NAMIBIA HOUSEHOLD INCOME AND EXPENDITURE SURVEY 2015/2016

FIELD DATA QUALITY CONTROL MANUAL

MISSION STATEMENT

"In a coordinated manner produce and disseminate relevant, quality and timely statistics that are fit-for-purpose in accordance with international standards and best practice"

VISION STATEMENT

"Be a high performance institution in statistics delivery"

CORE VALUES

Performance

Integrity

Service focus

Transparency

Accuracy

Partnership

1. INTRODUCTION

The primary goal of the field data quality control and checks guideline is to provide guidelines and procedures that ensure that the data collected during the main undertaking of the 2015/16 Namibia Housing and Income Expenditure Survey (NHIES) meets the quality standards as set out in the Namibia data Quality Assurance Framework (DQAF) and are comparable with other international housing and income expenditure statistics. Many field teams will be participating in the collection of these data, therefore encouraging and maintaining consistency during the field work and ensure comparability of the understandings and dealings will be very much critical to the success of the survey. The data comparatively referred to above will only be achieved through a combination of standardized methods and plans. These methods include the developed manuals and plans:

a) The interviewer manual

b) The supervisor manual

c) The transport and logistics plan

d) The Human Resources plan, as well as

e) The information Technology plan

With these standardized methods the quality control procedures will then be used to ensure that the field team apply the methods consistently in the pursuing of data quality during field work. We will provide important definitions pertaining to quality.

a) **Quality:** The term quality is generally defined as the fitness for use of the collected data/statistics in terms of its application in the real world.

b) **Data quality***:* Data quality is an assessment of the collected ***data's*** fitness to serve its purpose in a given context.

c) **Quality Assurance:** The term quality assurance refers to a planned system of procedures and corrective actions to ensure data produced through survey life cycle are of the highest achievable quality (Quality Audits), and

d) **Quality audit:** Refers to a systematic process of examining the quality system of a process and their corrective actions.

2. SURVEY QUALITY ASSURANCE

The notion of data quality assurance consists of two very distinct but related activities namely the quality assurance as well as the quality control. The two activities are further described in details as follows:

a) **Quality Assurance:**

According to the 2008 Bight Quality Assurance Plan, quality assurance activities are those activities that are conducted prior to the implementation of the survey to ensure that the appropriate kinds and quantities of data will be collected. Such activities include the design, planning and management of the survey. The objectives of the quality assurance activities are five-folds, namely to ensure that:

(i) The techniques for the collection of data in the field and the processing of it thereof will be applied consistently and correctly

(ii) The sampling errors and survey response rate will be minimized

(iii) The integrity of the collected data will be maintained and documented at all levels of the survey life cycles

(iv) All collected data will be comparable, and

(v) The results derived from the collected data can be reproduced at all levels.

b) **Quality Control**

The quality control activities are implemented during the data collection phase of the survey in order to evaluate the effectiveness of the quality assurance activities. The 2008 Bight Quality Assurance Plan indicate that quality control activities ensure that measurement errors and bias are identified, quantified and accounted for or timely eliminated before causing much harm to the data. Quality control includes both internal and external checks that must be performed accurately. The typical internal quality checks include:

(i) Pilot testing

(ii) Internal test samples

(iii) Use of independent methods to verify findings

(iv) Use of standard reference materials

(v) Running some sort of tables of the data to verify completeness

(vi) Edit checks within the system/application

(vii) Soft and hard control mechanisms and so on

On the other hand, the typical external quality control checks includes all the activities that are performed to determine comparability of the data collected. These include:

(i)   Sample selection procedures and processes

(ii)   Independent performance audits

(iii)   Interviewing techniques

(iv)   Documentations procedures and so on

The survey life cycle is provided in figure 2.1 below. It is therefore important to note that off

