

**MIDTERM EVALUATION OF THE
DEMOGRAPHIC AND HEALTH SURVEYS
PROJECT (DHS-III)
(936-3023)**

POPTECH Report No. 95-058-036
May 1996

by

James R. Brady
Stan Becker
John G. Haaga
Sally K. Stansfield

Prepared for

U.S. Agency for International Development
Bureau for Global Programs
Office of Population
Contract No. CCP-3024-Q-00-3012
Project No. 936-3024

Edited and Produced by

Population Technical Assistance Project
1611 North Kent Street, Suite 508
Arlington, VA 22209, USA
Phone: 703/247/8630
Fax: 703/247/8640
E-mail: poptech@bhm.com

TABLE OF CONTENTS

PROJECT IDENTIFICATION DATA.....	v
ABBREVIATIONS	vii
EXECUTIVE SUMMARY	ix

SUMMARY OF PRINCIPAL RECOMMENDATIONS	xiii
1. PROJECT BACKGROUND	1
1.1 DHS Continuity Over Time (1984-95).....	1
1.2 DHS's Contribution to Economic Development	1
1.3 New Priorities Under DHS-III.....	2
1.4 Current Trends Affecting the DHS Project	3
2. SCOPE AND METHODS OF THE EVALUATION	5
2.1 Purpose and Scope of the Evaluation.....	5
2.2 Evaluation Approach.....	5
3. DHS METHODOLOGY ASSESSMENT AND DEVELOPMENT	7
3.1 Review of Core Questionnaires	7
3.1.1 Review of Calendar.....	7
3.1.2 Review of Birth History/Birth Displacement.....	7
3.1.3 Use of Birth History Versus Pregnancy History.....	8
3.1.4 Immunization Data.....	8
3.2 Review of Existing Supplemental Modules	9
3.2.1 Service Availability Module	9
3.2.2 Maternal Mortality Estimates	10
3.3 Methodology Development and Improvement	10
3.3.1 Development of New Modules.....	10
3.3.2 Collecting More Health Data	11
3.3.3 Panel Surveys	11
3.3.4 Use of Global Positioning Systems.....	11
3.3.5 Increased Use of Qualitative Methods.....	12
4. SURVEY IMPLEMENTATION.....	13
4.1 Design and Completion of Regular Surveys	13
4.2 Survey Implementation Organizations.....	14
4.3 Responding to Local Survey Needs	18
4.4 Quality Assurance in Sampling	19

4.5	Data Processing.....	19
4.6	Data Quality Tables.....	20
4.7	Computer-aided Field Editing.....	20
4.8	Use of ISSA Software for Data Entry and Processing.....	21
4.9	Other Data Quality Issues.....	21
5.	DISSEMINATION OF SURVEY RESULTS.....	23
5.1	The Mandate to Increase Post-survey Activities Under DHS-III.....	23
5.2	Increasing Dissemination Media.....	25
5.3	Incorporating a Dissemination Strategy into the Survey Design.....	26
5.4	Involving More Communication and Dissemination Specialists in DHS.....	26
5.5	Other DHS Dissemination Activities.....	28
5.6	DHS Central and Regional Archives.....	29
5.6.1	The Central DHS Archive at Macro Inc., Maryland.....	29
5.6.2	Regional Data Depositories.....	30
5.7	Using Electronic Media for Dissemination.....	30
6.	SPECIAL SURVEYS OR IN-DEPTH STUDIES.....	33
7.	FURTHER ANALYSIS.....	35
7.1	Planning and Contract Support for In-country Analysis.....	35
7.2	Provision of Special Tabulations to Support Further Analysis.....	36
7.3	Publications Related to Further Analysis.....	37
7.4	Leveraging Support for Local Analysts.....	38
8.	USE OF DHS DATA FOR POLICY AND PLANNING.....	43
8.1	Impact of the High Quality of DHS Surveys on Data Use.....	43
8.2	Illustrative DHS Uses by Major Customers.....	43
8.2.1	Use by USAID and Other International Organizations.....	43
8.2.2	Use of DHS by National and Regional Policy-makers.....	44
8.2.3	DHS Use by Local and International Researchers.....	46
8.3	Improving DHS User Software.....	47
8.4	Providing Better Information on DHS Services and Costs.....	47
8.5	Reaching More Potential DHS Users Outside the Population Field.....	48
8.6	Addressing the Program Managers' Need for "Scorecard" Data.....	49

8.6.1	Reviewing the Operational Use of DHS Survey Items	49
8.6.2	The Growing Demand for Program Impact Data	50
9.	LOCAL CAPACITY-BUILDING	53
9.1	Differing Perceptions of Capacity-building Requirements	53
9.2	Status of Contract Activities Funded Under "Capacity-building"	53
9.3	Capacity-building as a By-product of Survey Implementation	55
9.4	Elements of a Capacity-building Strategy	56
9.4.1	Realigning DHS Country and Task Priorities	56
9.4.2	Focusing on DHS Organizational Networks Rather Than Individual Agencies	58
9.4.3	Linking Training, TA, and Organizational Development	58
10.	CONTRACT MANAGEMENT	61
10.1	Performance Measurement Under the DHS-III Contract	61
10.1.1	The Core Contract as the Baseline for Measuring Performance	61
10.1.2	The Need for a Task Scheduling Review	61
10.1.3	The Key Issue of Survey Quality	63
10.2	Simplifying Contract Administration Procedures	65
11.	CONCLUDING REMARKS	67
12.	SUGGESTIONS FOR FUTURE SURVEY PROGRAMS	69
12.1	A New Planning Framework or Paradigm	69
12.2	Flexible Use of USAID Direct Contracts and Grants	70
12.3	A Multilateral Approach to Future Measurement Programs	71
12.3.1	Designing Structures That Will Attract Other Resources	72
12.3.2	USAID's Leadership Role in an International Approach	72
12.3.3	Creating International and Local Survey Talent Pools	76

APPENDICES

- A. Evaluation Scope of Work
- B. List of Contacts
- C. Selected References
- D. List of DHS Working Papers

PROJECT IDENTIFICATION DATA

1. Scope: Worldwide
2. Project Title: Demographic and Health Surveys (DHS-III)
3. Project Number: 936-3023
4. Contract Number: CCP-3023-C-00-2012-00
CCP-3023-Q-00-2013-00
5. Critical Project Dates:

Contract Signed: September 30, 1992
Final Obligation: FY 2000
Project Assistance
Completion Date: December 31, 2001
6. Project Funding:

Five-year Contract: \$43,964,568 (Core)
\$ 6,077,599 (Buy-ins as of 11/95)
7. Implementation Mode: Contract between the Office of Population
(G/PHN/POP/P&E) and Macro International, Inc.
8. Contractor: Macro International, Inc.
11785 Beltsville Drive, Suite 500
Calverton, MD 20705-3119
9. Subcontractors: Various
10. USAID Project Staff: Ellen Starbird, CTO
Rodney Knight, Technical Advisor
G/PHN/POP/P&E, Room 711, SA-18
Beth Plowman, Technical Advisor
G/PHN/HN, Room 720, SA 18
USAID/Washington DC 20523-1819
11. Previous Evaluations: None for DHS-III

ABBREVIATIONS

AIBEF	<i>Association Ivoirienne pour le Bien-être Familial</i> (Ivory Coast)
AIDS	acquired immunodeficiency syndrome
ASBEF	<i>Association Senegalaise pour le Bien-être Miliale Familiale</i> (Senegal)
ASCII	American Standard Code for Information Interchange
BASICS	Basic Support for Institutionalizing Child Survival (project)
CA	Cooperating Agency
CAFE	Computer-aided Field Editing (used in DHS)
CDC	Centers for Disease Control and Prevention (US); Cairo Demographic Center (Egypt)
CELADE	<i>Centro Latino-Americano de Demografia</i> (Chile)
CEPED	<i>Centre de Population et Development</i> (France)
CERPOD	<i>Centre de Recherche de Population et Development</i>
CES	National Coverage Evaluation Survey (Bangladesh)
CPS	Contraceptive Prevalence Survey
CTO	Cognizant Technical Officer
DDM	Data for Decision Making (project)
DHS	Demographic and Health Surveys (project)
DP	data processing
EPI	Expanded Programme on Immunization
G/PHN	Bureau for Global Programs, Field Support and Research/Center for Population, Health and Nutrition, USAID
GPS	Global Positioning System
HIV	human immunodeficiency virus
IBRD	International Bank for Reconstruction and Development (World Bank)
ICDDR,B	International Centre for Diarrheal Disease Research, Bangladesh
ICPD	International Conference on Population and Development (United Nations, 1994)
IDB	Inter-American Development Bank
IEC	information, education, and communication
IFORD	<i>Institut de Formation Demographique</i> (Cameroon)
IMR	infant mortality rate
IOPHID	International Organization for Population and Health Information and Data
IOS	Institute of Statistics (Ivory Coast)
IPPF	International Planned Parenthood Federation
IQC	indefinite quantity contract
IRD	Institute for Resource Development (Macro International, Inc.)
ISO	International Standards Organization
ISSA	Integrated System for Survey Analysis (DHS software)
KAP	knowledge, attitudes, and practice
KAPS	knowledge, attitudes, and practice survey

LOP	Life of Project
Macro Inc.	Macro International, Inc. (DHS contractor)
NGO	nongovernmental organization
NIPORT	National Institute for Population Research and Training (Bangladesh)
NIS	New Independent States
OMB	Office of Management and Budget
PACD	project assistance completion date
PCS	Population Communication Services (Johns Hopkins University project)
PERT	program evaluation review technique
PHN	Center for Population, Health and Nutrition (USAID); population, health, and nutrition
POPLAB	International Program of Laboratories for Populations Statistics
POPTECH	Population Technical Assistance Project
PSC	personal services contract
RAPID	Resources for the Awareness of Population Impact on Development (project)
REDSO	Regional Economic Development Services Office
RIPS	Regional Institute for Population Studies (Ghana)
SAC	Scientific Advisory Committee (DHS project)
SAM	Service Availability Module
SAS	shared administrative support/situation analysis study
SPSS	Statistical Package for the Social Sciences
STD	sexually transmitted disease
TA	technical assistance
TAC	Technical Advisory Committee
TFR	total fertility rate
UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
USAID/W	USAID/Washington
WFS	World Fertility Survey
WHO	World Health Organization

EXECUTIVE SUMMARY

The Evolution of DHS as an Important Program Tool

This evaluation focuses on the performance of Macro International Inc. during the first three years of its five-year core contract (1992-97) under the USAID Demographic and Health Surveys Project (DHS-III). Members of the evaluation team visited Bangladesh, Egypt, and the Ivory Coast and interviewed DHS stakeholders in the U.S. They also reviewed project documentation and Mission responses to a questionnaire on DHS undertaken by the Center for Population, Health and Nutrition (G/PHN). Initiated in 1984, the DHS has become recognized as the global quality standard for population, health, and nutrition (PHN) surveys. USAID, host-country, and other donor staffs depend upon the DHS data in needs analysis, policy reform, program planning, and progress monitoring in population and health. Substantial evidence suggests that host-country policymakers and program managers are increasingly using DHS data to improve planning and service delivery. Similarly, USAID and other donor staffs cite the value of DHS data in the measurement and reporting of progress made in population, maternal and child health, and other development programs.

Methodology Assessment and Development

The contractor completed a comprehensive assessment of DHS methodology during Year 1 and has continued to make improvements. Under DHS-III, surveys have added more coverage of health issues, but many health professionals still tend to see the DHS as essentially a demographic survey. There are also a few areas where potential users question the validity of DHS measures (e.g., immunization prevalence); therefore, Macro Inc. should continue actions to resolve measurement differences with other survey efforts. Professional standards suggest that there also be an independent review of sampling and related survey operations in a few countries to help guarantee quality.

The Mandate to Emphasize Post-survey Tasks Under DHS-III

The contract purpose continues to be the improvement of databases for planning and program management through the implementation of surveys. However, the contract also stresses that "much more effort is needed under DHS-III" to promote such post-survey tasks as dissemination, further analysis, and utilization of results for policy and planning. While more progress has been made on the post-survey tasks under DHS-III, they are given significantly lower priority in the allocation of technical assistance (TA) and other contract resources. The contractor will probably continue to concentrate on the planning and execution of new surveys unless USAID acts to direct more core contract resources toward the other task areas. However, the higher priority

given to new surveys by Missions and the current USAID funding constraints suggest that it may be difficult to substantially enhance core contract support for the mandated post-survey and local capacity-building tasks.

The contractor is conducting 21 regular and five special surveys (indepth studies) under the core contract and 12 regular surveys under the buy-in or requirements contract. The completion of surveys appears to be running a little slower than projected, and this may lead to overscheduling of tasks in the final two years of the contract (1996-97), especially if the contractor is required to devote more effort to post-survey tasks and local capacity-building. The contractor is confident that all survey reports will be completed on time, but it may still be useful for USAID and the contractor to review contract task priorities, resource levels, and scheduling details to confirm that all major activities can be completed on time. The quality of the DHS survey reports and national seminars to disseminate results is generally considered very high. Although the contractor has made progress in increasing the involvement of health and other non-population professionals, evaluation team contacts suggest that more effort is needed in this area.

Strengthening Host-country Capacities to Manage DHS Programs

The DHS-III contract requires Macro Inc. to undertake local capacity-building so that experienced DHS countries will be able to complete surveys without depending on foreign technical assistance. However, neither the contract nor the subsequent contract work plans define a specific strategy or action plan for capacity-building. The analysis and software (ISSA) workshops listed under the capacity-building section of the contract are on hold because of recent USAID concerns about funding availabilities and questions about the country-level value of the workshops. The DHS Fellowship Program to provide long-term U.S. training is also funded as a local capacity-building activity, but it has had little impact in this area. DHS Fellows are selected as individuals, not as members of local DHS implementing organizations, and none of the six Fellows funded under DHS-I and DHS-II is working in their home country. It is also doubtful that all of the four being trained at Macro Inc. under DHS-III will return home to work on DHS-related activities. Therefore, the Fellowship Program should be phased out and the funds used for locally focused training under country-specific capacity-building plans.

Although there is no explicit capacity-building strategy, the contractor has effectively trained subcontractor or implementing agency staff in some countries, largely as a by-product of doing the DHS surveys and preparing the reports. More experienced subcontractors, like those in Bangladesh and Egypt, say they can now do DHS surveys, but would need TA in areas like sampling design and further analysis. The contractor has also developed high-quality documentation that could probably be integrated into a survey management guidance package to help cooperating country staffs expand and improve their survey competencies. Mission E-mail responses to a G/PHN questionnaire indicate that some countries already have strong survey organizations (usually government agencies); so DHS does not need to undertake capacity-

building activities in these situations. However, even in these cases, the effectiveness of dissemination, results-utilization, and other post-survey operations may not be as high as it should be.

Other USAID and other donor staffs point out that DHS may sometimes have to make trade-offs between the need to complete a survey properly and on time and the desirability of trying to strengthen a weak local survey agency. However, several evaluation team contacts in USAID believe that more local capacity-building is essential to reduce DHS survey costs and promote sustainability of the system, especially in view of USAID's shrinking budgets. The evaluation team also feels that, at this advanced stage of DHS (Year 12), country-specific action plans for capacity-building should be prepared for priority countries to help ensure that DHS operations continue after reduction/withdrawal of USAID funds. To give more attention to capacity-building in future programs, USAID should require that demographic and survey staff skills be supplemented by staff persons with appropriate organizational analysis and development skills.

Addressing New Population and Health Survey Needs

Recent pressures on USAID staff persons to collect more program monitoring and progress measurement data on a short-term basis have led to requests for DHS to add new topics or conduct more frequent surveys. Given existing survey commitments, the DHS-III contract may not be the appropriate vehicle for addressing many of these new measurement needs. USAID and the contractor thus need to examine the extent to which the project plans can be modified during 1996-97 to accommodate such demands. The growing survey workload in Missions may require new resources and designs beyond those available in the DHS-III project. Several Mission and Washington staff members note that efforts are needed to reduce the high cost of DHS surveys. Consequently, in future programs, USAID will need to explore different survey design options and more tightly coordinate the various USAID-funded PHN survey efforts to better focus resources. Continuing reductions in USAID staff and funds also suggest a need for organizing future PHN measurement programs in ways that will attract more resources from host countries and other donors. A few suggestions on structuring new survey and measurement programs are provided by the evaluation team at the end of the report.

SUMMARY OF PRINCIPAL RECOMMENDATIONS

DHS METHODOLOGY ASSESSMENT AND DEVELOPMENT

1. The DHS Project should test the use of pregnancy history versus birth history in an experimental design (e.g., as an experimental or special survey). One indicator to compare is infant (especially neonatal) mortality. (p.8)
2. Macro Inc. should continue working with UNICEF, BASICS, and other health groups to explore differences in definitions and methodologies on immunization data and reach agreement on the best series of questions and derived measures of immunization coverage. (p.9)
3. USAID and Macro Inc. should reevaluate the cost and usefulness of the Service Availability Module in meeting DHS user needs for facility data, as the Situation Analysis or other approaches may yield better results. (p.10)
4. USAID should evaluate the actual and needed precision and time reference of maternal mortality estimates for program purposes. If they are not useful, USAID should seek alternatives to the present maternal mortality module (e.g., some innovative form of sentinel surveillance). (p.10)
5. Macro Inc. should use more qualitative approaches throughout the DHS to complement quantitative methods and enhance the overall survey results. (p.12)

SURVEY IMPLEMENTATION

6. In view of USAID funding trends and an apparent disproportionate share of the DHS workload scheduled for Years 4-5 of the contract, USAID and the contractor should review the time schedule and resource allocations for **initiating and completing** all major **survey and post-survey tasks** under all DHS-related contracts to confirm the reliability of current project schedules and budgets. A basic objective is to assess the probability of completing all mandated tasks on time and then to take any needed corrective action. The contractor should provide the basic information for initiating the review (i.e., PERT or similar scheduling charts, work breakdown structures, budgets, and staff allocations by task). (p.14)
7. As part of the DHS quality assurance program, there should be an independent evaluation of the sampling operations in one or two DHS countries, especially where the sampling frame was complicated. The sampling evaluator should be able to speak and read the local language. (p.19)

DISSEMINATION OF SURVEY RESULTS

8. Wherever feasible, the contractor should make the professional production of poster summaries of DHS data a regular part of the in-country dissemination program. (p.25)
9. The contractor, in cooperation with local stakeholders, should prepare a plan for dissemination of DHS findings as a regular part of the survey design. (p.26)
10. In countries where DHS implementing agencies are staffed predominantly by demographers or statisticians, efforts should be made to involve communication and other specialists to provide the additional skills needed for effective results dissemination and promotion of further analysis and use of data. (p.26)
11. USAID and Macro Inc. should develop an action plan for the preservation and transfer of the central DHS archive and related facilities following contract/project close-out. (p.30)

FURTHER ANALYSIS

12. USAID, in cooperation with the contractor, should clarify the priority ranking and specific resource allocations for all major core contract objectives and expected outputs. Special attention should be given to defining the **core contract outputs expected in 1996-97** in the areas of in-country further analysis, utilization of DHS data for policy and program improvement in DHS countries, and local capacity-building. (p.36)

USE OF DHS DATA FOR POLICY AND PLANNING

13. Macro Inc. should continue efforts to identify or help develop inexpensive and user-friendly software that can increase the use of DHS data for policy and program evaluation and improvement. (p.47)
14. Macro Inc. should clarify the general costs and ranges of DHS survey services it can provide and, with USAID approval, issue a "catalogue" describing these services. (p.48)
15. USAID and the contractor should further expand efforts to involve more USAID and host-country health professionals in each DHS. (p.49)
16. USAID and the contractor should conduct a quick Customer Needs Survey, focusing on how well the DHS is meeting the information needs of USAID and cooperating country policymakers and program managers. The primary aim is to assess and improve the match between current DHS outputs and the changing measurement data needs of key operational users. The customer survey results would be critical baseline inputs for a

quick re-engineering analysis of overall DHS processes. (p.51)

LOCAL CAPACITY-BUILDING

17. USAID and the contractor should phase out the DHS Fellowship Program since it has contributed little to capacity-building in the cooperating countries. (p.54)
18. USAID and Macro Inc. should review the planned ISSA and analysis workshops (funded under "capacity-building") and decide whether different training programs might better address the capacity-building needs of DHS countries. (This assessment could be part of the broader joint review of priorities for the balance of the contract. See Recommendation 6.) (p.55)
19. Macro Inc. should build on its experience and existing documentation to produce an integrated package of general *Survey Management Concepts and Guidelines* to help cooperating country staff plan and manage high-quality DHS and other surveys. Related training workshops to explain the DHS approaches to survey management could also be an important capacity-building tool (see Recommendation 18). (p.55)
20. USAID and the contractor should use successful DHS field experiences as the basis for (1) defining a clear capacity-building strategy for the Project and (2) preparing country-specific capacity-building plans for selected countries during the balance of DHS-III. Each such country plan should include adequate provisions for (1) post-survey tasks (dissemination, further analysis, use of data for decision-making), (2) development and/or strengthening of in-country organizational networks for survey operations, and (3) inclusion of more professional disciplines in surveys to broaden the analysis and use of DHS results. (p.59)

CONTRACT MANAGEMENT

21. USAID and the contractor should cooperate to develop a progress reporting system which shows the cumulative planned/actual progress and funding for each major task or activity in the contract. The regular progress reports should also include the total funding (from all sources) and the status of each DHS survey (distinguishing among the core, requirements, and any other Macro Inc. DHS contracts). (p.62)

SUGGESTIONS FOR FUTURE SURVEY PROGRAMS

22. Designs for follow-on DHS or other PHN measurement programs should address the needs for (1) flexible but cost-effectiveness funding instruments and (2) empowered and well-trained USAID program implementation staffs. (p.71)

23. As part of its design effort for a new results package covering population and health surveys and measurement, USAID should assess the desirability of using a multilateral approach to organizing, funding, and staffing future DHS-type programs. (p.76)

1. PROJECT BACKGROUND

1.1 DHS Continuity Over Time (1984-95)

The Demographic and Health Surveys (DHS) Project was initiated by USAID in 1984 to provide better national and cross-national data on population and health issues and program progress. The DHS built on earlier USAID-supported efforts, including the World Fertility Survey (WFS), Contraceptive Prevalence Surveys (CPSs), and the International Program of Laboratories for Population Statistics (POPLAB).

The DHS-I Project (1984-89) was implemented under a contract with the Westinghouse Institute for Resource Development (IRD), with the Population Council as the major subcontractor. DHS-II (1988-1992) was executed under a contract with Macro International Inc. (which acquired IRD and its staff). Macro Inc. also won the contract to carry out DHS-III (1992-97). The Population Council has not been a subcontractor since DHS-I. Each new contract has overlapped the previous contract by one year to provide a smooth transition between project phases. There has been an unusually high rate of professional staff continuity within the DHS project, which itself has a rare life of project (LOP) running from 1984 to a current Project Assistance Completion Date (PACD) of December 2001. The contractor's ability to retain core demographic talent has undoubtedly contributed to the high professional quality and credibility of DHS surveys.

1.2 DHS's Contribution to Economic Development

Over time, the DHS database has become one of the most valuable information resources available for comparing population and health trends on both a national and global basis. Contacts made by the DHS-III evaluation team reaffirm the high regard for DHS survey reports among most USAID staff members and partners (especially Cooperating Agencies [CAs]), host-country officials, and other donors. As several evaluation team contacts pointed out, the DHS uses a scientific approach to collecting national health and demographic data which is not found in most other development sectors. USAID staff members report that DHS survey data have been invaluable in demonstrating to Congress and other key USAID stakeholders that U.S. assistance efforts, such as the family planning or child survival programs, have made a real difference in the lives of people around the globe. While individual DHS questionnaire items or findings in a particular country may sometimes be the subject of debate, the conclusion still emerges that DHS is the "best measurement game in town."

