

**Intra-Household Decision-Making and Resource
Allocation, Social Networks and Social Cohesion:
An Input Document in Preparation of the National Income Dynamics Study**

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Introduction

The household is central to most policy initiatives aimed at reducing poverty, since it has long been thought that this is the most efficient way to transfer income and other resources towards those in need. Indeed, the household provides an important entry point for analysing poverty and inequality, since an individual's life chances are critically affected both by the material resources at the disposal of the household as well as the decisions made within the household concerning how those resources should be distributed. A key question is whether real households really operate the way they are meant to in the Arrow-Debreu world and what implications this has for policy interventions aimed at changing the behaviour of individuals within these targeted households. Moreover, since households do not exist in isolation nor do they emerge out of thin air, it also becomes important to look at dynastic (or intergenerational) influences on families' outcomes, as well as the role of social networks.

Critical to the effective implementation of anti-poverty policies is a clear understanding of the ways in which households make decisions. This may be particularly important in a developing country context, where a significant portion of economic activity occurs within the household (Bardhan and Udry, 1999), causing consumption and production decisions to become inextricably linked. While the unitary model of the household, which treats the household as if it were a single agent taking a decision, has enjoyed prominence in the literature, it has increasingly been criticised for the limiting and somewhat unrealistic assumptions upon which it rests, most notably the requirement that a collection of individuals reach agreement over these key decisions, either through shared preferences which allows a consensus to be reached (Samuelson, 1956), or through a benevolent dictator within the household making the key decisions to which everyone else happily accedes (Becker, 1991). More recent work on households, generically classified as collective models of the household, has thus taken cognisance of the possibility of different preferences being held by household members, as well as their different bargaining positions and abilities within the household (McElroy and Horney, 1981; Manser and Brown, 1980; Chiappori et al, 1988; Lundberg and Pollack, 1993).

While it is possible that both sets of models can be used to explain a particular empirical observation, (Fuwa et al, 2000; Hoddinot 1992)¹, collective and unitary models do differ in some

¹ An example of this can be seen in the work of Rosenzweig and Schultz (1982) who studied the different survival probabilities of boys and girls in rural India, and found that female survival probability was increasing in the extent of female employment opportunities in a locale. An interpretation of this result consistent with the unitary model of

important respects. Collective models of the household predict that the identity of the household member who receives the income transfer or controls household resources affects how that income or resource is subsequently allocated across competing demands. (Browning et al, 1994; Thomas, 1990; Lundberg, Pollak and Wales, 1997). In addition, collective models suggest that social norms or institutions that affect the access of different household members to resources (such as laws governing marriage, access to common property resources, and inheritance rules or customs) can, in turn, affect the intrahousehold allocation of these resources. Finally, collective models imply that the outcome of the intrahousehold bargaining process need not result in the efficient allocation of resources. Evidence on this comes primarily from work on the way that agricultural households allocate labour and non-labour inputs for production across different household plots (Jones, 1986; Udry, 1996). To the extent that such inefficiencies do arise, this suggests that household welfare might be improved through well-designed policy interventions.

This background literature suggests it is crucial that NIDS collect detailed information at both the household and individual level on aspects relating to decision-making, the receipt of transfers and non-labour income, and asset holdings. Empirical evidence on South African households to date does not tend to support the notion of a unitary model (see Duflo, 2000; Bertrand et al, 2003; Posel et al, 2004), and rather, supports the need for collecting detailed information at the individual level. Thus, while there may be some questions that can be answered by an informed respondent on behalf of the entire household (such as provision the household listing), other questions must be addressed at the individual level. However, in the former case, we strongly recommend that the identity of the informed respondent who answers on behalf of the household be recorded, since there is some evidence to suggest that answers may vary, depending on the age and gender of such a respondent.

We turn now to some of the important issues that arise when thinking about how to collect data on intrahousehold decision making and resource allocation.

1. Household Composition and Structure

Many key decisions relating to production, consumption, asset accumulation, education and fertility (to name but a few) occur within the household, and these decisions, in turn, affect intergenerational mobility as well as local economic development. This makes it important to be able to understand the structure and formation of households, and how these might change over time, since this will in turn affect these key productive decisions.

The standard definition of a household is that of a group of individuals who live together under one roof, and share a common kitchen or cooking pot. However, given the history of migrancy in South Africa, this simple definition is inappropriate since it ignores non-resident household members who are migrants. In addition, it ignores the role played by other non-resident individuals or family members (broadly termed a household's social network) who may influence outcomes and decisions taken within the household (Guyer, 1986). For example, the parents of an individual who has

the household is that households respond to the perceived differences in returns yielded from investing in boy versus girl children. However, an interpretation consistent with a collective model of the household would be that in locales characterised by greater employment opportunities for women, this improves the bargaining position of women relative to men within the household, allowing women to have a greater say in how resources are allocated within the household (Folbre 1984; Rosenzweig and Schultz, 1984). Irrespective of which model one finds more compelling, the policy implication remains the same: improving employment opportunities for women positively impacts on female survival rates.

married into a new household may well be considered part of the household due to customary arrangements or norms, despite the fact that they live in a different locale, and thus, do not share a common cooking pot. While it is relatively easy to deal with the migrancy issue, with most surveys including questions that elicit data about the migrancy status of household members who return home regularly, relatively few surveys have adequately dealt with the role that more broadly defined social networks might have on household decision-making and resource allocation processes, thereby limiting intra-household analyses and work on interhousehold transfers more broadly.

