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# Secondary Data Analysis Workshop

**Workshop Report**

**19<sup>th</sup> – 20<sup>th</sup> August 2008**

**PFI Conference Hall**

**New Delhi**

Submitted by:

**MCH-STAR Initiative Prime Partners**

Emerging Markets Group, Ltd.

Boston University

The Centre for Development and Population Activities  
(CEDPA)





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**Workshop on**

**Secondary Data Analysis**

**August 19 – 20 2008**

**Conference Hall Population Foundation of India**



## Workshop on Secondary Data Analysis

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## Workshop on Secondary Data Analysis

August 19 – 20 2008

### I. BACKGROUND

The MCH-STAR Initiative organized a series of workshops to build capacity of public health professionals on data analysis and its meaningful interpretation to improve the status of Maternal, Neonatal and Child Health and Nutrition (MNCHN) in India. The workshops aimed to enhance the understanding of participants on the availability of secondary data, level of disaggregation (e.g. states, districts or individual respondents), types of information available and methods of analyses to enhance understanding about specific issues in maternal, neonatal and child health and nutrition in Indian and specifically in the state of Uttar Pradesh and Jharkhand.



Image 1: Participants of the Secondary Data Analysis Workshop

The first workshop was a two-day “Workshop on Secondary Data Analysis” held on 19-20 August, 2008 at Population Foundation of India (PFI) Conference Hall, B-28, Qutab Institutional Area, New Delhi – 100 016. MCH-STAR team members who specialize in research and evaluation facilitated this workshop.

### II. PURPOSE

The purpose of this workshop was to provide an orientation on basic data analysis techniques available from secondary sources in India and EAG states, in order to advocate for improvements in MNCHN outcomes.

### III. OBJECTIVES

The specific objectives of the workshop were to:

1. Learn about availability of various sources of secondary data in India and its levels of disaggregation,
2. Understand specific type of variables / information available through secondary sources,
3. Introduce participants to the concept of data file structures and their characteristics,
4. Understand basics of data handling and its meaningful analysis,
5. Undertake tabulation of results from the analysis,
6. Hands on practice on analyzing data and deriving meaningful results, and



7. Identify potential research and evaluation topics to be used for next workshop for deeper analysis using advance statistical techniques.

#### **IV. FACILITATORS**

Dr. Marta-Levitt Dayal, Chief of Party, MCH-STAR

Dr. Sanjay Kumar, Senior Technical Advisor, Monitoring and Evaluation

Dr. Ashok Patwari, Senior Technical Advisor, Research and Evaluation

Dr. Avinash Ansingkar, Senior Technical Advisor, Capacity and Institution Strengthening

#### **V. PANEL MEMBERS**

Dr. Sunita Taneja, CR, New Delhi

Dr. V. K. Srivastava, KMU, Lucknow

Dr. D. Sahu, NIMS, New Delhi

#### **VI. SESSIONS**

Session 1: What is secondary data and why do secondary data analysis?

This session provided a detailed description on the concept of secondary data together with its advantages and disadvantages. A detailed discussion took place on the various examples of data collection by the primary agency or individual researchers is made available for its re-analysis by other researchers.

Session 2: Where do we get secondary data on MNCHN in India?

The purpose of this session was to provide a comprehensive list of sources for MNCHN related secondary data. The session began with participants brainstorming secondary data sources familiar to them. Later a brief presentation provided an exhaustive list of sources of secondary data available in India on which further research could be undertaken.

Session 3: Understanding the basics of secondary data analysis

This session was devoted to providing basic concepts and steps involved in undertaking meaningful analysis of secondary data. In particular, there was a discussion on how the unit of analysis may vary while undertaking data analysis. This can be either at macro level or at micro level. Examples were provided about the type of analysis at Country, State of District levels which are aggregate levels and termed as macro level analysis. On the other hand, examples from



NFHS and DLHS surveys can also provide the unit of analysis at the respondent level which is termed as micro level data analysis.

Some of other basics concepts of data analysis such as type of variables, measurement scale of variables and type of secondary data analysis including uni-variate, bi-variate and multivariate analysis were also discussed in detail.

#### Session 4: Looking deeper into secondary data set

This session was devoted on identifying and exploring secondary data sets before its use. There was a detailed discussion on whether to choose a research question first or start with identifying the data set. The importance of having a conceptual framework before locating the secondary sources of data was highlighted by the facilitators. It was also highlighted that locating, evaluating and verifying the data sources before using the data is essential to establishing its credentials.

