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## 1. Introduction

The International Health Program Office of the Centers for Disease Control (CDC) is responsible for implementation of the AID-funded Combatting Childhood Communicable Diseases (CCCD) Project in Africa. As part of its effort to monitor progress of the CCCD project in achieving its objectives, CDC will sponsor surveys of health practices in the CCCD countries beginning in 1987. These sample surveys will be used to measure changes in treatment practices related to CCCD interventions and in vaccination coverage. The International Statistical Programs Center (ISPC) of the Bureau of the Census is assisting the CDC in developing standardized survey procedures, a questionnaire, field manuals which include the sampling procedures, and a data processing system which includes data entry and tabulation programs for the Health Practices Survey.

The first phase of package development is completed. That is, ISPC staff have developed test versions of all materials. The next phase will be testing the survey package in one of the CCCD countries. CDC staff have selected the Cote d'Ivoire as the test country. The materials, which were developed in English, have been translated into French, and the CCCD office in Abidjan, Cote d'Ivoire, has received copies of the diskettes containing the processing system. Consultants from the School of Public Health, University of South Carolina, conducted focus group interviews in the Cote d'Ivoire in January 1987. The information they obtained will be used to adapt the Health Practices Survey materials to the Cote d'Ivoire. ISPC staff will serve as participant observers during the survey in the Cote d'Ivoire, which is tentatively scheduled to take place before the end of 1987. After the test in the Cote d'Ivoire, ISPC staff will make final revisions to the survey package before implementation in other CCCD countries.

Developing a standardized Health Practices Survey package for use in multiple African countries was, for many reasons, quite a challenge. Health surveys, even in developed countries, are complex to plan and administer, in large part because of the inability of interviewers and respondents to correctly identify ailments occurring among household members. Also, health surveys often involve the need to train interviewers in the proper use of special equipment, such as weighing and measuring devices, which are utilized during the interview. In addition to those concerns common to health surveys, when designing any survey for a developing country, one has to consider constraints that are rarely encountered in developed countries. For example, inadequate transportation and communication systems, lack of adequately trained manpower and inadequate paper supplies for printing questionnaires are common problems.

Although a challenge to develop, a standardized survey package was essential in this case, given CDC's desire to use the survey as a tool to monitor and evaluate its program. CDC's intent is

to conduct the survey in a CCCD Project country near the beginning of project implementation and then repeat the survey one or several times in order to measure change in health practices within the country during the life of the project. To measure change accurately, the instruments and procedures must be identical for each implementation of the survey within a country in order to maintain data consistency and comparability. In addition, CDC would like to use the survey results to analyze relative change across countries, which means that, to the extent possible, the instruments and procedures should be identical from country to country. Language is one variable that will obviously have to vary across countries. CDC staff also wanted the standardized package to contain sufficient detail so that their technical officers could administer it with little or no outside assistance.

In effect, the Health Practices Survey package is intended to be a "turn-key" standardized package. In the case of a survey designed for a particular country, field procedures and sampling strategies can be specified in detail. The questionnaires can reflect the specific terminologies, situations, and concerns for the country and, to a certain extent, take into account the specific abilities of the intended interviewer group. Design of a data processing system can be based on the resources existing within the country.

However, in designing a standardized survey such as the Health Practices Survey, this ability to specify is lost. Instead, the Health Practices Survey questionnaire had to be designed to include the core questions of interest for the sponsoring agency (in this case, CDC) and with the assumption that it will be administered by interviewers without special skills (in this case, medical knowledge or skills). Field procedures and sampling instructions had to cover a variety of possible scenarios rather than just one. The data processing system had to be easily portable and relatively easy to use for staff with differing levels of computer experience.

Many of the considerations in designing the Health Practices Survey package were those common to most surveys in developing countries. Other concerns were more specifically related to the need to apply the package in a variety of settings and situations. Although the focus of this paper is on the latter concerns, the former considerations also will be mentioned.

## 2. Overview of the Health Practices Survey

Currently, the CDC is implementing the CCCD Project in 13 countries in Africa. The specific implementation strategies differ among countries, but the specific health practices that the project is emphasizing in all countries are: use of chloroquine for fever or presumptive malaria among young children and pregnant women; use of oral rehydration solution (ORS) for treatment of diarrhea in young children; and increased coverage rate for immunizations. Since the Health Practices Survey is intended to monitor the degree of change related to CCCD

interventions, these are also the three major topical areas of the survey.