1.3 New Priorities Under DHS-III

I have been trying for years to get people to use figures. Now it is happening. During a recent ceremony, a local official was giving the population figures for his Governorate but had the wrong data. President Mubarak interrupted the presentation to provide the correct figures. Now all of the Governorate heads know their data!

DR. MAHER MAHRAN, MINISTER OF POPULATION
AND FAMILY PLANNING AND DHS DIRECTOR,
EGYPT

Given the large number of country surveys completed under DHS-I and DHS-II, the DHS-III project is mandated to give more attention to post-survey activities that promote further analysis and use of the growing DHS databases. **The core contract states: "In general, DHS-III will be a continuation of successful elements of DHS-II. However, DHS-III will give relatively more emphasis to data dissemination, further analysis and utilization, and strengthening of host country survey capacities."** While this and similar statements suggest a significant shift in priorities, the vagueness of most contract goal statements and *Implementation Schedule* benchmarks in the Contract make it difficult to determine if the project has adequately shifted gears on post-survey tasks. While DHS was apparently intended from the beginning to be a demographic and health survey, health issues received relatively little coverage until DHS-III. Some evaluation team contacts suggested that the central USAID Health Office was not as interested in becoming a full funding partner when the DHS project was initiated. However, as health and population functions and units have become more integrated in USAID in recent years, additional health questions have been added and now constitute a significant proportion of the core questionnaire and supplemental modules. Table 1, on the next page, lists the topic areas in the current core or basic questionnaires (Models A & B) and the standard supplemental modules that can be chosen.

Table 1

Topics Covered in the DHS Survey

CORE QUESTIONNAIRE	SUPPLEMENTAL MODULES
1. Respondent's Background	Pill-taking Behavior
2. Reproduction	Sterilization Experience
3. Contraception	Maternal Mortality
4. Pregnancy and Breastfeeding	STDs/AIDS
5. Immunization and Child Health	Verbal Autopsy
6. Marriage	Female Circumcision
7. Fertility Preferences	Consanguinity
8. Husband's Background and Woman's Work	Men's Questionnaire (involves additional sampling in survey clusters)
9. AIDS	Service Availability (involves additional sampling in survey clusters)
10. Height and Weight	Women's Status (under test in Egypt)

1.4 Current Trends Affecting the DHS Project

While the DHS has successfully met USAID's need to generate reliable national and cross-national data on key population issues, some observers suggest that DHS must continue to change to respond to such interrelated developments as the following:

- The shift from a predominantly family planning **strategy** to one focusing on reproductive health, HIV-AIDS, and other new priorities, both within USAID and many cooperating countries. (This shift is in part attributed to the initiatives approved at the 1994

International Conference on Population and Development [ICPD].)

- The "re-engineering" of USAID program management processes to include **more emphasis on annual performance measures**. Many Missions want DHS to provide more frequent feedback and cover more program issues to provide data for monitoring and reporting progress toward Strategic Objectives and other benchmarks.
- The **continuing USAID staff and budget reductions** may require that USAID cover a smaller number of countries and undertake DHS surveys at less frequent intervals. In addition, a special effort may be needed to attract more DHS funding from non-USAID sources.
- The **shift in USAID budget decision-making** from Washington to the field. This suggests the contractor may have to deal more with Missions on funding issues. Moreover, USAID Mission priorities may not be the same as those of a globally focused, Washington-managed DHS project. For example, if most population, health, and nutrition (PHN) funds are to be programmed locally, special funding arrangements may be needed for DHS countries that are "priority" from a global viewpoint but which have no USAID Mission.
- The reported **simplification of USAID contracting and other processes** should result in faster implementation of contractor work plans. Fewer decisions should have to be referred to the USAID Contracts Office as cognizant technical officers (CTOs) and contractors are given more authority to pursue approved contract performance goals.
- The design of a new USAID strategy and "Results Package" for **future population and health measurement activities** provides an opportunity for fresh thinking about the changing role and essential content of DHS and related surveys. The need to attract more non-USAID funding suggests that a multilateral program should be one of the options considered.

These trends are discussed in more detail below.

2. SCOPE AND METHODS OF THE EVALUATION

2.1 Purpose and Scope of the Evaluation

This evaluation assesses the performance of Macro International Inc. during Years 1-3 of the **DHS-III core contract** (November 1992-October 1995). The evaluation team was asked to suggest improvements in DHS-III operations and, as appropriate, to provide ideas for a new Results Package being designed for future PHN measurement and survey activities. The selection of the three countries to be visited by the evaluation team was made by the USAID Center for Population, Health and Nutrition (G/PHN) in consultation with affected Missions. The main evaluation activities took place from November 27 until December 21, 1995. The team met with USAID/Washington staff members November 27-28 and with Macro Inc. staff members in Calverton, Maryland, November 29-December 1. John Haaga and Jim Brady then spent five days in Bangladesh while Sally Stansfield and Stan Becker visited the Ivory Coast. All four team members then reviewed the Egyptian DHS program December 9-12. During country visits, the team met with USAID staff members, host-country population and health officials, DHS implementing agencies or contractors, other donors, and Cooperating Agencies. Debriefings and follow-up U.S. meetings and interviews were completed December 14-21 and in January 1996.

The evaluation team feels that the field and Washington contacts provided a good cross-section of the views of DHS stakeholders. However, the three countries visited may not be representative of DHS sites around the globe. Egypt is special because of the large USAID funding levels provided under the Camp David Egypt-Israeli Peace agreements. Bangladesh's large family planning program has a great deal of support from USAID, the World Bank, and other donors and has also received considerable research attention. However, during the team's visit to Bangladesh, there was concern among contacts about an expected reduction in USAID funding and the impact of this on DHS and other USAID activities. Private subcontractors, rather than government agencies, implement the surveys in Egypt and Bangladesh. The Ivory Coast DHS is implemented through government agencies and may therefore be more representative of DHS field organization. The evaluation team also obtained views on DHS experiences in several other countries since some contacts had worked with DHS in various places.

2.2 Evaluation Approach

The evaluation team relied primarily on informal group discussions, semi-structured interviews, and document analysis to obtain information. Lists of suggested contacts were provided by G/PHN, Macro Inc., and Mission staffs in the countries visited. Additional contacts were suggested by interviewees. In the Ivory Coast, the team examined cluster-level information (maps, household listings, etc.) and later checked some original data against final imputed data

available at the contractor's home office in Maryland.

In Egypt, some team members observed DHS field staff supervisors and interviewers implementing the 1995 DHS. The team inspected the manner of numbering the dwellings, sample selection procedures, and general work conditions. Language barriers limited discussions with the survey field staff. Team members also reviewed data entry and processing operations at the Cairo DHS office. The team also analyzed most of the responses from Missions to a cable questionnaire on DHS sent out by G/PHN in November 1995. Appendix B provides a list of principal contacts.

3. DHS METHODOLOGY ASSESSMENT AND DEVELOPMENT

The DHS-III contract required that, in the first year of DHS-III, there be a careful assessment of DHS-II data quality and sample selection and a review of the questionnaire and supplemental modules. Several assessment activities were completed and the results published in various Macro Inc. papers and reports. Although some evaluation team contacts were concerned about the need to stabilize the design of DHS questionnaires, most believe that these should be continuously updated and modified to address the changing conditions and priorities of key customers. This section discusses some results of the assessment of DHS-II and some current methodological issues.

3.1 Review of Core Questionnaires

3.1.1 Review of Calendar

Experimental studies have shown that the information on contraception, births, and other reproductive events collected with the five-year calendar is of better quality than that collected with the traditional questionnaire (see Becker and Sosa, 1992). However, analyses of calendar data are complex and require specialized programs. Macro Inc. staff observed that there were very few users of the calendar data and that considerable heaping of events in time continued to occur. For these reasons, Macro Inc. decided at the beginning of DHS-III to drop from the core questionnaires the calendar columns on breastfeeding, amenorrhea, and sexual abstinence.

3.1.2 Review of Birth History/Birth Displacement

In DHS-II it became clear that due to the increased number of questions on health of surviving children under five years of age, interviewers and/or mothers had an incentive to record children as five years of age or older. This "birth displacement" is of great concern to Macro Inc. and other analysts because it leads to biased estimates of recent fertility. The Macro Inc. staff, as part of data quality checks, now calculate a birth year ratio to investigate the extent of this

displacement. The surveys with the worst displacement were in Uganda (1995), Ghana (1993), and Ivory Coast (1993) (per tabulations supplied by Jerry Sullivan). Various proposals to minimize the problem were discussed by the DHS Project's Scientific Advisory Committee (SAC). For example, different interviewers could administer the household schedule and the individual questionnaire, because the first interviewer would have no incentive to misrecord age of children. Checking the ages of the children in the two sources (household and individual questionnaires) would provide a check on the individual interviewer's work, and this was tried in Uganda and Kazakhstan. In Kazakhstan the ratio indicated no major displacement, but the displacement persisted in Uganda, perhaps due to problems in implementing the procedures there. The evaluation team suggested that Macro Inc. might try to mitigate birth displacement by using the Centers for Disease Control and Prevention (CDC) procedure of selecting one birth (from the reference period) at random for the health questions.

3.1.3 Use of Birth History Versus Pregnancy History

The World Fertility Survey asked about all pregnancies; however, since the beginning of DHS, only questions about live births have been included in the core questionnaire. There has never been a true experiment to test the comparative data quality of the pregnancy history and birth history approaches. Pregnancy histories have actually been used in the Philippine and Kazakhstan DHS surveys, because there was interest in non-live births. The increased emphasis on reproductive health following the ICPD makes it even more important to collect information on all pregnancies. It should also be noted that from the perspective of reproductive health, perinatal mortality can only be measured with pregnancy history data in countries that do use the calendar.

Recommendation:

1. The DHS Project should test the use of pregnancy history versus birth history in an experimental design (e.g., as an experimental or special survey). One indicator to compare is infant (especially neonatal) mortality.

3.1.4 Immunization Data

A comparison of DHS estimates of immunization coverage with estimates from WHO/UNICEF surveys revealed large differences. Consequently, some of the other donors and CAs are supporting other survey efforts. Bangladesh provides a clear example of the problem. The most recent DHS in Bangladesh was in the field from November 1993 to March 1994. The Fourth National Coverage Evaluation Survey (CES) was fielded in February 1994, using the procedures, including "cluster sampling", recommended by the WHO Expanded Programme on Immunization (EPI) program. Following is a comparison of key estimates:

	DHS	CES
Percentage of women who had recently given birth (DHS -- 3 years; CES - 1 year) who had received tetanus toxoid	66.1%	80%
Percentage of children aged 12-23 months fully immunized	59.0%	84%

Differences of this size are significant in policy terms, as well as statistical terms. The local director of the Bangladesh DHS program explained that they were the result of poor training of the interviewers (nongovernmental organization [NGO] staff) who carried out the CES survey. The director of a USAID-funded project working on urban immunization asserted that the CES interviewers had received more training than DHS interviewers on the specific issue of immunization, and they had probed extensively for immunization histories when cards were not available. UNICEF officials and health sector officials routinely use the CES results, although with no clear reasons for their preference. CES staff members refer to unspecified differences in definitions, reference periods, or survey universe as possible explanations for the discrepancies. There is also apparently no study under consideration to objectively assess the reasons for the differences. The evaluation team concludes that the persisting differences of opinion on the validity of DHS immunization data merit a renewed effort to standardize measurement methods.

In response to the evaluation team's observations, Macro Inc. pointed out that DHS immunization data are being accepted by many countries and that UNICEF is supporting some DHS surveys (e.g., Brazil) to avoid duplication of effort in data collection. Macro Inc. also said that the DHS immunization questions follow WHO recommendations. Macro Inc. plans to meet with concerned USAID staff persons to discuss and clarify some of these immunization measurement issues. Macro Inc. reports that it will pay particular attention to issues raised by the evaluation team during the upcoming DHS in Bangladesh.

Recommendation:

2. Macro Inc. should continue working with UNICEF, BASICS, and other health groups to explore differences in definitions and methodologies on immunization data and reach agreement on the best series of questions and derived measures of immunization coverage.

3.2 Review of Existing Supplemental Modules

3.2.1 Service Availability Module

There has been some debate about the usefulness of the Service Availability Module (SAM). Most of the information in the module is obtained from a "knowledgeable informant" at the cluster level. In addition, the interviewer is supposed to visit the closest health or family planning facility within 30 kilometers. The problem is that the resulting sample of facilities is not a representative sample of facilities in the country. In February 1995, a group met at Macro Inc. to consider changes in the SAM. The consensus was that all facilities in a cluster's catchment area should be visited or at least listed and a random sample taken. One implication of this change is considerably increased costs (e.g., US\$75,000 for data collection alone). In addition there are statistical complexities involved with assigning the values from this questionnaire to all households or women in the cluster. The existence of the Situation Analysis studies of the Population Council further diminishes the perceived usefulness of the DHS Service Availability data since Situation Analysis samples are normally representative samples of facilities. The modus operandi seems to be that measuring Service Availability is not routinely done in DHS countries. For example, it is not included in the 1995 Egypt survey or in the upcoming Brazil survey.

Recommendation:

3. USAID and Macro Inc. should reevaluate the cost and usefulness of the Service Availability Module in meeting DHS user needs for facility data, as the Situation Analysis or other approaches may yield better results.

3.2.2 Maternal Mortality Estimates

Both direct and indirect maternal mortality estimates from DHS data have fairly wide confidence intervals and are usually average estimates over an interval of 10 years or more. For these reasons, there is little usefulness in these indicators for measuring program related changes. On the other hand, to provide one estimate, albeit imprecise, the use of the maternal mortality module may be appropriate.

Recommendation:

4. USAID should evaluate the actual and needed precision and time reference of maternal mortality estimates for program purposes. If they are not useful, USAID should seek alternatives to the present maternal mortality module (e.g., some innovative form of sentinel surveillance).

3.3 Methodology Development and Improvement

3.3.1 Development of New Modules

Macro Inc. has published a set of special or supplemental modules that can be included with the core questionnaire, including the following: Pill-taking Behavior; Sterilization Experience; Maternal Mortality; STDs/AIDS; Verbal Autopsy; Female Circumcision; Consanguinity; Men's Questionnaire, and the Service Availability Questionnaire. In addition, in the tabular summary of surveys in the September 1995 *DHS Newsletter*, the following modules/additional questions are listed: Child Anthropometry; Social Marketing; Women's Employment; and Maternal Anthropometry. Another module covering Women's Status is being tested in the 1995-96 Egypt DHS. The Service Availability and Male Questionnaires are in a distinct category since they involve separate samples and interviewing.

3.3.2 Collecting More Health Data

While Macro Inc. has increased the number of questions relevant to maternal and child health in DHS-III, there are still some holes. For example, while intentions and attitudes are collected with

respect to family planning, such questions are absent with regard to other preventive health behaviors. At a minimum, Macro Inc. should add objective and easily collected questions on health. (For example: Where does Child X [say, age 4 or 5] defecate? Where do you keep water for drinking?)

3.3.3 Panel Surveys

In DHS-III, many countries are having a second or third survey. If identical clusters or women are selected in the latest round as in the prior round(s), then the variance of the estimated difference in indicator values between the two time points is minimized. Moreover, listing operations are less costly since a cluster map and prior listing should already be available. However, additional effort may be needed to locate the same households or individuals. In addition, adjustments are needed to guarantee that the sample remains nationally representative (e.g., cluster weights may be needed). Macro Inc. has had four experiences with sampling the same clusters in two surveys: Dominican Republic, Morocco (twice), and Tanzania. Macro Inc. should explore the considerable potential for the panel approach in the remainder of DHS-III. There are eight surveys planned for 1996 where a panel design could be implemented.

3.3.4 Use of Global Positioning Systems

Global Positioning Systems (GPS) technologies are being increasingly used to link maps with data from other sources to better identify or analyze particular sites or locations. Macro Inc., at the encouragement of REDSO in Abidjan, used the GPS equipment in the Ivory Coast survey to determine the geographical location of the survey clusters. Additional support has been given to the U.S. Census Bureau and the World Resources Institute to link data from other sources to the DHS data. While the potential return from such linking is great, there are statistical complexities in analyzing such spatial data. Program managers thus need to understand the system if they are to pose relevant questions that such linked data can answer. Since USAID has phased out several of its country offices in West Africa, a regional approach to family planning and health is now necessary and GPS data from separate national DHS samples linked with service data can assist in program planning. Macro Inc. is using the GPS in the Mali 1995-96 survey and in Guatemala and plans to utilize it in the Benin survey. Where feasible, efforts should continue to geocode DHS data to link it with data sets from different sources.

3.3.5 Increased Use of Qualitative Methods

There is a growing interest in using interdisciplinary and qualitative approaches to complement DHS quantitative findings and provide better insights into issues (e.g., husband-wife communication). Such methods can also be used to identify potential issues before the pretest of DHS instruments, especially when new areas are being covered (such as abortion). In addition, the use of post-survey qualitative methods would provide explanatory information to enhance interpretation of the quantitative findings. For example, in-depth interviews and/or focus groups could be used to provide insights on surprising results or for subsets of the population (e.g., those with sterilization regret). Some qualitative methods, particularly focus groups, are already used by Macro Inc. in its Special Surveys (where the questionnaire has not been used previously). However, there is scope for broader use of qualitative research to improve survey results and prevent survey errors. For example, the evaluation team was told that a mistranslation of terms in the 1995 Egypt DHS questionnaire was used in the pretest because there had not been enough time to have focus groups review the instruments.

Recommendation:

5. Macro Inc. should use more qualitative approaches throughout the DHS to complement quantitative methods and enhance the overall survey results.

4. SURVEY IMPLEMENTATION

4.1 Design and Completion of Regular Surveys

Evaluation team contacts tended to be most familiar with the contractor's work in designing and conducting the regular DHS surveys. The survey reports and national dissemination seminars were the outputs commonly mentioned. Fewer people were acquainted with the other contract activities (e.g., special surveys, further analysis, use of results for policy and planning, and local capacity-building). Almost all evaluation team contacts reported that Macro Inc. has done an outstanding job of completing so many high-quality surveys under field conditions that can often be very difficult. As discussed below (Chapter 8), DHS survey data and reports have become highly respected and used in a wide range of development decision-making activities around the globe.

The core contract calls for completion of "approximately" 20 regular surveys and "up to five" special surveys or indepth studies (discussed in Chapter 6). The contractor's *Year 3 Work Plan* indicates that 21 regular and five special surveys are planned under the core contract, plus 12 regular surveys under the Requirements (buy-in) Contract. The core contract *Implementation Schedule* indicates that 15 regular surveys should have been "initiated" as of Year 3 (which ended September 30, 1995). There is no specific number of surveys targeted under the requirements contract, but it was originally assumed that about 15 percent of the total DHS activities would be funded under buy-ins. At present, the 12 surveys being completed under buy-ins represent about 12 percent (US\$6,077,599) of the total USAID project budget (US\$50,042,167). Thus, the current funding proportions for the two contracts are close to the original estimates.

Table 2 uses Macro Inc. data to show the current status of regular surveys planned under the core contract and estimated **in-country** survey costs for some countries. Table 3 provides the same information for the requirements contract (buy-ins). The designation of a DHS survey as a "core contract survey" does not necessarily mean that most of its funding comes from this contract. For example, the World Bank is the largest source of funds for the Indonesia DHS and the USAID Mission apparently funded most of the DHS costs in Zimbabwe. The core contract Semiannual Progress Reports do not provide information on survey costs, so the evaluation team used other Macro Inc. documents to develop the estimates shown here. The "in-country costs" in these tables reflect: (1) Macro Inc. costs for subcontract costs, purchase orders, and In-kind items (but not TA or home office costs), (2) Mission direct funding, (3) non-USAID funding (primarily UN

agencies), and (4) host-country donations (for some countries).

Table 4 summarizes the status of all DHS-III surveys under the core and requirements contracts.

During the first three years of the core contract, final reports were issued for only seven of the 26 planned surveys, thus 19 reports (73 percent of total) must be completed during 1996-97. Table 4 indicates that the contractor also has to complete eight more final reports under the requirements contract.

If completion of the capacity-building and post-survey tasks in the core contract is added to the projected workload, it appears that too many tasks may be scheduled for the last two years of the contract. The evaluation report for DHS-II suggests that there was a similar bunching up of activities at the end of DHS-II and USAID staff persons report that the DHS-II contract had to be extended for 10 months. Macro Inc. has expressed confidence that the reports for all surveys will be completed on schedule. It may be useful for USAID and the contractor to review schedules and resource commitments to confirm that all **survey, post-survey, and capacity-building tasks** will be completed by the end of the current contract. If USAID decides that funds will be reduced for some tasks in the core contract, then the contract scope and related budgets should be amended accordingly.

Recommendation:

6. In view of USAID funding trends and an apparent disproportionate share of the DHS workload scheduled for Years 4-5 of the contract, USAID and the contractor should review the time schedule and resource allocations for **initiating and completing** all major **survey and post-survey tasks** under all DHS-related contracts to confirm the reliability of current project schedules and budgets. A basic objective is to assess the probability of completing all mandated tasks on time and then to take any needed corrective action. The contractor should provide the basic information for initiating the review (i.e., PERT or similar scheduling charts, work breakdown structures, budgets, and staff allocations by task).

4.2 Survey Implementation Organizations

The evaluation team initially tried to explore the issue of using private versus public DHS implementing agencies. However, the limited information collected from our three site visits suggests that the form of the organization may not be as important as the local conditions in each country. Some combination of private and public agencies cooperating in a network or alliance to implement different phases and tasks under the DHS may be the logical way to involve all of the needed participants.

Most of the DHS field implementing organizations are government agencies (often statistical

offices) that have easy access to the requisite sampling frames and often have experience in survey implementation. In the Ivory Coast, the Institute of Statistics (IOS) was chosen to implement the DHS because of its staff expertise. Transportation support was provided to the IOS by *Association Ivoirienne pour le Bien-etre Familial* (AIBEF), the local International Planned Parenthood Federation (IPPF) affiliate. Initially, the AIBEF vehicles were not always available when needed. This caused some interviewing and call-back problems, and field work was suspended until enough vehicles became available.

Table 2**Regular DHS-III Surveys Under Core Contract**

COUNTRY	STATUS/TARGET	IN-COUNTRY COSTS	REMARKS
1. Bangladesh (1996)	Field Work Target 11/96		Last DHS: 1994
2. Benin (1996)	Field Work Target 5/96	\$ 368,845	Early planning
3. Brazil (1996)	Field Work Target mid-96		Early planning
4. Central African Rep.	Target: Final Report 3/96	\$ 539,836	
5. Colombia	Final Report Issued	\$ 526,522	
6. Dominican Repub.	Field Work Target 6/96		In negotiation
7. Eritrea	Field Work 1/96	\$ 323,615	
8. Haiti	Final Report Issued	\$ 431,555	
9. Indonesia	Final Report Issued 12/95	\$ 1,546,304	IBRD share = \$1,007,299
10. Jordan (1996?)	Field Work Target 96		Status unclear?
11. Kenya	Final Report Issued 5/94	\$ 596,519	
12. Mozambique	Field Work Target mid-96		Early planning
13. Nepal	Field Work started 1/96	\$ 276,206	
14. Peru (1996?)	Field Work in late 96?		Early planning
15. Philippines	Final Report Issued 6/94	\$ 390,122	
16. South Africa	Field Work Target 10/96?		
17. Tanzania (1996)	Field Work Target 6/96	\$ 462,970	Design stage?
18. Turkey	Final Report Issued 10/94	\$ 628,437	
19. Uganda	Prelim. Report 12/95	\$ 526,284	
20. Zambia (1996)	Field Work Target 4/96	\$ 506,616	Last DHS: 1992
21. Zimbabwe	Final Report Issued 9/95	\$ 575,000	Mission share = \$ 500,000

Sources: In-Country Costs (all sources) are from Macro Inc. handout "DHS-III Surveys - In-Country Costs" 11/28/95. Survey status was updated per 2/14/96 memo from Martin Vaessen, Macro Inc., to Jim Brady.

