



**Title:** When We Lie with Statistics in a Monitoring and Evaluation Report. By Johnson Reuben Emmanuel.

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**Introduction:** Jesusis123\$

**Monitoring and Evaluation (M&E)** reports play a critical role in assessing the effectiveness and impact of programs and policies. These reports are relied upon by decision-makers, funders, and stakeholders to make informed decisions and guide future actions and plans.

**Statistics** are powerful tools for communicating complex ideas and information. In the field of monitoring and evaluation (M&E), however, statistics can be manipulated or misrepresented in M&E reports, leading to inaccurate conclusions and misguided decisions. If statistics are used improperly or manipulated for personal gain, they can distort the truth and undermine the credibility of M&E reports.

This article highlights the potential pitfalls and consequences of dishonesty in statistical reporting in the context of M&E and offers recommendations for ensuring integrity in data analysis and interpretation.

### **How do we lie with statistics in M&E reports?**

Monitoring and Evaluation reports heavily rely on statistical data to measure progress, identify trends, and inform decision-making. Statistical analysis provides valuable insights into program effectiveness, outcomes, and impacts. However, statistics can also be manipulated or misrepresented to present a distorted view of reality, leading to erroneous conclusions and misguided actions.

The following are common Ways Statistics Are Misused in M&E Reports:

- **Cherry-picking data:** This involves selectively highlighting data that supports a predetermined conclusion while disregarding contradictory evidence. For instance, a report might only include data on the number of people who completed a program, without including data on the number of people who dropped out or who did not complete the program successfully. This would give the impression that the program was more successful than it was.
- **Omission of relevant information:** Leaving out crucial data or context that may affect the interpretation of results. a program might report on its achievements using data from a pilot study, even though the pilot study was conducted with a very small sample size and may not be representative of the wider population that the program is targeting.

- **Misleading visual representation:** Manipulating graphs, charts, or infographics to exaggerate or downplay certain findings. For example, a program might report that it has achieved a 90% success rate, when in fact this figure is based on a very small sample size and may not be representative of the program's overall success rate.
- **Inappropriate statistical techniques:** Using statistical methods that are not applicable or misinterpreting results to support a desired narrative. A program might use a statistical test that is designed to show that a difference between two groups is statistically significant, even though the difference is actually very small and unlikely to have any practical meaning.
- **Sample bias:** Choosing a non-representative sample or excluding certain groups, leads to skewed results. For example, an M&E report on a literacy program might only survey people who live in urban areas. This would be a sample bias, as it would not include people who live in rural areas, and who may have different literacy needs and experiences. As a result, the report might conclude that the literacy program is more effective than it is, since the people who were surveyed are more likely to have had access to education and other resources.

Here are some practical examples of how statistics have been used to lie in M&E reports:

- **A government agency** reported that it had reduced poverty by 50% in the past five years. However, the agency used a poverty line that was so low that it was practically impossible to fall below it. As a result, the agency's report significantly overstated the reduction in poverty.
- **A non-profit organization** reported that its literacy program had helped 90% of its participants to learn to read. However, the organization's definition of literacy was very low, and it only included participants who could read at a very basic level. As a result, the organization's report significantly overstated the effectiveness of its literacy program.
- **A private company** reported that its new medical device was 95% effective at treating a certain disease. However, the company's study was funded by the company itself, and it was conducted on a very small sample of patients. As a result, the company's report significantly overstated the effectiveness of its medical device.

### The consequences of lying with statistics in M&E reports

Lying with statistics in M&E reports can have serious consequences. It can lead to:

- **Misguided decisions:** When decision-makers are presented with misleading or inaccurate statistics, they may make decisions that are not in the best interests of the people they are supposed to be serving. For example, a government agency might decide to cut funding for a program that is actually very effective, because the program's M&E report misrepresented its results.
- **Wasted resources:** When resources are allocated based on misleading or inaccurate statistics, they may be wasted on programs that are not effective or that are not needed. For example, a government agency might spend money

on a new program that is designed to address a problem that does not actually exist, because the agency's M&E report misrepresented the prevalence of the problem.

- **Harm to beneficiaries:** When programs are implemented based on misleading or inaccurate statistics, they may harm the people they are supposed to be helping. For example, a non-profit organization might implement a literacy program that is not actually effective, because the organization's M&E report misrepresented the program's results. As a result, the program's participants may not learn to read, and they may miss out on opportunities that are available to people who can read.
- **Erosion of trust:** Dishonest statistical reporting undermines the credibility and trustworthiness of M&E reports, jeopardizing future funding and stakeholder engagement.

### Steps to avoid lying with statistics in M&E reports.

The following steps can help avoid lying and improve the integrity of the use of statistics in an M&E Report.

- **Use high-quality data:** M&E reports should be based on data that is accurate, complete, and representative of the population being studied. Data should be collected using rigorous methods, and it should be carefully cleaned and analyzed before it is used in a report.
- **Use appropriate statistical methods:** The statistical methods used in M&E reports should be appropriate for the type of data being collected and the questions that the report is trying to answer. Statistical methods should be used honestly and ethically, and they should not be used to manipulate the results of the report.
- **Peer review and validation:** Engage independent experts to review the statistical analysis and interpretation to ensure accuracy and objectivity.
- **Data verification and quality assurance:** Implement robust data quality assurance processes, including data verification and validation, to minimize errors and biases.
- **Contextualization of findings:** Provide comprehensive contextual information alongside statistical findings to facilitate a nuanced interpretation of the results.
- **Communication of uncertainties:** Clearly communicate the limitations and uncertainties associated with the statistical analysis to avoid overgeneralization or misinterpretation.

### Conclusion:

Statistics play an essential role in M&E reports and must be used thoughtfully and accurately. When statistics are used improperly or manipulated for personal gain, it can distort the truth and undermine the credibility of M&E reports. M&E practitioners should be transparent, accurate, and well-informed to ensure the data used in the M&E report is not distorted. Practicing ethical, responsible use of statistics is essential to help ensure data-driven decision-making in the future.

Monitoring and Evaluation reports serve as crucial tools for evidence-based decision-making, but their credibility hinges on the integrity of the statistical reporting within them. Misleading or dishonest use of statistics can have severe consequences, leading to misguided actions, eroded trust, and wasted resources. It is essential for M&E practitioners and researchers to uphold the highest standards of integrity, transparency, and accuracy when analysing and reporting statistical data in any report.

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