While we propose that NIDS should have a fairly detailed module on social networks, precisely to try and facilitate this kind of analysis, at a minimum, additional data should be collected on the non-resident parents and children of resident household members². This data should include demographic characteristics, occupational/employment status, some measure of asset holdings, whether these households remit or receive transfers as well as the approximate distance to these households (or some way to measure spatial distance which could be used to proxy for financial links.³). Not only would this information facilitate inter-generational analysis, but it would also allow greater consideration of assortative mating and its role in household formation and subsequent welfare, and more crucially, an understanding of how intra-household bargaining dynamics might be affected by interhousehold transfers and asset holdings.

Since household formation is endogenous, it is important to collect data that allows analysts to begin to understand the fluidity of this unit. This requires the inclusion of questions about the length of time that individuals have been included as (or considered to be) household members as well as data on frequency of migration into and out of the household, duration of residency⁴ and so on. Eliciting information about why individuals have joined or left the household in the preceding period would also be important in allowing analysts to better understand the motivations for household formation or dissolution. Responses could include the following: married into family; widowed; migrant; credit constraints; lack of employment opportunity so unable to support self; labour tenancy requirements; land tenancy requirements; response to positive or negative shock experienced by the household and so on. Finally, the advantage of a panel in this regard is that it allows analysts to begin to examine the ways in which households split and are then reconstituted. More simply put, a panel allows one to observe which individuals leave, and who joins particular households, and how this affects (and is affected by) household characteristics.

An important issue up for debate is the extent to which non-resident household members should also be tracked and included in the NIDS sample. While we do not propose that all non-resident household members should be tracked and their households be included in the panel, we think it would be valuable to do this exercise for a subset of non-residents. Having additional detailed information on the household characteristics of non-resident household members would be invaluable in understanding the dynamics and causal mechanisms that underpin interhousehold transfers and other means of family and social support.

2. Defining the Household Head and Intrafamilial Relationships

2 In the event that the parents of resident individuals are deceased, it may be worthwhile collecting data on the nearest living sibling instead.

3 This would allow one to consider interhousehold resource flows as a function of both physical distance and genetic relatedness, both of which have been used as stand alone proxies for Granovetter's ideas of weak versus strong ties.

4 This detail should be collected at the individual level in the migrancy module.

There is some debate about the most appropriate way to go about eliciting information on who the household head is. In some surveys, headship is a self-reported concept, with the survey providing no real criterion as to who should be designated as the household head. In the absence of additional data that might help analysts disentangle the reasons that a particular individual was designated as the head, such an approach is problematic, since the reasons behind headship status may be quite different across households, that is, headship may be endogenous (Fuwa et al, 2004). For example, while it is true that individuals may become heads through exogenous events, such as the death of a spouse, in many other instances, this status may be conferred through choice. An individual may become a household head due to dissolution of a marriage, or through the decision to migrate elsewhere in search of work. Since headship, and particularly female headship, is often an important indicator used in poverty analysis, it is vital that NIDS deal more effectively with this definitional issue.

There appear to be two possibilities in this regard that have been used elsewhere. The first is that respondents self-identify the household head, and the questionnaire then includes additional questions that elicit data on the main reason why this individual was defined as the head, as well as the length of time they have been regarded as such. Potential codes for the first question concerning headship status could include the following: Makes important input/output decisions; is the oldest household member; controls most of the household resources; or contributes the largest share of household income. In addition, one could include codes to capture whether the revealed head's spouse is present or absent in the household, in order to distinguish between *de jure* and *de facto* household heads. In the event that the spouse is not present, identifying why this is so is important (divorce, death and so on). The benefit of following this kind of approach in determining headship within the context of a panel study would be that it would allow researchers to identify the changing definitions of what constitutes headship over time, since these conditions may plausibly change over time. The disadvantage would be that to the extent that the definition of headship changes over time, this invalidates comparisons that rely on headship over time, since comparing the poverty status of female headed households over time, for example, becomes meaningless when headship is defined differently in those two periods.

The alternative is that the NIDs team agree beforehand on a definition of what constitutes a household head, and then devise a series of filter questions used in the interview to determine who the household head is. These filter questions could include questions about decision making power, income status and control over resources. The advantage of such an approach would be that the definition of headship remains consistent across all waves of the survey, thereby facilitating comparisons that rely on this concept over time. However, the disadvantage is that to the extent that headship comes to be defined differently by households over time, there would be a divergence between the intellectual definition of headship and the actual definition of headship. Finally, NIDs must also allow for joint headship to be reported as an option, and serious thought needs to be given to the definition of headship in the case of co-habitation as opposed to marriage⁵.