Table 3

**Surveys Under DHS-III Requirements Contract
(Status as of February 1996)**

COUNTRY	STATUS	IN-COUNTRY COSTS	REMARKS
1. Bangladesh (1994)	Final Report 6/95	\$ 284,885	Dissemination and further analysis underway
2. Bolivia (1994)	Final Report 10/94	\$ 795,043	UN orgs. share = \$361,900. Further Analysis ongoing.
3. Ivory Coast	Preliminary Report 4/95	\$ 477,795	Africa Bur. buy-in = \$700,000?
4. Egypt	Field Work 12/95	\$ 642,631	
5. Ghana	Final Report 5/95	\$ 375,075	
6. Guatemala	Preliminary Report 1/96	\$ 564,736	
7. Kazakhstan (1995)	Preliminary Report 12/95	\$ 218,213	
8. Kyrgyzstan	Begin in 1996		Planning stage
9. Malawi (KAP plus)	Field Work Target 6/96?		Planning Stage
10. Morocco (Panel)	Preliminary Report 7/95	\$ 213,350	Final report being drafted
11. Tanzania (KAPS)	Final Report 7/95	\$184,193	Joint dissemination work with <i>Evaluation Project</i>
12. Uzbekistan (1996)	Field Work Target 3/96	\$ 239,494	Early negotiation

Source: In-Country Costs (all sources) are from Macro Inc. handout "DHS-III Surveys - In-Country Costs" 11/28/95. Survey status was updated per 2/14/96 memo from Martin Vaessen, Macro Inc., to Jim Brady.

Notes: A survey was projected for Nigeria, but this has been dropped. Macro Inc. is doing a "non-DHS" survey in Mali under direct contract with the Mission.

Table 4**Status of All DHS-III Surveys
(As of February 1996)**

PLANNING STAGE	FIELD WORK UNDERWAY	PRELIMINARY REPORT ISSUED	FINAL REPORT ISSUED
CORE CONTRACT: 1. Bangladesh (96) 2. Benin 3. Brazil 4. Dominican Rep. 5. Jordan 6. Mozambique 7. Peru 8. South Africa 9. Tanzania 10. Zambia 11. Ethiopia Indepth 12. Egypt Indepth 13. Guatemala Indepth	1. Eritrea 2. Nepal 3. Uganda Indepth 4. Tanzania Indepth	1. Cen. Afr. Rep. 2. Uganda	1. Colombia 2. Haiti 3. Indonesia 4. Kenya 5. Philippines 6. Turkey 7. Zimbabwe
REQUIREMENTS CONTRACT: 14. Malawi 15. Uzbekistan 16. Kyrgystan	5. Egypt	3. Ivory Coast 4. Guatemala 5. Kazakhstan 6. Morocco	8. Ghana 9. Tanzania 10. Bangladesh 11. Bolivia
TOTAL: 16	5	6	11

Source: Initial survey status information was obtained from Macro Inc., *Report on Status of DHS-III Surveys*, 10/24/95 (4 pages) and Macro Inc., *DHS-III Semi-Annual Report No. 6*, 9/30/95. Update as of February 1996 is from 2/14/96 memo from Martin Vaessen, Macro Inc., to Jim Brady.

In Bangladesh, the survey is implemented by Mitra Associates, an experienced private survey group. In Egypt, DHS is implemented under a quasi-private arrangement funded separately by Macro Inc. and the Mission. The Egypt DHS group is formally under the Ministry of Population and Family Planning and the Minister serves as DHS director. The DHS technical director is the operational head of DHS.

Very few people interviewed in either Bangladesh or Egypt felt that the central government statistical and survey agency was capable of implementing or managing the DHS surveys at the required levels of speed and quality. The contractor's method of subcontracting with the local DHS implementing organizations was a source of dissatisfaction among some staff members contacted by the evaluation team. Some host-country organizations expressed resentment because Macro Inc. contacted them initially, but never asked them to present proposals for undertaking the DHS. The normal DHS procedure is to undertake an informal canvassing of potential implementing organizations and then award the contract to the one deemed most qualified.

Macro Inc. reports that the primary criterion for selection is the local organization's ability to carry out the survey in a timely fashion and produce high-quality results. Macro Inc. points out that competitive bidding is often not feasible because the implementing organization is a government agency. Macro Inc. also suggests that a formal competitive system would probably not change the contracting outcome. While Macro Inc.'s subcontracting system may be quite fair and efficient, negative perceptions of the DHS contracting process can also discourage some potential supporters. Consequently, there is some value in Macro Inc. serving as a model of openness in procurement processes by using competitive bidding in the award of country survey subcontracts where feasible. This may take more time but may also produce more good will for the DHS surveys.

A few evaluation team contacts criticized the use of private DHS subcontractors simply because they were opposed to the use of private organizations to do surveys which were more appropriate tasks for government agencies. USAID funds are the main source of funding (over 85 percent) for most DHS operations, whether implemented by private or public agencies. The need for USAID to leverage more host-country and other donor support for DHS surveys was mentioned by several staff persons during the evaluation.

In many countries a **technical advisory committee** (TAC) is constituted to involve key concerned parties. In the three countries visited by the evaluation team, neither Egypt nor the Ivory Coast had formal advisory committees. In Bangladesh, some see the use of such a committee as a useful tool for committing key implementers and users to DHS through their participation in survey design and other decisions. Others noted that some members of the current Bangladesh committee had not been very supportive of the Macro Inc. subcontractor in public meetings concerning DHS survey issues (reportedly for both interpersonal and technical reasons). Unless local conditions dictate otherwise, Macro Inc. should use appropriately structured technical advisory committees to involve key local scientists and policymakers in the survey.

4.3 Responding to Local Survey Needs

Macro Inc. has tried to address the natural conflict between (1) the need for standardization of instruments and (2) the need to respond to local data needs. The basic strategy is to use a core or base questionnaire which may be complemented by optional modules. The core questionnaire comes in two models: one for countries with higher contraceptive prevalence rates and one for countries with lower rates. This approach has worked well in some countries, but several of the USAID and host-country staffs contacted by the evaluation team (especially staff in the health area) were not very familiar with the specific types of modules available and the costs of various survey options. Several contacts thus reported what they saw as gaps in the data available through DHS, but some of these perceived needs might be easily addressed through the use of existing special modules. Some contacts also had plans to conduct separate surveys to obtain data that could be provided through a DHS survey.

The DHS survey instrument is pre-established, cast in concrete. Though we were not able to remove or change the questions, we were able to participate in the design by adding a few questions about unwanted pregnancies. We later understood the importance of the DHS peoples' experience here, since the questions we added about abortion did not yield useful data.
-- AIBEF Staff, Abidjan

There is a broad understanding of the importance of consistency in the questionnaire from country to country to ensure comparability of the data. Although some agencies, particularly those engaged in health-related activities, reported that they had no opportunity to participate in questionnaire design, those that did participate clearly had an increased sense of "ownership" of the survey results. Several users who participated in the survey design for their countries also said that they had learned about the difficulties of questionnaire design.

4.4 Quality Assurance in Sampling

The contractor has prepared a manual on sampling procedures. Given the short time spent in each country by the evaluation team, it was impossible to make more than a cursory inspection of sampling procedures. It would be useful to have an independent assessment of sampling and related issues in a few countries to help ensure that high-quality standards are maintained.

Recommendation:

7. As part of the DHS quality assurance program, there should be an independent evaluation of the sampling operations in one or two DHS countries, especially where the sampling frame was complicated. The sampling evaluator should be able to speak and read the local language.

4.5 Data Processing

Data processing (DP) for DHS surveys is quite standardized. A Macro Inc. DP staff person typically visits at the time of the pretest to set up the data entry, edit, and consistency programs in Integrated System for Survey Analysis (ISSA) and then again during the survey and/or at the completion of data entry to assist with consistency edits. The percentage of data entry that is verified apparently varies from survey to survey and for a given survey, depending on the week of work (it is more important to have higher levels of verification at the beginning of data entry work). In Egypt, with a level of about 30 percent verification, a check of error listings for 231 women's questionnaires revealed an average of 2.5 keystroke mistakes per questionnaire. Macro Inc. staff members estimate that up to 80 percent of these errors can be caught, without verification, by the consistency programs. The evaluation team was also told that Macro Inc. is now asking for 100 percent verification, which will ensure higher accuracy. ISSA editing programs are written to check the consistency of items entered in various sections of the questionnaire. An examination of output from these programs in Egypt showed that an average of 1.33 percent of questionnaires had one or more inconsistent responses which required editing. This seems a low and acceptable figure. Macro Inc. should consider the cost-benefit of a given percentage verification of data entry and perhaps use lot quality assessment techniques to test the level of error throughout the process of data entry. It would be useful if the data quality section

of the final reports included (1) the percentage of questionnaires verified and the error rate and (2) some of the data quality tables used during field work.

4.6 Data Quality Tables

In DHS-III, Macro Inc. has devised data quality tables that are produced about every two weeks to examine various indicators of data quality for each team. For example, the household and individual response rates are tabulated, as are indices of birth displacement, heaping/displacement of women's ages, etc. These tables assist supervisors in identifying problems at an early stage during field work so that solutions can be found. The evaluation team's observations in Egypt suggest that these tables were underutilized, therefore further training in their use may be needed. Macro Inc. should verify that survey implementation staffs know how to make the best use of the data quality tables produced during the field work.

4.7 Computer-aided Field Editing

An experiment with Computer-aided Field Editing (CAFE) was undertaken in the 1993 Turkey DHS. Notebook computers were given to half of the teams (randomly selected) for use by the field editors. Results showed that while 23 percent of individual questionnaires in the non-CAFE teams had at least one piece of missing data, only four percent of the questionnaires in the CAFE teams were in this category (see Cushing and Loaiza, 1994). Macro Inc. should explore the feasibility of using CAFE in other countries. Availability of suitable computers and batteries (or access to electricity during field work) may be limiting factors.

4.8 Use of ISSA Software for Data Entry and Processing

ISSA is a very useful software program for data entry and processing of hierarchical files. Although Macro Inc. is working on an updated manual, ISSA is far from user-friendly. A few programmers around the world have ISSA skills and are able to do a good share of the DP work. However, there is apparently no DHS survey to date that has not required some DP technical assistance. The contractor's DP staff members seem wedded to ISSA at this point, but few of its country monitors have much expertise in ISSA. Under these circumstances, ISSA is not a useful tool for DHS capacity-building in many cooperating countries. The contractor's position is that the issue is not so much the complexity of the ISSA software as the complexity of the entire DHS data processing task. Macro Inc. staff members argue that there are few people in cooperating countries with the needed skills, although these are being developed in countries with repeat DHS experience (such as Egypt). The CDC has an apparently simpler SURVEY software program which meets their needs for survey data processing. However, Macro Inc. notes that SURVEY is unable to do many of the data processing tasks for which ISSA is used. Macro Inc. also reports that programmers at CDC complete all of the programming for data entry and editing.

USAID should consider conducting an independent assessment of the various USAID-supported survey software systems under DHS and other related survey activities to see if they can be

simplified, better integrated, and/or made more accessible and user-friendly. Then, a more active effort should be made to transfer data processing and other survey skills to local staffs as an integral part of USAID capacity-building mandates. (See also the discussion of ISSA and other software in Chapter 8.)

4.9 Other Data Quality Issues

Lack of privacy may affect the quality of interview data. Interviewers are instructed to try to have the individual interviews in private, but this is often difficult if not impossible. As the number of potentially sensitive questions in the DHS has increased (e.g., questions on sexuality, AIDS, women's status), the need for privacy has increased (both for ethical and data quality reasons). In some surveys, DHS interviewers have noted at various points during the interview other persons who were present. This practice should be used with all questionnaires covering sensitive topics.

There have not been any **systematic reinterview surveys** in DHS-III. Reinterview surveys were done in Pakistan and Nigeria under DHS-II and results in both showed quite low reliability (see Curtis and Arnold, 1994 on Pakistan and Gage, 1993 on Nigeria). On the other hand, reinterviews by team leaders and/or field editors are routinely done to spot check the work of interviewers. This is done for supervisory purposes only, so data entry of the reinterview data is not done. Where data quality is suspected to be a major problem early on (e.g., Ivory Coast DHS), Macro Inc. should consider doing a formal reinterview survey.

5. DISSEMINATION OF SURVEY RESULTS

5.1 The Mandate to Increase Post-survey Activities Under DHS-III

Because of the large amounts of data generated under the earlier DHS and other survey projects, the core contract for DHS-III stresses the importance of (1) dissemination of findings, (2) further analysis and utilization of data, and (3) strengthening host-country capabilities. These areas are thus treated in the contract (and presumably in contract budgeting decisions) as three of the five major DHS contract elements. The other two elements are (1) methodology assessment and development and (2) implementation of surveys. The design and completion of new surveys, however, continues to be the dominant contract activity and consumer of core contract resources. The contractor confirms that the completion of new surveys is the predominant object of in-country technical assistance because "this is USAID's principal mandate for DHS" (Memo from Martin Vaessen, Macro Inc., to Jim Brady, February 14, 1996). Consequently, there is a need to clarify the priority ranking and funding allocations for the five major contract elements.

The core contract states that the contractor is to place "high priority on an aggressive program of data dissemination." Macro Inc. has increased activities to promote dissemination and added a new position of "Deputy Director for Data Dissemination and Utilization" to the central staff and contracted two special dissemination staffers and two analysts. Macro Inc. informally estimated that its staff provided about 2,652 days of **in-country TA** for 15 DHS-III countries as of November 1995 (see Table 5). About 405 days (15 percent) were spent on "Dissemination/Preliminary Report" activities, while almost 2,200 days were spent on completion of the survey tasks leading up to the "Dissemination/Preliminary Report" tasks. More than a quarter of these 405 TA days for "Dissemination/Preliminary Report" were spent in the Philippines, where an unusually active program for dissemination was launched.

Macro Inc. staff members indicated that these TA figures seriously underestimate the actual time they spend on dissemination and further analysis because these tasks may be covered during field visits made primarily to cover other phases of survey work and because some dissemination-related tasks are performed at Macro Inc. headquarters. They also note that it is too early for tracking dissemination TA for new surveys. If TA estimates for completed 1993-94 surveys are broken out, the total is 1,272 days, of which 298 TA days (23 percent) went for "Dissemination/Preliminary Report" and 43 TA days (four percent) were used for further analysis. It is thus assumed that the proportion of TA for dissemination should increase as more surveys are completed.

Table 5**In-country TA for 15 DHS-III Countries with Regular Surveys
(Broken down by Purpose - As of November 1995)**

PURPOSE OF TECHNICAL ASSISTANCE	NO. OF DAYS	PERCENT OF TOTAL
Survey assessment and design	219	8 %
Sample design & implementation	256	10 %
Questionnaire design	215	8 %
Pretest	296	11 %
Training for main survey	285	11 %
Monitor field work	297	11 %
Data processing	630	24 %
Dissemination/Preliminary Report	405	15 %
Further analysis	49	2 %
TOTAL:	2,652	100 %

Source: Data are extracted from Macro Inc. Table on "DHS-III Standard

Surveys: Technical Assistance Country Visits and Number of Days in-Country by Country and Purpose" (Handout, November 1995).

The core contract requires that the findings for each DHS country survey be disseminated through the following: (1) *Preliminary Report* (issued within three months of completion of field work), (2) *Final Report* of about 100 pages (issued within a year), (3) *Summary Report* (designed for policymakers and released at the time of the Final Report), and (4) *National Seminar* (to coincide with the release of the Final Report). A special report, to "highlight important trends" is also to be published for countries with previous surveys. Macro Inc. is to distribute these trend reports at the same time as the national seminar.

The most familiar dissemination elements in the cooperating countries are the DHS survey reports and the National Seminar linked to release of the Final Report. These are generally seen as being of high quality. Macro Inc. has also succeeded in reducing the time between completion of surveys and the issuance of its preliminary and final reports. The actual average time elapsed between the completion of field work and the publication of survey reports has been shorter than required by the contract. For example, 16 Preliminary Reports were produced in an average of 2.5 months, rather than the targeted three months, and 10 Final Reports were produced in an average of 9.7 months, rather than the targeted 12 months.

Several evaluation team contacts said that more copies of DHS survey reports need to be made available. They emphasized that wider dissemination of reports and other materials could be instrumental in promoting further analysis and increased use of the DHS data for program planning. Distribution of Preliminary Reports is usually limited to 400 copies within DHS countries, thus many potential users in the Ivory Coast, for example, reportedly had not seen the Preliminary Report. However, the contract estimates that only 250 copies of the Preliminary Report (in the local language) will be required, but estimates that 2,000 copies of each Final Report will be distributed.

5.2 Increasing Dissemination Media

At the cooperating country level, there has been an increase in the development and distribution of supportive materials (such as wall charts, fact sheets, chartbooks, slide shows, and computer-assisted presentations). The National Seminars have also become more focused and effective over time. In addition, DHS has supported some regional (local) seminars, increased media coverage through press releases, and sponsored briefings for parliamentarians, program managers, and other decision-makers. Table 6 provides a summary of some country-level dissemination plans and activities reported by Macro Inc. as of January 1996.

In some DHS countries, such as the Philippines, the contractor's local partners had an active strategy for dissemination of DHS data. The Macro Inc. staff thus reports being "bombarded" with creative suggestions for preparation of materials for dissemination of DHS findings to both technical and non-technical audiences at national and regional levels. However, an adequate budget for dissemination of DHS findings, such as for the exemplary materials produced in the Philippines, is not routinely available for each DHS survey. Nonetheless, Macro Inc. should continue its efforts to use more wall posters and other visuals to improve dissemination and use of DHS data.

Recommendation:

8. Wherever feasible, the contractor should make the professional production of poster summaries of DHS data a regular part of the in-country dissemination program.

The contractor has also given more emphasis to reaching non-technical and nongovernmental audiences as potential users of DHS data. For example, indigenous NGOs are increasingly considered a critical audience since they can use DHS results in refining strategies and mobilizing communities for local and national development programs. In spite of these endeavors to expand the DHS audience, many evaluation team contacts said that Macro Inc. needs to expand its dissemination activities to reach more of the potential user groups (especially outside of the population community) and it needs to cover local as well as national levels.

5.3 Incorporating a Dissemination Strategy into the Survey Design

The contractor reports that each cooperating country is expected to establish a committee to prepare the dissemination strategy. To assist in this process, Macro Inc. has prepared a new guide: *Research Communication: A Manual for Effectively Disseminating Demographic and Health Results to Decision Makers*. This manual provides general guidelines and sample materials for effective report distribution, design of seminars, media relations, and promotion of further dissemination. However, the Macro Inc. staff and subcontractors may have to play a more active role, especially at the start of each survey, to help identify potential user groups and possible sources of support. Several evaluation team contacts pointed out that the preparation of the DHS strategy for data dissemination is often too late, occurring after the completion of the survey analysis. Consequently, DHS contract staff members need to work with local organizations to ensure that dissemination plans are completed as early as possible in the DHS process.

Recommendation:

9. The contractor, in cooperation with local stakeholders, should prepare a plan for dissemination of DHS findings as a regular part of the survey design.

5.4 Involving More Communication and Dissemination Specialists in DHS

Several evaluation team interviewees reported that the local DHS implementing agency might have little understanding of the information needs of health or other potential user groups outside of the population community; therefore, it could not be expected to formulate an appropriate dissemination strategy. Even in countries that have carried out several surveys, the implementing organization may not have people who are skilled at "packaging" the DHS results in a way that highlights their implications for improving programs. There is thus a need to bring in new types of talent to improve dissemination and other post-survey tasks in some countries.

Recommendation:

10. In countries where DHS implementing agencies are staffed predominantly by demographers or statisticians, efforts should be made to involve communication and other specialists to provide the additional skills needed for effective results dissemination and promotion of further analysis and use of data.

Table 6**Status Report on DHS-III Dissemination Activities
(As of January 1996)**

COUNTRY	ACTIVITY	STATUS
Bangladesh	Regional Seminars	Underway
	Wall Chart	Underway
	Summary Report in Bangla	Completed
Bolivia	Wall Chart	Planning
Ghana	Seminar for Parliamentarians	Planning
	Seminar for Program Managers	Planning
	Regional Seminars and Factsheets (3)	Planning
	Wall Chart	Planning
Kenya	District Level Seminars and Factsheets	Completed
Philippines	Regional Reports	Completed
	Regional Seminars and Factsheets	Completed
	Wall Chart	Completed
	Video	Completed
	Summary - Safe Motherhood Survey	Completed
Senegal	Regional Seminars (4)	Planning
	Regional Chartbooks and Factsheets (6)	In progress
	Wall Chart	In progress

Source: Fax from Martin Vaessen, DHS, Macro Inc., to Jim Brady, 1/24/96.

5.5 Other DHS Dissemination Activities

Under DHS-III, the three major analytical report series include the following: (1) *Comparative Studies*, which are largely descriptive comparative analyses prepared at Macro Inc., (2) *Comparative Analyses Reports*, which are more indepth, focused cross-country comparative analyses of selected topics, and (3) *Working Papers Series*, which publish papers from staff or collaborative research efforts. The contract specifies that one to three reports of *Collaborative Studies* should be completed for each DHS survey country, summarizing the findings of research undertaken jointly by host-country scientists and Macro staff. (More information on these DHS documents is provided in Chapter 7.)

Key findings from DHS Final Reports are summarized in tables and graphs produced in the *Studies in Family Planning* journal (published by the Population Council in New York). Earlier, a *DHS Further Analysis* series (published with technical assistance from the Population Council) summarized findings of further analyses performed using data from DHS-II surveys. Macro Inc. reports that the *Further Analysis Series* and the *Methodological Reports* have essentially been integrated into the *Working Paper Series* under DHS-III. A list of DHS Working Papers is provided in Appendix D.

The semiannual *DHS Newsletter* is designed to keep the international population and health community abreast of project activities and newly released DHS findings. It is also used to publicize data archive services to promote further analysis. About 4,500 copies of the last *DHS Newsletter* (Volume 7, Number 2, October 1995) have been distributed. The same type of information is also disseminated through conferences, journals, and other publications. Special mention should be made of the publication, *Women's Lives and Experiences* (August 1994) which received wide dissemination in activities related to the 1994 International Conference on Population and Development. This contains brief descriptions and charts summarizing a decade of DHS results.

Macro Inc. also distributes regular press releases, both in the U.S. and internationally. Presentations are frequently made by project staff at USAID/Washington, professional conferences, international organizations, and for other donors. DHS data have also been published in summaries in the *Weekly Epidemiological Record* of the World Health Organization and UNICEF's annual review of the *State of the World's Children*. Macro has also taken steps to improve the timeliness of responses to requests for some reports by using a special storage and mailing subcontractor.

The 1991 *DHS World Conference* stimulated production of a large number of high-quality papers on relevant topics, many by authors from developing countries or the result of collaborations between developed and developing country analysts. USAID should consider funding a similar conference under a future survey program to stimulate more awareness of the data among health researchers and policymakers and get more mileage out of further analyses.

