De-constructing a complex programme using a logic map: Realist Evaluation of Maternal and Child Health in Nigeria.

Bassey Ebenso, Benjamin Uzochukwu, Ana Manzano, Enyi Etiaba, Reinhard Huss, Tim Ensor, James Newell, Obi Onwujekwe, Nkoli Ezumah, Joe Hicks, Tolib Mirzoev

1. Background

Despite cutting maternal mortality by half, and infant mortality by a quarter between 1990 and 2013, maternal and child health (MCH) remains an issue of concern in Nigeria (see Fig. 1) particularly in rural areas where the most vulnerable groups live [1].

In 2012, Government of Nigeria started a Subsidy Reinvestment and Empowerment Programme (SURE-P) to invest revenues from fuel subsidy reduction into a social protection scheme, that included an MCH component to improve the lives of vulnerable mothers and their infants.

We report an aspect of an ongoing 5-year realist evaluation of SURE-P interventions and emphasize challenges in methodology of the evaluation.

2. SURE-P Programme

SURE-P comprises of a supply and demand components. The first aims to broaden access to MCH services (see Fig. 2) by training and deploying community health workers (CHWs), upgrading infrastructure and increasing availability of supplies. The second aims to increase utilization of MCH services by giving conditional cash transfer (CCT) to pregnant women.

Although evidence shows that CHW programmes are effective in improving the health of mothers and their infants [2], greater clarity is required to understand what makes CHW programmes successful, for whom and under what situations.

3. Methods

The realist evaluation design involves three steps:

- developing initial programme theories;
- theory refinement and
- theory consolidation and developing lessons learned

Only the first step is reported here. To achieve this, we used a Logic Map (LM) [3] to:

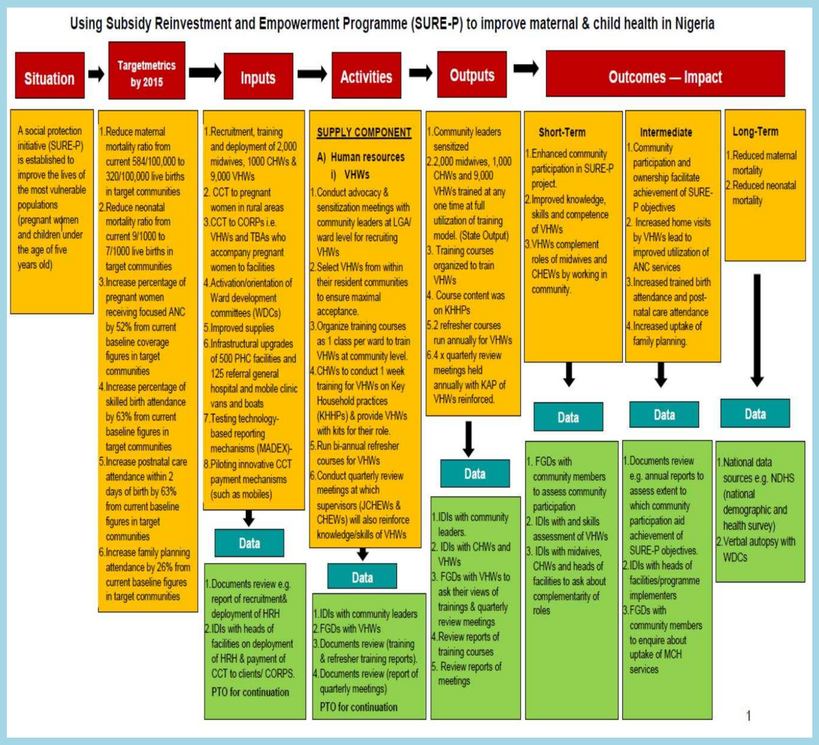
- de-construct our group's thinking of how SURE-P should work in context of Nigeria, and
- clarify data collection needs for the evaluation

Data for developing the LM was collected using documents review, email discussion and a methods workshop with programme implementers and researchers in Nigeria and the UK. The workshop was used to clarify relationships between elements of SURE-P and develop initial working theories.

Figure 1: Study country, Nigeria

Figure 2: example of MCH services

Figure 3: Logic Map for SURE-P



4. Emerging findings

- The LM (see Fig. 3) shows details of resources, activities and their relationship to outputs, outcomes and impact over time that reflect intended results of SURE-P.
- A combination of inputs and activities are required to achieve different outputs, outcomes and impacts of the programme.
- Two initial working theories emerged from the LM:
  - *Different types of incentives lead to health worker motivation and performance*
  - *Community mobilization and CCT lead to improved identification of pregnant women and positive behaviour change towards utilization of services*

5. Challenges

- The LM depicts a linear or simplified relationship between inputs, activities and outputs, or between outputs and outcomes of SURE-P. In reality, there are complex diagonal/vertical inter-relationships between and among inputs, activities and outputs, or between and among outputs and outcomes
- It is difficult to represent all relationships among the elements of SURE-P in a two-dimensional LM
- While the LM indicates where and how information can be obtained for the evaluation, it does not show wider contextual factors that can influence the effectiveness of SURE-P.

6. References

1. WHO. 2014. ***Trends in Maternal Mortality: 1990 to 2013 Estimates by WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division.*** Geneva, Switzerland: WHO
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3. Knowlton LW, Phillips CC. 2012. ***The Logic Model Guidebook: Better Strategies for Great Results***: London, SAGE Publications.

For more information or questions, please contact:
Dr. Bassey Ebenso at b.e.ebenso@leeds.ac.uk

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