In addition to following the usual practice of defining relationships of household members to the

5 Cohabitation has not been properly dealt with in previous cross-sectional surveys, yet may plausibly have different implications for outcomes such as labour force participation of women compared with their married counterparts. Moreover, the fallback position of married women may arguably be quite different than that of unmarried women in long term relationships, particularly if tax benefits, rules of inheritance, asset disposal and so on only apply legally to married couples.

household head, it is critical that NIDS document the interfamilial relationships, such that spouses can be matched to each other, and to their children. This is critical to being able to analyse the interdependence of decisions made by spouses/partners (e.g. the decision to participate in the labour market, as well as the number of hours worked), as well as studying intergenerational economic and social mobility in the longer term. (once a number of NIDS re-surveys have taken place). Note also that the entire discussion concerning headship status was premised on the importance of the household head in decision-making processes for the entire household. Yet, it is plausible that within a household, while there may be a recognised head, to the extent that there are multiple family units living within the same household, there may be multiple family heads. We think it would be too laborious to try and elicit this detail in the household questionnaire. Rather, this can be elicited in the individual level questionnaires, where spouses can provide information about decision making power within their own relationships. However, it might be a useful exercise prior to final design of any module on household decision making, to document the existence of these kinds of multiple-family households, since in this instance, modelling intra-household decision-making and resource allocation becomes complex, since decisions may be taken, and resources allocated, both within family units in a given household, and then within the larger household unit.

3. Measuring Decision Making and Bargaining Power within the Household

In the absence of behavioural or observational data on decision-making within the household, most surveys elicit information on decision-making through a series of questions that ask respondents to identify who is responsible for particular kinds of decisions (financial decisions, school choice, production decisions and so on). When asked at the individual level, respondents may differ in terms of who they regard as being responsible for certain decisions being taken. This in itself presents interesting information for any analysis of intra-household dynamics, and thus, we propose that this data should be asked both of the designated household respondent, as well as at the individual level. However, decision-making status need not imply control over resources. For example, work by Ashraf (2004) suggests that while financial decisions were taken jointly by the household, women were designated as the financial managers in the household. In other words, there may be a divergence between decision-taking and decision implementation, and it is important for NIDS to capture this dichotomy. The advantage of including these questions in a panel is that over time, one is able to observe changes in decision-making status and managerial status over time, and how this is affected by household and individual level characteristics.

Since bargaining power and decision-making status is technically modelled as a function of an individual's fallback position, this necessitates the collection of data on individually owned assets, again clarifying the distinction between ownership (i.e. the right to dispose of the asset) as opposed to management of the asset. However, since assets acquired after marriage or post-household formation may be jointly held and managed, individual level data on assets owned prior to marriage or household formation should be collected. To the extent that it is feasible, collecting similar data for the non-resident parents of household members is useful in this regard, since these outside options may affect the bargaining power or status of individuals within the household, as well as their fallback positions. The simplest approach here is to ask the respondents themselves to provide this information on these non-residents, while a more comprehensive approach would involve tracking and interviewing these non-residents. In addition, the data on inheritance rules, customary law and legal rules that apply to marriages/partnerships governing household members should be collected, since these all hold implications for the rights to sell and dispose of property, and affect

an individual's fallback position and long term economic security. And while it may be a sensitive issue, asking individual respondents whether they have ever endured any form of domestic violence (be it verbal or physical) could provide important correlates of power and control within the household. While the baseline survey should be used to collect data about the household's asset portfolio, and the asset holdings of household members prior to marriage (or in the case of unmarried persons, prior to joining the household), subsequent waves need only track changes in these asset portfolios.

While income data and employment status may also be important factors that affect intrahousehold decision-making parameters, these measures are complicated by the fact that they reflect choices made at both the individual and household level, thereby rendering them interdependent. Moreover, one must deal with the inevitable difficulties of estimating income from joint production, or the imputation of values for in-kind income. To some extent, these difficulties can be overcome by reliance on non-earned income sources, such as government grants, although receipt of these may simply reflect past choices. It is, however, important, that receipt of transfer and grant income be recorded at the individual level, as well as control over these resources. Additional questions here would include whether this grant income is contributed to a common household fund, and whether the recipient holds control over these resources or relinquishes the resources to someone else in the household.

Finally, there is a literature that suggests that extra-environmental parameters may also play an important role in determining the fallback positions of individuals within households. As in the example provided by Rosenzweig and Schultz (1992) earlier, employment opportunities for women in a locale may improve the bargaining position of women within the household. Since this kind of data is readily available in the Census data, this kind of data could be easily merged with the NIDS data to provide community level statistics for this kind of intra-household analysis. The only constraint would be that the enumerator areas used in NIDS would have to have some credible congruence with those used in the Census.

4. Intra-Household Allocation of Resources

Having detailed individual level data that allows one to determine the extent to which individuals have control over resources or transfers coming into the household, is crucial in any analysis that aims to understand the allocation of these resources, and what impact this has on individual welfare outcomes within the household. Collective models of the household suggest that the identity of the individual who receives income or resources will affect the way these resources are allocated, and indeed, available evidence for South Africa appears to support this (Duflo, 2000; Bertrand et al, 2003; Posel et al, 2004). Thus, in relation to household resources, NIDS must try to record the resources that accrue to individuals in the household, the extent to which the individual contributes these resources to the household as opposed to retaining them for private consumption, and how these decisions concerning contributions to the household are made.

Ultimately, an important contribution of the NIDS data will be to facilitate greater understanding of how resources are allocated, and what implications these allocations have for individual welfare of household members. Thus, the first issue to consider is how resource allocation will actually be measured. The allocation of resources refers broadly to the allocation of food, wages, grant income, credit, productive assets and time across household members.

