PAA:

Extended Abstract:

Description of the topic:

- Background:

The child mortality rate in Zimbabwe was 129 per 1000 live births in 2004 (WHO, 2006). This rate is alarmingly high but not uncommon to Africa. This finding substantiates the importance of poverty and maternal education to promote positive child health outcomes in the developing regions (Asling-Monemi, et.al, 1999).

Zimbabwe's economic decline cannot be ignored in this regard, with escalating food prices translating into insufficient nutritional in-take (Banda, 2007). Stanford Matenda, a researcher and chairperson of the National University of Science and Technology's Journalism School in Bulawayo, argues that children do not have access to food and since parents are experiencing economic adversity it is difficult for children to be healthy (Banda, 2007). The country's economic problems have also affected the health delivery system (Banda, 2007). One government hospital records a stable rise in the number of under-five year olds dying of measles due to the lack of immunization in the rural areas (Banda, 2007).

Domestic violence has been studied in various settings and it has been found that women who are physically abused are less able to regulate their fertility or access appropriate medical care when needed (Ahmed, et.al, 2006; Silverman, et.al, 2006).

- Problem statement

Having noted these two fundamental health concerns, child mortality, child health and domestic abuse, it is important to note that little attention has been paid to the relationship between these occurrences in developing countries. That is, questions arise such as, if abused women are unable to care for themselves, what impact does the abuse have on their off-spring? It is here suspected that this there is in fact an impact on the health and mortality of children of abused women.

- Justification

It is evident at this point that child mortality and domestic violence are both, in very distinct ways, social problems that require attention and action. There have been many studies of these crises as independent outcomes of socioeconomic and political processes and occurrences. However, to my knowledge there have not been any studies conducted in Africa on the relationship between these two crises. That is, as separate social anomalies domestic violence and child mortality has been studied in the African context, but studies attempting to exemplify a relationship between the possible influence of domestic violence on not only child mortality but other negative child health outcomes have not been conducted in African states.

This research will hopefully fill in this important gap in research and in doing so will contribute to the body of knowledge that aids in achieving the Millennium Development Goal that addresses the reduction of child mortality. That is, the research implication for this study is that it provides significant basis for studies of this nature to be conducted in African countries.

Theoretical focus:

- Mosley and Chen (1984) framework

This study will be based on the on the framework for child health and mortality by Mosley and Chen (1984). Mosley and Chen acknowledge that child mortality and morbidity are influenced by underlying factors, both socio-economic and biological that operates through proximate determinants (Mosley and Chen, 1984: 27). According to Mosley and Chen, a key feature of child survival is the existing collection of proximate determinants that directly persuade morbidity and mortality risks among children (Mosley and Chen, 1984: 27). Among these determinants is that of maternal factors (Mosley and Chen, 1984: 27). In this way, factors such as domestic violence, would have a detrimental effect on the maternal health of women and thus impact or influence child survival.

This study amends the Mosley and Chen framework. The maternal factors identified in the 1984 framework are that of mother's age, parity and birth interval (Mosley and Chen, 1984:32). This is of course important to child survival studies; however this study proposes that domestic violence be incorporated as a maternal factor that influences child morbidity and mortality.

Mosley and Chen (1984) acknowledge the importance of other distal factors such as social relations, human and environmental hazards and geographic factors as well as other socioeconomic factors such as injury, nutrient deficiency and personal illness control. However this study will focus exclusively on the socioeconomic condition of maternal factors, and in particular, domestic violence, and all other factors will be assumed to be constant in Zimbabwe.

Thus since nature of this research is to evaluate the impact of domestic violence on child survival, it is important to examine possible means and avenues of adapting existing frameworks to incorporate domestic violence variables. It is thus here suggested that the Mosley and Chen framework be adapted to include domestic violence as an important maternal factor in determining child health outcomes.

Data and Research Methods:

- Study design

The study is a secondary data analysis of the 2005/2006 Zimbabwe Demographic and Health Survey (ZDHS) datasets of abused women and children who are under-five years old. The ZDHS has been chosen as it is representative of the country as a whole.

- Hypotheses

The hypotheses to be tested in this study are:

Ho: There is a relationship between domestic violence and negative child health outcomes in Zimbabwe.

HA: There is no relationship between domestic violence and negative child health outcomes in Zimbabwe.