5.6 DHS Central and Regional Archives

5.6.1 *The Central DHS Archive at Macro Inc., Maryland*

Other contract requirements for dissemination of DHS findings include the maintenance of a **central archive** (with edited raw data files as well as standard recode files with supporting documentation). Macro Inc. reports (March 1996) that the special "child files" required by the contract are now being created. Interested users can also obtain instructions for creating their own customized child files (see the October 1995 *DHS Newsletter* for more information). The central data archive has 61 datasets available for 45 countries. Three file formats (flat, rectangular, and hierarchical) are available. They may be sent on Bernoulli cartridges, magnetic tape, or diskettes, depending on the user's hardware and/or software capabilities. Data files are accompanied by the appropriate documentation, including questionnaires and file descriptions.

The cost for each dataset (US\$50 for developing countries and US\$200 for researchers in industrialized countries) is probably a barrier only for comparative studies requiring multiple datasets. The data fee may also help to eliminate many requests for datasets from clients with no serious intent to complete further analyses. The requirement for prepayment (introduced after several incidents of nonpayment) may be a source of delay for those researchers whose institutions are slow to mobilize funds for such expenses. Customers can ask for data request forms and submit them via mail or E-mail (address: archive@macroint.com). Macro Inc. reports that as of the end of 1995, it had distributed a total of 7,469 datasets to various users (covering DHS-I, DHS-II, and DHS-III). Since the beginning of 1992, 5,472 datasets have been distributed. As of December 1995, Macro Inc. had earned US\$45,792 from the sale of datasets. This income is treated as cost recovery and deducted from monthly billings to USAID.

A review of the DHS-III Semiannual Progress Reports suggests that the major users of the central archive are institutions in the U.S. and other economically advanced countries, international donors, and USAID CAs. The contractor reports that USAID CAs are the major source of requests for datasets on several countries since they are often concerned with comparative analysis. The contractor reports that there are also significant numbers of users from developing countries, but they normally request datasets for only one or two countries. Some developing country users can also get DHS data from **regional depository libraries** or their country's DHS implementing agency, although the ease of access varies from country to country. The contractor is aware of the need for preservation of the DHS data beyond the current project. Macro Inc. has placed copies of the DHS-I data files in the National Archives, but notes that this is not the best location for continued dissemination and use of the data. Therefore, other sites are being explored. It would seem important for USAID and the contractor to focus on the question of identifying a national and/or global DHS archive to ensure that the data are properly transferred after the contract or project close-out.

Recommendation:

11. USAID and Macro Inc. should develop an action plan for the preservation and transfer of the central DHS archive and related facilities following contract/project close-out.

5.6.2 *Regional Data Depositories*

The core contract also specifies that "at least one institution in each region" should be identified to serve as a **regional depository** for DHS data tapes as a means of encouraging dissemination and further analysis. Eight depositories have been established but DHS-III progress reports provide little information on their role in promoting the use of DHS data. Table 7 lists the organizations and locations of the regional depositories. In view of global population patterns, it is interesting to note that there are three regional depositories in Africa and none in Asian countries. Macro Inc. advised the evaluation team that all regional centers receive data from all surveys, except for CELADE, which wants only data for Latin America and the Caribbean. Macro Inc. estimates that there are a good number of regional depository users, based on the requests and questions received by the DHS staff. The evaluation team member visiting the Cairo Demographic Center was told that 25 students were using the DHS datasets, but reportedly only DHS-I data had been received from Macro Inc. The Macro Inc. staff will reportedly follow up on this issue.

There is little mention of regional depository activities in the contract reports. USAID and the contractor should perhaps review the location rationale for the regional depositories to see if the current arrangement provides logical coverage of major DHS user countries. USAID staff involved in the design of future USAID PHN survey programs should consider whether regional depositories can play a more active role in the dissemination and use of survey data.

5.7 Using Electronic Media for Dissemination

Macro Inc. has also begun to strengthen global dissemination activities by using the World Wide Web (address: <http://www.macrint.com/dhs/>). "Metadata" about the DHS are now available on a DHS homepage, and programs to create child files using both SPSS and SAS can be provided to interested users.

Macro Inc. has initiated the development of presentation software, *Demographit*, which assists in the preparation of graphic presentations of DHS findings by country or region. This will include a feature to suppress values based on too small sample sizes. Given the growing importance of electronic communications channels, USAID and Macro Inc. should continue to use these to improve access to DHS information, especially by cooperating countries and USAID staffs.

TABLE 7**Regional DHS Data Depositories (1995)**

REGIONAL DHS DEPOSITORY	LOCATION
1. Cairo Demographic Center (CDC)	Egypt
2. Regional Institute for Population Studies (RIPS)	Ghana
3. Centre de Recherche de Population et Development (CERPOD)	Mali
4. Centro Latino-Americo de Demografia (CELADE)	Chile
5. East-West Population Institute	Hawaii
6. Institut de Formation Demographique (IFORD)	Cameroon
7. WHO - Special Program on Human Reproduction	Switzerland
8. Centre de Population et Development (CEPED)	France

6. SPECIAL SURVEYS OR IN-DEPTH STUDIES

The core contract calls for up to five special or experimental surveys (or indepth studies) to be completed in countries with "a research advantage for testing new methodologies" or where "unique data needs" are identified by USAID. The Contract Implementation Schedule suggests that three surveys were to be initiated by the end of Year 3. As of December 1995, topics and country locations had been identified for the five surveys and field work was underway or completed for two. Designs have been completed for two more and a design effort was underway for the fifth survey. Table 8 summarizes the status and principal impetus (as reported by both Macro Inc. and USAID) for each of the special surveys.

Table 8

Status of DHS-III Special Surveys (In-depth Studies)

Topic	Country	Principal Impetus	Status and Estimated In-country Costs
Adult and Child Mortality in a Population with a High Prevalence of AIDS	Tanzania	Macro Inc.	Field work completed (\$146,590)
Negotiating Reproductive Outcomes within Sexual Unions	Uganda	Macro Inc.	Field work underway or completed (\$215,896)
Reasons for Nonuse of Contraception	Egypt	USAID/W and USAID/Egypt	Planning stage. (\$225,109)
Reproductive Health	Ethiopia	Macro Inc. and USAID/W	Design completed (Negotiating with implementing agency)
Health Expenditures and Utilization of Health Services	Guatemala	USAID/W, IBRD, and IDB	Design underway

Source: Macro Inc.'s Evaluation Team Handout, November 1995.

Macro Inc. points out that these special or in-depth surveys are more difficult to do and they are not given a high priority by most cooperating countries and USAID Missions (which tend to see the DHS primarily as a mechanism to provide data for tracking general program progress). In spite of difficulties encountered in identifying the demand and sites for the special surveys, Macro Inc. has been successful in working with countries and Missions to choose policy-relevant topics for these studies. When completed, these surveys should thus provide useful information on both PHN program and survey methodology issues.

Each of the topics appears to have program significance within the survey country. The surveys should also yield information that will be useful in planning programs and refining survey methods on a more global basis. The Uganda and Egypt studies will, for example, provide information useful for refinement of questionnaire methods for eliciting data regarding decision-making for family planning. The indepth study in Tanzania may permit the development of new methods for data collection and analysis of mortality data in settings with high mortality rates among adults. The special study on health expenditures in Guatemala may form the basis for the development of a new supplemental module for use with the DHS core questionnaire. Data to be collected in conjunction with the reproductive health survey in Ethiopia will offer a unique, community-based source of information on the prevalence of anemia and infection with sexually transmitted diseases (STDs) (including gonorrhea, chlamydia, and syphilis).

The special or indepth surveys seem to be important for obtaining more specialized or specific results or for developing new methodologies, but they are less popular with Missions than the regular DHS surveys. Therefore, in future survey programs, such surveys may need to be recast, scaled down, and/or relabeled and a more assertive marketing effort initiated with potential sponsors earlier in the program life cycle.

7. FURTHER ANALYSIS

7.1 Planning and Contract Support for In-country Analysis

Further analysis generally refers to activities that occur after the issuance of the DHS Final Survey Report for each country. The core contract states that the intended beneficiaries of DHS surveys are host-country policymakers and program managers, and therefore "**...the contractor shall give special emphasis to (1) promotion of data utilization through development of a coordinated plan for in-country further analysis of data from each new survey" and (2) "sustained technical assistance by DHS staff, resident advisors, and/or consultants to implement the plans for further analysis."** Each country plan for further analysis is to specify topics and names of investigators, TA requirements, a local cost and TA budget, a timetable, and a dissemination plan. The contract also states, "These plans shall be submitted to the A.I.D. CTO and USAID Mission prior to completion of the Final Report for each participating country..." (page 18).

The evaluation team did not find information to indicate that the contractor had prepared the mandated **further analysis plans** for any of the DHS-III countries for which final reports had been issued. When asked about the lack of such country-specific plans, the contractor responded as follows:

... When USAID adopted its field support approach to funding country activities, Macro was advised that field support funding must be sought for almost all data utilization activities, with core funds used only in rare instances to support in-country projects. To obtain field support funding, Macro has been working closely with USAID Missions. To date, countries for which field support (or buy-in funds) have been provided for data utilization activities (research or further dissemination) include Bangladesh, Bolivia, Ghana, Kenya, Philippines, Senegal, and Turkey (fax from Martin Vaessen to Jim Brady, 1/24/96).

However, USAID staff members point out that the contractor should have been preparing some of the required further analysis plans under the core contract prior to the time that the field support system was introduced.

The evaluation team also examined the level of TA being provided for further analysis, using a Macro Inc. table showing days of **in-country TA** provided by the Macro Inc. home office staff for 15 countries as of November 1995. (See Table 6 above for a condensed version of Macro Inc.'s table on TA.) Out of a total of 2,652 days of TA, only 49 days were shown under the category of "further analysis".

Macro Inc. reports that these figures underestimate the actual time spent on further analysis, since some such work is done during trips for other reasons, some is done in the U.S., and some is done by other organizations (e.g., the East-West Center). The Macro staff also notes that the proportion of TA time spent on further analysis will rise as more surveys are completed. However, it is assumed that the contractor originally budgeted funds and TA to implement all of the major tasks in the core contract, including dissemination and further analysis. Since the progress reporting system does not track the use of funds and TA by task, **it is difficult to assess actual versus planned progress or costs over time for a specific contract task.** For example, the reporting system should show the proportion of the total contract budget planned and used each year for further analysis. This information would then inform USAID decisions about what tasks to reduce or eliminate if overall funding levels are reduced. In any event, recent USAID budget developments indicate a need for USAID and the contractor to review all the major tasks to be funded under the core contract during 1996-97. If significant changes are made in the contract task descriptions and related budget allocations, these should be reflected in a contract amendment.

Recommendation:

12. USAID, in cooperation with the contractor, should clarify the priority ranking and specific resource allocations for all major core contract objectives and expected outputs. Special attention should be given to defining the **core contract outputs expected in 1996-97** in the areas of in-country further analysis, utilization of DHS data for policy and program improvement in DHS countries, and local capacity-building.

Some Mission responses to a DHS review questionnaire cabled in December 1995 by G/PHN suggest that more further analysis work is being undertaken than is reflected in the current contract progress reporting system. And, as mentioned above, the contractor is working with several Missions to get funding outside of the core contract budget for such activities. The evaluation team's country visits suggest that there may be many ongoing further analysis activities that are not directly linked to the contractor's efforts but still contribute to DHS project purposes. For example, in Bangladesh, DHS data was being analyzed and used by a local consulting group to help the government set long-range family planning targets.

7.2 Provision of Special Tabulations to Support Further Analysis

To support in-country further analysis, the contractor is also required to provide special tabulations to host countries, USAID/Washington, and Missions on demand. Macro Inc. has reportedly been very responsive to requests for special tabulations. DHS information is also frequently provided in response to *ad hoc* requests from USAID and other U.S. organizations (which use it for program planning or submissions to Congress, the U.S. Office of Management and Budget [OMB], etc.). Some requests for new survey data cannot be provided as quickly as desired because of restrictions imposed on data release by the cooperating country. However, Macro Inc. has been successful in minimizing such restrictions and deserves credit for contributing to the freer flow and exchange of health and population information on a global basis. Cooperating country governments have become increasingly confident in releasing the data for unrestricted use with each successive DHS survey. This contribution to the free exchange of information represents an important, though perhaps unanticipated, development benefit of the DHS Project.

While the contractor's DHS data services could be of significant value to cooperating countries in their analyses and planning, several evaluation team contacts were not aware of their availability or potential uses. For example, in countries undergoing surveys, few local organizations receive advance copies of the final DHS questionnaire, so they do not know which questions are being asked in the survey. The evaluation team suggested to Macro Inc. that simply distributing the final questionnaire (perhaps with a description of the current survey) would better prepare people to frame questions for further analysis and to make related data requests.

7.3 Publications Related to Further Analysis

The core contract requires the contractor to initiate a **Working Paper Series** and to complete the following: (1) approximately one to three **Collaborative Research Papers** in each participating country (to be co-authored by host-country researchers and DHS staff and published either as DHS Working Papers or in professional journals), (2) up to 15 **Comparative Studies** (by DHS staff or consultants), and (3) 10 **Comparative Analysis Reports**. The Working Papers include the outputs of collaborative research projects or papers prepared by Macro Inc. staff. (See Appendix D for current list of Working Papers). The contractor stresses the importance of the Comparative Studies and the Collaborative Research Papers as the basic components of the further analysis activity.

Table 9 shows the status of 16 Comparative Studies underway. These are prepared at Macro Inc. and are a continuation of a series of largely descriptive comparative analyses of DHS data started during DHS-II. Ten of the 16 papers are updates of previous papers. Table 10 shows the status of the Comparative Analysis Reports, which present the results of more indepth, focused cross-country comparative analyses on selected topics.

The DHS comparative studies and reports that have been published appear to be widely known and used. These types of publications are particularly valuable for bringing together in accessible form both the basic data and interpretation of trends for some key sectors. Having comparable and reliable data for two or more years for many countries has made possible research on policy-relevant topics — for example, the relationship between women’s education and fertility — at different stages in demographic transitions. —

Table 11 shows the status of 27 **Collaborative Research Papers** as of January 1996. An evaluation team member’s December 1995 review of seven draft papers for one country indicated that they were written by host-country or USAID individuals and not co-authored by Macro Inc. staff and host-country researchers (as specified in the contract). The potential operational utility of these drafts also appears to vary significantly. The number of collaborative studies for some countries exceeds the target of one to three papers per country set in the contract, but the total of 27 planned papers covers only eight countries. Under the plan outlined in the contract, more countries would have been represented in the collaborative research program. Macro Inc.’s response is that collaboration should not equate with joint authorship, and Macro Inc. staff persons did provide assistance for the papers. Macro Inc. also notes that these papers are intended to be part of the Working Paper Series, so uniform quality was not expected. Macro Inc. reports that the number of papers and topics reflects the interests of Mission and host-country staffs.

The contract goal is to use the collaborative research papers to promote the utilization of DHS results by host-country policymakers and program managers. Therefore, a more clearly defined research agenda and peer review system should perhaps have been delineated earlier in the contract to enhance the collaborative quality and operational relevance of these research efforts.

7.4 Leveraging Support for Local Analysts

In many cooperating countries, interested research and analysis groups often lack funds for paper, photocopies, diskettes, or local transport. If users bring their own diskettes, implementing agencies will usually download the full data set for a potential user. However, the lack of a budget for the time required to download only the data for specific variables has been a barrier to providing users a subset of data that may be more easily manipulated with widely available software packages. Such local groups may get more attention under the increasing number of Mission buy-ins for further analysis reported by the contractor. Other funding might also be identified as part of the up-front survey needs analysis and design activities for new core contract surveys. In the past, Macro Inc. has supported several local individual researchers outside of the USAID contract through a small grants program funded by the Andrew Mellon Foundation.

Table 9**Status of Comparative Studies (As of February 1996)**

TITLE	AUTHORS	STATUS
1. Unmet Need *	C. Westoff, A. Bankole	Published 1995.
2. Knowledge, Use and Sources of Contraception*	S. Curtis, K. Neitzel	In production.
3. Reproductive Preferences*	C. Westoff, A Bankole	Published Feb. 96.
4. Men's Fertility, Contraceptive Use, and Reproductive Preferences	M. Seroussi, C. Ezeh, H. Ridders	In production.
5. Infant and Child Mortality*	G. Bicego, O. Ahmad	Draft under review.
6. Fertility Levels, Trends, and Differentials*	T. Saha, G. Mboup	Partial draft complete. Final draft due mid-1996.
7. Women in Development Indicators (WID buy-in)	S. Kishor, K. Neitzel	Draft under review.
8. Childhood Immunizations*	E. Sommerfelt, A. Piani	Draft report due March 96.
9. Childhood Undernutrition*	E. Sommerfelt, P. Haggerty	Some tables prepared. Draft report due end of 96.
10. Breastfeeding, Amenorrhea, and Abstinence	S. Rutstein, P Haggerty	Some tables prepared. Draft report due end of 96.
11. Characteristics of Households*	B. Barrere, M. Ayad, A. Piani	Some tables prepared Draft report due early 96.
12. Maternal Nutritional Status	E. Loaiza	Partial draft done. Draft report due early 96.
13. Maternity Care	K. Steward, O. Ahmad	Analysis underway. Draft report due mid-96.
14. Service Availability*	E. Loaiza, T. Saha	Some tables complete. Draft report due mid-96.
15. Education	J. Schoemaker	Some tables complete. Draft report due mid-96.
16. Childhood Morbidity and Treatment*	S. Ryland, H. Ridders	Analysis in progress. Draft report due mid-96.

* Update of previous publication.

Source: Macro Inc. Semi-Annual Report No. 6, September 1995.

Updated status information received from Macro Inc. by telephone, 2/29/96.

Table 10

**Status of the Comparative Analysis Reports
(As of February 1996)**

TITLE	AUTHORS	STATUS
1. Effects of Family Structure on Children's Health	A. Gage, A. Piani, E. Sommerfelt	Report being reproduced.
2. Trends in Ideal Family Size	S. Rutstein	Preliminary draft completed. Final draft due mid-96.
3. Sample Design and Sampling Errors	T. Le V. Verma	Preliminary draft completed. Final draft due mid-96.
4. Cycling Patterns and Determinants of Contraceptive Discontinuation and Failure	S. Curtis A. Blanc	No work yet. Draft report due end of 1996.
5. Patterns of Sterilization Use and Regret	E. Loaiza	Preliminary analysis of one country completed. Draft report due mid-96.
6. Modern Ends, Traditional Means	P. Poukouta	Analysis underway. Draft report due mid-96.
7. Mass Media and Reproductive Behavior	C. Westoff A. Bankole	First draft completed. Final draft due mid-96.

Note: Three additional reports will be selected from among various studies in progress.

Source: Macro Inc. Semi-Annual Report No. 6, September 1995.

Updated status information received from Macro Inc. by telephone, 2/29/96.

Table 11**Status of Collaborative Research Papers
(As of January 1996)**

COUNTRY	TOPIC	STATUS
Bangladesh	Contraceptive Use Dynamics	Revising Paper
	Regional Variations in Family Planning Use	Planning
Bolivia	Service Availability	Planning
	Reproductive Health (Maternal Mortality)	Planning
Egypt	Contraceptive Use Dynamics	Completed
	Fertility Preferences of Husbands and Wives	Completed
	Unmet Need	Completed
	Profile of Women's Lives	Completed
	Demographic Situation in Upper Egypt	Completed
	Fertility Levels and Trends	Completed
	Trends in Contraceptive Use	Completed
	Choice of Provider	Completed
Ghana	Awareness of AIDS	Preparing First Draft
Philippines	Contraceptive Use Dynamics	Preparing First Draft
Senegal	Adolescent Sexual Behavior	Preparing First Draft
	Unmet Need: Projections by Region	Preparing First Draft
	Use and Demand for Contraception	Preparing First Draft
	Trends in Child Mortality	Preparing First Draft
	National. Status of Children & Breastfeeding Practices	Preparing First Draft
	Knowledge and Attitudes Towards AIDS	Preparing First Draft
Turkey	Contraceptive Use Dynamics	Preparing First Draft
	Induced Abortion	Preparing First Draft
	Utilization of Reproductive Health Services	Preparing First Draft
	Fertility Trends & Determinants (Including Workshop)	Preparing First Draft
	Fertility Preferences	Preparing First Draft
	Women's Status and Fertility	Preparing First Draft
Zimbabwe	Contraceptive Use Dynamics	Revising Draft

8. USE OF DHS DATA FOR POLICY AND PLANNING

8.1 Impact of the High Quality of DHS Surveys on Data Use

The **utilization** of DHS data for policy and program planning decisions is also a specific objective of DHS-III, but like **further analysis**, it apparently receives less technical assistance and other contract resources than the design and implementation of new surveys. Nevertheless, evaluation team interviews and document analysis indicate that **DHS reports and data are being extensively used in the evaluation and improvement of policy and planning, both at the country and global levels.** There appears to be less use of the DHS health data than the population data. While the utilization of DHS data for decision-making is often not a direct result of DHS contract activities, such use is facilitated by the perceived high quality of the DHS surveys.

8.2 Illustrative DHS Uses by Major Customers

The three major DHS user groups are USAID staff, other international donors, and host-country population and health officials. In some countries, the academic and research community is also an important user group, both to support national program agencies and to further general knowledge of population and health issues.

8.2.1 Use by USAID and Other International Organizations

The DHS is the fundamental source of information showing where countries and regions are in the demographic transition. **Cross-country comparability** has been particularly important for the monitoring and analysis of global trends by USAID and other international organizations. Many evaluation team contacts indicated that USAID's population programs, and those of the World Bank and UNFPA, would not have received such significant levels of continued support without the accumulation of credible evidence of progress that the successive DHS projects have provided. **Many USAID staff members emphasized to the evaluation team that the DHS will be a critical tool for measuring progress toward Strategic Objectives under the new program management system.** In addition, in new USAID programs (as in Eastern Europe and New Independent States [NIS] countries), the DHS provides an important baseline for assessing national needs, because existing health and population data bases are seriously deficient.

Other evidence that the DHS results are known and widely used by those shaping population policy in international agencies comes from perusing various **World Bank** reports or the documentation for various international meetings. The latter would include, for example, the plenary speeches and background papers prepared for the 1994 **International Conference on Population and Development**. DHS data provided the basis for the vast majority of the empirically based assertions in the ICPD documents (see Caldwell, 1994).

DHS data may also be used to track progress toward several of the 24 goals set for the Year 2000 during the 1990 **World Summit for Children**. Some UNICEF officials report that the DHS obviates the need to conduct other surveys, especially to document nutritional status. The UNICEF staff in the Ivory Coast thus reported to the evaluation team that the "DHS has been very useful for us. It provides the kind of data we cannot get from other studies which have been done." The UNICEF staff in Bangladesh acknowledged the high quality and value of DHS, but it is also funding an entirely separate survey effort, focused on the World Summit Goals, which produces district-level estimates. The UNFPA representative in Bangladesh was very positive about DHS but is locked into supporting an ongoing Bureau of Public Statistics "Health and Demographic Survey" which appears to duplicate aspects of DHS and reportedly has validity problems. The Bangladesh situation suggests that more coordination among donors on population and health information needs could lead to better and less-costly data generation and use.

Cross-country comparisons of DHS data have also been used to generate estimates of unmet need for family planning (Bongaarts and Bruce, 1994). Even those who criticize the usual measures of unmet need and propose alternative concepts rely on DHS data to make their points (e.g., Pritchett, 1994).