### 2.1 Questionnaire Content

The respondents for the Health Practices Survey are women of childbearing age and mothers and female caretakers of children less than five years of age. For all respondents, the questionnaire contains questions concerning age and ethnicity. For all respondents who have given birth during the last 12 months, the questionnaire contains questions concerning prenatal health care. For all mothers and female caretakers of children less than 5 years of age, the questionnaire contains questions about the children's immunization status, occurrences of diarrhea and fever, and common treatment practices for diarrhea and fever.

### 2.2 Sample Design

Traditionally, CDC uses a cluster sample design for its surveys, including surveys of vaccination coverage, mortality, morbidity and health practices. Using this design, cluster areas are identified first, then a sample of the clusters is randomly selected. Next, within each cluster, a "starting" point (i.e., housing unit or household) is selected randomly. After interviewing at the starting point, interviewers proceed to the closest household, usually moving in a predetermined direction, and continue in this manner until they have completed interviews for a predetermined number of units of the population of interest (e.g., mothers, children).

For the Health Practices Survey, CDC agreed to use a more randomized approach in the sample design. Within each cluster, all households, not just the starting point, will be selected randomly. During preliminary work in "practice" clusters, survey supervisors will determine an average number of households that will yield the number of children desired for the analysis of survey results. This average number will be the number of households selected in each cluster.

As part of the Health Practices Survey standardized package, CDC prepared the guidelines for identification and selection of clusters within a country. Census Bureau staff, in consultation with CDC staff, prepared the detailed instructions for selection of households within clusters, which are contained in the Supervisor's Manual.

### 2.3 Data Processing System

The processing system for the Health Practices Survey was designed for microcomputers and includes programs for data entry and for tabulation. The software package RODE/PC was used for the data entry programs and SPSS/PC+ was used for the tabulation programs. The tabulation programs were written based on specifications provided by CDC staff. A more detailed description of the system and of considerations for making it a standardized, "user-friendly" package are included later in this paper.

## 3. Specific Design Considerations for the Standardized Package

### 3.1 The Questionnaire Structure

One of the first considerations for questionnaire design was one common to all surveys, namely, identifying the overall structure. The questionnaire contains four physically separate sections. Part I contains questions concerning the woman or mother/caretaker, including

questions about prenatal health care during her last pregnancy, if applicable. For every interview, the interviewer will complete Part I. This part also includes a list of all children under 5 living in the same household for whom this woman is the mother or primary caretaker. For each child listed, the interviewer will complete a Part II. Part II contains questions concerning a child's immunization history, and two questions to determine whether or not the child has experienced an episode of either diarrhea or fever during the two weeks preceding the survey. Part III of the questionnaire is completed for each child who had an episode of diarrhea during the two preceding weeks. This part contains detailed questions about the mother or caretaker's treatment. Part IV, which is completed for each child who had an episode of fever during the two preceding weeks, contains detailed questions about the mother or caretaker's treatment.

An alternative structure would have been a questionnaire with only two sections - one for the mother or caretaker and one for each child. This version of the questionnaire would combine the Parts II, III and IV into one. Questions on treatment of diarrhea would immediately follow the screening question on diarrhea and questions on treatment of fever would immediately follow the screening question on fever. Unfortunately, such a design is not as feasible for a standardized instrument. The rates of incidence of diarrhea and fever will vary greatly among countries. In countries with high incidence rates, a combined child questionnaire would be feasible. In countries with low incidence rates, large sections of many of the questionnaires would remain blank, potentially leading to errors during data entry. In addition, in these countries, a combined questionnaire would result in a large amount of wasted paper. While this is undesirable for any country, most developing countries already suffer from severe paper shortages which limit their ability to produce questionnaires and other survey materials.

Since the Health Practices Survey will use a more efficient, but more complex, four-part questionnaire, the questionnaire designers had to consider the potential problems in questionnaire flow. They included detailed interviewer notes at critical points throughout the questionnaire to try to limit interviewer errors. One potential problem in administering a questionnaire with four separate parts is the increased probability of misplacing parts of the questionnaire, thereby losing data. Another concern is the probability of interviewer error resulting from administering such a complex questionnaire. For example, the complete list of children less than five years of age is included in Part I. After completing a Part II and Parts III and IV, as appropriate, for the first child on the list, the interviewer will have to return to Part I for the name of the next child. The interviewer may accidentally forget to continue the interview for the next child on the list. In addition, interviewers may inadvertently mix the Parts III and IV for one child with the Part II of another child in households with more than one child. After completing a Part III, an interviewer may also

forget to return to the screening questions in Part II to determine whether or not to complete a Part IV. At each of these critical points in the questionnaire, interviewer notes are included to serve as instructions as well as reminders of how to proceed.