#### Session 5: Examples of use of secondary data on MNCHN



Image 2: Discussing examples of credible secondary data in India

The purpose of this session was to introduce MNCHN topics and research areas in which several researchers have used secondary data sources for research publications in various journals and monographs. This session included examples of secondary data analysis including: determinants of infant and child mortality; proximate determinants of fertility; determinants of child nutrition; and estimation of various demographic rates and ratios to analysis of programmatic success in promoting desired behaviors by the respondents in various surveys.

#### Session 6: Looking deeper into tabulated results and re-visiting relevance – an example

This session was devoted to a discussion on identifying research topics after carefully examining the tabulated results of survey data. This provides ample opportunities to further investigate some of the striking initial findings presented in the tabulated results. The purpose of this session was to discuss innovative use of secondary data sets. An example was provided on using new WHO Growth Standards on existing data and seeing how these compare with earlier standards.



## Session 7: Demonstrating Secondary Data Analysis

A brief session was designed to demonstrate how secondary data analysis is carried out. The raw data set of the National Family Health Survey (NFHS 3) was used. Indicators related to institutional delivery were analyzed. Before estimating percent of delivery conducted in an institution, steps to identify and relate variables from the questionnaire, examining its coding structure and recoding as per the need of the analysis were also discussed and demonstrated. Use of proper survey weights to get accurate weighted estimates were discussed and the calculated figures were matched with the reported figure in the NFHS publish report.

## Session 8: Experiences with Secondary Data Analysis in India : Panel Discussion



Image 3: Listening to the panel present their experiences

A panel of experts who have undertaken secondary data analysis presented their own examples of identifying topics, research questions and choosing the data sets in this session. The panelist included Dr. Sunita Taneja, Dr. V. K. Srivastava and Dr. D Sahu. The purpose of this session was to share and exchange experiences of

secondary data analysis from those who have actually undertaken such analysis in the recent past.

## Session 9: Critical Appraisal of Publications based on Secondary Data Analysis

Participants worked in groups to undertake critical appraisal of some of the selected published papers using secondary data analysis. Each group was given a paper to review and was instructed to discuss the following:

1. Objectives
2. Methodology
3. Data Sources
4. Main results : interpretation and relevance
5. Could it have been done differently?



Image 4: Participants critically appraising published MNCHN papers

The participants reviewed their respective papers and provided critical appraisal through group presentations and learned about organizing the paper and interpreting the results.



## Session 10: Identifying Research Topics and Priority areas of Research

Towards the end of the workshop, this session was designed to identify research topics in the following areas -

- Maternal Health
- Neonatal Health
- Child Health
- Nutrition

The participants were divided into their respective Star Supported Institutions (SSIs) and together they brainstormed and identified topics for further research using secondary data analysis and identified potential deliverables under the MCH-STAR project. Each SSI presented their topic and the experts and facilitators critically examined their proposal and provided feedback.

The following topics were identified –

1. Impact of male involvement on utilization of maternal health care - PFI
2. Factors influencing birth weight and size of the baby - IndiaCLEN
3. Impact of Quality of Health Care on Immunization status of children in India - PHFI
4. Infant feeding practices and child malnutrition - UHRC and NIHFV

## Session 11: Preparing for next workshop on Advanced Analysis of Secondary data

Toward closing of the workshop, Dr. Marta Levitt-Dayal discussed the next steps on each group's identified topics and how it can be further taken up during next workshop on use of multivariate statistical techniques.



## **VII. HIGHLIGHTS**

The scope of the present workshop was focused on providing an overview of the secondary data sources, examples of analysis, and setting research topic priorities for STAR-Supported Institutions. The participants showed their keen interest in almost all the sessions of the workshop and were found extremely involved in the discussions. They asked many relevant questions related to secondary data analysis and clarified their doubts. In particular, many of the participants expressed their excitement during demonstration of data analysis and wanted to have more hands on practice; however, due to time constraint this was not possible.

## **VIII. CHALLENGES**

The main challenge while designing the workshop session was to decide the level and depth of the content of the workshop. This was due to varied background of the participants which ranges from medical, social sciences to statistics. Therefore, the scope of the workshop was limited to provide an overview of the secondary data sources and analysis.

## **IX. OUTPUT**

The main output of the workshop was identification of topics of the research using secondary data sources by each of the SSIs. The SSIs would have the opportunity to do hands on analysis at the next workshop.