8.2.2 Use of DHS by National and Regional Policy-makers

The strong reputation of DHS for reliability has been important for promoting the use of survey results in cooperating countries. DHS data and reports have thus provided input for policy development and program planning in several USAID-assisted countries. In **Bangladesh**, DHS data were used by analysts from The Futures Group International and local agencies and universities to produce long-run estimates of the impacts of improvements in program quality and contraceptive continuation rates (Barkat et al., 1995). Such results have influenced the Bangladesh national family planning program to identify the improvement of quality of services as one of its strategic objectives.

A USAID staffer, reporting on his earlier experiences with the DHS in **Indonesia**, observed that: "The Ministry of Population has fully bought into this survey for establishing its priorities and measuring its progress."

The rapid increase in contraceptive use in **Egypt**, beginning in the late 1980s, seems to have surprised most observers; the credibility (and comparability) of the two DHS surveys (1988 and 1992) helped to focus policy and program debates on why increased contraceptive use was happening instead of whether it was happening. Measurement of neonatal mortality in Egypt, and demonstration of its importance as a proportion of the IMR, also reportedly led to a reallocation of funds to focus on the perinatal period. The importance of DHS in Egypt is also suggested by the fact that the Minister of Population and Family Planning has chosen to be the national DHS director. He is also one of its most articulate representatives among Egypt's top policy officials.

Having comparable DHS data from a wide variety of countries also allowed confirmation of the first clear signs of the fertility decline in **sub-Saharan Africa**. This helped to disprove some of the skeptics who believed (on the basis of many local studies) that African family structures, childrearing practices, and farming systems would preclude rapid changes in fertility preferences like those witnessed in Asia. Thanks in large part to analyses of DHS data, the population policy debate is now more focused and productive, dealing with reasons for cross-country variability within Africa rather than with sweeping assertions based on isolated small-area studies. Comparative analyses of adolescent fertility, improvements in child health, and factors affecting contraceptive use in African countries, carried out by international working groups organized by the National Academy of Sciences, relied heavily on DHS data. Results have been presented and discussed at a special meeting of the **African Population Advisory Commission**, consisting of high-level officials.

Although our technical people demand and use data routinely, we have not yet developed a culture of data use in this country. This has been a barrier to the peripheralization of data use, such as by communities and politicians to promote social change. -- AIBEF Staff, Abidjan

The 1994 DHS in **Zimbabwe** showed a plateau in proportions of children fully immunized with little improvement during the last decade. Further analyses are planned by the Ministry of Health and UNICEF to support decisions about revitalizing the Expanded Programme on Immunization.

In **Morocco**, the disappointing finding in the 1987 DHS that only 25 percent of women received prenatal care from trained providers led to a new emphasis in the program on training nurses and midwives. The 1995 DHS showed a marked increase in the percentage of women receiving adequate prenatal care.

The Department of Health in the **Philippines** has used DHS data to set targets for its programs. The DHS contractor staff also helped to prepare information materials on regional population and health trends in support of the Philippine government's efforts to devolve health and population programs to regional and local authorities.

In numerous countries, the **RAPID Project** presentations, based largely on analyses and projections using DHS data, have raised the awareness of key officials about (1) key population and health trends and (2) interactions among population, development, and environmental factors.

That officials in developing countries value the comparability and reliability of DHS data is also suggested by the requests for DHS technical assistance and/or archiving services from countries conducting similar surveys under other auspices (e.g., **Vietnam, Colombia, Guinea, Lesotho**).

8.2.3 DHS Use by Local and International Researchers

There appears to be significant use of DHS data for academic and policy-related research activities, either as part of the DHS-III Project or under other auspices. Government agencies are thus using members of the academic community to assist in analyzing DHS and other studies and their implications for national policy and program goal-setting. In **Egypt**, DHS data have been used by researchers of the Johns Hopkins University Population Communication Services and local collaborators to produce an "audience segmentation" study to guide future information, education, and communication (IEC) efforts. The surprising finding from the 1992 DHS in Egypt, that over 70 percent of women had first learned about contraceptive methods from mass media, raised policymakers' interest in mass media IEC. Large graphics showing the results of the IEC analysis are prominently displayed on the exterior of the new building of the Ministry of Population and Family Planning. In discussions with the **evaluation team**, Minister Mahran also stressed the importance of television and other mass media in Egypt's efforts to reach program target groups.

Much of the use of DHS for policy-relevant research takes place outside the formal boundaries of the DHS-III Project. Since the data are used in many population research centers, USAID benefits from the results of analyses completed as a by-product of research and training projects not funded by USAID. Moreover, the policy use of DHS data is often "second-hand," e.g., policymakers know the results of a comparative or local study but do not necessarily know that the DHS Project produced the raw material from which the results were produced. For example, in the Ivory Coast, a UNICEF official told team members: "The DHS data are used constantly, although many people do not know that the source is the DHS." Similarly, in Bangladesh, a CA professional working on a USAID-supported health project told **evaluation team** members that he had not used DHS data and considered them primarily useful for family planning programs. However, he had recently attended a briefing by Kenneth Hill on child mortality trends and differentials and recalled several key results of the analysis. He then discussed their meaning for child survival programs, not realizing that the analysis had relied heavily on DHS data and a follow-back interview with DHS households reporting a recent child death.

The above are DHS data document members from on uses of successive DHS-III

8.3

As noted been limited by manipulate the on a DHS-II DHS not analysis to the Macro Inc. STATA for simplify the of data files for

Macro Inc. Project have

"EASEVAL" software package. This is reportedly a simple user interface built on top of ISSA Version 2. According to the contractor, EASEVAL provides "...simple frequencies, cross-

One dissemination seminar was held and the attendance and participation was very good. Population/health policy is not necessarily formulated immediately following DHS. It is a gradual process which can take years and, in our case, we follow a dialogue with the government based on a particular finding of DHS. As a matter of fact, DHS sometimes supports a particular health policy framework already in progress or accomplished. -

-
E-Mail from USAID PHN staff in Africa

just a few examples of the policy uses of taken from a) evaluation team interviews and reviews or b) DHS data familiar to team previous work. Some illustrations are based DHS-II data or from comparisons of DHS surveys in countries (only recently have results become available in many countries).

Improving DHS User Software

earlier, analysis and use of the DHS data has the lack of user-friendly software to data set. The contractor reports that it acted evaluation team recommendation that the spend effort to add capabilities for further DHS software package, ISSA. Instead encourages use of software such as SPSS or analysis tasks. Macro has also tried to use of ISSA and to facilitate the generation use with SPSS, SAS, or other packages.

and the USAID-funded EVALUATION been cooperating on the development of the

tabulations, and selected built-in indicators. It is not a general purpose package, but is a useful tool for 'taking a first look' at the data. It is not capable of analysis of data for any unit other than the household or the individual woman. It focuses primarily on fertility and family planning related areas and is of very little use to people in the health sector." While EASEVAL is covered in in-country DHS training, the training is more geared to provide the skills needed to work with SPSS, ISSA, STATA, SAS or other packages of the trainee's choice. (Fax from Macro Inc. to Jim Brady, January 24, 1996.)

In spite of these improvements, many potential users reportedly lack the training and skills necessary to manipulate the data set. This includes using ISSA or merging data from separate questionnaires using SPSS or ASCII files. Better software is essential if more people are to access and manipulate the growing DHS databases.

Recommendation:

13. Macro Inc. should continue efforts to identify or help develop inexpensive and user-friendly software that can increase the use of DHS data for policy and program evaluation and improvement.

8.4 Providing Better Information on DHS Services and Costs

Population and family planning professionals in USAID and other organizations usually have a good general understanding of DHS but often do not understand the range of specific survey options (and associated costs) that may be made available for a given country. People outside of the population field often have even less of an idea how the DHS can be used. While specific site or country needs and costs will vary, Macro Inc. should provide descriptions and relative cost estimates or cost ranges on such elements as (1) the regular DHS core and supplemental modules and sample size options and (2) other options, such as sub-national estimates or modifications to standard questionnaires or data processing procedures.

The wide dissemination of such information will help USAID and other customers to better assess the feasibility of using DHS to meet their measurement needs. It should also hopefully contribute to better customer relations. Some potential customers told the evaluation team that Macro Inc. staff members appeared to be very reluctant to consider changes in DHS instruments or approaches when such modifications were requested to address local program needs. With the USAID budget allocation decisions shifting to local Missions, the contractor staff may need a more varied and proactive marketing approach.

Recommendation:

14. Macro Inc. should clarify the general costs and ranges of DHS survey services it can

provide and, with USAID approval, issue a "catalogue" describing these services.

8.5 Reaching More Potential DHS Users Outside the Population Field

The contractor has made special efforts to better inform health professionals about the DHS. Macro Inc. staff members have, for example, given papers at health conferences, made presentations at WHO headquarters, and consulted field health CAs, USAID Mission staff, and host-country officials on questionnaire design and invited them to dissemination meetings. The evaluation team's analysis suggests that while progress has been made, the DHS outreach efforts will need to continue and hopefully be expanded to ensure that more key potential data users become involved, especially in priority DHS countries. USAID/Washington staff persons working on health sector activities are generally aware of the DHS program. Many of these interviewees gave high marks to the effort made during the design of DHS-III to solicit their views on data needs in health, although some said that they were not sure that their suggestions were actually used in designing the new survey instruments.

Staff members from one USAID health unit admitted that they were drawn "kicking and screaming" into participation in the design of the DHS questionnaire, but they were later surprised by how useful DHS data were for program planning and evaluation. Similarly, some Mission health staff members reported to the evaluation team that they used the DHS as the primary source for identifying feasible progress indicators in the ongoing USAID re-engineering and Strategic Objectives exercises. Several USAID health staff members also noted the value of DHS in providing data to track and publicize key USAID-supported global programs like Child Survival.

The DHS Project has established good relationships with two USAID-funded health projects, the Data for Decision Making (DDM) Project and the MotherCare Project. DDM conducted a seminar on how to use DHS data for health sector decisions in African countries. MotherCare staff members have been active in helping develop questionnaires on reproductive health and safe motherhood. These contacts are valuable since they help to raise awareness of DHS among key health professionals.

There still appear to be important potential DHS users in the health field who are not being reached by DHS information efforts. Consequently, many of these tend to perceive the DHS as a demographic and family planning survey. As suggested earlier, credibility questions about the DHS data on immunization prevalence also need to be addressed since these cause some potential users to doubt other aspects of the DHS. Current DHS information outreach activities do not appear to target health organizations to the same extent as population organizations. The contractor may need to better target and hopefully expand information activities, since the increased use of DHS data by health professionals may involve a slow build-up of familiarity and trust. It should be remembered that demographers and family planning staffs had been "primed"

for years by WFS, CPS, and DHS-I and II so they were receptive audiences for DHS-III. It may take considerable time and effort to make health audiences similarly aware of the DHS program. The DHS information campaigns should advise potential users about the DHS results affecting their areas and then told how to obtain additional data. A special USAID inhouse information dissemination effort may also be very timely, since many Missions and Bureaus plan to make greater use of DHS data as indicators of progress toward their Strategic Objectives and other program goals.

Recommendation:

15. USAID and the contractor should further expand efforts to involve more USAID and host-country health professionals in each DHS.

8.6 Addressing the Program Managers' Need for "Scorecard" Data

8.6.1 Reviewing the Operational Use of DHS Survey Items

While the content and length of current DHS questionnaires reflect the information demands made by many stakeholders (primarily USAID staffs), new pressures for further changes are emerging. In particular, funding reductions and new program monitoring and measurement systems in USAID are expected to have an impact on DHS and similar surveys. Many USAID staff members and host-country policy and program planning officials focus only on a few DHS measures. They think it is important to have key rates (e.g., contraceptive prevalence, method mix, total fertility rates, and infant mortality rates) measured credibly at regular intervals both for planning and monitoring development programs. Evaluation team contacts mentioned these types of measures most often, suggesting that some of the other regular DHS questionnaire items may be less familiar and/or less relevant for program decision-making.

There may be a need for collecting feedback from **current operational customers** in USAID and cooperating countries on the specific DHS data they do use. Then, efforts could be made to eliminate some of the less operationally relevant survey questions. This will not be an easy task since affected groups will argue that their items are vital and must be retained.

8.6.2 The Growing Demand for Program Impact Data

USAID staffs and other DHS customers are increasingly asking for shorter and more frequent surveys to obtain program planning and progress monitoring information. There is also an increasing demand for local level (sub-national) estimates of key rates. Some Missions feel that they need to implement the full DHS more frequently than every five years in order to meet the new demands from USAID/Washington for data to measure progress toward global and country Strategic Objectives. However, implementing the full DHS package, with the TA required to

assure standardization, use of the ISSA software package for data entry and editing, and collection of the birth histories, could involve more work and cost than is warranted.

Some USAID field staff members have suggested such alternatives as a "mini-DHS" every two or three years to collect a few indicators needed for monitoring projects. Missions thus need the option of less fledged DHS (five years). It surveys with designs or an presumably manage their high quality more staff muster.

Technical knowledgeable surveys and might well be current regular that these out as part of to avoid complex excessive

In an informal that another

is a "permanent survey" that continuously updates information bases. Instead of covering a sample of 6,000 women by interviewing 2,000 per month for three months (as at present), the survey would cover 500 per month each month of the year continuously (using two instead of eight teams of interviewers). The approach could be varied and special information needs could be added as they are identified. Mr. Rutstein also believes that the new approach would be cost effective because, for example, a permanent (probably part-time) survey staff would reduce the time and training cost now needed to gear up a new staff for each survey. He also argues that there would be more local program continuity and organizational learning in such an approach. USAID and Macro Inc. should consider testing the "permanent survey" in one or two of the countries scheduled for surveys in 1996-97 (see Rutstein, 1995).

The changing USAID resource levels and program measurement needs suggest that USAID, in cooperation with the contractor, needs to ascertain what the DHS-III Project might do during

The Mission would like to monitor its population and health programs more closely by a mini-DHS (KAPS) every two-three years. Admittedly, that is expensive, but there are no better alternatives. District level data would be immensely more costly, unless a selected few were oversampled in the DHS/KAPS. In addition, we have successfully managed to conduct the service availability module separately (under the EVALUATION Project). -- E-mail from USAID Mission PHN staff

TA-intensive surveys in between the full-surveys (that could be undertaken, say, every is important to avoid overloading the interim overly complex questionnaires or sample excessive number of topics. Missions can field such surveys now, but have to write and own contract for the survey and ensure the and comparability of results. This requires expertise and effort than some Missions can

assistance from Macro Inc. and other staffs could be helpful for such interim DHS subcontractors in cooperating countries selected to implement them. However, survey workloads and other factors suggest interim surveys should perhaps not be carried the current DHS-III Project. It is important overloading the interim surveys with overly questionnaires or sample designs or an number of topics.

paper, Shea Rutstein, Macro Inc., suggests alternative for obtaining more frequent data

1996-97 to address the new USAID data requirements, while continuing the regular DHS survey operations required under the core and requirements contracts. As part of this process, USAID/Washington and the Missions may need to agree on how to link Agency-wide needs for global data (to justify USAID-wide initiatives) and the country-specific data needs of Missions and cooperating countries.

A quick customer service survey can be done to ascertain which elements of the current approach are most important to **Mission and cooperating country program managers**. Then a quick re-engineering analysis of the current DHS process could be done to identify ways of addressing some of the new program monitoring and measurement needs identified by the customer survey and other means. It may be that some combination of regular, interim, and/or "permanent" DHS surveys might be developed. However, given Macro Inc.'s existing commitments to complete several regular and special DHS surveys within the relatively short time remaining under the contract, it is doubtful that a significantly new approach can be accommodated under the DHS-III Project. Therefore, it may be necessary to address the longer-term operational needs as part of the design of the new G/PHN Results Package for surveys and measurements. A few suggestions for such future survey efforts are provided in the last chapter of this report.

Recommendation:

16. USAID and the contractor should conduct a quick Customer Needs Survey, focusing on how well the DHS is meeting the information needs of USAID and cooperating country policymakers and program managers. The primary aim is to assess and improve the match between current DHS outputs and the changing measurement data needs of key operational users. The customer survey results would be critical baseline inputs for a quick re-engineering analysis of overall DHS processes.

9. LOCAL CAPACITY-BUILDING

9.1 Differing Perceptions of Capacity-building Requirements

Several evaluation team contacts, especially at USAID/Washington, indicated that the contractor should be doing more to develop local capacities for conducting DHS surveys, often citing the need for cost-reduction and long-term program sustainability. The core contract includes "local capacity-building" as one of the five major DHS activities, but it does not define a strategy or action plan for pursuing the goal.

Significant survey capacity-building has occurred in some countries, but this is commonly achieved as part of the process of planning and implementing individual surveys. Macro, Inc. reports for its TA tends to decline in DHS that the need for TA tends to decline in DHS they gain experience through repeat surveys.

In looking at sustainability, Macro Inc. reports for its TA tends to decline in DHS they gain experience through repeat surveys. However, the issues of cost-sharing and cooperating country funding. USAID and the contractor have initiated various efforts over time to increase other donor and cooperating country funding. Macro Inc. cost data suggest that country contributions and other donor probably constitute only 15 percent of total survey costs. As some evaluation team contacts pointed out, the DHS has been a USAID-oriented program to meet many of its own data needs, so traditional local USAID concerns about cost-sharing and institutional development have not been strong. At the same time, shrinking USAID budgets have led several observers to say that local sustainability programs must now become urgent targets for DHS-III and future survey programs.

From my experience [in Africa] the one thing which Macro could improve on is its ability to explain the DHS to host country counterparts and to involve them in the process. I think that Macro is very knowledgeable about what it does, but does not have the required skills to transfer the technology. They either need to train their present staff in technology transfer or hire people who have the ability to both do the work and train others. They need to create a corporate mentality which appreciates the need for transfer of their skills. -- E-Mail from USAID Mission Staffer.

part of the process of planning and individual surveys. Macro, Inc. reports for its TA tends to decline in DHS they gain experience through repeat

the issues of cost-sharing and USAID and the contractor have initiated various efforts over time to donor and cooperating country funding. Macro Inc. cost data suggest that country contributions and other donor probably constitute only 15 percent of costs. As some evaluation team contacts the DHS has been a USAID-oriented meet many of its own data needs, so USAID concerns about cost-sharing and institutional development have not been same time, shrinking USAID budgets several observers to say that local and more non-USAID funding must now targets for DHS-III and future survey

9.2 Status of Contract Activities Funded Under "Capacity-building"

The activities listed in the contract under "local capacity-building" include TA, a Fellowship Program, 12 training workshops, and provision of up to 60 microcomputer systems. The one

activity which should clearly be linked to local capacity-building is the **DHS Fellowship Program**, but it has not been used in this fashion.

DHS fellows have been selected on the basis of personal qualifications rather than organizational affiliations in their home countries. To ease the problem of obtaining U.S. visas, the contractor recruited persons already in the United States. The project should have required that fellows come from (and return to) regular positions in host-country population or health agencies, that they arrive on J-1 temporary visas, and that they be committed to take substantial responsibility for directing DHS efforts in their own countries after completion of their training.

None of the six fellows trained for two years at Macro Inc. headquarters under DHS-I or DHS-II are working in their home countries (two are Macro Inc. employees). It is also uncertain how many of the four fellows now being trained at Macro Inc. under DHS-III will return home to work on DHS-related tasks. Consequently, special efforts should be made to ensure that the current fellows end up in relevant assignments. It is difficult to justify continuation of the Fellowship Program since it appears to have contributed little to the development of DHS capacities in cooperating countries.

Recommendation:

17. USAID and the contractor should phase out the DHS Fellowship Program since it has contributed little to capacity-building in the cooperating countries.

Local capacity-building might be better served by a shorter-term fellows program, involving a broader range of the skills required for survey work (management, sampling, data processing, graphics production and editing, planning dissemination), with individuals selected as part of a country-specific plan for developing effective DHS systems. Any remaining fellowship funds could be used, for example, to allow a new DHS survey director for a country where a survey is planned to "shadow" and learn from staff members in another country where a survey is being conducted.

Another major contract activity funded under "local capacity-building" is **workshops**: (1) six workshops on ISSA software (three regional and three country) and (2) six workshops on analysis (three regional and three country). The *Year 3 Workplan* suggests that most of these will be undertaken during Years 4 and 5. Three local data processing workshops have been held, but USAID recently put some workshops on hold, reportedly because of funding uncertainties. While the contractor sees these as important capacity-building tools, USAID staff persons have raised questions about the design and country impact of the workshops, especially those to be run on a regional (international) basis. In the absence of specific capacity-building goals, it is difficult to assess the potential contribution of such workshops. The contractor feels that the main aim of the workshops is to "do analysis and include extensive teaching in computer programming and analysis techniques" (Macro Inc. memo, February 14, 1996). During the general review of

contract activities (recommended above), USAID and the contractor could consider whether some of the workshop funding under this capacity-building section of the contract should be used to support broader training on overall survey design and management skills.

Recommendation:

18. USAID and Macro Inc. should review the planned ISSA and analysis workshops (funded under "capacity-building") and decide whether different training programs might better address the capacity-building needs of DHS countries. (This assessment could be part of the broader joint review of priorities for the balance of the contract. See Recommendation 6.)

In Bangladesh, USAID staff reported that local level DHS workshops, funded in part by Macro Inc., have been highly effective in focusing program managers and field workers on service delivery problems and efforts to address them. Such locally focused and problem-oriented workshops would seem to merit support by DHS.

9.3 Capacity-building as a By-product of Survey Implementation

As mentioned above, there is no explicit strategy for strengthening the general survey capacity of local organizations, but the contractor has developed some local talent pools in the course of conducting DHS survey operations. Macro Inc. staff members thus provide TA, intensive on-the-job training, equipment, and funding as needed to ensure the timely completion of a high-quality survey. (Equipment support has included the provision of 54 microcomputer systems.) These inputs thus contribute to the development and/or strengthening of local capacities to design and carry out surveys. The accumulation of experience with DHS surveys in some countries, such as Bangladesh and Egypt, has fostered the development and/or continued growth of private or quasi-private groups with considerable skill in DHS and other survey operations. Good questionnaires, manuals, and other survey documentation have also been produced over the years. Macro could make an important contribution to the development of survey management capacities by integrating appropriate parts of these materials into a guidance package for distribution to relevant groups in all DHS countries.

Recommendation:

19. Macro Inc. should build on its experience and existing documentation to produce an integrated package of general *Survey Management Concepts and Guidelines* to help cooperating country staff plan and manage high-quality DHS and other surveys. Related training workshops to explain the DHS approaches to survey management could also be an important capacity-building tool (see Recommendation 18).

In terms of more general or longer-term DHS institution-building efforts, some evaluation team contacts pointed out that a DHS survey is conducted too infrequently to be a major focal point for such endeavors. A capacity-building strategy that also involves country-based organizations would be needed for meaningful long-term results.

It does not seem reasonable to assign Macro the task of local capacity building, since they only come around every four years or so. However, they could participate in a capacity-building effort of the USAID Mission or other organizations based in the country.
PHN Staffer in a Regional Bureau.

Several evaluation team field contacts observed that DHS surveys would often not have been completed on time and at required quality levels if staff members from Macro Inc. had not played a strong role in local activities. DHS surveys are thus more demanding in terms of complexity and breadth of subject matter, adherence to tight schedules, and quality control than most demographic surveys.

Consequently, there is a trade-off between building local capacity and such factors as meeting schedules and maintaining quality. In addition, in some countries, it reportedly would have been difficult, if not impossible, to produce acceptable work if DHS were managed solely by the government agency formally assigned to do such survey work.