### 3.2 Other Survey Materials and Field Procedures

As mentioned previously, one component of the package which ISPC has developed is an interviewer training manual. One of the first concerns with respect to the training manual was identification of the proper format. ISPC's decision to develop a verbatim training manual was based on two factors. The first was that use of a verbatim training manual would standardize training across countries, thereby improving the possibility of comparisons among countries. The second factor was that use of a verbatim training manual would standardize training within those countries where survey managers choose to train interviewers in separate sessions in different regions of the country.

Another component of the package which ISPC has developed is a supervisor's manual, which includes instructions for communications during fieldwork, supervising fieldwork (assignments, quality control, etc.), dealing with non-response and handling of all materials. This was the most difficult of all the components to develop because the details are dependent on the exact situation within the country. For example, the size of the survey itself (number of households, number of interviews) will vary from country to country. The resources for implementing the survey (number of interviewers, number of supervisors, number of vehicles, communications options, etc.) will vary from country to country. Particularly in developing countries, communications poses a major problem. Telephone systems, where they exist, are often unreliable, and may reach the rural areas in only the most advanced of the developing countries. Postal systems, where they exist, are slow and unreliable and usually do not extend to rural areas.

In addition, the amount of time required to complete the fieldwork will vary across countries, even when the size of the survey and the level of resources available are similar. This is because of the variability in a number of factors, including the surface areas of the countries; terrain; general pattern of dispersion of villages, cities and households within the countries; presence of nomadic tribes in the countries and in the samples; and degree of accessibility. The last factor is particularly relevant to developing countries, where, almost without exception, poor accessibility is a major constraint to conducting surveys. In some developing countries, there may be no paved roads outside of the capital city. Any existing road system - paved, dirt or otherwise - may not extend to rural areas and will probably involve long, circuitous routes rather than easy, direct access. In addition, the road systems may not be well-maintained and may be impassable in certain parts of a country during rainy seasons.

Because of the variety of situations from country to country with respect to all of the above factors, the supervisor's manual could not include detailed instructions concerning the frequency and method of contact between the

supervisors and interviewers, of contact between the supervisor and the central office, and of status reports to the survey managers. Instead, the supervisor's manual contains a description of all procedures that are important, some guidelines and suggestions for frequency and method, and examples of forms for communications, routine status reports, interviewer observation, and reinterviewing.

Another component of the survey package which ISPC staff developed was the interviewer's manual, which includes instructions on general interviewing techniques, general instructions for using the questionnaire, and detailed question-by-question instructions. In developing this manual, it was necessary to assume that the interviewers will not have a medical background, although in some countries, health workers may serve as interviewers. If the survey were for one country, such that interviewer resources could be identified, the manual could be written specifically for the intended interviewer group. Assuming that the interviewers will not be health workers and not have a medical background made very detailed instructions and definitions a necessity.

This assumption also affected the interviewing procedures developed for the survey. For example, one objective of the survey is to determine the percentage of mothers who use oral rehydration therapy for treatment of children with diarrhea, and, of those, the percentage who prepare and administer oral rehydration solution or sugar and salt solution (SSS) correctly. If one could assume that all interviewers will be persons trained in oral rehydration therapy, then the interviewers could observe the mother prepare the solution, ask about the frequency and amount of solution given, and simply indicate on the questionnaire whether or not she prepared the solution correctly and administered the solution correctly. In assuming that interviewers will not be qualified to make these determinations, it is necessary to ask interviewers to take measurements of each component of the ORS or SSS as the mother prepares the solution, record the amount of each component in standard units, record verbatim her response concerning frequency and amount given, and measure and record the amount given. These data will be analyzed after the survey to determine, on a case-by-case basis, whether or not the solution was prepared and administered correctly.

Related to the above procedure is the necessity to consider measuring devices. If the survey were being developed for one country, it could be sufficient to determine in advance the standard containers used locally for measuring, such as a Coke bottle, a can used for a locally-produced product, or a specific type of bottle cap. These could then be used as the standard measures during the interview, and the determination of correct or incorrect could be based on an algorithm using these standards. However, since the survey procedures have to accommodate a variety of countries and situations, it was necessary to specify that interviewers use a standard graduated cylinder and a syringe with milliliter markings to measure all amounts.

