NATIONAL FAMILY PLANNING BOARD

REPORT

Training of health care professionals in Qualitative and Quantitative Data Management; Monitoring and Evaluation and Use of Pivot Table for Quality Reporting

Northeast Regional Health Authority

St. Ann's Bay Hospital Conference Room, St. Ann

October 29, 2019

INTRODUCTION

Arising from the clinic monitoring visits by the Monitoring, Evaluation and Research (MER) technical team of the National Family Planning Board, drawback in quality reporting was identified as an anomaly in the system. In addition, based on the needs assessment by the Northeast Regional Health Authority, Nursing Division, the MER team was asked to deliver capacity building sessions in the disciplines of Qualitative and Quantitative & Data Management; Monitoring and Evaluation and Use of Pivot Table in order to enable efficient and effective Quality Reporting.

The MER team, capitalized on this opportunity of capacity building, and so on October 29, trained 22 individuals from the category of Public Health Nurses, Midwives, Social Worker, and Contact Investigator for HIV.

The trainers comprised the Director of Monitoring, Evaluation and Research (Dr. Tazhmoye Crawford), the Monitoring and Evaluation Officer (Mr. Damion Grant), the Database Officer (Mr. Collin Dosunmu) and the Research Officer (Mr. Andre Black).

Objectives

The objectives of the training were that at the end of the workshop, participants would be able to:

- understand the role of Qualitative and Quantitative Data Management and Reporting in Sexual and Reproductive Health (SRH) Programmes;
- appreciate the importance of data quality in Sexual and Reproductive Health;
- generate and interpret Descriptive Statistics (Frequency, Rates, Averages and Graphs) using the pivot table in Microsoft Excel;
- understand SRH-related indicators, its measurements and calculations

Participants/Course

Twenty-two (22) individuals participated in the course. The said course carried six credit hours which were conferred by the Nursing Council of Jamaica. This was timely for the nurses who were in the process of renewing their license.

About this Report

This training report features a synopsis of the training content, the methodology, and the findings from the course evaluation that was administered. Miscellaneous is also noted, followed by the way forward and references that were cited. A copy of the Role Play and evaluation form is hereby attached to this report.

TRAINING CONTENT

Areas covered during the training were as follows:

1) *How to conduct data collection, analysis and reporting using qualitative and quantitative approaches*

2) *Calculation of key indicators of Monitoring and Evaluation*

The participants were taught:

Qualitative

- the difference between qualitative and quantitative data, their strengths and limitations, and examples given

- that the former assesses and understands reasons, motivations, issues/problems - eg
  - Why are so many elderly persons from the North Valley infected with HIV?
  - Why are adolescents who attend the North Valley High School likely to become pregnant before completing their education?

- that qualitative was akin to Method of Inquiry
  - Asks and observes Why, When, How, and Where
  - It has prudent for us to know more of what's happening so that sound medical, policy, programme intervention, financial decisions can be taken

- that qualitative was inclined to Socratic Questioning which was very useful when it comes to probing one's health, or crime, etc. In terms of health, consideration is usually given to
  - Men's versus female's health-seeking behaviour
  - SDH to ascertain response to medication
  - Lifestyle
  - Knowledge
  - Attitude
  - Practice
  - Behaviour

- that qualitative data was mainly captured by interviews, focus group discussions, workshops, observation, obtaining information from diary (eg in the case of crime), field notes, Minutes, reports, emails, videos, audio recordings,

transcripts, case studies; and is usually analysed in triangulated format, with a view to major and sub-themes.

Example of interview that was shared

Example of FGD that was shared

- that qualitative information looked at phenomenon, and various dimensions of the said phenomenon
    - Why do more people attend clinic on Fridays?
    - Observe and document people's (patients and health care providers) interaction
        - Determine whether triage and other social adjustments could alleviate clinic overcrowding and people's attitudes on Fridays
- that real life lived experiences (the individual's perspective) was usually explored under a qualitative data gathering
- that when it comes to qualitative information, the individual and his/her experience were co-constituting – being unable to exist without the other (Heidegger, as cited in Laverty, 2003, p. 14). In other words, the individual must never be divorced from his/her physiological, psychological, social, economical and educational-related position
- methods of obtaining information qualitatively if trying to ascertain knowledge/awareness, attitude and behavior, etcetera

- that the sample size of qualitative date is usually small, hence unable to be generalized, unlike the quantitative.