The quality aspect of DHS is critical to USAID and other customers who are primarily concerned with having unimpeachable data on country or global trends to use in program justifications or external relations. Such groups tend to be less concerned about costs or the goal of local capacity-building. However, several evaluation team contacts pointed out that the shrinking USAID funding levels will not permit the continuation of past patterns of high Macro Inc. involvement and the high costs of expatriate TA. At this advanced stage of DHS experience (Year 12), USAID and Macro Inc. can and should give higher priority to promoting sustainable local DHS organizational networks and obtaining more non-USAID support for DHS.

9.4 Elements of a Capacity-building Strategy

This section discusses capacity-building actions that might be initiated in selected countries during the remaining months of the present contract (1996-97), but some elements could be appropriate for inclusion in future PHN survey programs.

9.4.1 Realigning DHS Country and Task Priorities

It is important for USAID (headquarters and Missions) and the DHS contractor to jointly develop **country-specific capacity-building and phase-down/phase-out plans**, especially for countries with considerable DHS experience and capabilities. Such plans should include an appropriate allocation of technical assistance, training, and other resources needed for (1) post-survey as well as survey tasks and (2) specific institutional and staff development activities. This, in turn, may

require the contractor to provide a broader range of employee/consultant skills than it now has available. More economically advanced DHS countries should be required to pay an equitable share of local costs. In some countries, other bilateral or multilateral donors should be targeted to share or assume the support role that USAID now plays.

The original contract assumption was that priority would be given to strengthening those countries with the most DHS experience (and "graduating" them from foreign TA). In view of changing USAID conditions and program priorities, USAID needs to decide which countries should receive priority for DHS capacity-building activities during the next two years.

Priority ranking may require trade-offs between (1) USAID's global PHN priority countries and (2) a Mission's general program priorities for a particular country. Provisions may also have to be made for supporting DHS operations in a priority DHS country where the USAID Mission has closed.

A DHS capacity-building strategy needs to encompass goals, priorities, and resource commitments for each targeted country. The general goal is to identify and assist those locally based organizations (host-country or international) that can contribute skills, funds, or other resources to the various phases of the DHS and related surveys (from initial needs analysis and survey design to the promotion of results utilization in policy and program improvement). This may require some broadening of the organizational network and skill base so that both survey and post-survey tasks can receive adequate attention. Once the local organizational alliances are formed, a medium-term action plan (three to five years) for surveys could be prepared. In working out the division of labor, the need for staff training and organizational development should also be addressed and potential sources of support identified. This may include preparing existing agencies and staffs to perform new roles.

Bangladesh provides a simple example of how new DHS organizational roles could be defined in the planning of survey work. Mitra Associates (a private Macro Inc. subcontractor) has been the principal DHS survey implementer, but a recent agreement among Macro Inc., USAID/Bangladesh, and the government expands the organizational network to provide for the National Institute for Population Research and Training (NIPORT) at the Ministry of Health and Family Welfare to become the formal "coordinating agency" for DHS activities. The head of NIPORT indicated to the evaluation team that the organization would also like to assume a lead role in DHS results dissemination and utilization, but it would need TA and staff training for performing these new tasks. Such a division of labor appears to make sense, but NIPORT needs help analyzing how its structures and staff should change to perform their new roles. The locally based staff members of the Population Council (New York) have good relationships with NIPORT and could help, but they lack the funds required for a significant staff training and organizational development effort. This would appear to be a good use of USAID or other donor funding. In short, a DHS country action plan must not only focus on getting the survey done but also on strengthening local alliance partners so that they can collectively perform a broad range of

survey functions. This should also increase the use and impact of DHS survey results because a larger number of organizations and resources are being mobilized for both survey and post-survey tasks. USAID Mission involvement would also be important.

9.4.2 Focusing on DHS Organizational Networks Rather Than Individual Agencies

USAID and other field contacts stressed that capacity-building should not focus on the development or strengthening of a specific institution to do all aspects of DHS work. In some countries, DHS implementing agencies can design and implement quality DHS surveys, but they are less effective in dissemination, further analysis, and utilization of results. This suggests that attention be given to **developing DHS networks or alliances of private and public organizations** (local, regional, and international) that can share the work, depending on their roles and capacities. Efforts must be made to **include the full range of disciplines and skills** needed for both survey and post-survey activities and for broadening analytical approaches. New disciplines or professional specialties for DHS might include, for example, anthropology, management and organizational development, economic analysis and planning, policy administration, and health communications.

There was no consensus among evaluation team contacts as to whether private or public organizations are more efficient in implementing DHS efforts over time. Most DHS implementing agencies are governmental organizations and Mission responses to the G/PHN evaluation questionnaire suggest that many of these are performing very well in conducting surveys. Evaluation team contacts in Bangladesh and Egypt tended to be supportive of the private or quasi-private DHS structures in these countries because they appeared to have more flexibility to get the job done. In most countries, some combination of private and public institutions will probably be needed. Even where private organizations do the surveys, government agencies still play an important role since they often control access to census and other data and they have to play a key role in DHS dissemination and use if the survey results are to have an impact. In short, the "best" organizational approach is the one that operates effectively in the particular country environment.

Given the periodic nature of DHS work, permanent survey organizations need to have other jobs and support in between DHS surveys. While the DHS is a major source of income for the implementing agencies in Bangladesh and Egypt, they do surveys for other clients to keep their senior staff members employed and to help sustain the organization. This suggests that country plans for capacity-building should include provisions for strengthening the marketing and income-generation skills of some key members of the DHS organizational network so they can enhance their sustainability by selling other survey services.

9.4.3 Linking Training, TA, and Organizational Development

The identification of training and TA needs should be linked to the identification of organizational development needs as the country action plan is developed. An **integrated program of short-term local, U.S., and/or third-country training** can be important for building critical DHS professional competencies in priority countries. Priority should be given to trainees or fellows

who will play a key coordinating role in all phases of survey management and results utilization. Such staff members should be in key DHS-related institutions and commit themselves to serve the program for an appropriate time period after completion of the training. The trainee's organization should agree to continue salary payments and pay part of the training costs.

Recommendation:

20. USAID and the contractor should use successful DHS field experiences as the basis for (1) defining a clear capacity-building strategy for the Project and (2) preparing country-specific capacity-building plans for selected countries during the balance of DHS-III. Each such country plan should include adequate provisions for (1) post-survey tasks (dissemination, further analysis, use of data for decision-making), (2) development and/or strengthening of in-country organizational networks for survey operations, and (3) inclusion of more professional disciplines in surveys to broaden the analysis and use of DHS results.

10. CONTRACT MANAGEMENT

10.1 Performance Measurement Under the DHS-III Contract

10.1.1 The Core Contract as the Baseline for Measuring Performance

Some of the same issues discussed in earlier sections will be examined here from a project or contract management viewpoint. Performance measurement is concerned with the degree to which the contractor has achieved contract goals on time, within budget, and at acceptable levels of quality. It is difficult to measure the DHS-III contractor's **progress toward goals** in several areas because the goals are defined in very general terms in the contract. For example, the contractor is required to complete "approximately" 20 regular surveys and "up to five" special surveys. As mentioned earlier, the contract mandate for "local capacity-building" is also poorly defined in terms of performance requirements. Moreover, the life of project Implementation Schedule in the core contract states that activities are to be "initiated" within specific years, but it does not specify when they are to be completed.

Broad contract language provides flexibility to the contractor but makes it difficult for the USAID project officer or CTO to ascertain if work is proceeding on schedule. A broadly worded contract is not a problem when adequate provisions are made to use implementing work plans (LOP and annual) for refining contract objectives and linking them to specific outputs, schedules (for task initiation and completion), budgets, and levels of effort (TA, training, equipment, etc.). This is not the case in the DHS contract. Moreover, neither the contractor's work plans nor the semi-annual reports provide cumulative data on all major tasks from the beginning of the contract;

therefore they cannot be used to track the continuity of progress toward objectives. For example, it is not possible to find out from Semi-Annual Progress Report No. 6 how many computer systems have been distributed during the past three years and how this compares with the contract goal of distributing 60 systems over the life of the project.

10.1.2 The Need for a Task Scheduling Review

In the absence of a detailed work schedule in the contract documentation, the evaluation team looked at the general workload implied in the listing of survey activities. Table 12 provides information on a few major targets in the contract Implementation Schedule and uses Macro Inc. reports to identify accomplishments as of the end of Year 3. Table 12, viewed in combination with earlier tables on core contract and buy-in surveys (Tables 2, 3, and 4), gives the impression that the survey workload is skewed toward the last two years of the contract (1996-97). To ascertain whether there is likely to be a significant scheduling problem in 1997, the evaluation team suggests that USAID and the contractor review currently projected tasks, resource levels, and time schedules for the balance of the contract (see Recommendation 6).

Table 12

Progress on Selected Core Contract Targets Years 1-3 (1992-95)

OUTPUT	FIVE YEAR TARGET	YEARS 1-3 TARGET	YEARS 1-3 ACTUAL	ACTUAL AS % OF TARGET (YEARS 1-3)	REMARK
1. Methodology Assessment	1	1	1	100 %	Papers issued
2. Regular Surveys: Preliminary Reports	20	16	9	56 %	
3. Regular Surveys: Final Reports	20	11	6	55 %	
4. Special Surveys: Preliminary Reports	5	3	1	33 %	

Sources: Targets are from Implementation Schedule in contract and Macro Inc., *Year Three Work Plan*. Progress data on surveys is from Macro Inc. *Report on Status of DHS-III Surveys*, 10/24/95 (4 pages) and Macro Inc., *DHS-III Semi-Annual Report No. 6*, 9/30/95.

The contractor's budget, work plan, and progress reporting elements are not effectively linked; therefore it is difficult to identify and track the **costs of specific activities**. The formal contract budget and financial report categories are very broad and focus on inputs ("salaries", "travel", etc.), so they provide no information on the costs of activities or outputs. To compensate for the lack of an activity-based budget and financial reporting system, the USAID project officers/CTOs have had to rely on informal communication with the contractor and special information requests. The contractor has apparently been very cooperative in providing the cost, performance, and other data requested by the various USAID CTOs assigned to DHS-III. A supplemental

discussion paper on cost issues is being submitted to USAID by the evaluation team.

Recommendation:

21. USAID and the contractor should cooperate to develop a progress reporting system which shows the cumulative planned/actual progress and funding for each major task or activity in the contract. The regular progress reports should also include the total funding (from all sources) and the status of each DHS survey (distinguishing among the core, requirements, and any other Macro Inc. DHS contracts).

10.1.3 The Key Issue of Survey Quality

As indicated in several places above, the **quality of the contractor surveys, reports, and dissemination seminars** was highly rated by almost all parties contacted by the evaluation team. Consequently, only a few minor suggestions were made in these areas. For example, the evaluation team felt that more use of qualitative and multidisciplinary approaches should provide better insights into the PHN issues covered in the DHS. Expanding the DHS approach would also increase the types of professionals concerned with analyzing and using DHS data. Similarly, the national seminars (linked to the final reports) are good, but they need to reach out to more health and other non-population professionals.

The contractor reports that one factor contributing to high-quality performance on survey tasks has been **continuity of staff members and staff learning over time**. Although the present core contract is the third for DHS, many of the same contractor staff members have been involved since the project began in 1984. This has permitted the development of a competent professional cadre that is widely respected. At the same time, some evaluation team contacts reported that some Macro Inc. visiting staff members exhibited inflexibility in discussions about changing DHS approaches to meet local requirements. To better understand and address the changing requirements of its Mission and other customers, the contractor should conduct a quick customer needs survey and then issue a "catalogue" showing how DHS can or cannot address these needs (See Recommendations 14 and 16).

The contractor notes that several of its employees come from other countries or cultural backgrounds and this **staff diversity** has helped in overseas operations. The Macro Inc. organization chart (next page) shows the addition under DHS-III of a senior health advisor and a deputy director for dissemination and utilization. Although the core contract mentions "resident advisors," Macro Inc. notes that these were only authorized under the requirements contract and Missions have not been receptive to the idea. The DHS is implemented by traveling Macro Inc. staff members/consultants and local organizations (mostly government agencies) via subcontracts or special agreements.

The evaluation team had more difficulty assessing progress toward the contract goals that stress going beyond the design and completion of new surveys to (1) increase **further analysis** of the survey data, (2) increase the **utilization of DHS results by cooperating country decision-makers**, and (3) develop the **capacity of cooperating country organizations** to manage all aspects of DHS surveys. These constitute three of the five major activities in the core contract, but the quality of results in these areas is more variable. Since these areas were discussed above, only two examples will be mentioned here. First, **local capacity-building** is a major contract goal, but neither the contract nor the contractor's subsequent work plans define the type of institutional strengthening strategy or action plan needed for achieving the goal. Second, there was little apparent effort to produce the **country-specific plans for further analysis for each new survey** which were clearly defined in the contract. At a later stage in contract implementation, the availability of core contract funding for such post-survey activities became an issue. Again, USAID should now review overall task requirements and projected funding levels for 1996-97 and decide if the contract scope and budget allocations need to be amended.

10.2 Simplifying Contract Administration Procedures

There appear to be several requirements for the contractor to obtain approval of routine implementation actions by the CTO and/or the USAID Contracts Office. Some contractor staff members thus report delays in getting staffing and subcontract clearances, sometimes impeding the implementation of field work. In view of USAID's reported current efforts to re-engineer or simplify contract procedures, USAID and Macro Inc. managers need to take a fresh look at current requirements for clearances. The goal should be to produce a contract amendment that focuses on main project outputs and gives more freedom to the contractor to produce these. USAID should consider achieving its oversight requirements through better contractor work plans and progress reports (which track cumulative outputs and related costs).

11. CONCLUDING REMARKS

1. **The quality and importance of DHS surveys continue to be high.**

The contractor has continued to produce high-quality Demographic and Health Surveys that have become accepted as a global standard or model for PHN survey measurements. USAID, host-country, and other donor staffs use DHS data in assessing country and global trends and for the planning and assessment of specific program initiatives (such as family planning or child survival). Most observers agree that the DHS program should continue to receive high priority, even though USAID will probably be unable to continue the high levels of funding provided in the past.

2. **Some contract language on goals is so general that it is difficult to measure contractor progress toward goals.**

The exact number of surveys to be completed is not defined. Use of the terms "approximately" 20 surveys or "up to" five special surveys leave too many loopholes in the performance specifications. Such generalities may be justified when the contractor is performing in a brand new area of technology, but the contractor had been conducting this business for 10 years under previous DHS contracts. The evaluation team's impression is that too much work may be scheduled for the last two years of the contract, but USAID and the contractor need to review scheduling and decide if this is a valid observation.

3. **DHS-III has significantly increased coverage of the health area, but many observers still perceive that more effort is needed.**

DHS does cover significantly more health topics and involves more health people, but outreach efforts must continue to expand if DHS is to have the same impact in health as it has in population.

4. **Given reduced funding levels, USAID needs to clarify implementation priorities and specify the level of effort it expects the contractor to devote to the new DHS-III initiatives in (1) further analysis and use of data for decision-making and (2) local capacity-building.**

While some progress has been made in implementing the new DHS-III initiatives, the impression is that the main thrust is still the planning and completion of new surveys. The looseness permitted by the general contract language and the contractor's apparent preference for new survey work suggest that the new priorities are not being pursued with great vigor. As funding gets tighter, the assumption is that even less attention will be given to post-survey data analysis and utilization activities under the contract. On the other

hand, the funding squeeze suggests that more attention must be paid to local capacity-building and the longer-term sustainability of DHS survey operations.

5. The DHS can help meet some new program measurement demands from Missions but needs to be supplemented by other survey efforts.

While the present DHS surveys are suitable for measuring national trends at four- to five-year intervals, they are too complex and costly to meet emerging USAID staff needs for measuring program progress on a more frequent basis (e.g., annually or bi-annually) or on a sub-national level. New and less expensive survey models need to be developed/utilized to meet these growing operational needs for progress monitoring or "score card" data. This could require the use of significantly shortened and more focused questionnaires with smaller samples or a "permanent survey" strategy (mentioned earlier). There may be little time left under DHS-III to work on such innovations (given the existing contract workloads for 1996-97), but they should be a priority concern of the USAID staff members who are designing the new PHN measurement programs. Similarly, future measurement programs may need to contain special dedicated structures and funding earmarks to promote technology transfer, local capacity-building, and long-term sustainability.

6. In view of the decreasing USAID staffing and funding levels, future PHN programs may need to make more integrated use of networks and alliances of CAs, other donors, and cooperating country organizations to staff, fund, and implement DHS and related measurement programs.

DHS has been primarily a USAID-funded and USAID-managed project. Several evaluation team contacts note that future PHN measurement efforts should be structured in a manner that better integrates CA field efforts, promotes more local support, and attracts more resources from other bilateral and multilateral donors.

7. USAID/Washington needs to critically review all the new measurements and reports being demanded from the field under the new program management system and decide how many are really essential and cost-effective uses of shrinking staffs and funds.

Significant funds and staff time are reportedly being devoted to generating new data for program monitoring. While some of these progress measurements may be important, there is a need to confirm that they will be used in cost-effective ways by the requesters.

12. SUGGESTIONS FOR FUTURE SURVEY PROGRAMS

12.1 A New Planning Framework or Paradigm

Changing conditions suggest that the new USAID PHN measurement programs following DHS-III may need to incorporate more of the following features:

A Primary Focus On Cooperating Country Customers: A basic assumption here is that survey work financed with U.S. Foreign Assistance funds should concentrate first on meeting the needs of cooperating countries (since they are USAID's ultimate customers). This calls for truly collaborative relationships from the beginning and an effort to locate program operations and staffing as close to customers as is feasible. If properly executed, this approach can still produce the data needed to satisfy other USAID stakeholders.

Built-in Sustainability Efforts: PHN assistance programs need to simultaneously focus on (1) getting the surveys done and (2) systematically developing local people and structures to assume survey management and sustainability responsibilities as quickly as possible. Organizational networks should be established at the country, regional, and global level which facilitate (1) the establishment of shared databases and (2) the exchange of expertise and other resources. Normally, supported country survey programs should encompass the full range of tasks from survey design to utilization of results (and post-survey critiques to learn lessons and promote continuous improvement of the survey process).

Equal Partnerships and Teamwork: USAID staff and contractors are equal, not dominant, partners with others involved in the DHS process. They should exert technical and program leadership by being out front in the development of new cost-effective ways of doing business. They should encourage other organizations to provide resources and assume leadership for appropriate country programs (e.g., local groups and other donors). Very close collaboration among CA, USAID, other donor, and cooperating country staffs will be essential to maintain the high quality of DHS and other PHN surveys in an environment of generally decreasing resources.

Development and Empowerment of USAID Implementing Staffs: To effectively lead a new survey effort, the USAID team involved must collectively demonstrate outstanding competence in survey and measurement work, technology transfer, institution building, and project/contract management. This suggests that USAID must provide broader and more thorough staff training than it now does in these areas. Program staff members must also be able to use the most flexible program funding mechanisms available so that they can get the job done (including general support grants where these are the best tool).

The following sections discuss ways of structuring programs under either USAID direct contractors/grantees or through a new internationally oriented organization. Some of the

suggestions given could apply to either approach.

12.2 Flexible Use of USAID Direct Contracts and Grants

Effective USAID contract management requires both clear contract goals and well-trained and empowered project officers/CTOs. USAID guidelines and training programs should thus help staff to (1) understand options for structuring assistance (e.g., using various forms of grants or contracts) and (2) acquire the specific knowledge and skills required for successful contract implementation and problem solving. This may mean that higher priority needs to be given to the restoration of practical inhouse project/contract management training courses as a critical element of the USAID re-engineering effort.

USAID program managers should be able to choose funding mechanisms that range from very flexible support grants through more labor-intensive cooperative agreements to very restrictive performance contracts. This section assumes that, for post-DHS-III programs, USAID will use a **direct contract** route similar to that being used now, although a different form of direct contract may be better for strengthening performance management. The next section (12.3) assumes that USAID will pursue a broader multilateral approach to organizing for the DHS and related work and that funding will be provided through general contracts and/or grants.

The *cost-plus-fixed-fee* type of contract used under DHS-III is usually considered advantageous to the contractor; however, USAID project staff members (CTOs) usually find it difficult to administer, since there is less emphasis on progress indicators and cost control. Performance monitoring can be even more difficult with this type of contract when some of the key performance requirements are not defined very clearly in the contract document. There is increasing pressure to use performance-based contracts, which stress definition of goals and outputs and penalize the contractor for failure to achieve these on schedule. However, such contracts sometimes include requirements for achieving goals which depend on cooperating country performance (over which the contractor may have little control). Such contracts are risky from the contractor's view, since conditions change and assumptions about local support may turn out to be wrong.

Another option for program managers in the uncertain environments common to many USAID programs is to define goals in flexible terms in the contract, but provide for the use of life-of-contract and annual work plans as the instruments for specifying performance targets and resource allocations. This approach can be used with different contract categories and permits amendments of plans and budgets without the formality and delay of full-fledged contract amendments. Effective contract oversight can be achieved by requiring in the basic contract document that implementation work plans (with schedule, work breakdown structure, and detailed budget) clearly show the major tasks and costs required to achieve each contract goal. The contractor should be required to show the total costs (including overhead) of each significant operation or output in the work plan/budget. The contractor should also be required to submit quarterly progress reports which provide a cumulative life-of-contract record of progress toward each objective. Under this approach, the main contract document serves as the strategy document

and the annual work plans and budgets (approved by USAID) serve as the more detailed performance guides. Hopefully, fewer decisions would have to be referred back to the Contracts Office.

The Mission or Bureau senior management are key actors because they must act to ensure that the USAID project officer/CTO is adequately trained and empowered by USAID to (1) oversee the contractor's performance and (2) resolve most implementation problems as they arise. The CTO must thoroughly understand the contract and devote adequate time to performance monitoring. He/she must provide regular written and oral feedback to the contractor on the quality of work and be willing to confront the contractor management on non-performance problems. Many contract problems grow in severity over time because the CTO does not act quickly and decisively to (1) clarify performance standards and guidelines for contractor staff and (2) address implementation problems as soon as they arise. When the CTO lacks the authority to resolve contract problems, these should be quickly and adequately documented and then referred to the USAID program manager and/or contracts officer who is authorized to act. This approach is rather legalistic but realistic, considering all the legal constraints on CTOs. However, another objective is to prevent problems through regular and open communication and negotiation between the CTO and the contractor or grantee. Given the other work pressures on most CTOs, it is sometimes difficult to block out adequate time for regularly meeting with contractor staff to discuss progress and resolve issues. However, good interpersonal relationships are also a key ingredient in successful project or contract management.

There is also value in having informal but structured "external" evaluations or reviews as early as Year 1 of a contract or grant, in order for any needed course corrections to be made before too many activities are underway.

Recommendation:

22. Designs for follow-on DHS or other PHN measurement programs should address the needs for (1) flexible but cost-effectiveness funding instruments and (2) empowered and well-trained USAID program implementation staffs.

12.3 A Multilateral Approach to Future Measurement Programs

The following ideas are offered only to help stimulate discussion within USAID on future program and organizational designs that could address some of the issues raised in this evaluation. Any significant program innovation involves risks and trade-offs. The focus below is on looking for new ways of (1) attracting more non-USAID funding for surveys, (2) creating looser structures and talent networks that involve more host-country people, (3) broadening the range of survey types and services available, and (4) maintaining high-quality standards for the surveys.

12.3.1 Designing Structures That Will Attract Other Resources

In designing future programs, USAID must consider the impact of continuing reductions in its staff and funds. It thus needs to leverage more resources of all types from other donors and cooperating countries. Working with other donors and partners means that USAID must be willing to share the control over DHS and other survey operations and be willing to consider more flexible implementing and funding mechanisms. In short, the future PHN survey program and organization may have to be more international or multilateral in approach, in contrast to the current USAID-dominated DHS program.