the components of the survey life cycle, the data quality control is only applicable during the
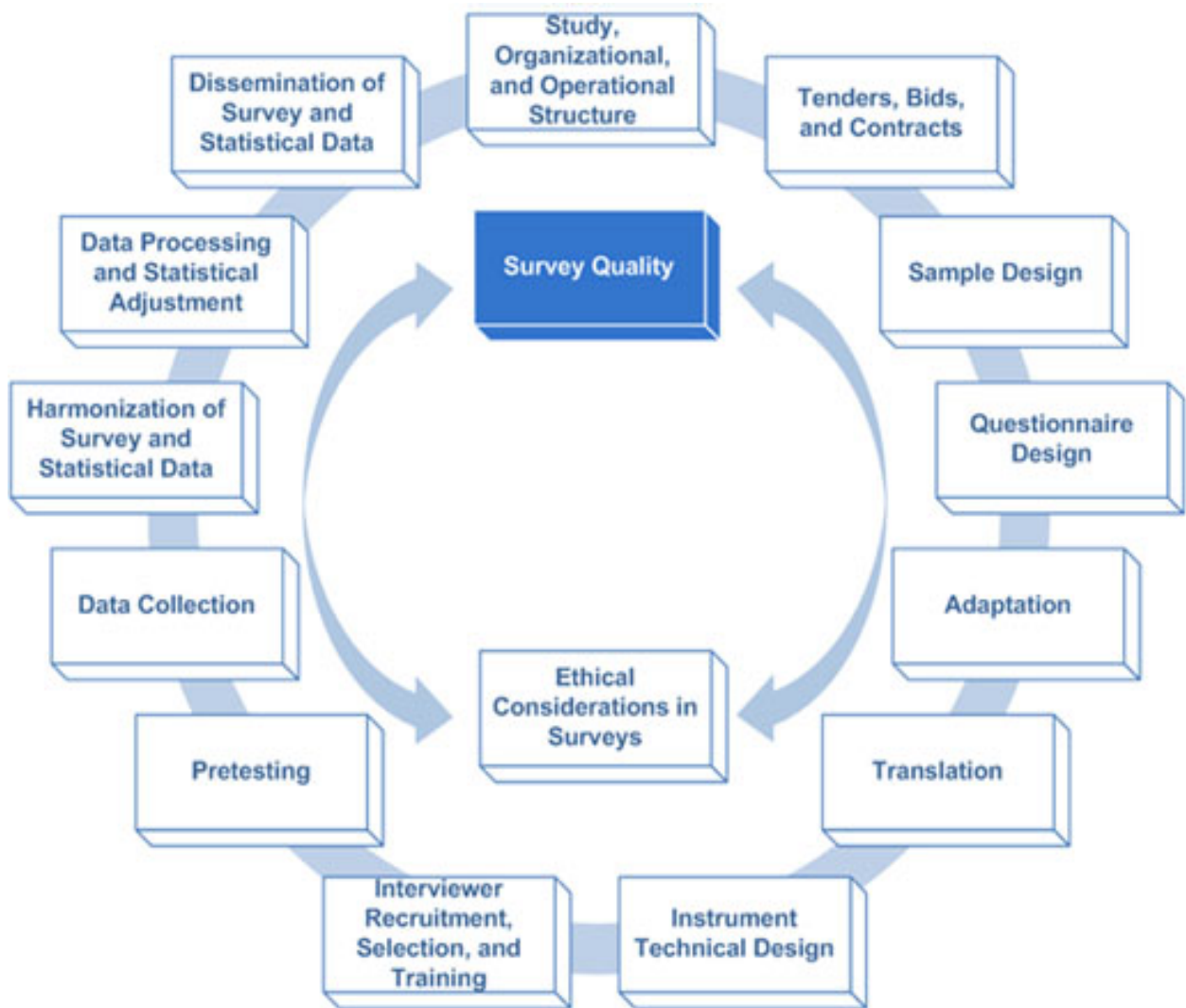
data collection process.

Figure 2.1: Survey life cycle

3. DATA QUALITY CONTROL

3.1. Enabling measures for data quality

In order to effectively measure the quality of the data for the NHIES, the following enabling measures were designed:

a) A suitable and sufficient survey structure was put in place

b) Comprehensive and clear data collection tools were formulated

c) Allocation of sufficient and competent survey staff will be recruited and trained through a vigorous recruitment process and training regime.

d) Clear roles and responsibilities for all survey staff were documented

e) Clear reporting channels were also put in place.

3.2. Survey Quality Control

For any given survey, the main objectives of carrying out a survey quality control are first and foremost to:

a) Identify factors that are affecting the accuracy, validity and reliability of survey data

b) Prevent and correct errors timeously before they affect the rest of the data,

c) Avoid common causes of miss-reporting and taking remedial action

d) Evaluate the essential role of supervision and team interaction in the field

3.3. Main component of survey data quality

The main components of the survey data quality is as follows:

a) Supervision of interviewers

b) Non-response

c) Handling pending interviews

d) Fieldwork control sheets

e) Monitoring interviewer performance

    (i) *Systematic spot checking of household interviewing*

    (ii) *Observing interviews*

f) Evaluating interviewers

g) Returning questionnaires to central office

These components are now further described in much more details as follow:

3.3.1. Supervision of interviewers

Strict supervision of interviewers is a critical component of the survey data quality. This supervision consists of the following aspects:

(i) Continuous training of interviewers is a continuous process that does not only ends at the training venues but evolves throughout the field operations.

