

Quality assurance in statistical surveys

(CAPMAS - EGYPT)

Mohammed Abou Elatta
Quality Control Department

contents

1

Introduction

2

Tasks of Quality control department

3

Methodology QC in statistical surveys

1- Introduction

- ✔ There is focus right now on data quality from statistical institutions and agencies as well as international organizations working in this field. As it became obligatory for statistical organizations and bodies to justify what is spent from the budgets on statistical processes according to kind and quality of what is provided from statistical services to the beneficiaries of the statistical production of these bodies, then this focus on the use and need of statistics which led to a focus on quality concept and what are provided of statistical products to meet that need.
- ✔ One of the most important requirements is ensuring quality data that are collected in the field, which requires designing and implementation of appropriate procedures at all levels.
- ✔ Data quality is one of the most important goals that **CAPMAS** seeks to achieve to let the statistical product accesses a high degree of credibility and confidence to serve national planning, decision-making, policy-making and scientific research purposes.

1- Introduction

- ✔ Therefore, **CAPMAS** established quality control department to achieve this goal in all statistical work stages ,in which its primary task was to evaluate and monitor quality of various surveys and censuses data that **CAPMAS** performs from preparation, field work and data processing stages until preparation of data for dissemination in order to avoid and reduce occurrence of errors, work on non-recurrence in the future ,measuring confidence degree in these data and in consistencies of the data , identifying inclusiveness and non-response errors size to know the extent of its impact on confidence degree in the data.
- ✔ Now it executed its planned role, a mechanism has been added for auditing of statistical surveys data in the field by re-calling the households in Call Back unit in order to audit several current statistical surveys data implemented by **CAPMAS**.

2- Tasks of Quality control department

- ❑ Study effectiveness of training programs for those in charge of work, Extent of understanding of instructions, Field work method and how to deal with resources to fulfill the required data.
- ❑ Studying clarity degree of statistical instructions and definitions used in relation to both researcher and statement provider.
- ❑ Measuring accuracy of statistical data collected from various sources by re-collecting data according to the definite proportions.
- ❑ Discovering of errors, identifying their size, causes and different types, and working to quickly eliminate and reduce them.
- ❑ Review comprehensive regarding different statistical operations frameworks, update them and determine non- comprehensive rate for the survey community, study quality of sample evaluation used to ensure accurate representation of the community in studying and avoiding making bias errors.
- ❑ Studying and analyzing data that are collected by the researchers and determining data accuracy degree, reasons for their deficiencies and percentages of non-response to the sources, dividing them into their different categories and types to determine the impact of each category on sample data degree and bias size.

2- Tasks of Quality control department

- ❑ Determine difficulties in various work stages and work to overcome continuation of work problems to be done on time.
- ❑ Determine errors rates resulting either from the researcher or respondent by doing a re-collecting, field verification of differences and analyzing the results after matching them.
- ❑ Conducting field matching operations for data between the original researcher and quality controller in order to determine errors sources, their types and causes.
- ❑ Reconnecting with families through Call Back Unit to verify the most important data that field researcher has fulfilled.
- ❑ Studying data mismatch reasons and sources.
- ❑ Determining the limit at which error rates can be accepted by making general average error, upper and lower limits for these errors, within which the limits can accept continuation of work by using mathematical statistical methods.
- ❑ Measuring work accuracy for researchers and determining performance level of each of them as well as for different work levels.

3- Methodology QC in statistical surveys

While statistical errors are concentrated in sampling and non-sampling errors , given importance of non-sampling errors , their impact on surveys and statistical studies results, So quality control focuses on measuring this type , analyzing it , identifying its causes and working to avoid them even though they need more costs, time and effort to identify, measure and analyze them.

- ☑ The audit is carried out in two ways (re-interview - Call Back).
- ☑ The re-interview sample is determined at a rate ranging from 5% to 10% to be represented for all governorates.
- ☑ A special quality questionnaire is designed to re-collect the data of some tables.
- ☑ Data is re-collected by quality controller using a form consists of the most important items of the original form for data collection.
- ☑ A sample is selected from specific daily work of the original researcher and then the data is re-collected by the quality controller.
- ☑ The data of the original researcher is compared with the data of the quality controller and differences are identified daily.
- ☑ Errors are corrected in the presence of the original researcher after confirming correctness.

3- Methodology QC in statistical surveys

- ☑ Quality process is carried out by researchers at high level of training and competence.
- ☑ Quality is concentrated during the first days of fieldwork on discovering errors early and how quickly these errors are resolved before their spread in a way that is difficult to be corrected.
- ☑ Reconnecting with families through Call Back Unit by selecting a sample representing approximately 20% of survey forms upon Republic governorates and checking the most important survey indicators with families or companies, then a comparison is made between telephone contact data and field researcher's data to identify the most important differences.
- ☑ Preparing reports for evaluating data quality, which includes observations, as well as recommendations for a method to avoid errors and identify their sources and causes, these reports are submitted to the higher administrative levels responsible for the survey.

Prevention is better than treatment

Prevention is one of the best ways to avoid diseases,
Likewise in statistical work, if a comprehensive quality control plan is not available, this will have a negative impact on ensuring the success of the statistical products.

THANK YOU