In planning for a new organizational system to implement programs, the PHN planners should look at past USAID experiences in supporting international centers, university/company consortia, or unusual development action agencies in other sectors (particularly in agriculture and rural development). Other useful information can be obtained by looking at organizations with similar concerns, such as the International Standards Organization (ISO). Pertinent information on organizational performance standards may also be found in publications covering the Baldrige National Quality Award Program (Department of Commerce) and similar quality programs in state and local governments. These two groups are concerned with maintaining world class service or product quality standards through information dissemination, training, and inspection of organizations applying for international quality certification (ISO) or national recognition (Baldrige). The new international survey organization would thus be concerned with establishing and maintaining high survey standards through standards definition and promulgation, provision of training and TA, operational research, organizational development, global database management, etc.

12.3.2 USAID's Leadership Role in an International Approach

USAID can use its resources and its reputation as the leader in DHS-type surveys to take the initiative in creating a new international survey organization and encouraging other donor participation and support. One risk involved in creating any new structure of this type is that it will become overstaffed and gradually rigid in approach. To help address this risk, the charter should provide for self-destruction in five to seven years, unless there is strong support for continuation by its governing body and key funders. USAID can also earmark its funding to limit use for overhead or support staff not directly involved in survey operations. The organizational chart on the next page provides a broad overview of how such an international or multilateral organization might be structured. It could be called the International Organization for Population and Health Information and Data and, for the sake of brevity, use the acronym, IOPHID.

USAID can act in various ways to influence the staffing and operations of IOPHID. For example, the organizational home-base could be at a U.S. university, company, or other institution with a strong international reputation and program in health and population. USAID could also offer to

fund a small executive director's staff and some of the professional services groups (which would be interdisciplinary groups of full- and part-time staff members plus consultants). USAID could also help fund specific country survey work, which would be carried out by country assistance teams.

The country assistance teams would be staffed with specialists from the various professional service groups, depending on the tasks to be done. A separate small staff would focus on developing survey standards, auditing country adherence to these, and certifying that country survey programs meet the standards. Such certification could be a prerequisite for the IOPHID "seal of approval" and for survey funding assistance from USAID and other donors. Country assistance teams could also be used to bring a country up to standard following a standards audit and improvement recommendations by a survey standards team. The professional service groups and the country assistance teams in the new structure should be staffed in ways that help to ensure that their assistance covers all the major phases of survey work (from needs analysis and survey design to the ultimate use of survey results to improve policies and programs).

There are probably bilateral and other donors which would be willing to fund either general IOPHID operations or specific country surveys if they can rely on USAID to provide general leadership and oversight for the activity. Donors and other financing organizations could be represented on the Governing Council according to the level of their contributions. Individual participating DHS countries would select a Council representative through their Regional Council (a consortia of DHS countries and donors in a given region). USAID would need to assign this program a small core of direct-hire/personal services contract (PSC) staff with the high levels of technical competence and credibility needed to influence decisions and attract other resources from international and cooperating country sources.

IOPHID's survey services should be packaged in ways that accommodate both (1) the need to monitor longer-term or global trends and (2) the need of USAID and cooperating country program managers for shorter and more frequent surveys to assess program needs and implementation progress. Therefore, since IOPHID would be providing a wide range of surveys, USAID Missions, the World Bank, IDB, UNICEF, UNFPA, etc. will be potential sources of additional survey business. This will be especially true if the current emphasis in USAID on performance management and progress measurement surveys spreads to other donors and cooperating countries.

To reduce the USAID staffing requirements for contract management, it is suggested that grants, rather than contracts or cooperative agreements, be used to provide much of the funding. This should reduce the management load while holding grantees accountable for achieving agreed-on results and maintaining adequate fiscal controls.

12.3.3 Creating International and Local Survey Talent Pools

USAID could use IQCs or other contracts to help support informal networks or technical resource pools at the international and regional level. These could draw on the DHS and other survey talent already available in both developed and less developed countries. The pools could help provide the wide range of specialties needed to perform the different survey tasks (e.g., standards development and inspection, needs analysis, survey management, communication of results, training and development, capacity-building, and TA for policy reform and program management). Contractors, host countries, and others could thus draw on these pools of experts as needed for various surveys. Various means could be used to attract and develop both seasoned and less experienced professionals and involve them in the survey and other work in cooperating countries. For example, training grants, fellowships, and internships could be used to develop younger staff persons from participating DHS countries.

Recommendation:

23. As part of its design effort for a new results package covering population and health surveys and measurement, USAID should assess the desirability of using a multilateral approach to organizing, funding, and staffing future DHS-type programs.

APPENDICES

APPENDIX A

EVALUATION SCOPE OF WORK
Demographic and Health Surveys (DHS-III)
Macro International
Contract CCP-3023-C-00-2012-00
and CCP-3023-Q-00-2013-00

I. BACKGROUND

The Demographic and Health Surveys project (936-3023) was initiated in FY1984. The original project paper states the purpose of the project is "to improve the information base for economic and social planning and population/health program management in developing countries through implementation of scientifically designed sample surveys of demographic and family health trends." The project paper goes on to add two sub-objectives "(1) to make significant advances in both the methodologies and procedures for conducting surveys of this type, and (2) to emphasize institutionalization of LDC's capabilities to undertake high quality demographic and family health surveys in the future." Subsequent amendments, which cover the current round of the project, have not changed the purpose as stated in the original project paper.

The five-year contract for Phase I of the DHS was awarded competitively to the Institute for Resource Development in September 1984. The contract scope of work had four major components:

- o Development and test of new survey methodology and procedures
- o Implementation of 35 national surveys
- o Dissemination of survey findings through publications, seminars, conferences, and establishment of a data archive
- o Further analysis of DHS and related data

A second five-year contract for DHS was awarded competitively to IRD/Macro in August 1988. Compared to DHS-I, the scope of work for DHS-II placed slightly less emphasis on implementation of new surveys, and more emphasis on assessment of DHS-I survey data and procedures, data dissemination, and utilization of DHS data by USAID, CA's, and host-country counterparts. This is evident in the following summary of DHS-II project elements:

- o Assessment and improvement of DHS survey methodology and procedures

- o Further software development and training in data processing
- o Implementation of 25 national surveys
- o Limited technical assistance for 5-8 additional non-DHS surveys on request
- o Dissemination of survey findings through publications, in-country seminars, conferences, and data archive
- o Further analysis of DHS and related data with emphasis on host-country participation through further analysis subagreements and a fellows program
- o Encourage host-country utilization of data through participation of host-country organizations in survey design and analysis of data

Background on Current Round of DHS

A third five-year contract for DHS was awarded competitively to Macro in September 1992. An overlap between DHS-II and DHS-III allowed for continuous implementation of new surveys.

The main purpose of the DHS-III project is to improve the information base for economic and social planning and population/health program management in developing countries through implementation of scientifically designed sample surveys of demographic and health trends. Other important objectives are to: promote widespread dissemination and utilization of DHS data among policy makers; expand institutional capabilities in participating countries to collect and analyze high-quality demographic and health survey data; make significant advances in the methodologies and procedures for conducting and analyzing demographic and health surveys. The immediate beneficiaries of the DHS-III are identified as population and health program managers and administrators in developing countries.

Like DHS-II, the scope of work for DHS-III continues to emphasize data dissemination and utilization of data by USAID, CA's, and host-country counterparts. The scope of work of DHS-III places more emphasis than DHS-II on institutionalization of capacity of host-country institutions to implement, analyze and disseminate DHS data. Although both DHS-II and DHS-III begin to place emphasis on other elements, the centerpiece of DHS has remained the implementation of surveys. The main elements of the DHS-III project include:

1. Methodology Assessment and Development

- a. Assessment of data quality and sample selection procedures
 - b. Review of experience with the model questionnaires and modules, including the reproductive event calendars
 - c. Solicit input on data needs from USAID, USAID cooperating agencies, international organizations, host-country institutions and international experts
 - d. Based on the data needs assessment, revise existing model questionnaire and modules, and create new modules
2. Implementation of Demographic and Health Surveys
 - a. Complete approximately 20 standard DHS surveys
 - b. Complete up to 5 special or experimental surveys
 - c. Offer limited technical assistance for additional non-DHS surveys on request
3. Dissemination of Findings
 - a. Preliminary survey reports
 - b. Final survey reports
 - c. Summary survey reports
 - d. Trend reports
 - e. In-country seminars
 - f. Data Archive Services
 - DHS-III data
 - prior survey data, including DHS, WFS and CPS data

g. Other Dissemination

- DHS Newsletter
- regular press releases
- presentations at USAID/Washington, professional conferences, international organizations and other donors
- special tabulations

4. Further Analysis and Utilization of DHS Data

- a. Development of coordinated plan for in-country further analysis
- b. Sustained technical assistance from Macro staff to implement coordinated plans
- c. Provision of special tabulations to host-country counterparts and USAID
- d. Completion of 15 Comparative Studies
- e. Completion of 10 Comparative Analyses
- f. Completion of 1-3 collaborative research papers in each participating country
- g. Working Paper Series

5. Strengthening Host-country Capabilities

- a. Conduct approximately 3 regional and 3 country-specific data processing workshops
- b. Conduct approximately 3 regional and 3 country-specific further analysis workshops
- c. Provide up to 20 person weeks of technical assistance per country to assist in further analysis and utilization by the host-country government, NGOs, and universities
- d. Fellows Program (approximately 2 fellows per year)
- e. Provide approximately 60 micro-computer systems

The total estimated cost of the DHS-III core contract is \$43,964,568 for the period September 1992 to September 1997. To date, \$34,850,669 has been obligated for this contract. In addition, to date \$6,077,599 has been received from Missions and Regional Bureaus in the form of buy-ins. Several more buy-ins for surveys and further analysis are pending. Additional funding

for local costs has been supplied in several countries by the USAID Mission or other donors such as the World Bank, UNFPA and UNICEF. The host-country institutions and/or government supply various levels of in-kind support in the form of office space, staff time, loan of vehicles, etc.

II. PURPOSE OF THE EVALUATION

The purpose of the evaluation is four-fold:

- o To assess the extent to which the project has accomplished the purpose as set forth in the project design.
- o To assess how organization, management, and finances have influenced the accomplishments of the project.
- o To evaluate whether or not the activities included in the design of the project were the best ones for accomplishing the project purpose.
- o To identify remaining needs that should be addressed in future population-based survey efforts.

III. EVALUATION SCOPE OF WORK

The evaluation team should address every major component of the DHS-III scope of work in order to assess the quality and quantity of Macro's work, and to draw lessons for future survey assistance programs. The following are illustrative questions whose organization differs slightly from the main areas outlined in the DHS-III scope of work. These illustrative questions are loosely organized around three themes: a) the technical content of the DHS project including methodology development and survey implementation, dissemination, utilization and further analysis, b) procedural and management issues including management and cost, and capacity development, and c) future directions for data collections, analysis and utilization activities. The team's attention and recommendations should focus equally on these themes. Major questions appear in bold with minor questions put in rank order as bullets. The evaluation team is encouraged to identify additional issues and questions based on its own investigation.

1. Survey implementation, In-depth studies and Methodological development

a. Surveys

What measures has Macro taken to ensure both the timeliness and quality of survey data?

o Overall, how successful has the project been at delivering timely and accurate data?

o How have modifications to the questionnaire, such as the limiting the age of children to be covered in the child health and nutrition section, affected the quality of the data?

o How have the trade-offs between timely and accurate data collection and local capacity building been handled?

To what extent does the content of the questionnaire and available modules meet the data needs of USAID, host countries and other interested parties in population, health and nutrition at global and country levels?

o How well do these instruments address the multiple needs for data in family planning, maternal and child health, and nutrition?

o Where do these instruments collect data of more specialized interest? Where are there gaps?

o How can a balance be forged that maintains flexibility for country data needs and addresses the more uniform data needs of the international donor and scientific community?

In what ways has the project included USAID, host country counterparts (data consumers) and interested parties in survey design and implementation?

o How is the content of the survey, including the use of modules, decided?

o How were the priorities of developing country policy makers and program managers addressed in the process of questionnaire development?

o How does the project balance the competing priorities of different institutions for survey data ?

oWhen there are multiple institutions in a country that can participate in the implementation of a survey, how does Macro decide which organization or organizations to use?

b. In-depth Studies

How have the in-depth studies contributed to the overall DHS program of data collection and analysis? How have the topics for in-depth study been identified and selected ?

o To what extent do these studies meet the policy and programmatic needs of USAID in population, health and nutrition, at a country and a global level?

o What efforts have Macro made to incorporate USAID, host country counterparts and interested parties in design and implementation of these studies?

o How have the results of these studies advanced knowledge on specific issues, contributed to further analysis, and improved questionnaire design?

c. Methodological Development

How successfully has Macro identified and addressed methodological issues?

o How well have the following illustrative issues been addressed?

- Use of pregnancy histories versus birth histories
- Collection of facility-based data detailing the service environment
- Methods for the measurement of abortion experience; as a demographic variable; as a health impact
- Methodological issues related to the measurement of reproductive health and adolescents

o What other methodological issues have been identified and how well have they been addressed?

2. Capacity building

a. Fellows

How has the fellows program added to the local capacity of countries to carry out surveys?

o What proportion are involved in the implementation of surveys or other forms of demographic or social science survey research in their countries of origin or other developing countries?

b. Training and institutionalization

How effectively has this project used training to build local capacity in countries to independently carry out surveys and related research?

- oWhat evidence is there that countries are ready to "graduate" and carry out surveys independently?
- oWhat stages of survey-capacity independence can be identified ?
- oWhat strategies has DHS used to build capacity for conducting independent surveys and analysis ?
- oTo what extent has the on-the-job training in survey management, interviewing, data processing, report writing and analysis increased the ability of countries to carry out surveys and analysis?
- oHow effectively have workshops in this and past rounds¹ of DHS trained developing country nationals to use survey data processing software and/or to conduct future surveys ?

3. Management and Cost

a. Management

How well does the management of the DHS meet the needs of this project?

- oHow clearly does the management structure delineate among the duties of the different managers and how does this affect their performance as managers?
- oHow effectively do the managers delegate work tasks?
- oManagers often may be directly involved in the delivery of technical assistance. What effects does this have on their performance as managers?

b. Cost

¹Due to an increasingly constrained budgetary situation, the data processing and the analysis workshops have been placed on hold. As a result few workshops have been carried out, so examination of results from workshops in past rounds may be helpful.

What are the various factors that have contributed to the increased costs of surveys?

oWhat costs have increased in this project and why?

oWhat cost savings has the project achieved over the years?

c. Collaboration with other Organizations

How effectively does Macro work with other organizations?

oHow productively does Macro work with its host-country subcontractors?

oWhat has this project done to coordinate DHS survey activities with other related data collection activities, such as Situation Analysis, CDC surveys, PAPCHILD surveys and Gulf States surveys?

oHow effective has Macro collaborated in joint research projects with host-country institutions and with U.S. based institutions such as the Population Council, U.S. Bureau of the Census, Centers for Disease Control or the World Resources Institute?

4. Dissemination, Utilization and Further Analysis

a. Dissemination and Utilization

How well have the dissemination and utilization activities of this project contributed to policy formation and program action?

oIn what ways does this project make DHS data and research easily accessible to policy makers and program managers?

oIn general, what comparative advantage does Macro have in dissemination? in utilization?

oHow well has the project developed dissemination and utilization strategies for specific audiences ?

oHow well do the dissemination and utilization activities of this project address global and country specific needs?

b. Data Access and Archives

What has this project done to ensure the timeliness and availability of all types of data in the archives?

- o How quickly does this project respond to requests for data?
- o What has the project done to improve timeliness and availability of data?
- o What are the advantages and disadvantages of the cost recovery program for the distribution of data?

c. Further Analysis

How do the further analysis activities of this project benefit USAID and host countries?

- o How effectively do the analysis activities of this project address global and country specific needs?
- o In what areas does it make most sense to have the project carry out research? In what areas are others better suited to carry out research?

5. Future Directions for Data Collection, Analysis and Utilization

What suggestions does the team have which could improve the current set of activities in the DHS?

- o What could be changed to improve the timeliness, availability and quality of data?
- o How can the process of host country participation in the design and implementation of surveys be improved?
- o In what ways can the fellows program be changed to enhance capacity of developing country institutions to independently conduct surveys?
- o What changes in management might improve the quality of the data collection, analysis and utilization activities?
- o What can be done differently to contain or reduce costs, while maintaining quality of the outputs?
- o How can collaboration with other organizations be improved?

What suggestions does the team have to fundamentally change the process of data collection, analysis and utilization? How can this be done in a way that maintains the benefits of the current

system, while addressing new data needs and placing more emphasis on sustainability of data collection, analysis and utilization?

- o How can the structure of the survey be changed to meet increasing demands for specialized data ? to meet demands to monitor indicators for smaller administrative units? What would be the benefits and costs of using a multi-phase survey approach ? A multi-phase survey would first collect data for a large sample using a small questionnaire and then have follow-on surveys of sub-samples using specialized questionnaires. Alternatively a sub-sample of women could be given a longer form of the questionnaire when the main survey is done.
- o What role should methodological development play in future data collection activities and what should be priority areas of emphasis?
- o What new activities could increase local capacity to carry out surveys ?
- o What changes would improve the utilization of data ? among program managers ? among policy makers ?
- o In what ways can the research process be structured to better meet the needs of USAID and host countries?
- o How can the involvement of host country individuals and institutions in the collection, analysis and utilization of data be increased?
- o How can the role of host country individuals and institutions be maximized in the provision of technical assistance to other countries in the areas of data collection, analysis and utilization?

IV. METHODS AND PROCEDURES

1. Existing Sources of Information

The DHS is a project that is well-documented. Following are among the sources of existing information the team should consult:

1987 evaluation of DHS-I, the 1991 evaluation of DHS-II, 1992 assessment of the health component of the DHS, previous USAID management reviews, semi-annual progress reports, annual workplans, original implementation plan, selected trip reports, DHS publications and unpublished professional papers,

proceedings of SAC meetings and ad-hoc expert meetings,
selected vouchers and/or other financial reports

2. New Information Collection

In addition to a careful review of the above documents, the evaluation should collect new information via personal and telephone interviews, and through cables and emails which will be sent to Missions in all countries participating in DHS-III.

Interviews should be held with the USAID Technical Advisors for DHS, CTO and other staff in G/PHN, CDIE, and the Regional Bureau HPN Divisions. Special efforts should be made by the team to conduct interviews with CAs that collect data and/or have collaborative projects with DHS, such as CDC, Population Council, Bureau of the Census, and World Resources Institute. The team should also conduct interviews with selected population and health CAs who are current or potential users of DHS data, such as POLICY, EVALUATION, Data for Decision-Making, PRB, CIHI, BASICS, Mothercare, AIDSCAP, NFP Project, PIP, etc. The team also should conduct interviews with staff of key international organizations (e.g., UNICEF, UN Population Division, UNFPA, IPPF, World Bank, CDR/WHO, GPA/WHO) to determine the importance of DHS to activities of these organizations and coordination of data collection efforts.

Obviously, the team should conduct extensive interviews with DHS management and staff regarding project performance, management, and their views on priorities for DHS-IV. Where possible, the team should interview former DHS staff about the project.

In the interest of time, the team will need to split up to conduct the above interviews.

Prior to the evaluation, USAID will send cables to Missions in all countries participating in DHS-III to inquire about Macro performance in the provision of technical assistance, the working relationships between Macro and the Mission and host-country counterparts, the ways in which DHS data have been utilized in-country, and priorities for DHS-IV. Depending on the response from the field, it may be desirable to follow-up the emails with phone interviews with Mission or counterpart staff.

The team will visit four countries that have ongoing DHS activities. The four team members will split into two teams of two people. Each of these sub-teams will have one person knowledgeable of demography. Team visits are anticipated for Egypt and Bangladesh as well as a set of sub-Saharan African countries.

3. Duration and Timing of Evaluation

With proper planning, it should be possible to complete the proposed evaluation and prepare a draft report in one month. Preliminary preparations, including identification of potential team members, are already underway at POPTECH.

Following is an illustrative schedule for the evaluation team:

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1	DC	DC	Calverton	Calverton	Calverton	Travel	Travel
Week 2	Countries 1 and 2	Travel	Free day/travel	Free day/travel			
Week 3	Countries 3 and 4	Countries 3 and 4	Travel	Travel	DC	Free Day	Free Day
Week 4	DC	DC	DC	DC	DC Debriefing		

Note: DC - Washington, D.C.

Calverton - Macro International in Calverton, MD

The schedule includes four phases:

- 1) Team arrives in Washington; team planning meeting with POPTECH; review of background documents; meetings with CTO and other USAID staff
- 2) Team visits Macro. Interviews with DHS staff; personal/phone/email interviews with CA's, Missions, and international organizations; review of DHS publications, reports, and files; preparation and discussion (by team) of preliminary findings and recommendations
- 3) Each sub-team of two people visit two countries with DHS activities. Interviews Mission staff and staff of agencies implementing surveys and studies; preparation and discussion (by team) of preliminary findings and recommendations

- 4) Preparation of draft report; briefing of CTO; briefing for G/PHN staff

V. Team Composition and Size

The evaluation team should consist of four members who, among them, have the following expertise and experience:

- o Advanced training and experience in family planning and demographic research, including the use of survey data such as the DHS (one, preferably two members)
- o Advanced training and experience in maternal and child health and nutrition research and programming, including the use of survey data such as the DHS
- o Extensive experience in the management of development projects
- o Extensive experience in the dissemination and utilization of research results
- o Familiarity with USAID and USAID projects
- o Excellent writing skills

VI. Funding and Logistical Support

All funding and logistical support for the DHS Project evaluation will be provided through the POPTECH Project of the Office of Population. Activities that will be covered include recruitment of the evaluation team, payment of evaluation team members for a five-day work week while in the United States and a six-day work week while in developing countries, support for all expenses related to the evaluation, logistical support, and publication of the draft and final reports.

APPENDIX B
LIST OF CONTACTS

UNITED STATES

Agency for International Development, Washington (USAID/W)

Al Bartlett, G/PHN/HN/CS
Connie Carrino, Chief, G/PHN/HN/HPSR
Richard P. Cincotta, Population Ecologist, G/PHN/POP/P&E
Robert Clay, Deputy Director, G/PHN/HN
Connie Collins, EUR/NIS/PHN
Richard M. Cornelius, Deputy Director, G/FPS
John Crowley, Deputy Chief, G/PHN/POP/CLM
Carol Dabbs, PHN Officer, LAC (phone)
Paul Delay, G/PHN/HN/HIV/AIDS
Robert C. Embrey, Senior Technical Advisor, G/PHN/HN/HPSR
Lenny Kangas, Technical Advisor, AFR/HPN (phone)
Rodney Knight, Technical Advisor, G/PHN/POP/P&E
Elizabeth Maguire, Director, G/PHN/POP
Beth Ann Plowman, Technical Advisor, G/PHN/HN
Scott Radloff, Deputy Director, G/PHN/POP
Zynia Rionda, Population Advisor, ANE/PHN (phone)
James Sheldon, Senior Medical Advisor, G/PHN/POP
John B. Tomaro, Chief, G/PHN/HN/EH

Cooperating Agencies

Peter Berman, Director, Data for Decision Making Project, Boston, Massachusetts (phone)
Phil Estermann, East-West Center Population Program (phone)
Ron Waldman, Technical Director, BASICS Project, Arlington, Virginia

Macro International Inc.