(a) Food allocation

Measuring the allocation of food resources within the household is a costly and time consuming exercise, and it is unclear that the benefits of such data outweigh the costs of obtaining reliable data in this regard (Fuwa et al, 2000). Yet, adequate nutrition and food consumption are clearly vital ingredients for health and productivity. Moreover, food allocation within the household might respond to exogenous events such as the implementation of a school feeding programme in their child's school, or the ill-health of an elderly household member. We do not, however, wish to propose that NIDS undertake extensive collection of food consumption data at the individual level. At best, this kind of additional data collection might be considered for a subset of households during a subsequent phase of data collection should it be deemed important by the NIDS team. Instead, we propose that anthropometric data and other health indicators be collected for all household members. To the extent that changes in intrahousehold food allocation may occur in response to exogenous events, the impact of such changes could be observed through their impact on changes in these health indicators. Moreover, additional questions concerning hunger and nutritional status should be included at the individual level.

In terms of the kinds of anthropometric data to be collected, there are four measures which we think should be considered. The first three measures, namely height, weight and age, are relatively standard measures, and the combination of these three measures together allow the computation of measures of stunting (low height for age), wasting (low weight for height) and weight for age. For adults, this data allows the computation of the body mass index. A fourth measure that has been proposed in the literature but is relatively unutilised is mid-upper arm circumference, which provides a measure of fat reserves and muscle mass. Vella et al (1993) argue that there is a strong correlation between this measure and subsequent mortality, and that this correlation is at least as strong as the correlations between mortality and the more standard anthropometric measures. This measure is easy to collect, perhaps easier than height and weight measures which require scales and measuring sticks, in that all that is required is a tape measure. Moreover, in the event that trade-offs have to be made in terms of the amount of anthropometric data that can be collected, the mid-upper arm circumference is easier and less time consuming to collect for all household members, as opposed to trying to collect height and weight for all members. However, to date, this measure has only been included as part of the Vietnam LSMS.⁶

We propose that anthropometric data be collected for all household members⁷, and not only children aged 36 months and below⁸. While it is true that children under the age of 3 are the most vulnerable,

⁶A final health measure worthy of consideration is that fieldworkers collect digital photos of respondents' hands. This allows the measurement of two important biomarkers: 2D:4D digit ratio, and fingernail pigmentation. In respect of fingernail pigmentation, using methodology tested in a population of HIV positive and negative individuals in Malawi, experts were able to use nail pigmentation to determine CD4 count up to an accuracy of 81% for CD4 counts less than 200 cells/microl (Scarborough et al 2006).

⁷Measurement rules and procedures (for example, whether individuals are required to remove shoes or clothes when being weighed) must be standardised in order to ensure comparable measures across field teams. Moreover, it would be preferable to use digital scales that are accurate for both adults and children, to minimise the amount of equipment that has to be carried by field teams.

⁸ However, in the event that trade-offs have to be made, at a minimum, anthropometric data should be collected for children aged 36 months and below. As far as possible, we should also try to collect birth weight and immunisation status for children, and record whether they have a clinic card or not. However, experience elsewhere suggests that

and thus anthropometric data for these individuals is most useful, since NIDS proposes to administer individual questionnaires to everyone in the household, collecting this data for everyone is a relatively low cost affair. There is increasing evidence that collecting this data for older children in the household may be useful, particularly in the context of a panel study, as it opens up the possibility for examining whether children are able to overcome stunting that occurred when they were younger (Golden, 1994; Martorell et al, 1992), and how child health status responds to exogenous interventions or shocks over time. Moreover, having anthropometric data for adults allows the possibility of controlling for genetic factors in analyses that focus on child outcomes. Finally, panel data allows for the possibility of addressing measurement error in distinguishing the effects of nutrition on child outcomes separately from other household influences. Since health and schooling decisions are often jointly determined within the household, instrumental variables are required in order to identify the effect of nutrition separately from other household characteristics. Having panel data with repeated measures of nutritional status (as proxied by anthropometric data) that vary overtime and space allow for this possibility.

An outstanding issue in relation to the collection of anthropometric data is the collection of such data for non-resident household members. This becomes important, particularly if children have been fostered out or sent to live with relatives who are better able to cater for their needs. To the extent that NIDS plans to track non-resident household members (which we would argue is an important and worthwhile endeavour⁹), anthropometric data for non-resident household members should also be collected. If NIDS does not plan to track non-resident household members, then the possibility of tracking non-resident members for a subset of households should be considered.

(b) Allocation of income/expenditures

An alternative way of measuring the intra-household allocation of resources is through recording detailed expenditures on goods that are privately consumed (such as clothing, entertainment, tobacco, schooling and transportation) separately for children, adults and the elderly within a household. In addition, the questionnaire must contain questions that allow one to capture the allocation of inputs across agricultural plots¹⁰. The standard practice in this regard is to collect this data at the household level from an informed household respondent. In the case of some items, consumption at the individual level can be inferred, for example, if there is only a single man in the household, then expenditure on clothes for adult men can be attributed to this individual.

An important issue in relation to collecting this data is the recall period that is chosen. Most LSMS studies use an annual recall period, but there is some debate as to whether it is more appropriate to recall this data for the previous month or 6-month period instead. The choice inevitably involves trade-offs. Longer recall periods eliminates some of the noise associated with daily purchases that

obtaining reliable information in this regard is often quite difficult and time consuming (Fuwa et al, 2004).