Quantitative

- the definition of data (refer to raw, unprocessed information) and information (refers to processed data or data presented in some sort of context)

- the involvement of quantitative analysis: The techniques by which researchers convert data to numerical forms and subject them to statistical analyses; and the numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that those observation reflect

- data preparation within the context of editing, missing data, coding and data entry, data transformation

- the different types of variable analyses: Univariate, Bivariate and Multivariate

- some existing non-routine data collection tools: Reproductive Health Survey, Knowledge, Attitude, Practice and Behaviour Survey, Men's Health Study, and the Priorities for Local AIDS Control Efforts (PLACE) Study

- some existing routine data collection tools for sexual and reproductive health including family planning: Monthly Clinic Summary Report (MCSR) data, Hospital Monthly Summary Report (HMSR), Beth Jacobs Reports (Contraceptive Implants), Victoria Jubilee Reports (Sterilisation Data), BCC Reports (Reached and Tested), Indicator Reports (Reached and tested), Unique Identification Code (UIC) forms, and Outreach Register

- ways to interpret bar and line graphs.

Monitoring and Evaluation

- the difference between monitoring and evaluation

- that one cannot monitor and evaluate that which does not exist

- the implications of considering monitoring and evaluation at the back-end of a programme

- the definition of an indicator and its function/role

- that when an indicator is qualitative it looks at the How, When, Where, Who, Why, What

The Director of Monitoring, Evaluation and Research delivering training in Qualitative Data and Monitoring and Evaluation

- that when an indicator is quantitative it looks at 'how many' and 'how often' – in other words, it is numerically-inclined

- some examples of indicators that were being used internationally and locally; namely: Total fertility rate, contraceptive prevalence, maternal mortality ratio, antenatal care coverage, births attended by skilled health personnel, *inter alia*.

- ways in which these indicators may be calculated – take for instance:
  - According to the World Health Organization (2006), total fertility rate is the number of births a woman would have by the end of her reproductive life if she experienced the currently prevailing age-specific fertility rates from age 15 to 49 years.
  - The age-specific fertility rate (ASFR) is derived as follows: ASFR = ASFRs are often expressed per 1000 women.
  - Seven ASFRs are normally calculated, one for each five-year age group (15–19, 20–24, 25–29, 30–34, 35– 39, 40–44 and 45–49 years).
  - Single-year rates can also be computed.
  - Assuming that ASFRs have been computed for each five-year age group and are expressed per 1000 women, the total fertility rate per woman can be computed as follows: TFR (per woman) = Numerator: Sum of the ASFRs x 5 Denominator: 1000" (WHO, 2006:9)
  - The TFR indicator is complimentary to contraceptive prevalence, in terms of methods and use.
  - In terms of the contraceptive prevalence rate, this is indicative of "the proportion of women of reproductive age who are using (or whose partner is using) a

contraceptive method at a given point in time. Numerator: Number of women of reproductive age at risk of pregnancy who are using (or whose partner is using) a contraceptive method at a given point in time. Denominator: Number of women of reproductive age at risk of pregnancy at the same point in time" (WHO, 2006:13)

3) *Role Play reflecting Quantitative and Qualitative Data Collection and Reporting*

In an effort to ascertain whether objectives 1 and 2 above were met, a Role Play was used as a practical demonstration, executed by the participants. It is imperative to note that based on the knowledge that was demonstrated by the participants, the objectives were clearly met. Details of the Role Play may be referred to in Appendix 1. Note that the community which was referred to in the Play was fictitious.

The Honourable Minister of Health advising the Regional Technical Director (RTD) of his concern and giving instructions.

The RTD advising Senior Public Health Nurse of the Honorable Minister's concern and giving her directives.