Jacob Adetunji, DHS Fellow
Omar Ahmad, DHS Fellow
Fred Arnold, Senior Population Specialist
Mohamed Ayad, Regional Coordinator, Francophone Africa/Middle East
George Bicego, Country Monitor Anglophone Africa
Dara Carr, Dissemination Specialist
Trevor Croft, Chief, Data Processing
Anne Cross, Regional Coordinator, Anglophone Africa and Asia
Sian Curtis, Analyst
Alex Chika Ezech, DHS Fellow
Stacey Gage, Analyst

Pat Haggerty, Health Specialist
Sunita Kishor, WID Analyst

Macro International Inc. (continued)

Susan McInturff, Administrator
Sidney Moore, Chief Editor
Katherine Neitzel, Research Assistant
Luis Ochoa, Regional Coordinator, LAC
Prosper Poukouta, DHS Fellow
Guillermo Rojas, Deputy Chief, Data Processing
Shea Rutstein, Deputy Director for Analysis
Elisabeth Sommerfelt, International Health Specialist
Kate Stewart, International Health Specialist
Jerry Sullivan, Deputy Director for Survey Operations
Betty Thomas, Secretary to the Director
Daniel Vadnais, Dissemination Specialist
Martin Vaessen, Vice President, Macro Inc. and Director, DHS
Ann Way, Deputy Director for Data Utilization
Lori Webber, Contracts Officer

Other Contacts

Howard Goldberg, CDC (phone)
Mohammed Nizamudin, UNFPA, New York (phone)
Steve Sinding, Rockefeller Foundation, New York (phone)
Iqbal Shah, WHO/Geneva (E-mail)
Paul Stupp, CDC (phone)

BANGLADESH

International Centre for Diarrhoeal Disease Research, Bangladesh

Abdullah Baqui, Director, MCH-FP Extension Project (Urban)
Barkat-e-Khuda, Director, MCH-FP Extension Project (Rural)
Demissie Habte, Director, ICDDR,B
Aye Aye Thwin, Research Scientist, MCH-FP Extension Project (Urban)

Ministry of Planning

Shahadat Hossain, Director, Bureau of Statistics
Rahul Amin, Deputy Director (Operations), Bureau of Statistics
Bazlur Rahman, Director, Population and Development Evaluation Unit, Planning Commission
Hafizur Rahman, Deputy Director (Technical), Bureau of Statistics

Ministry of Health and Family Welfare

Khairuzzaman Chowdhury, Director-General, Directorate of Family Planning
Rafiquz-Zaman, Director-General, National Institute of Population Research and Training
Ahmed al Sabir, Director of Research, National Institute of Population, Research and Training

Cooperating Agencies (Dhaka)

Mohd. Alauddin, Country Director, Pathfinder International
Dr. Iqbal, Senior Program Specialist, BASICS Project
Ubaidur Rob, Associate, The Population Council
P. Kim Streatfield, Country Director, The Population Council
Youssef M. Tawfik, Country Director, BASICS Project
Edson E. Whitney, Country Representative, Population Communication Services,
Johns Hopkins University

Other Donors (Dhaka)

J. S. Kang, Population Specialist, The World Bank
Rushikesh Maru, Management Advisor to National Institute of Preventive and Social Medicine,
World Health Organization
Alain P. Mouchiroud, Country Director, UNFPA
Sharad Sapra, Senior Evaluation Officer, UNICEF

Mitra and Associates (DHS Implementing Agency)

S.N. Mitra, Executive Director

University Research Corporation (Bangladesh)

Abul Barkat, Advisor [also Professor, Department of Economics, University of Dhaka]

USAID/Bangladesh Office of Population and Health

Sk. Ali Noor, Head, Research Unit
Kanta Jamil, Program Specialist
Charles Lerman, Population Development Officer
Mohd. Nasiruzzaman, Program Management Specialist

COTE D'IVOIRE/IVORY COAST

Association Ivoirien pour le Bien-Etre Familial, Abidjan

Paul Agadio, Executive Director
Jean Paul Dahily, IEC Coordinator

Albert Koffi Kouamé, Chief, Research and Evaluation
Kossounou Kouassi, Chief, Finance and Accounting
Norbert Aimé Pehe, Chief, Logistics Division

Comité National pour la Lutte Contre le SIDA (National AIDS Prevention Committee),
Abidjan

Issa Coulibaly, National AIDS Coordinator

Community Medicine Directorate, MOH, Abidjan

Loba Ourega, Deputy Director, Community Health
Estelle Shaw, Director

Institut National de Santé Publique, Abidjan

Adama Coulibal, Medical Epidemiologist

Institut National de la Statistique, Abidjan

Lucien Kouassi, Chief, Demographic Research
Eugène Yapo, Chief, Human Resources Statistics

USAID/REDSO/WCA, Abidjan

Souleymane Barry, Regional Advisor, HIV/AIDS
Lois Bradshaw, Acting Director, HPHR
Glenn Rogers, Regional Program Economist

UNFPA, Abidjan

Assamala Amoi, Principal Program Assistant

UNICEF, Abidjan

Malika Abrous, Coordinator, Côte d'Ivoire
Bertin Gbayoro, Evaluation Officer, Côte d'Ivoire
Gladys Martin, Regional Advisor, Health/Nutrition
Yin Yin Nwe, Regional Monitoring and Evaluation Officer

EGYPT

Ministry of Health

Ahmed Darwish, Executive Director, EPI Program, Child Survival Project
Mostafa El Kassas, Executive Director, Child Spacing and Maternal Health, Child Survival
Project

Hassan El Gebaly, Executive Director, Family Planning Systems Development Project
Nagura Khallaf, Executive Director, Acute Respiratory Infections Program, Child Survival Project
Esmat Mansour, Executive Director, Child Survival Project

National Population Council/Ministry of Population and Family Planning

Maher Mahran, Minister of Population and Family Planning

Demographic and Health Surveys Group, Cairo

Fatma El Zanaty, Technical Director

American University in Cairo:

Hoda Rashad, Director, Social Research Centre
Sahar El-Tawar, Research Associate
Ray Langston, Research Adviser

Cairo Demographic Centre

Makh Louf Hesham, Director

Cooperating Agencies

Reggie Gibson, Chief of Party, Clark University, BASICS Project, Cairo
Diaa Hammamy, Management and Planning Specialist, Population Project Consortium of Egypt
[National Population Council]
Ron Hess, Country Director, Population Communications Service, Johns Hopkins University
Douglas Hatch, Director, Field Epidemiology Training Program, CDC Project, Cairo
Dale Huntington, Associate, The Population Council
Barbara Ibrahim, Regional Representative, Middle East, The Population Council
A. K. Nanda Kumar, Advisor, Data for Decision Making Project [Ministry of Health, Egypt]
R. Scott Moreland, Senior Scientist, The Futures Group, Population Project Consortium of
Egypt [National Population Council]
Laila Nawar, Associate, The Population Council
Carol Underwood, Population Communications Service, Johns Hopkins University

USAID/Egypt

Patrick W. Cardiff, Resident Economic Advisor, Bucen/IPC, USAID EAP Unit
Connie Johnson, HRDC Office
Richard R. Martin, Director, Office of Population
Nahed Matta, Program Management Specialist, Office of Health
Amani Selim, Program Management Specialist, Office of Population
Mellen Duffy Tanamly, Director, Office of Health
Joy L. Riggs-Perla, Associate Mission Director, HRDC

**APPENDIX C
PRINCIPAL REFERENCES**

U.S. Agency for International Development

Award/Contract. Demographic and Health Surveys Project. CCP-3023-C-00-2012-00, Office of Population, AID/RD/POP/PE, September 1992. (Contractor's Technical Proposal was not included.)

Bureau for Policy and Program Coordination. Setting and Monitoring Program Strategies. May 27, 1994.

Business Area Analysis Team. Making A Difference for Development (n.d.)

Center for Population, Health and Nutrition (G/PHN). Guide to the Center for Population, Health, and Nutrition. June 1995

Center for Population, Health and Nutrition (G/PHN). G/PHN Results Package by Strategic Objectives (Draft, July 31, 1995)

USAID Customer Service Plan (draft 1995)

USAID/Bangladesh. Country Program Strategic Plan, FY 1995-1997, Bangladesh (February 20, 1995)

USAID/Egypt. Child Survival Project: Annual Report, 1994. Egypt Ministry of Health in Cooperation with USAID, June 1995.

USAID/Ghana. A Situation Analysis Study of Family Planning Service Delivery Points in Ghana. The Ghana Statistical Service, Population Council Africa OR/TA Project, USAID, Ghana, October 1993.

USAID/REDSO/WCA. Henninger, Norbert, Jake Brunner, and Dan Tunstall. Sector GIS Analyses in Support of USAID/REDSO/WCA Data Management and Analysis Capacity: Proposal Prepared for USAID/REDSO/WCA, Abidjan, Côte d'Ivoire, September 1995.

Macro International, Inc.

Aliaga, Alfredo. Sample Design for the 1995 Egypt Demographic and Health Survey (1995-EDHS). March 1995

Arnold, F., Bicego, G. Strategies to Improve the Quality of Data in Demographic and Health Surveys. Macro International, Inc., 1995.

Côte d'Ivoire: Enquête Démographique et de Santé, 1994. Rapport Préliminaire. Ministère Délégué auprès du Premier Ministre Chargé de l'Economie, des Finances et du Plan. Institut National de la Statistique, Abidjan, Côte d'Ivoire and Demographic and Health Surveys, Macro International Inc., Calverton, Maryland, April 1995.

Côte d'Ivoire: Enquete Demographique et de Sante Cote d'Ivoire: Manual du Chef d'equipe et de la Controleuse. Institut National de la Statistique and Macro International, Inc., 1994.

Curtis, S. L., Assessment of the Quality of Data Used for Direct Estimation of Infant and Child Mortality in DHS-II Surveys. Macro International Inc., 1995.

Curtis, S. L. and Fred Arnold, An Evaluation of the Pakistan DHS Survey Based on the Reinterview Survey. DHS Occasional Paper No. 1. Macro International Inc., 1994.

Cushing, J. and E. Loaiza, Computer Aided Field Editing in the DHS Context: The Turkey Experiment. Macro International Inc., 1994.

Demographic and Health Surveys Newsletter Vol 7, No. 2. Macro International, Inc., 1995. (Published twice a year)

Demographic and Health Surveys - Phase III. Negotiating Reproductive Outcomes Study: Household and Individual Questionnaires. Macro International, Inc., November 1995.

Demographic and Health Surveys Program III. Macro Inc. Annual Work Plans (under USAID Core Contract). (covering Years 1-3)

Demographic and Health Surveys Program III. Macro Inc. Semi-Annual Reports (under USAID Core Contract). (Nos. 1-6 covering October 1, 1992 to September 30, 1995)

Demographic and Health Surveys. Publications Catalogue [1995?]

Egypt Demographic and Health Survey 1988. Summary Report. December 1990.

Egypt Demographic and Health Survey 1995. Household Questionnaire and Individual Questionnaire. (Macro Inc. and Arab Republic of Egypt)

Egypt Demographic and Health Survey 1995. Women's Status Questionnaire (Macro Inc. and Arab Republic of Egypt)

Ezeh, A. C., M. Seroussi, and H. Raggars, Men's Fertility, Contraceptive Use, and Reproductive References, Macro International Inc., 1995.

Gage, Anastasia J., An Assessment of the Reliability of the Nigeria Demographic and Health Survey. Macro International Inc., 1993.

Gage, Anastasia J., An Assessment of the Quality of Data on Age at First Union, First Birth, and First Sexual Intercourse for Phase II of the Demographic and Health Surveys Program. Macro International Inc., 1995.

Govindasamy, P, M. K. Stewart, S.O. Rutstein, J. T. Boerma and A. E. Sommerfelt, Demographic and Health Surveys Comparative Studies No. 8: High Risk Births and Maternity Care. Macro International, Inc., June 1993.

Interviewer's Manual for Use with Model "A" Questionnaire for High Contraceptive Prevalence Countries. Version 7 of the DHS-III Questionnaire. Macro International Inc.

Kazakhstan Demographic and Health Survey Questionnaire: The Study of Women of Reproductive Age and their Children. 1995.

Kazakhstan Demographic and Health Survey, 1995: Preliminary Report. Institute of Nutrition, National Academy of Sciences, Republic of Kazhakstan, and Demographic and Health Surveys, Macro International, Inc., Calverton, Maryland, September 1995.

Marckwardt, A. M., Birth Displacement in DHS-II. 1993

Mackwardt, A. M. and S. O. Rutstein, Accuracy of DHS-II Demographic Data: Gains and Losses in Comparison with Earlier Surveys. Demographic and Health Surveys, Macro International, Inc., 1993

Mosley, H. Notes on DHS-III Questionnaire. 1993.

Negotiating Reproductive Outcomes Study: Household and Individual Questionnaires. 1995.

Reinis, K., L. Nyblade, T. Saha, and G. Rojas, DHS-III A-Core Questionnaire Field Trial Report. 1993

Research Communication: A Manual for Effectively Disseminating Demographic and Health Research Results to Decision Makers. Demographic and Health Surveys, Macro International, Inc., Calverton, Maryland. [n.d., 1995?]

Rutstein, Shea. The Case for the Permanent Survey, (draft discussion paper). Macro Inc., November 1995.

Sampling Manual: Demographic and Health Surveys-Phase III. 1995.

Sayed, Hussein A., Egypt Service Availability Survey 1989. Macro Inc. and Cairo Demographic Center, November 1991.

Selim, A. I., A Profile of the Lives of Egyptian Women. (draft paper, Cairo, 1995).

Sullivan, J. M, S. O. Rutstein and G.T. Bicego. Demographic and Health Surveys Comparative Studies No. 15: Infant and Child Mortality. Macro International, Inc., Calverton, Maryland, June 1994.

Supervisor's and Editor's Manual for Use with the Kazakhstan DHS Survey (1995). The Nutrition Institute. Almaty, Kazakhstan. 1995.

Supervisor's and Editor's Manual for Use with Model "A" and "B" Questionnaires, DHS-II Basic Documentation-5. IRD/Macro International, Inc., 1991.

Training Guidelines for DHS Surveys. DHS-II Basic Documentation Number 6. IRD/Macro International Inc., 1992.

Westhoff, C. F. and A. Bankole. Unmet Need: 1990-1994. Demographic and Health Surveys Comparative Study No. 16, Macro International, Inc., Calverton, Maryland, June 1995.

Wilkinson, M., N. Abderrahim, et al.. Demographic and Health Surveys Comparative Studies No. 7: The Availability of Family Planning and Maternal and Child Health Services. Macro International, Inc., Calverton, Maryland, June 1993.

Women's Lives & Experiences: A Decade of Research Findings From the Demographic and Health Surveys Program. Macro International, Inc., Calverton, Maryland, August 1994.

Population Technical Assistance Project (POPTech)

Elkins, Henry G., Howard Goldberg, and Amy O. Tsui. Evaluation of Demographic and Health Surveys. POPTech, May 6, 1988.

Pielemeier, Nancy, Barbara Torrey, et al.. Assessment of the Health Component of the Demographic and Health Surveys. POPTech, January 1992.

Pullum, Thomas, S. E. Adamchak, et al.. Evaluation of the Demographic and Health Surveys-II (DHS) Project. POPTech, May 20, 1992.

Wickstrom, Jane P. Background Paper for the Evaluation of DHS-II. POPTech February 5, 1992.

Other Sources

Barkat, Abul and M.A. Islam, A.K.M. Rafiqz-Zaman, et al. Strategic Plan for the Bangladesh National Family Planning Program, 1995-2005. Technical Review Committee, Ministry of Health and Family Welfare, Government of the People's Republic of Bangladesh: Dhaka, November 1995.

Becker, Stan and D. Sousa. "An Experiment Using a Month-by-Month Calendar in a Family Planning Survey in Costa Rica," *Studies in Family Planning* 23 (6): 386-391, November-December 1992.

Bongaarts, John and Judith Bruce. "The Causes of Unmet Need for Contraception and the Social Content of Services," *Studies in Family Planning* 26 (2): 57-76, 1995.

Caldwell, John, "The Course and Causes of Fertility Decline," Distinguished Lecture Series on Population and Development. International Union for the Scientific Study of Population. Presentation for the 1994 International Conference on Population and Development [Cairo]. Liege, Belgium, 1994.

Campy, James, *Reengineering Management: The Mandate for New Leadership*. (Harper Audio, Harper-Collins) 1995.

Carr, David K. and Henry J. Johansson, *Best Practices in Reengineering: What Works and What Doesn't in the Reengineering Process.* (McGraw-Hill, Inc.) 1995.

Cote d'Ivoire: *IEC/Echanges: Bulletin Trimestriel d'Information d'Education et de Communication/Population No. 1, Juin 1995.*

Elkins, H.G., H. Goldberg, and A. O. Tsui. *Evaluation of Demographic and Health Surveys.* Population Technical Science and Technology Institute, Inc., Arlington, Virginia, May 1988.

Fisher, A. A, R. A. Miller, I. Askew, B. Mensch, A. Jain, and D. Huntington. *The Situation Analysis Approach to Assessing the Supply Side of Family Planning Programs.* Population Council, New York, September 1994.

Gore, Al, *From Red Tape to Results: Creating A Government That Works Better and Costs Less: Report of the National Performance Review.* (U.S. Government Printing Office) 1993.

Hammer, Michael and James Champy. *Reengineering the Corporation: A Manifesto for Business Revolution.* (Harper Business Books) 1993.

Hammer, Michael and Steven A. Stanton, *The Reengineering Revolution: A Handbook.* (Harper Business Books) 1995.

Hart, C. W. L. and C. E. Bogan, *The Baldrige: What It Is, How It's Won, How To Use It To Improve Quality In Your Company.* (McGraw-Hill, Inc.) 1992.

Hermalin, A. I., Z. Khadr, and B. Entwisle, *Delivery of Family Planning Services in Rural Communities in Egypt: Developing a Representative Picture from DHS Surveys.* (Population Studies Center, University of Michigan and Carolina Population Center, University of North Carolina) 1994.

Kiel, L. Douglas. *Managing Chaos and Complexity in Government: A New Paradigm for Managing Change, Innovation, and Organizational Renewal.* (Jossey-Bass, Inc.) 1994.

Kouzes, James M. and Barry Z. Posner, *The Leadership Challenge: How to Get Extraordinary Things Done in Organizations.* (Jossey-Bass, Inc.) 1987.

The Population Council [New York]. *The Tanzania Planning Situation Analysis Study.* Ministry of Health, Dar es Salaam, Tanzania and Africa OR/TA Project, The Population Council, Nairobi, Kenya. n.d. (USAID-Funded Study) [1992?]

Price Waterhouse Change Integration Team. *Better Change: Best Practices for Transforming Your Organization.* (Irwin Publishing) 1995.

Pritchett, Lant. "Desired Fertility and the Impact of Population Policies," *Population and Development Review*, 20, (1): 1-55, March 1994.

Pullum, T. W., The Relationship of Service Availability to Contraceptive Use in Rural Guatemala. Population Research Center University of Texas. 1990.

Republic of the Philippines. A Broadcaster's Manual: Examples of Daily Announcements to Inform the Public on Health Services. Department of Health, Philippines, 1994.

United Nations. Report of the International Conference on Population and Development. United Nations, Cairo, Egypt, 5-13 September, 1994.

APPENDIX D

DHS Working Papers

Chayovan, Napaporn and John Knodel. 1993. *Age and Birth Date Reporting in Thailand: Evidence from the 1987 Demographic and Health Survey*. DHS Working Papers No. 3. Columbia, Maryland: Macro International Inc.

Westoff, Charles F. and Germán Rodríguez. 1993. *The Mass Media and Family Planning in Kenya*. DHS Working Papers No. 4. Columbia, Maryland: Macro International Inc.

Meekers, Dominique. 1993. *Sexual Initiation and Premarital Childbearing in Sub-Saharan Africa*. DHS Working Papers No. 5. Columbia, Maryland: Macro International Inc.

McKinney, Barbara J. 1993. *Impact of Rural-Urban Migration on Migrant Fertility in Senegal*. DHS Working Papers No. 6. Columbia, Maryland: Macro International Inc.

Olaleye, David O. 1993. *Ideal Family Size: A Comparative Study of Numerical and Non-numerical Fertility Desires of Women in Two Sub-Saharan African Countries*. DHS Working Papers No. 7. Calverton, Maryland: Macro International Inc.

Tam, Luis. 1994. *Rural-to-Urban Migration in Bolivia and Peru: Association with Child Mortality, Breastfeeding Cessation, Maternal Care, and Contraception*. DHS Working Papers No. 8. Calverton, Maryland: Macro International Inc.

Moreno, Lorenzo. 1994. *Residential Mobility and Contraceptive Use in Northeastern Brazil*. DHS Working Papers No. 9. Calverton, Maryland: Macro International Inc.

Martín, Teresa Castro and Fátima Juárez. 1994. *Women's Education and Fertility in Latin America: Exploring the Significance of Education for Women's Lives*. DHS Working Papers No. 10. Calverton, Maryland: Macro International Inc.

Bankole, Akinrinola. 1994. *The Role of Mass Media in Family Planning Promotion in Nigeria*. DHS Working Papers No. 11. Calverton, Maryland: Macro International Inc.

Vidal-Zeballos, David. 1994. *Social Strata and Its Influence on the Determinants of Reproductive Behavior in Bolivia*. DHS Working Papers No. 12. Calverton, Maryland: Macro International Inc.

Tórrez Pinto, Hugo. 1994. *Características Socioeconómicas y Culturales de Mujeres con Necesidad Insatisfecha en Anticoncepción y su Relación con los Diferenciales de la Fecundidad*. DHS Working Papers No. 13. Calverton, Maryland: Macro International Inc.

Sastry, Narayan. 1994. *Community Characteristics, Individual Attributes, and Child Survival in Brazil*. DHS Working Papers No. 14. Calverton, Maryland: Macro International Inc.

Verdugo Lazo, Aida. 1994. *Marital Fertility in Brazil: Differential by Type of Union and Its Importance in the Fertility Transition, 1976-1991*. DHS Working Papers No. 15. Calverton, Maryland: Macro International Inc.

Isiugo-Abanihe, Uche C. 1994. *Nuptiality Patterns, Sexual Activity and Fertility in Nigeria*. DHS Working Papers No. 16. Calverton, Maryland: Macro International Inc.

Mejía, Julio César. 1995. *Mortalidad Infantil y Educación Materna en República Dominicana: Décadas de los 70 y los 80*. DHS Working Papers No. 17. Calverton, Maryland: Macro International Inc.

DHS Occasional Papers

Curtis, Siân L. and Fred Arnold. 1994. *An Evaluation of the Pakistan DHS Survey Based on the Reinterview Survey*. DHS Occasional Papers No. 1. Calverton, Maryland: Macro International Inc.

Kishor, Sunita. 1995. *Autonomy and Egyptian Women: Findings from the 1988 Egypt Demographic and Health Survey*. DHS Occasional Papers No. 2. Calverton, Maryland: Macro International Inc.

Curtis, Siân L. 1995. *Assessment of the Quality of Data Used for Direct Estimation of Infant and Child Mortality in DHS-II Surveys*. DHS Occasional Papers No. 3. Calverton, Maryland: Macro International Inc.

Gage, Anastasia J. 1995. *An Assessment of the Quality of Data on Age at First Union, First Birth, and First Sexual Intercourse for Phase II of the Demographic and Health Surveys Program*. DHS Occasional Papers No. 4. Calverton, Maryland: Macro International Inc.

Source: Provided by Macro International Inc. March 6, 1996