(ii) The observation and supervision throughout the fieldwork are a part of the training

(iii)Team supervisors play a very important roles in the continuing of this training and in ensuring the quality of data

Figure 3.1 presents the survey reporting channels which need to be followed during the field operation, however in the case of emergencies team supervisors can report directly to the national or survey manager only in the case the regional or national supervisor is not available.
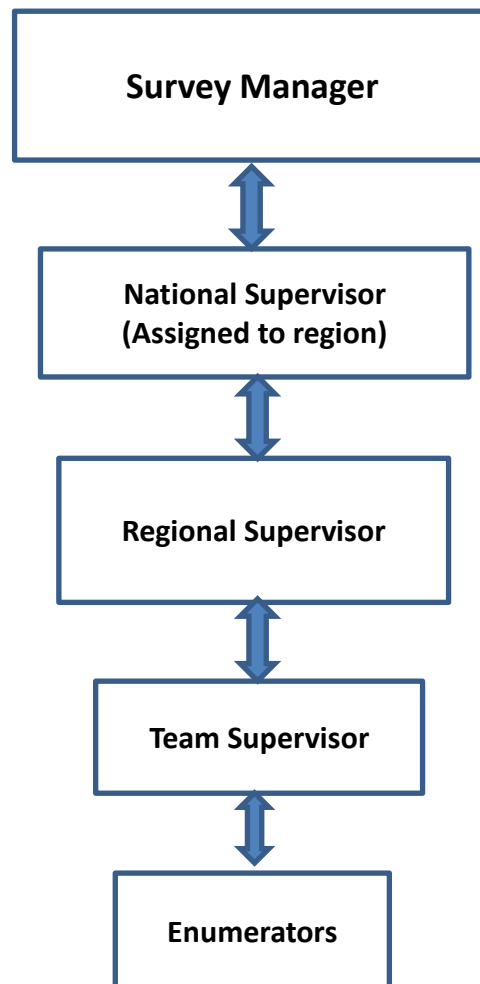

Figure 3.1: Survey reporting channels

3.3.2. Non-response

Non-response is one of the most serious problems that arise from the field and it has a drastic effect on the data analysis. Non-response is failure to obtain information for the selected households. It also introduces serious bias that needs to be minimized by supervisors. Therefore, the interviewers will need to make return visits to the households at any given opportune time.

a) Types of non-response

No response may be classified into three basic types and these are

(i) **Type 1:** This type of non-response arises when the interviewer is unable to locate the selected household for interview. These can be as a result of the following issues:

- *Occupied structure is inaccessible*
- *The structure is not found*
- *The structure is a non-residential, vacant, or demolished.*

(ii) **Type 2:** This non-response that arises when the interviewer is unable to locate the eligible head of household (HH) or the most knowledgeable respondents as identified by the household's members. This can be due to the fact that:

- *No one at home at the time of the interviewer's call or visit*
- *Respondent temporarily absent from the households*

(iii)**Type 3:** This non-response occurs when the respondent refuses to be interviewed as a result the number of refusals should be closely monitored and the reason for frequent refusals noted down. What to do in this case? Several approaches have been proposed and these are:

- *To approach the respondent from his/her point of view*

- *Postpone the interview to another day.*

- *Have the supervisor comes in to explain the purpose of the interview and the survey in general and try to convince the respondent to cooperate or carry out the interview him/herself.*

3.3.3. Handling pending Interviews

Pending interviews are those interviews were the interviewer did not managed to complete the interview as required and hence requires a call back. Therefore quality control procedures will assist in:

a) The identification of who keeps track of pending interviews and how? supervisors and interviewers via control sheets

b) Planning and completing of the call backs for pending interviews before leaving the PSU

c) How the requirement of a good division of work to ensure that all planned interviews are completed is done.

3.3.4. Monitoring interview performance

Monitoring interviewer performance is carried out to ensure that the interviewer conduct the interviewer in a consistent and accurate manner in order to collect quality data. The monitoring is done by observing the interviews and carrying out the field editing if need be. Furthermore, the interviews are observed throughout the period of the field work but more frequently at the very beginning of the data collection and again toward the end. The two approaches of monitoring interview performance are systematic spot checking of household's composition and observing interviews. These approaches are further discussed below.

a) Systematic spot checking of household interviews

Spot checking of households interviews are used to improve the data quality by identify common problems and poor skills of interviewers. Spot-checking of a particular household composition is done in the following way:

(i)   Supervisors should conduct about 5% of the interviewed households

(ii)   All interviewers must be spot-checked

(iii)   If problems exist, the supervisor should review the household schedule with interviewers as well as reviewing the Interviewer Manual with them

(iv)   Take more serious actions if the problem persists with individual interviewer

b) Observing Interviews

The national supervisor is responsible for monitoring the team supervisor and interviewer's interview. In addition, the team supervisor is responsible for observing the interviewer's interview. The observation of interviews is undertaken in order to comprehensively evaluate and improve the interviewer performance in terms of looking for the errors and misconceptions being made by the interviewers that cannot be detected through editing. Questions addressed where as follows:

(i) **Why?** Observation is done in order to acquire precise but inaccurate answers

(ii) **When?** Observation is done at any time during the day as this will prevent colluding among interviewers as they should expect the visit of the national or team supervisor at any opportune time.