Elderly patient with Nurse

4) Pivot table in MS Excel (Part 1)

- Design tables based on data table theory
- Apply filter and sort methods
- Create and delete PivotTables and Pivot Charts

The team covered areas such as:

- Sorting Data - putting data in a particular order
    - Numbers - Smallest to Largest and Largest to Smallest
    - Text - A to Z or Z to A
    - Date - Oldest to Newest and Newest to Oldest
    -
- Applying Filters - Removing part of the data to concentrate on what's important
- Creating Pivot Tables and Charts - Used to summaries data in a report format
- Creating Slicers - Used to apply filters to multiple Pivot Tables and Charts
- Dashboard - Allows multiple Pivot Tables, Charts and Slicers on one sheet which allows for dynamic interaction

L-R – The Research, Monitoring and Evaluation, and Database Officers preparing to deliver the complicated Pivot Table Training

The training went smoothly until it was time to create slicer. Half of the Nurses' laptops had MS Excel 2007 which could not create slicers. The trainers had to present this aspect of the training on the big screen with those whose computers where equipped following along. This aspect of the training was hands-on.

METHODOLOGY

The engagement of the participants began with the official notification of the Regional Technical Director and the Senior Public Health Head Nurse of the Northeast Regional Health Authority after the need for such training was identified by the NFPB and NERHA. This call was two-fold. Firstly, missteps in reports were identified as a gap during clinic monitoring visits by the MER team. Secondly, the NERHA identified the need to build the Nurses' capacity in Qualitative and Quantitative Data Management; Monitoring and Evaluation and Use of Pivot Table for Quality Reporting, as a mode of enabling quality and effective reporting.

The selection of the trainees was made by the Regional Head Nurse based on the Region's needs assessment. These individuals were a mix of Public Health Nurses, Registered Nurses, Midwives, Registered Midwives, Social Worker and Contact Investigator for HIV.

At the start of the training session, The Director of Monitoring, Evaluation and Research Unit of the National Family Planning Board welcomed all persons present, led the introduction, devotional and went through the expectations of the day as per the agenda.

In delivering the course, the Monitoring, Evaluation and Research team took a student-centred approach, in compliance with Democratic Pedagogical Model (established by Paulo Freire), as a way for the trainers to not be "the subject of the learning process, while the pupils are mere objects" (Freire, 1970); besides, the author considers this model as an avenue whereby trust was easily obtained, hence the likelihood of achieving success among human beings.

During the execution of the delivery of the course, the trainers were keen on ensuring that the four objectives were met, as delineated on page 1 above. In addition, the course was segmented in such a way so as to later make provision for future assessment of capacity building and the on-the-job application, akin to what was taught, using the Kirkpatrick Evaluation Model.

The training process was very participatory in the sense that questions, answers and discussions were engaging at high-energy. The course delivery took the form of MSPowerPoint presentation, hands-on practical work using the computer, and role play. The latter was used to assess whether the participants had a full grasp of the subject areas. Here, persons were asked to volunteer to play the role of their choice.

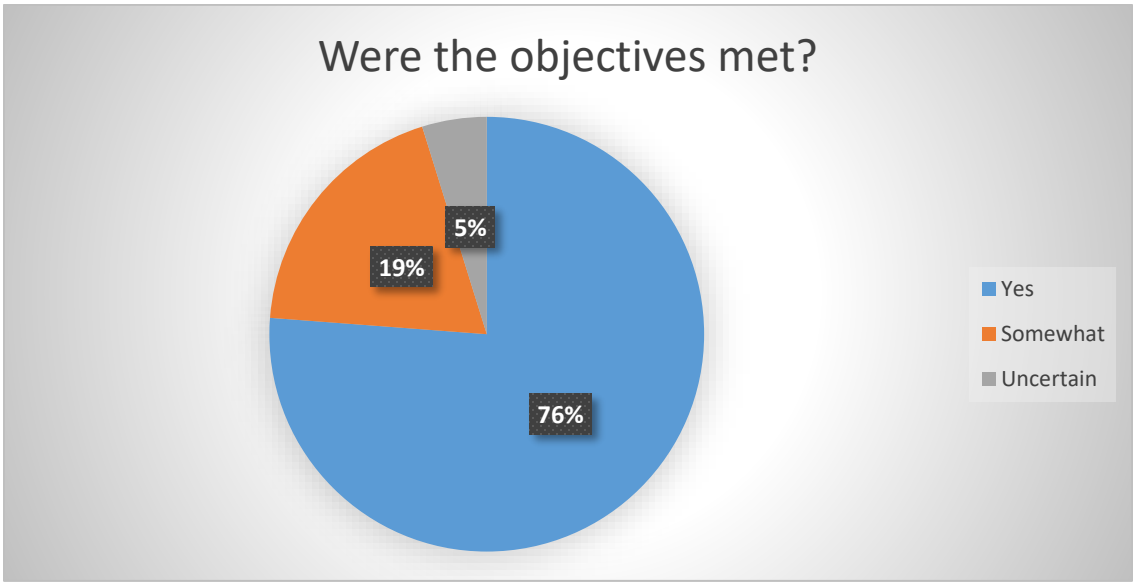
Health care professionals at work while the Monitoring and Evaluation Officer delivers training on Quantitative Data Management

