Activities. Republic of Indonesia: Report of Mission on Needs Assessment for Population Assistance. New York, N.Y.: United Nations Fund for Population Activities Report no. 20, 1979. 189 pp.

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- Williamson, Nancy E. "An Attempt to Reduce Infant and Child Mortality in Bohol, Philippines," Studies in Family Planning, Vol. 13, No. 4, 1982, pp. 106-117.
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- Wilson, Stephen E. and Arjun L. Adlakha. The Third Round (1982) of the East Java (Indonesia) Population Survey: A Summary of Results. Chapel Hill: International Program of Laboratories for Population Statistics, The University of North Carolina, February 1984.
- The East Java Population Survey (EJPS) was a longitudinal survey designed to estimate demographic parameters of East Java's population, with special emphasis on the estimation of fertility and mortality rates. The survey consisted of three rounds of fieldwork, each round separated by a period of approximately one year. In each round, persons living in a sample of approximately 20,000 households were interviewed. Basically, the same households were involved in each round of the survey.
- Winikoff, Beverly. "The Effects of Birth Spacing on Child and Maternal Health," Studies in Family Planning, Vol. 14, No. 10, 1983, pp. 231-245.

Wiraman, Dewa Nyoman, I. Komang Gunung, and N. T. Suryadhi. Evaluasi Proses Progra... Terpadu KB-Gizi Propinsi Bali. Bagian Ilmu Kesehatan Masyarakat Fakultas Kedokteran, Universitas Udayana, Desember 1982. Bali Mid-Project Evaluation. Summary and Recommendations in English.

Yatim, Masitah Mohd. Evaluation of the Malaysian Fertility and Family Survey 1974. International Statistical Institute, World Fertility Survey. Scientific Reports, No. 27, Feb. 1982. 34 pp. 931054700. AID/CSD-3606.

The Malaysian Fertility and Family Survey (MFFS), conducted in 1974-75 as part of an international study of human fertility and reproductive behavior, obtained reliable data on age distribution, nuptiality, fertility, and infant and child mortality in West or Peninsular Malaysia. Using tests of internal consistency and checks against external data sources, this report evaluates the quality of the MFFS data.

Overall, the MFFS survey age distribution is close to that of the 1970 census, although age heaping among females is slightly more prominent in the MFFS. Education and ethnicity influence age reporting--heaping is higher among uneducated females and Malays and lower among educated females and the Chinese. Age misreporting is not a significant problem in the MFFS; of those surveyed, 97.3% reported the same age in both the household and individual schedules.

Although 62% of respondents provided the month and calendar year of their first marriage, some heaping is evident in the distribution of the year of and age at first marriage at dates associated with important national events, a trend even more common among illiterate women. The data indicate a trend of rising age at first marriage that is consistent and plausible.

In evaluating MFFS fertility information, both cohort-period rates and current levels and recent trends in fertility were studied. The MFFS and census estimates of mean parity across age groups were very similar and in both cases increased with older age groups. Some minor discrepancies were found between MFFS age-specific fertility rates and those in the vital registration, but total fertility rates were similar. It was also observed that age-specific and total fertility rates were declining in a consistent manner as were fertility rates for cohorts and periods. A similar picture was obtained through the P/F ratio and birth order techniques, thus further confirming the reliability of the MFFS data.

Both the MFFS and the vital registration showed a declining trend in the probability of infant and child mortality. However, infant mortality was lower and child mortality higher in the MFFS than in the vital registration; it is not clear which source is in error. Further analysis by period and age at maternity revealed no systematic deficiencies in the data.

Yoddumnern, Bencha. "Premarital Use of Family Planning Effects of Age at Marriage." Edited version. Singapore: SEAPRAP, 1981. 29 pp., (SEAPRAP research report #50).

Zeitlin, Marian F., et al. Nutrition and Population Growth: The Delicate Balance. West Germany: Oelgeschlager, Gunn & Hain, Publishers, Inc., 1982.

This report on nutrition-fertility interactions accomplishes three goals. First, it synthesizes recent research findings in areas where controversy continues because underlying physiological and psychosocial phenomena still are poorly understood. Second, it brings together in one volume a consideration of the different levels of nutrition-fertility interaction that have simultaneous and interlocking implications for policy formation and program design. Finally, it defines the program design implications of these interactions in terms that can be understood at the program operational level. The book also contains an extensive and up-to-date annotated bibliography of nutrition-fertility interactions in developing countries.

APPENDIX--I

References which appear in Laporan Pertemuan Kerja Teknis Evaluasi Program Terpadu KB-GIZI, Jakarta, 8-10 Desember 1983. Some duplication of citations exists.

APPENDIX--II

A collection of materials on population education from UNESCO Regional Office for Education in Asia and the Pacific, Bangkok, Thailand (26 documents from 1976 through 1983).