(iii) **How to observe and interview?** Observation of interviews should be done without disrupting the interview, taking notes about the observed issues.

(iv) **What to do after?** The national or team supervisors speaks to interviewers to provide the needed feedback

3.3.5. Evaluating Interviewers Performance

Upon the monitoring of the interviews, the national or team supervisor must carry out the following task at the end of each day to evaluate the interviewer's performance effectively.

a) Daily discuss the quality of interviewers work

b) Point out mistakes discovered during observation of interviews

c) Discuss examples of actual mistakes, but be careful not to embarrass individual interviewers.

d) Re-read relevant sections from the Interviewer's Manual with the team to resolve problems.

e) Encourage the interviewers to talk about any situations they encountered in the field

f) Discuss whether situations are handled properly, and how to do it in the future

g) Review the Household and Individual Questionnaires

h) Using the questionnaires, verify the information about the results of the interview

i) Check that all the households or dwellings are listed on the Interviewer's Assignment Sheet and agrees with those selected from household listing form or map for cluster

j) There can never be fewer household questionnaires than selected households or dwellings, but there can be more households questionnaire than selected ones

4. ENSURING DATA QUALITY

Ensuring the data quality is the responsibility of both the interviewer and his/her team supervisor, In addition the Regional supervisor also plays a crucial role in overseeing the work of both the interviewer and the team supervisor and take remedial action timely when called for. The direct tasks are described below.

4.1. Ensuring quality: Interviewer perspective

a)   Be able to explain the survey purpose clearly

b)   Clear understanding of key concepts such as

   (i)   Dwelling/Housing unit

   (ii)   Households

   (iii)   Head of households

   (iv)   Employment

   (v)   Households income and expenditure

   (vi)   Reference period e.g. for the past 7 days, for the past 12 months, and so
        on

c)   Understanding the questionnaire and interviewers manual meticulously

   (i)   Follow the instruction very carefully, for instance in food adequacy
        only female respondents apply or most informed member in the
        households when it comes to food preparation and purchase. Others
        include skipping procedures, age categories that applies to specific
        questions and Households and Individual questions and so on.

d)   The CAPI application

   (i)   The application has built-in checks and balances to ensure data quality,
        for instance, Male head of households spouses cannot be male and the
        should be of specific age,

      (ii)   Min and Max limitations to some questions as well as soft and hard checks

4.2.   Ensuring quality: Supervisor's perspective

The steam supervisor plays an important role in ensuring that all collected data are of top quality. As such he/she plays the first line of defence in the data quality processes. The following are some of the main issues he/she should be acquainted with. The team supervisor must:

a) Master the interviewer trade, by comprehensively mastering the interviewers manual

b) Create a conducive environment in which his/her team operates

c) Follow field procedures effectively

d) Master the art of map reading, identification of PSU boundaries, listing and sampling of households

e) Ensure sufficient survey materials are in place e.g. maps, tablets, DRB booklet, measuring items etc.

f) Ensure correct identification of PSU boundaries

g) Ensure sampled households are enumerated comprehensively

h) Ensure proper and efficient administration of the DRB in the selected households

i) Conduct independent thorough check of at least one segment in a PSU of each interviewer in each survey round. Record the results and compare with the actual listing done by the interviewer. If there are lapses highlight such to the interviewers so that they can be rectified or improved upon

j) Keep a record and round report for effective monitoring of field work over time

k) Monitor his/her interviewers from the very first day of interviewing to ensure that all questionnaires are completed correctly and any mistakes noted with the interviewer should be corrected immediately and not prolonged, and

l) Make note of weak interviewers, who will need close supervision and re-training

4.3. Other quality checks

Other quality checks can be formulated or determined by the subject matter to determine specific spot check analysis. For instances the Regional supervisor can do the following based on the permissible access granted to him in the application.

a) Run frequency tables to validate responses

b) Missing cases

c) Detect anomaly and take remedial measures timely

Quote of the survey

Under no circumstances should you allow fabrication of answers