Another objective of the survey is to determine the percentage of mothers who use

antimalarials for treatment of fever or presumptive malaria. To do this, the interviewers will ask the mother to list the types of treatment and names of medications that she gave to the child. The interviewer will then determine whether any of the medications mentioned are antimalarials and, if so, will ask additional questions about the quantity and frequency of treatment. In order for the interviewer to determine whether or not a medication is an antimalarial, it was necessary to prepare a reference list of antimalarials. In any one country, there are probably no more than five brand-name antimalarials available. However, since the survey will be conducted in a variety of countries, it was necessary to develop an exhaustive list of all known antimalarial brand names.

While developing the survey procedures and materials, it became apparent to ISPC staff that survey managers in each country would need to conduct preliminary qualitative data collection and analysis activities to adapt the survey package to the country. The types of adaptation possible are modifications to question wording and refinement of definitions and specific procedures. Since the data processing package is dependent upon a specific questionnaire structure and question order, adaptations that require changes in question order or addition of questions requiring data entry are not possible without also changing the data entry programs. Although other qualitative data collection methods are feasible, the method suggested in the survey materials is focus group interviews.

These are group interviews, usually with community members, that are conducted as informal discussions on specific topics. The researcher, who serves as discussion leader, ensures that the discussion remains focused on the specific topics of interest and that certain information is obtained.

Throughout the interviewer's and supervisor's manuals there are notes to the survey managers, indicating areas that should be refined based on focus group interviews. The areas needing refinement include the following:

#### Interviewer and Interviewer Setting

The use of male vs. female interviewers may make a difference in the degree of cooperation and responsiveness. The "ideal" interviewer may differ among countries, particularly for Moslem vs. non-Moslem countries. In addition, the "ideal" interview setting may vary among cultures. Focus groups can help determine if interviews can be more successful if private, or with friends or family of the respondent also present. Focus groups also can help to determine if conducting interviews in private is culturally feasible.

#### Language Groups

One question asks for the language group of the mother or caretaker. Focus groups will help identify the major language groups for a country so that the survey managers can insert these on the questionnaire as precoded response categories.

#### Definition and Terminology for Health Facilities and Health Workers

Several of the questions ask about treatment obtained at health facilities and from trained

health workers. It is important to use focus group interviews to identify local terminologies for various types of facilities and health workers so that questions can be properly worded.

#### Antimalarials

Focus group interviews can assist in identifying the 4 or 5 antimalarials that are common to a given country so that the interviewers can use shortened antimalarial reference lists.

#### Definition of Diarrhea and "Watery" Diarrhea

Focus group interviews will assist in identifying local terms for diarrhea and "watery" diarrhea, so that relevant questions can be properly worded. It is important to ensure that the respondent's comprehension of a term is consistent with the survey designer's intent.

#### Identification of Common and Traditional Treatments for Diarrhea

During the survey, interviewers will ask mothers to describe the treatments given for diarrhea and will then mark "yes" or "no" for three categories of treatment: ORS, SSS, or fluid other than water. Focus groups will aid in identifying local terminologies and common practices so that trainers can give relevant examples to the interviewers and provide standard guidance on how to classify each into the three categories.

#### Definition of Malaria and Fever

An early draft of the Health Practices Survey questionnaire referred specifically to occurrences and treatment of malaria, rather than fever. In certain cultures, malaria is almost always presumed when fever is a symptom, and community health workers are instructed to treat anyone who has a fever with antimalarials. In some tribal languages, the same word refers to both malaria and fever. For these reasons, CDC staff decided to substitute "fever" for "malaria" throughout the questionnaire. However, in other cultures, fever is seen as a symptom of many diseases, and malaria is presumed only if a combination of symptoms indicates malaria. Focus group interviews will assist in identifying local terminologies for malaria and fever and in determining the perceived relationship between the two.

#### 3.3 Listing and Sampling

For the Health Practices Survey, field staff will list all housing units within a cluster, then select a sample of housing units, then list and interview each woman of childbearing age and each mother or female caretaker in the sampled housing units. One difficulty frequently encountered in developing countries is that traditional definitions of "housing unit" do not apply, especially in rural areas. In African rural areas, compounds and concessions are common. In these compounds, there may be many nuclear families or several extended families, each with its own structure for sleeping and eating. However, the families share common cooking and work areas, often in an outdoor courtyard. The exact nature and name for these compound arrangements may differ from country to country; therefore, in the manuals it was not possible to describe each of these special cases and to provide specific definitions of housing units. Instead, the manuals give a general definition of housing unit and provide

descriptions of generic compound arrangements and instructions for how to treat those.