9 There are a number of reasons why tracking non-resident household members is worthwhile. It allows one to deal with the inevitable selection issues that arise in any data analysis that relies only on resident household members. To the extent that non-resident members differ significantly in their characteristics from residents, analytical results have to be interpreted with caution. For example, as raised in the text, anthropometric status may be quite different for resident versus non-resident children and this has important implications for the design of future policy. Moreover, to the extent that NIDS wishes to examine the determinants of interhousehold transfers and the causal support mechanisms provided by social networks, tracking non-resident members, and including detailed information on their respective households, facilitates such an analysis.

10 This data should be captured in a module on household enterprise.

have little to do with the long term welfare of the household, and thus, are useful in providing data on the distribution of consumption across households. However, longer recall periods increase recall bias or underestimation of expenditures (Silberstein and Scott, 1991; Sudman et al, 1996; Mahalanobis and Sen, 1954; Eisenhower, Mathiowetz and Morganstein, 1991). Scott and Amenuvegbe (1990) report on a series of experiments run with households that participated in the Ghanaian LSMS, in which households were asked to report expenditures on a series of 13 frequently purchased items for different recall periods. Reported expenditures fell by 2.9% for every day added to the recall period within the first week, with the result that expenditures reported after a week were 87% of that reported on day 1. After 2 weeks, reported expenditures had fallen by a further 5 percentage points. Interestingly, annual recall questions phrased normatively (e.g. How much do you usually spend on xx in a year) resulted in expenditure estimates that were 91% of those elicited from a one day recall period, while more factually phrased questions (e.g. How much did you spend on xx in the last year) resulted in expenditure estimates that were 113% of those provided from a one day recall period. Phrasing of these questions is clearly important.

Shorter recall periods improve reporting accuracy and provide unbiased estimates of mean expenditure for the entire population, but the problem here is that some households may not have made specific purchases during the recall period, increasing measurement error in any estimate of living standards¹¹. Data obtained from shorter recall periods is also more prone to telescoping (Deaton, 2000), in that if there is some uncertainty around the date of purchase, individuals may include it anyway even though in reality it falls outside of the reference period. Telescoping is more problematic for goods that hold some salience for the respondent, for example, stock purchases for the year, funeral or wedding expenses and so on, while smaller purchases made on a regular basis may be forgotten altogether. Hence, data based on shorter recall periods does not provide an adequate picture of annual consumption undertaken by households nor of the distribution of consumption across households.¹²

In sum, careful thought needs to be given to the recall period in relation to expenditures. The US Consumer Expenditure Survey, for example, has switched from relying on an annual recall period. Rather, one subset of households keep diaries that record expenditures on food and other minor household items, while a different subset of households is interviewed separately on 5 occasions throughout the year. The first visit is used to eliminate telescoping bias, and at each of the subsequent quarterly interviews, households are asked to recall their expenditures during the previous three months. However, for the baseline of NIDS, we may simply have to ask about expenditures in the previous 3 months, and may wish to consider having a subset of households keep a financial diary. It might also be useful to commission work based on the Financial Diaries dataset to help inform what the most appropriate recall period for these kinds of questions should be. Finally, expenditure data is also sensitive to seasonality issues; for example, expenditure on school uniforms for children will be higher at the beginning of the year. This needs to be factored in to the timing and sequencing of household visits, and also means that the date of the interviews must be recorded in order to control for potential seasonality biases in any subsequent analysis.

11 In the extreme, imagine the recall period were a day, and a household had not made any purchases in the previous day, their consumption expenditure would be recorded as zero.

12 Neter and Waksberg (1964) propose a method utilising bounded recall. This method only works, however, if the fieldwork entails two well-separated visits to the household. During the first visit, the informed household respondent is asked to provide a list of household expenditures in the previous month. The process of noting these expenditures prevents them from being included again during the second visit, when the respondent is asked to record all purchases since the first visit.

(c) Time allocation

Time use is a valuable household resource particularly at the household level, and many cross sectional surveys routinely include questions that try to identify the distribution of household chores across household members. These tasks include the collection of firewood and water, cooking, cleaning, childcare, paying bills, shopping and so on. The advantage of a panel is that it allows one to examine the way in which these time allocations respond to changing environment and labour market conditions. It's also vitally important to understand who bears these burdens, since it may be an important explanation for particular outcomes later on e.g. school drop out rates, and again, panel data in this regard allows these kinds of question to be interrogated. We do not think there should be detailed time use questions – rather generic questions about the amount of time spent by an individual on key reproductive activities for the household. However, we would certainly be open to a discussion concerning a subset of the sample being targeted for participation in a time use survey, using the traditional diary method, or having fieldworkers go in and record the previous 24 hours of activity. This need not happen in the baseline, but would be an important subcomponent at some point. Alternatively, the NIDS team might consider approaching StatsSA about the possibility of including a sample of NIDS households in any follow-ups to the current time use survey.

5. Interhousehold Transfers and the Role of Social Networks

Social networks and interhousehold transfers provide an informal safety net, particularly for vulnerable households. In the discussion concerning intrahousehold decision-making and bargaining power, we have already argued that collecting asset data for non-resident parents of household members is useful in this regard, since these outside options may affect the bargaining power or status of individuals within the household, as well as their fallback positions. However, if NIDS data is to be used to model the determinants of interhousehold transfers and to understand the role and support provided by the social networks to which a household belongs, we would, in fact argue, that detailed information should be collected on *all* those individuals that constitute part of the household's social network. This need not involve tracking of these non-resident individuals (although we would certainly be in favour of this in later waves of the panel, at least for a subset of households), but rather requires household respondents to provide detailed information about individuals who are part of the household's social network.