Prizes were given as a motivation mechanism for each correct response to impromptu quiz questions. At the end of the training, an evaluation form (Appendix 2) was completed by each participant – Refer to findings below.

EVALUATION FINDINGS

This is a descriptive analysis which reports on the participants' feedback from an 11 item evaluation instrument. There were 22 participants at the workshop which equivalent 22 instruments collected, entered and analysed using SPSS.

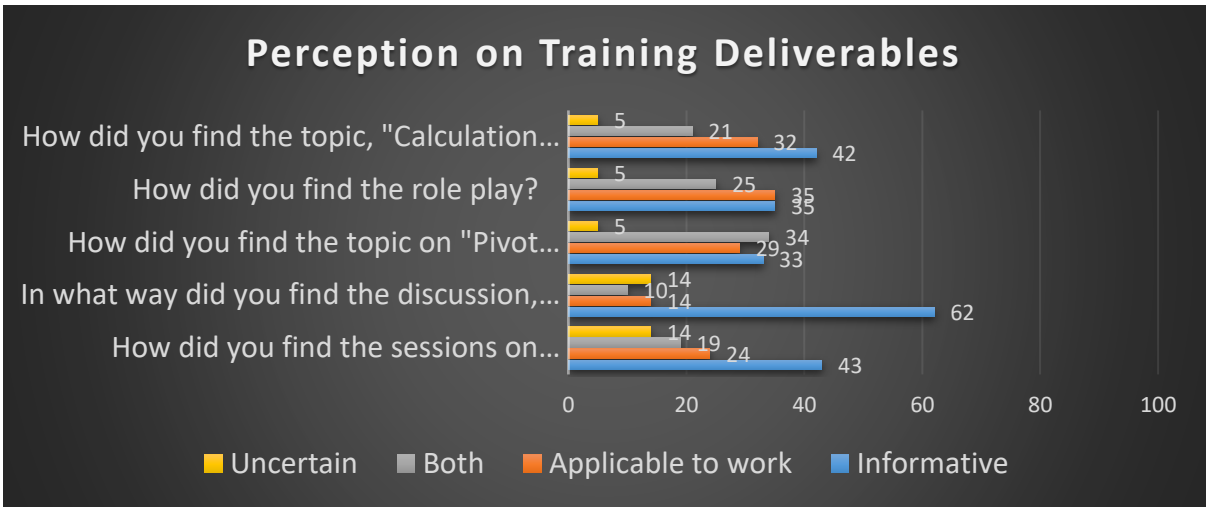
Figure 1: Pie Chart Showing Participants Feedback on the Objectives of the Training.



The participants provided their feedback on how well they thought the objectives of the training were met - 76 percent indicated that the objectives were met, 19 percent thought that they were partially/somewhat[1] met and 5 percent (n=1) uncertain.

Figure 2: Bar Chart Showing Participants Perception on Training Deliverables

[1] Target was not fully met, but because the process was engaged, on its way to being met, it was deemed to be partially or somewhat met or accomplished.