## **X. SUMMARY OF EVALUATION**

An evaluation of the workshop was conducted by asking the participants to fill up the form and provide their feedback on each of the session. Overall many of the participants enjoyed all the sessions. One of the critiques provided was that there was a lack of hands on training on statistical packages and using live data.



## XI. ANNEX 1: AGENDA

### Workshop on Secondary Data Analysis to Improve MNCHN 19-20 August 2008, NEW DELHI

| Time                    | Day 1 – Tuesday, 19 August 2008  |
|-------------------------|--|
| 9:30 – 9:45 am          | Welcome, Introduction and objectives of the Workshop – <i>Dr. Marta Levitt-Dayal</i>                               |
| 9:45 – 10:00 am         | Expectations from the Workshop – <i>Dr. Sanjay Kumar</i>   |
| 10:00 – 10:15 am        | Walking through the Agenda – <i>Dr. Ashok Patwari</i>  |
| 10:15 – 10:45 am        | What is Secondary Data and Why do Secondary Data Analysis – <i>Dr. Ashok Patwari</i>                               |
| <b>10:45 – 11:00 am</b> | <b>TEA</b>   |
| 11:00 – 11:30 am        | Where do we get Secondary Data on MNCHN in India – <i>Dr. Ashok Patwari &amp; Sanjay Kumar</i>                     |
| 11:30 am – 12:30 pm     | Understanding Basics of Secondary Data Analysis – <i>Dr. Sanjay Kumar</i>  |
| 12:30 – 1:00 pm         | Looking deeper into Secondary Data Set – <i>Dr. Avinash Ansingkar</i>  |
| <b>1:00 – 2:00 pm</b>   | <b>LUNCH</b>   |
| 2:00 – 2:30 pm          | Examples of use of Secondary Data on MNCHN in India – <i>Dr. Sanjay Kumar</i>                                      |
| 2:30 – 3:30 pm          | Looking deeper into Tabulated results and re-visiting relevance – An example<br>Moderator <i>Dr. Ashok Patwari</i> |
| <b>3:30 – 3:45 pm</b>   | <b>TEA</b>   |
| 3:45 – 4:15 pm          | Group Presentations  |
| 4:15 – 5:15 pm          | Demonstrating Secondary Data Analysis – <i>Dr. Sanjay Kumar</i>  |



| <b>Time</b>           | <b>Day 2 – Wednesday, 20 August 2008</b>   |
|-----------------------|--|
| 9:00 – 9:05 am        | Recap of the First Day   |
| 9:05 – 10:30 am       | Experiences with Secondary Data Analysis in India : Panel Discussion<br>(Moderators <i>Dr. Ashok Patwari &amp; Dr. Sanjay Kumar</i> ) <ul style="list-style-type: none"> <li>- <i>Dr. Sunita Taneja, CR, New Delhi</i></li> <li>- <i>Dr. V. K. Srivastava, KMU, Lucknow</i></li> <li>- <i>Dr. Avinash Ansingkar, New Delhi</i></li> <li>- <i>Dr. D. Sahu, NIMS, New Delhi</i></li> </ul> |
| 10:30-10:45 am        | TEA  |
| 10:45 a.m. – 12:00 pm | Critical Appraisal of Publications based on Secondary Data Analysis – Group Work   |
| 12:00 – 1:00 pm       | Group Presentations  |
| <b>1:00– 2:00 pm</b>  | <b>LUNCH</b>   |
| 2:00 – 3:30 pm        | Identifying Research Topics in the areas of – <ul style="list-style-type: none"> <li>- Maternal Health</li> <li>- Neonatal Health</li> <li>- Child Health</li> <li>- Nutrition</li> </ul> <i>(Group Work Facilitators: Dr. Ashok Patwari, Dr. V. K. Srivastava, Dr. Avinash Ansingkar &amp; Dr. Sanjay Kumar)</i>  |
| 3:30 – 3:45 pm        | TEA  |
| 3:45 – 4:30 pm        | Group presentations – Priority areas of research – <i>Dr. Marta Levitt-Dayal &amp; Dr. Ashok Patwari</i>   |
| 4:30 – 4:45 pm        | <ul style="list-style-type: none"> <li>• Next steps Preparing for next workshop on Advance Analysis of Secondary data - <i>Dr. Marta Levitt-Dayal</i></li> <li>• Closing</li> </ul>  |
| 4:45 – 5:00 pm        | End of workshop evaluation   |