A key issue at the outset is how one defines the household's social network, since “social” networks can clearly extend beyond the role of providing financial support to a household. However, for any network analysis to be useful, the definition of the network must be in relation to a specific question, that is, asking an individual to provide detailed information on their close friends when the aim is to study social networks within the workplace or sexual networks within a community may prove to be a futile exercise, if one's co-workers are not also one's friends (or sexual partners). Given the focus of NIDS on income dynamics, we propose that a household's social network be defined as those relatives, friends and acquaintances that the household relies on for financial or welfare support, in the form of income transfers, in-kind transfers or gifts. This follows one of the most widely cited World Bank studies on social networks by Bamberger et al (1991), in which social networks were studied by collecting data on non-resident close relatives, distant relatives, and friends of the household head and their spouse. That being said, even though we might define the network primarily in relation to the provision of financial assistance, this does not preclude the inclusion of questions that also elicit data on whether these same individuals provide other forms of support (e.g.

emotional support, information flows about jobs, labour power etc) to the household. Note also that here we delineate a social network as separate from the social organisations that household members might belong to. While there may obviously be some overlap here e.g. individuals who provide financial support to the household may belong to the same *stokvel* as a household member), we include organisational associations, and “social capital” more generally, under the rubric of social cohesion addressed in the next section.

Understanding interhousehold transfers between family members and friends is important for a number of reasons. Being able to define which households rely heavily on these kinds of interhousehold flows is important, especially to the extent that these households may have quite different characteristics than households that are able to rely primarily on wage income for their survival. Moreover, the literature on “crowding out” effects suggests a complex interrelationship between the incidence of private transfers and government grants. Understanding the ways in which these informal safety nets are affected by the presence of formal social security support is important, particularly if there is a possibility that the formal support may be withdrawn or reduced in the future. Panel data in this regard affords the opportunity to examine how the relative reliance on informal versus formal means of assistance changes in response to government policy interventions and other exogenous shocks. Importantly, having this kind of detailed network data allows a rigorous examination of the determinants of interhousehold transfers on both the demand and supply side. (for example, how are both donor and recipient households affected by a negative shock and what impact does this have on transfer flows). To date, most surveys are not able to model this adequately, since data on the characteristics of non-residents are not collected. For example, the classic studies of Cox and Jimenez (1990, 1992, 1995) use data for Peru and the Philippines to model the determinants of net private transfer income received by a household as a function of the recipient household's characteristics, and find evidence of crowding out. However, this work is unable to shed any light on the causal mechanisms that might underlie this response, nor how the characteristic of the donor households might have affected the outcomes. Finally, in the absence of information on both the demand and supply side, it comes quite difficult to model the ways in which receipt of private transfer income affects recipient behaviour, since the magnitude and frequency of transfer flows may be endogenous. This will also vary by the visibility of the outcome measure that the donor household wishes to influence. To the extent that outcomes are easily observable (e.g. labour market status or job search behaviour), endogeneity problems may be more severe, than in the case of consumption expenditures which are more difficult for non-residents to observe. The advantage of panel data is that it affords the opportunity to observe these behavioural responses over time, and having data on the non-resident donor or recipient households would vastly enrich our understanding of these processes.

An important issue in terms of this analysis is the level at which the data should be collected. The first question is whether one is interested in the social networks that a household relies on, as opposed to informal social networks that individual household members might rely on, since these need not always overlap. In this regard, we propose that the social network be defined in relation to the household as opposed to the individual¹³. However, in recording the flows on interhousehold transfers, we propose that the identity of the recipient and the donor should be recorded, in addition to the frequency of the transfer, and the relationship of the donor to the recipient. This allows one to characterise the extent to which transfers flow between family members in different households.

¹³ While an examination of individual networks of support would no doubt be fascinating, it would be time consuming, and to the extent that individual outcomes cannot be entirely disentangled from household outcomes and networks, it is not clear that the benefits of collecting this data would exceed the costs.

Additional data on non-residents should include age, occupation, landholdings, assets, whether they are recipients or donors, where they live, how their standard of living compares to the household in the sample, and the frequency of social visits and contacts between these individuals and the household being interviewed. This data allows one to calculate a measure of mean degree for the number of donors or recipients for each household interviewed, as well as the effort exerted in terms of maintaining such links. Moreover, we propose that both the household head and their spouse/partner be asked to identify the household's social network in separate interviews, since this might generate greater variation in the network contacts, and would also highlight differences in terms of the identities of contacts that individuals within the household regard as important sources of actual and potential financial transfers.

Secondly, it is important to capture data both on actual transfers (during the preceding 12 months) as well as potential transfers that might occur, since households may maintain interhousehold links that can be drawn on in times of crises, but who do not provide a source of regular remittance income. It is important to ask separate questions about income transfers versus in-kind transfers and gifts, and the questionnaire should distinguish, as far as possible, between those transfers that need to be repaid versus those that are gifts (or obligation free). This is a difficult concept since households may feel a moral obligation to repay gifts even where no formal obligation exists.

