Using the Event Cycle Approach for Research and Programmes in Maternal Health

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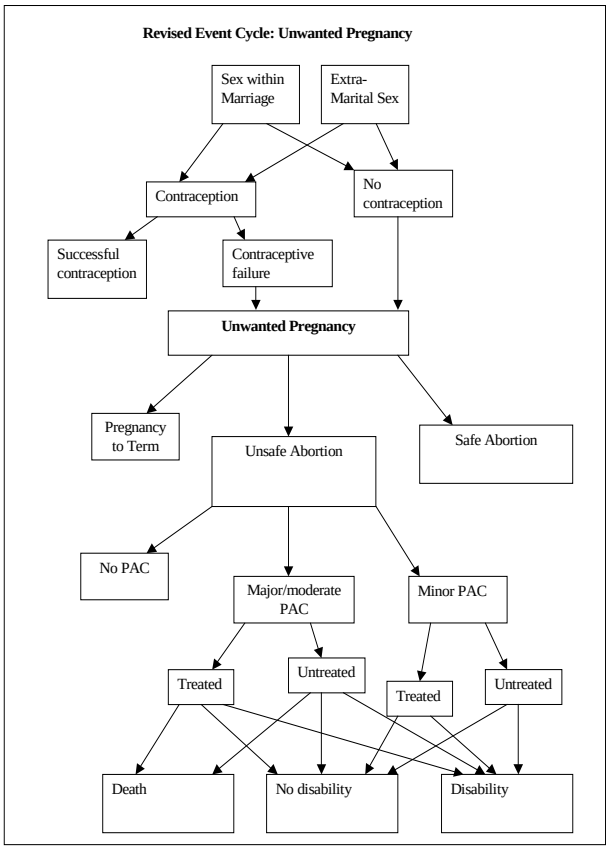
What is an Event Cycle?

An event cycle is a diagram of the series of events that lead to possible outcomes, in this case pregnancy-related health outcomes, such as death, recovery or disability. This includes the events related to contraceptive use, post-abortion complications (from both induced and spontaneous/miscarriage), treatment for complications and deliveries. The events, and real choices exercised by individuals or couples, which begin with sexual activity, leading to contraceptive use, pregnancy (wanted or unwanted) and so on, overlap as they lead to different outcomes. For example, if we make an event cycle leading to post-abortion complications, such as infection, arising from spontaneous abortions (ie miscarriages), it will look almost the same as the one leading to PACs from induced abortions. Understanding where the series of events overlaps can give us useful insight into how interventions can be made strategically to improve the broader maternal health outcomes of women in Pakistan.

An earlier version of this event cycle was used to develop a framework for measuring the economic costs of unsafe abortion-related morbidity and mortality. (That is, the costs to women, households, communities and health services for illness or death arising from unsafe abortions.) The earlier version was referred to as a "decision diagram", which allowed for an estimate of costs (indirect and direct) incurred by family, community and health systems based on the outcomes of complications from an unsafe abortion.[1]

A similar costing exercise is underway at the Collective for Social Science Research in Karachi.



For our purpose we have revised this event cycle to capture a broader series of events and possible outcomes related to pregnancy among women in Pakistan. This was done because we felt that only when we were able to map out the series of alternative events to unsafe abortion, and their relative costs, would we understand how pregnancy-related events unfold and where the burdens of cost lie.

[1] Michael Vlassoff et al, 2008, pp.9-11.

What Else Does the Event Cycle Concept Offer?

This approach of creating a diagram of the series of events, and their alternatives, can be expanded to accommodate even more possible events depending on how vast the analysis becomes and for which purposes it is used. For Example we could include "wanted pregnancy" in the diagram and the outcomes of "spontaneous" abortions was well. Here are some examples of how we can use this model for purposes of research and programme interventions.

Identify Gaps in Data
The event cycle forces an empirically-based understanding of how women arrive at various reproductive health outcomes. We need to use existing research to assess how much we really know, and this helps us to identify where we are missing data. For example, we know much more through existing research about the outcomes of sex within marriage than we do about extra-marital or pre-marital sex. However, medical studies on the treatment of post-abortion complications in hospitals indicate that a small but significant proportion of unmarried women seek treatment for induced abortion complications[2], but national surveys have not yet accessed this population.

The recent Pakistan Demographic and Health Survey (2006-7) gathered a set of data and verbal autopsies of maternal deaths across the country, allowing for a unique detailed reconstruction of what events lead to such a high number of tragic outcomes and a maternal death rate of 276 per 100,000 live births. If we use the event cycle as a tool for analyzing this data, it will help us to identify the most vulnerable points in the decision-making process of women and design context-specific interventions that reduce this vulnerability.