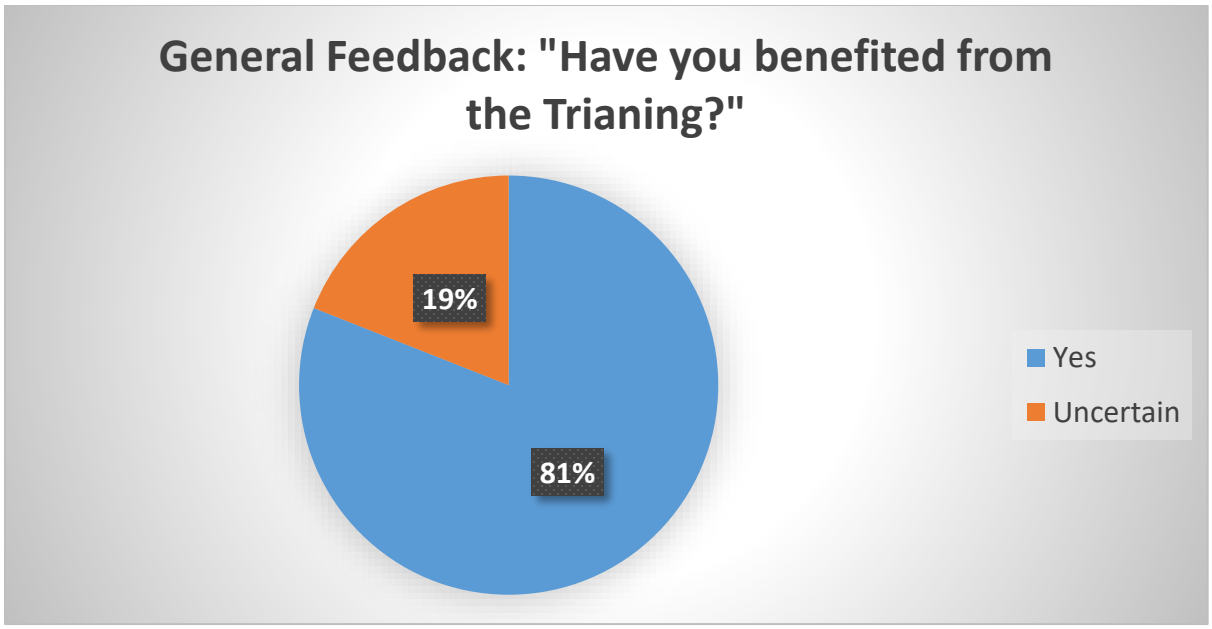
A Likert scale was used to capture participants' perception on each deliverable of the training; whether they found the deliverable informative, applicable to their work, informative and applicable to their work (both), neutral, or uncertain about a deliverable. The calculation of key indicators of M&E (deliverable 1) saw participants indicating informative (42%), applicable to work (32%), both[2] (21%) and 5 percent (n=1) uncertain (See Figure 2).

Role play was incorporated into the training. Thirty-five (35) percent of persons found it informative and applicable to work, 25 percent responded both and 5 percent were uncertain.

In regard to the training in use of the Pivot table in MS Excel, the participants noted their perception as follows: 34 percent of persons found it informative and applicable to work, 33 Informative, 29 percent applicable to work, 5 percent uncertain. The practical component of the training proved mostly informative (43%), 24 percent saw it applicable to work, 19 percent responded both and 14 percent (n=3) were uncertain about this activity. At the end of each presentation participants were engaged in a discussion and question and answer session. The majority of participants found this section informative, 14 percent indicated applicability to work, 10 percent both and the latter 14 percent stated uncertain.

Figure 3: Pie Chart Showing Participants feedback on the Overall Training.

[2] Both is in reference to more than one response.



Eighty-one (81%) percent of participants benefited from the training (see Figure 3). However, 19 percent of the participants declared uncertainty.

WAY FORWARD

The following was articulated as the way forward:

1) Follow-up would be done via clinic visit and checking of records to ascertain whether capacity building was applied to the job. This will be done using the Logistic Indicator Assessment Tool.

2) Within one year of the training, an evaluation will be done, using the Kirkpatrick Model. The aim would be to determine four pillars; namely: The **ways** to measure, **what** to measure, **how** to measure and **when** to measure. In making such determinations, the following will be assessed:

   2.1 The level of response by the participants

   2.2 The extent to which the skills of the participants have been improved as a result of the training

   2.3 The extent to which that which was taught have been applied to the job

2.4 The extent to which the public health facilities in the regions have seen improvement as a result of the training.

MISCELLANEOUS

This section looks at refreshments, facility and vote of thanks.

Refreshment and Facility

The day started well with coffee break upon arrival from Sheila's Pastries. The fresh fruits, tea, coffee, sandwiches and pastries were well received; not to mention the lunches which followed.

The training room was not very clean, but was properly ventilated and everyone expressed comfort regarding its temperature.