- Data analysis

The variables that will be used in this research will be analysed in three stages. The first stage is a univariate analysis of the variables. This is used to summarise the predictor and outcome variables. The second stage is bivariate analysis of the variables. In order to examine such an association, adjusted odds ratios were collected and displayed to explain the likelihood of negative child health outcomes occurring. The final stage of the analysis is that of multivariate analysis. The logistic

regression model is being used in this study because the outcome variables are dichotomous or binary.

Findings:

Table 1: Percentage who reported abuse by their partners, by type of abuse and child health outcomes

Type and Act of Abuse	No	Yes
Physical Violence		
Pushed	89.42	10.59
Slapped	76.14	23.86
Punched	89.1	10.9
Strangle or Burn	93.01	6.99
Attack with weapon	98.45	1.55
Sexual violence		
Physically forced sex	85.72	14.27
Child Health Outcomes		
Child Alive	6.03	93.97
Stunted	7.7	92.3
Wasted	53.37	46.63
Underweight	26.05	73.95

Table 1 shows that the commonest type of physical violence experienced by the respondents is being slapped (23.86%). The respondents were asked if they were physically forced to have sexual intercourse when they did not want to and 14.27% of them answered "yes". The table shows that the vast majority of the respondent's children are stunted (92.3%), fewer than half are wasted (46.63%) and most are underweight (73.95%). These indicators are of importance to this study because it highlights poor care of under-five children in Zimbabwe that will most likely lead to mortality in the future.

Table 2: Odds ratios, from multivariate logistic regressions and bivariate logistic regressions, in associating differentials between physical violence characteristics and child health outcomes.

Characteristic	Stunting		Wasting		Underweight		Child mortality	
Physical Violence:	Biv OR	Multi AOR	Biv OR	Multi AOR	Biv OR	Multi AOR	Biv OR	Multi AOR
Domestic Violence	0.97	1.00*	1.04*	1.12	0.91	0.87*	1.05	1.77*
Hit during Pregnancy	1.8	1.00**	1.04*	1.04*	1.51*	1.70*	1.09	1.12*
Physically forced sex	0.96*	***	1.06	0.57*	1.69*	1.11	0.89	2.43*

***p<0.05, **p<0.01, ***variable dropped from the model.**

Table 2 is a comparison table highlighting the bivariate adjusted odds ratios and multivariate unadjusted odds ratios for negative child health outcomes by physical violence variables. The multivariate values displayed in this table are that of the independent analysis as seen in Table 6.

The table shows a difference between the bivariate odds ratio and multivariate odds ratio for stunting in under-five children if their mother had experienced domestic violence. According to the bivariate finding, respondents are less likely to have stunting occur to their children (0.97), but the multivariate finding shows that these children have even odd of being stunted (1.00) if their mothers experience domestic violence. In addition, if their mothers are hit during pregnancy, the bivariate odds ratio shows that their children are more likely to be stunted (1.8) whereas the multivariate

odds ratio shows that they have even odds of stunting occurring. Finally the variable of a respondent being physically forced to have sexual intercourse by her husband was dropped from the multivariate model but the bivariate model shows that under-five children of these respondents are less likely to become stunted (0.96).

With regard to wasting, both the bivariate and multivariate models show that domestic violence increases the likelihood of this condition occurring in young children, as both findings are greater than the value of 1.00. In addition, the odds of wasting occurring in the young children of respondents who are hit during pregnancy is more and the odds ratio for both the bivariate and multivariate models are an identical 1.04. For the experience of sexual abuse, the bivariate finding shows that wasting is more likely to occur (1.06), whereas the multivariate finding shows that it is less likely (0.57) to occur to these respondents.

For the malnutrition condition of underweight, there are fewer differences in the two models. To begin, if the mother of the child experienced domestic violence the bivariate and multivariate findings are that the underweight condition is less likely to occur, with odds ratios of 0.91 and 0.87 respectively. Also both models show that women who are hit during their pregnancy are more likely to have underweight under-five children. Similarly both the bivariate (1.69) and multivariate (1.11) findings show that sexual abuse increases the odds of underweight appearing.

Finally for child mortality, both models show that the odds of child mortality occurring increases if the child's mother had experienced domestic violence, as the odds ratios are 1.05 and 1.77 respectively. Similarly if the respondent was hit during pregnancy by her spouse, the odds of child mortality occurring are higher in both the bivariate finding (1.09) and the multivariate finding (1.12). However, if the respondent is forced to have sexual intercourse with her spouse, the bivariate finding indicates that the odds of child mortality occurring is less (0.89) but the multivariate finding indicates that the odds of under-five child mortality is higher (2.43).