A final issue is the level of detail that should be collected, and the way it should be elicited. At a minimum, we would argue that respondents should be asked to provide as much detailed information about non-resident recipients or donors as possible. While this approach need not involve tracking of these non-residents, the weakness is that measurement error is likely to be large, and some kinds of data (for example household income, and asset holdings) may be impossible to collect. The alternative approach that tracks and interviews these non-residents (or at least a subset of them) is more costly but certainly provides more detailed data and minimises measurement error in the data. In both cases, while it would certainly be simpler and less time consuming to limit the analysis of social networks to non-resident parents and children, this is not ideal since these individuals constitute only one small part of the household's social network.

Second is the issue of how this data should be elicited. One approach is to ask the household respondents to list all transfer flows into and out of the household, and to then identify the individuals making and receiving these transfers. Once this listing has been completed, a set of detailed questions can be asked about the characteristics of these individuals that might inform an analysis of the determinants of interhousehold flows. An alternative approach is for the NIDS team to pre-list potential individuals who might make or receive transfers from the household (e.g. close relatives, distant relatives, friends and acquaintances), and for each of these, then ask detailed demographic questions. Obviously, if the NIDS team decides to track non-residents who form part of the household's social networks, then detailed questions need not be asked of these household respondents, since this information will be obtained during the course of the subsequent interview with members of the non-resident households.

6. Social Cohesion

In addition to social networks, households often participate in a myriad of organisational activities, and engage socially with others in their communities on a range of issues. We use the term "social cohesion" to refer to these forms of social capital. This conceptualisation follows from the work of

Robert Putnam, and refers to the different ways that members of a community interact with one another, thereby providing “a map of a community's associational life, and thus with it a sense of its civic health.” (Grootaert et al, 2004:3). Collecting this kind of data allows one to examine the extent to which social capital contributes towards household welfare and poverty reduction, as well as examining the determinants of social capital.

Within the literature on social capital, distinctions are commonly made between “bonding” social capital (ties between people who share common demographic characteristics and interests), bridging social capital (ties between individuals who do not share many of the same characteristics), and linking social capital (which refers to ties between community members and people in positions of authority, such as public officials) (Gittell and Vidal, 1998; Narayan 2002; Putnam 2000; Woolcock, 1999). While these different forms of social capital may all contribute to improved welfare for individuals, they also have the potential to hinder their welfare (Portes 1998; Woolcock 1998), for example, linking social capital may easily become nepotistic. Thus, an important policy question is to identify the kinds of social capital that promote individual and household welfare, and the conditions required to promote such an institutional environment. Thus, questions pertinent to an analysis of social cohesion should identify the kinds of organisations (and networks) that individuals have access to, the processes of inclusion in or exclusion from such local organisations and access to services, as well as perceptions concerning trust, safety, and attitudes towards collective action and community efficacy. (Grootaert et al, 2004).

Each of these sets of questions represents a different dimension of social capital available within a community. Of course, the entire debate on social capital is plagued by endogeneity problems. For example, is it that memberships produce social capital or that social capital produces memberships in local organisations. Similar questions can be raised in relation to measures of trust or collective action. However, an advantage of capturing this data in a panel survey is that it will allow some tracking of changes in these dimensions of social capital over time, much like Putnam's original study.

In the event that space trade-offs have to be made, most of these questions can be addressed at the level of the household, although collecting individual level data would be preferable. This is particularly important for the questions relevant to organisational membership, and this largely depends on the level of detail that the NIDS team wishes to collect in this regard. To the extent that NIDS wishes to probe the internal workings of these local associations in order to measure organisational efficacy, it may become necessary to address these kinds of questions to the individual members themselves, since the informed household respondent may not be aware of this level of detail. However, should the NIDS team simply wish to capture data on the number of memberships per household, with little other data, then all of these questions could be answered by the household respondent¹⁴.

14 Similarly, while it is true that one can obtain measures of trust and community co-operativeness from an informed household respondent, if the module is short enough to be included in the individual level questionnaires for adult household members, this will generate far greater variation in these measures, both within and across households, and along other important dimensions such as gender and age.

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DRAFT QUESTIONS FOR MODULES

A. Household composition and structure, and intrafamilial relationships

(To be included as part of household roster)

1. ID CODE : Make a complete list of all resident and non-resident household members. A household is defined as a group of people who usually live together and eat from a common pot, or jointly engage in activities that allow for the daily necessities of the household to be met.)
2. Identify the household head on the basis of a standardised description e.g. in every household, there is an individual who makes the most important decisions about how the household should spend its income and use its resources. This person is the one that everyone looks to for guidance. Can you identify who this person is in this household? If this approach is not adopted, then the household respondent can self-identify the household head, but should be asked to say why this individual is considered to be the head. Answer codes include Makes important input/output decisions; is the oldest HH member; controls most of the household resources; contributes the largest share of household income.
 - In subsequent waves, the interviewer must identify whether there has been a change in headship. In the event that there has been a change, additional questions must be asked concerning when this change occurred and why it occurred (codes include; death of former head; dissolution of household or marriage; through ill-health of former head)
3. Gender of each
4. Relationship of each to household head
5. Date of birth of [NAME]?
6. What is the present marital status of [NAME]?
7. What is his/her nationality?
8. How long has [NAME] been considered part of this household?
9. How did [NAME] come to be part of this household? (Answer codes include: married into family; widowed; migrant; lack of employment opportunity so unable to support themselves; credit constraints; labour tenancy requirement etc)
10. For how many months during the past 12 months (since MONTH/ YEAR) has he/she been away from this household?
11. Is this person a resident or non-resident HH member. (Fieldworker can make this call on the basis of criterion agreed upon by NIDS team. The World Bank standard classification is as follows: Any individual that has been away for more than 9 months in the previous year is classified as a non-resident. Lodgers are non-residents, and hired workers or servants are classified as non-resident if they have their own family in a different place. Guests who have visited and stayed with the family for more than 3 months are classified as resident).
12. For individuals identified as non-residents, then ask: Why did [NAME] leave this household? (Answer codes include: married into family; widowed; migrant; lack of employment opportunity so unable to support themselves; credit constraints; labour tenancy requirement etc)
13. Does the husband/ wife/partner of [NAME] live in this household now? If yes, identify the ID code of the wife/husband. In the event that there is more than one wife in the household,

