Oleosi Ntshebe: Household structure and child health in Botswana
A response from the author

Att: Professor Sara Randall

Thank you for your comments and suggestions, they are relevant for my research, and improving the paper. I also wish to acknowledge the readings you provided by Ellis et.a l (2013) and Holten (2013).

In what follows, I address the issues raised regarding the definition of household structure, the conceptual framework /pathways, strengths and limitations of the current analysis.

I spent quite some time trying to understand and conceptualize household and household structure. The concept of household structure seems to differ based on the discipline involved, the context of the domestic group and the nature of the data available (Repubic of South Africa, 2013, Parke, 2003, Laslett, 1972). However, in spite of the variations in the definition of the word 'household', it would appear there is a broad consensus on the definition of household consisting family, non-family or a mix of family and non-family members (Belsey, 2005). A recent White paper on families in South Africa specifies family as a:

> *'societal group that is related by blood (kinship), adoption, foster care or the ties of marriage (civil, customary or religious), civil union or cohabitation, and go beyond a particular physical residence', (Repubic of South Africa, 2013).*

Clearly there is a need to standardize the definition of household structure to reflect the realities of living arrangements and characteristic of such arrangements for varied socio-economic and cultural environments.

I have subsequently defined the household structure based on relationship of the household members to the child, household composition and membership. To further understand the realities of child rearing in Botswana and to develop hypotheses that capture what's happening in these households, I explored the data to understand the nature of household membership in terms of age, sex, marital status, household size, presence of mother in the household, presence of father in household and other members (grandparent etc). I also verified the child relationship with the household head, and other household members. This served to account for possibilities of errors, compatibility and completeness of the parental or non-parental links.

The relationship between the household structure and child health is assumed to be mediated by several pathways. In particular, I investigate the role of household headship as defined from a child's view regarding his/her health, presence of specific household members (grandparent of the child, uncle to the child etc), maternal factors (education, marital status and age), and household socio-economic status. For example headship of the household can affect child health through support for resources, or child care; where we find that children in households headed by their biological parents have better health than those living in households headed by relatives or non-family members. The presence of certain household members might also be useful in providing support for child health, care and supervision. This is because liaison with other groups can strengthen or weaken the ability of the household to meet its needs.

I also hypothesised that the household structure interacts with the household context. That is living in a household with better socioeconomic status (5th Quintile) than the other quintiles might have a positive effect on the prevalence of stunting, and diarrhoea as families in which

economic resources are abundant, parents or guardians are able to meet the health needs of the child.

I appreciate your comments about parent decision making power and power within the household structure as possible pathways that could strengthen the context of household and child health for the current paper. I have also considered a discussion in the literature on the role of government support through provision of social services and how this helps free households resources for other household needs.

The study has several limitations; the main one is that it is cross sectional, and no inference about causality can be made. The use of longitudinal data would best suit this type of analysis in the future. Second, the results are generalized only for Botswana for the specific year.

Lastly, thanks for acknowledging the attempt to understand households from a child's view.
I look forward to the final outcome of this research and future methodological approaches for studying households and child health, and studying the same research question in different environments.