Another concern in developing the listing and sampling instructions was that the availability of resources to design a sample will vary greatly among countries. Some countries may have current sampling frames, while many others may not. Some may have detailed maps covering the whole country, while many others may not. In order to standardize the package to address different situations, ISPC staff wrote detailed instructions for listing and sampling for a variety of cases, including cases where maps exist, and those where maps do not exist. Included in the manuals are instructions for precanvassing areas and producing sketch maps. In addition, since average cluster size may vary from country to country, ISPC staff wrote separate listing and sampling instructions for three different size categories.

#### 3.4 Data Processing

The data processing system was designed with three goals: (1) to ensure consistent treatment of the data; (2) to enhance ease of use by staff with differing levels of computer experience; and (3) to be relatively easy to modify for questionnaire changes. To facilitate these goals, ISPC staff selected and "programmed" computer software packages to develop a system that requires very little time to learn to use. ISPC staff also developed an instruction manual in conjunction with the system to guide the user through the various steps.

The first step in the system is numbering the questionnaire to establish a link between the questionnaire itself and the subsequent processing. This step, known as batch control, allows for the possibility of one or several data entry personnel to be working on one or more computers. The batch control is necessary to track which steps have been completed for a "batch" of questionnaires and to provide an easy reference back to the questionnaires to verify information.

Once the questionnaires are properly numbered, data entry can begin. ISPC and CDC staff considered various software packages for data entry. The package selected, RODE/PC, allows for maximum control over the data. Through the provision of several "menus" and with several programmed "checks," the system ensures that data entry will be accomplished in the same way for each questionnaire and that the resulting data file will be consistent. Data entry screens appear on the computer that closely match the pages of the questionnaire.

The package is programmed to accomplish two kinds of checks as the data are entered. The first, called a range edit, checks if the numerical entry is between specified lower and upper limits - e.g., if an entry for month is between "01" and "12". This is done for each item entered and is easy to modify for questionnaire changes. The second type of check is a logical check. This series of checks is designed to skip certain items or data entry screens based on answers to selected questions. For example, if the answer to the question on whether a child had diarrhea is "no" (and the corresponding code "2" is entered), the program will automatically skip the section of questions (and the data entry

screens) on treatment of diarrhea. In RODE/PC, the programming and modification of these checks is cumbersome for the non-programmer. If computer programmer support is not available, staff using RODE/PC should not use the logical skips, and just hit the return key to skip through each item individually.

RODE/PC keeps track of the number of items and questionnaires entered for each batch. It additionally tracks the subsequent entry activities -- verification and ASCII file creation -- by batch. After a batch has been entered, it must be entered a second time to ensure accurate results. The verification process compares the original and second entries for each item (it is possible to exclude items for this process) and alerts the user by an auditory signal when there are inconsistencies to resolve. The verification process does not continue until the "correct" value is entered.

After all the batches have been entered and verified, a data file is created. As with the other steps, RODE/PC provides menus for accomplishing this step and tracks the file creation by batch. It allows the data file to be created in several formats so that various software packages can be used for further data processing.

In this system, the data file is read into SPSS/PC+ for the remainder of the processing. ISPC and CDC staff selected SPSS/PC+ because it can produce report-quality crosstabulations with relatively little programming. Data base packages, such as dBASE III+, are excellent for producing lists or counts of data items, but are difficult to program to crosstabulate two or more variables at the same time (e.g., proportion of children with diarrhea who received ORS). SPSS/PC+ not only produces this tabulation with one line of code, but allows for easy modification in an interactive mode. It is also easy to "recode" data items with SPSS/PC+. For example, the determination of whether or not a "correct" sugar and salt solution was given is dependent on several questionnaire items - the amounts of water, salt and sugar used. Using SPSS/PC+, the determination of correct mixture is accomplished with two lines of code.

The intent of the system is to recode the data in the same way each time the system is used in order to produce consistent tabulations. Thus, for example, each time a table on "correct mixture of SSS" is produced, it is defined the same way. Other examples of recodes in the system include: if a child is "fully vaccinated" and "correctly" vaccinated (based on several fields giving vaccination by type and date); if diarrhea was "severe"; and if oral rehydration therapy was given in a "timely manner." There are several others.