Vote of Thanks

At the end of the session, Vote of Thanks was heartily expressed by the trainees to the trainers, with robust applause.

The moment of the Vote of Thanks delivered by a Public Health Nurse

REFERENCES

1) Freire, P. (1970). Pedagogy of the Oppressed. New York: Herder and Herder

2) Kirkpatrick, D. L., and Kirkpatrick, J. D., (2007). Implementing the Four Levels. A Practical Guide for Effective Evaluation of Training Programmes. Berrett-Koehler Publishers.

3) Laverty, S.M. (2003). Hermeneutic Phenomenology and Phenomenology: A Comparison of Historical and Methodological Considerations. Retrieved from https://ejournals.library.ualberta.ca/index.php/IJQM/article/view/4510/3647

4) World Health Organization (2006). Reproductive Health Indicators. Guidelines for their Generation, Interpretation and Analysis for Global Monitoring. Geneva: World Health Organization.

APPENDIX 1

Role Play

The Government suddenly became concerned about too many elderly persons from the North Valley Community being infected with HIV, when compared with other communities throughout the country. Earlier, they were misdiagnosed because of the similarities between old age symptoms and HIV-related ones.

Your Regional Technical Director was mandated (by the Honourable Minister of Health, who was instructed by the Prime Minister) with the responsibility to conduct research to obtain answers so that policy, programme and other decisions may be made.

As health care providers, you were given the responsibility to investigate the matter.

- What would be your likely approach(es)?
- What qualitative and quantitative questions do you think would be useful to garner answers?
- How would you analyse the answers to these questions for reporting purpose?
- What are some indicators we could use?

Created by Dr. Tazh. Crawford, Director – MER – 2019
October 29

16

APPENDIX 2

EVALUATION FORM

THE NATIONAL FAMILY PLANNING BOARD

Monitoring, Evaluation and Research Unit

Training of health care professionals in Quantitative & Qualitative Data Management; Monitoring and Evaluation and Use of Pivot Table for Quality Reporting

October 29, 2019

St. Ann's Bay Hospital Conference Room, St. Ann

Objectives:

By the end of this workshop, participants will be able to:

A. understand the role of Quantitative and Qualitative Data Management and Reporting in Sexual and Reproductive Health (SRH) Programmes;
B. appreciate the importance of data quality in Sexual and Reproductive Health;
C. generate and interpret Descriptive Statistics (Frequency, Rates, Averages and Graphs) using the pivot table in Microsoft Excel;
D. understand SRH-related indicators, its measurements and calculations

1) Were the objectives met? [ ] Yes [ ] No [ ] Somewhat [ ] Uncertain [ ] Neutral

2) If in your opinion, an objective was not met, please indicate: [ ] A [ ] B [ ] C [ ] D

3) How did you find the topic, "How to conduct data collection, analysis and reporting using qualitative and quantitative approaches"?
[ ] Informative [ ] Applicable to my work [ ] Uncertain [ ] Not useful [ ] Neutral

4) How did you find the topic, "Calculation of key indicators of Monitoring and Evaluation" ?
[ ] Informative [ ] Applicable to my work [ ] Uncertain [ ] Not useful [ ] Neutral

5) How did you find the Role Play?
[ ] Informative [ ] Applicable to my work [ ] Uncertain [ ] Not useful [ ] Neutral

6) How did you find the topic on "Pivot table in MS Excel"?
[ ] Informative [ ] Applicable to my work [ ] Uncertain [ ] Not useful [ ] Neutral

7) In what way did you find the discussion, question and answer session?
[ ] Informative [ ] Applicable to my work [ ] Uncertain [ ] Not useful [ ] Neutral

8) How did you find the sessions on practical/hands-on activities?
   [ ] Informative [ ] Applicable to my work [ ] Uncertain [ ] Not useful [ ] Neutral

9) In general, have you benefitted from this training?
   [ ] Yes [ ] No [ ] Somewhat [ ] Uncertain [ ] Neutral

10) Please give a sentence to support your claim in number 9 above .....

---

11) Any other comments? Please state:

.....

END OF EVALUATION

THANK YOU FOR YOUR INVALUABLE INPUT (-_-)

Prepared by the Monitoring, Evaluation and Research Unit

/TVC