Understanding Health-Seeking Behavior
We need to examine more closely how women seek pregnancy-related care; that is, how they assess alternatives and decide among them. Some of this information is already available in Pakistan, but much more research is required.

Medical studies on post-abortion complications[3] related to induced abortion suggest that there are women who repeatedly terminate unwanted pregnancies and then at some point are faced with a complication that drives them to seek a hospital. Doctors express concern over this finding and suggest that timely introduction of family planning counseling, while women are still in hospital, is essential to help them avoid further resort to unsafe abortion as a method of family planning. The assumption is that a behavior change in favor of contraceptive use would reduce post-abortion complications. How to bring about that change is one of the biggest challenges facing SRHR practitioners.

Plugging the Gaps in Programmes
This event cycle approach also allows us to map where existing programme interventions impact the series of events leading to negative outcomes, and where there are serious gaps. For example, there are programmes in place in both the public and private sectors to train community midwives and traditional birth attendants. This approach is intended to reduce the chances of a woman seeking an unsafe provider for much of her pregnancy-related needs. However, we have not developed strong programme interventions to treat women who suffer minor post-abortion

[2] Khan, 2009.

[3] Ibid.

complications. These may go uncounted in surveys and untreated in the population, even though we know that long-term reproductive tract infections can lead to secondary infertility and pelvic inflammatory disease among women. Identification of such gaps in services can help organizations to put more priority and resources into wider areas of reproductive health.

Effective Strategic Partnerships

Further, the event cycle concept can be used to develop strategic partnerships among stakeholders working in sexual and reproductive health. At the district, provincial, or even national level, organizations can work together to provide services to have impact on different stages of the cycle and allocate responsibilities accordingly. The current advocacy work for post-abortion care, led by medical professionals and health activists, is an example of such an effort at the policy level. A creative and timely new development would be coordination among programmes and services to ensure that all stages of the event cycle are covered, with different organizations taking up responsibility for providing information or services at specified stages of the cycle.

Strategically Impacting the Event Cycle

The context of maternal health varies dramatically across Pakistan. Age at marriage, education and type of contraception used are all indicators that will influence the outcomes of an event cycle related to pregnancy. Location, also, has a role to play as indicated by the higher reported maternal mortality ratio in Balochistan (785 per 100,000 live births), compared to the other provinces and the national average of 276.[4]

[4] National Institute of Population Studies and Macro International Inc., 2008, p.179.

If we take the event cycle as a model for understanding how specific interventions can lead to more positive outcomes, and how these interventions may vary based on local conditions, it will help our own programme and advocacy efforts to be more responsive to communities' needs. It is hoped that the model will also help us to develop more cost-effective programmes, particularly through investment in earlier stages of the event cycle that would lead to fewer morbidities and mortalities later.

While we know from the PDHS that almost all women have knowledge of some method of contraceptives, however 47.7% of ever-married women ages (15-49) have never used any kind of method at all. [Further, a full 65% percent of women reported having delivered their babies in the five years preceding the PDHS at home, and only 34.3% delivered in a public or private health facility (p. 53, 56,113)]. We need to change this behavior and ensure that women can access quality care at every stage of the event cycle.

Interviews conducted for our research with women in urban Karachi yielded some significant patterns when we constructed an event cycle for each pregnancy in a respondent's life. Women reported seeking the same health service provider repeatedly over many pregnancies, whatever the outcome. While an unsafe abortion provider, most often an untrained *dai* or a nurse, may be the reason for her post-abortion complication, yet for the next pregnancy a woman's health-seeking behavior may well be unchanged and she may revert to the same provider for her delivery. We need to understand the reasons for this behavior pattern.

Another important profile based on these interviews is of a woman who seeks hospital care for some

complication related to abortion or delivery through an unsafe provider that cannot be managed. Even when she reports a positive outcome of the treatment at a health facility, she will not necessarily go back to a safe service provider during subsequent pregnancies. Further research to arrive at a more in-depth understanding of women's experiences in hospital will be needed to understand why it is rejected as an option.

To sum up, the event cycle approach to women's maternal health has many uses in the context of policies and programmes in Pakistan. It can inform the research agenda on maternal health. It can also be used to synergise existing programmes in the NGO and public sector to ensure that all stages of the cycle are addressed, based on how women take decisions and how they understand their alternatives.

References

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This Resource Briefing is an output of a larger research study to measure the economic cost of unsafe-abortion relation morbidity and mortality in Pakistan. Other outputs are available on our website.

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