ISPC staff developed the SPSS code so that the user, after accessing the data file generated by RODE/PC, needs only to enter one line of code to produce 37 tabulations which have been "pre-programmed" based on CDC specifications. Another line of code produces the 37 tabulations in publication quality (using the SPSS/PC+ TABLES module). The program also creates an SPSS/PC+ "systems file" to enable the CDC analysts to further investigate the data and produce additional tabulations.

#### 4. Focus Group Results in the Cote d'Ivoire

In January 1987, consultants from the School of Public Health, University of South Carolina, conducted focus group interviews in the Cote d'Ivoire as the first step in adapting the Health Practices Survey package for implementation in that country. The consultants documented the results of these interviews in a report entitled "Guidelines for an Educational Diagnosis in the Combatting Childhood Communicable Diseases Project (CCCD)" by Deborah C. Glik, Sc.D.; William B. Ward, Dr.P.H.; and Andrew Gordon, Ph.D. According to that report, the focus group interviews led to some interesting findings which have implications for improved question wording and definitions for survey implementation in the Cote d'Ivoire. The results also provided some information on the implications of ethnicity and language groups on variations in perception of illness and treatment practices. In the Cote d'Ivoire there are four major ethnic groups. Within each ethnic group, there are several language groups, with a total of eleven major language groups. The focus group interviews in January 1987 included six of the eleven ethnic/language groups.

A major reported finding of the focus group interviews was that all but one ethnic/language group studied noted a strong association between fever and malaria, but none of the groups had a synonymous term or concept for the two. Therefore, in the Cote d'Ivoire, it may be necessary to ask specifically about treatment of malaria, rather than fever, since these are not seen as synonymous concepts.

A second and related finding was that, not only did the groups clearly differentiate fever and malaria, but each group identified several types of malaria, each with its own name, symptoms and treatment. Some of these types do not correspond to the actual medical syndrome of malaria. Therefore, at least in the Cote d'Ivoire, it will be necessary to reword the fever/malaria questions, using the specific term of each ethnic/language group which most closely corresponds to the medical syndrome.

Another finding of the focus group interviews was that there is also a complex classification scheme for diarrhea, with each ethnic/language group studied identifying between 2 and 4 types. As with the malaria concepts, some of the descriptions of diarrhea types correspond more closely to other medical syndromes. As with malaria, it will be necessary to identify the type of diarrhea recognized by each ethnic/language group that most closely corresponds to the medical syndrome.

Other interesting findings of the focus group interviews related to treatments and general prognoses for fever, malaria and diarrhea. With respect to diarrhea, the results indicated that only a small minority of respondents were aware of oral rehydration therapy.

#### 5. Future Activities

The next step in development of the Health Practices Survey package will be the test implementation in the Cote d'Ivoire. Following the focus group interviews in January, the consultants from the University of South Carolina recommended additional focus group interviews to include the remaining 5 ethnic/language groups. Based on the results of the focus group interviews, CDC and Ministry of Health personnel within the Cote d'Ivoire will make adaptations to the questionnaire and manuals prior to implementation. Following survey implementation in the Cote d'Ivoire, ISPC staff, in collaboration with CDC staff, will make final revisions to the survey package for use in other CCCD countries.

To make the survey package complete, portable and easy to modify, it will be necessary in the future to make all documents available on diskettes, using a common word processing package, such as WordPerfect. Both French and English versions of the standard questionnaire and manuals should be available in this format. During the development of the test survey package, ISPC staff used WordPerfect for several of the English documents and another word processing package for the rest. Diskettes containing the French documents, which were translated from the English in the Cote d'Ivoire, are currently available only in the Cote d'Ivoire.

#### 6. Summary and Concluding Remarks

Developing a standardized Health Practices Survey package for Africa is an interesting, albeit difficult, task. Variations in language, cultures, perceptions, resources and capabilities among and within the countries add to the complexity of the task. Other standardized health surveys have been developed for Africa, but they have often included a core group of consultants who travel from country to country to supervise the adaptation and implementation. One of the unique features of the Health Practices Survey package is the intent for different persons to implement the survey in each country with a minimum of outside assistance.

Whether or not such an approach will work remains to be seen. It is anticipated that ISPC and CDC staff will learn much about the feasibility of the Health Practices Survey package during the test in the Cote d'Ivoire. One conclusion that is already certain is that a true "standardized" survey which can be used across countries without change is not feasible. The use of focus groups or other preliminary qualitative data collection techniques will always be needed to adapt survey instruments to local conditions.

<sup>1</sup> This paper reports the general results of research undertaken by Census Bureau staff. The views expressed are attributable to the author(s) and do not necessarily reflect those of the Census Bureau.