- copy the ID code of the first wife. If no, ask why this spouse is not present? (Answer codes include death, divorce, and migrancy)
14. Does the natural child of [NAME] live in this household now. If yes, identify the ID code of the child/children. (all codes must be recorded, so we may need multiple columns for this).
 15. If the natural child of [NAME] does not live in this household, where do they live? {Answer codes include: with other relatives; in residence/student digs studying at University or Tech; don't know}.
 16. Collect town and province name of where child/children are living.
 17. How long has this child been living there? (months)
 18. If child is living with other relatives, what is the relationship of these relatives TO THE CHILD?
 19. What is the highest level of education this child completed?
 20. What is the employment status of this child?
 21. Is the father of [NAME] alive?
 22. Is the natural father of [NAME] living in this household? If yes, copy the ID for the father. If no, collect town and province information for where father is located.
 23. Age
 24. Did the father of [NAME] attend school?
 25. What was the highest grade he completed?
 26. What was the highest diploma or degree obtained by the father of [NAME]?
 27. What kind of work did the father of [NAME] do for most of his life?
 28. Is the mother of [NAME] still alive?
 29. Is the natural mother of [NAME] living in this house-hold? If yes, copy ID for the mother. If no, collect town and province data for where mother is located.
 30. Age
 31. Did the mother of [NAME] attend school?
 32. What was the highest grade she completed?
 33. What was the highest diploma or degree obtained by the mother of [NAME]?
 34. What kind of work did the mother of [NAME] do for most of her life?
 35. For all adults in the household aged 21 and above, list the names of all siblings who are NOT RESIDENT in the household.
 36. Is [NAME] male or female?
 37. How old is [NAME]?
 38. Has [NAME] ever attended school?
 39. Is [NAME] attending school now?
 40. What was/is the highest grade completed by [NAME]?
 41. What was the highest diploma or degree obtained by [NAME]?
 42. In what town and province does [NAME] live?
 43. What is [NAME'S] current occupation or activity?
- In subsequent waves, interviewer should record any changes to the household roster, and then for newcomers to the household, ask the following: town and province name where they lived before joining the household; when they joined the household (date or an approximate number of months that they have been part of the household), and why they joined the household. In the module aimed at eliciting data on individual asset holdings to be used for intra-household bargaining analysis, newcomers would also be asked to report the value of their assets prior to joining the household. While this data is most useful in relation to couples to analyse bargaining behaviour and fallback positions, the questions could also be

asked of unmarried newcomers who join the household, since their asset status may reveal important information. For those who have left the household, ask informed respondent why they left, when they left (a date or approximate number of months since departure), and where they left to (collect town and province name).

B. Decision Making within the Household

These questions should be asked of the household head for the entire household, but then also tailored to be asked at the individual level between spouses/partners in relation to their own pairing and children. In relation to questions asked of the household respondent, the ID of the person responsible for the specific decision should be recorded, or a separate code if decisions are taken jointly.

1. Who decides how the household finances should be spent/allocated?
2. Who manages the household finances and implements these decisions?
3. Who decides on household expenditures purchased on a daily basis?
4. Who manages household expenditure on items purchased on a daily basis?
5. Who is responsible for daily food preparation in the household?
6. Who makes decisions concerning where to go for medical help for adults in the household?
7. Who makes decisions concerning where to go for medical help for children in the household?
8. Who manages expenditures on medical treatment?
9. Who makes decisions on buying clothes for adults in the household (16-65)
10. Who makes decisions buying clothes for children in the household (0-15)
11. Who makes decisions on buying clothes for the elderly in the household? (66+)
12. Who decides on whether financial transfers should be made to relatives and non-household members?
13. Who decides on how much those transfers should be?
14. Who decides on the level of cash savings the household should keep?
15. Who manages these cash savings?
16. Who decides on buying assets for the household, such as land, livestock, housing, motor vehicles etc)
17. Who manages the process of buying such assets? (i.e. whose name is written on the title deed and is responsible for payment)
18. Who decides on selling high value assets such as land or livestock? Do the proceeds from this sale accrue to this individual or to the household?
19. Who decides on selling jewellery? Do the proceeds from this sale accrue to the individual or the household?
20. Who decides which schools the children should attend?
21. Who is responsible for childcare in the household?
22. Who manages the payment of school fees, and school related expenditures?
23. Who is responsible for caring for the elderly or for sick household members?
24. Who is responsible for deciding how inputs are allocated across plots owned by the household.

These same questions could be asked at the individual level in relation to a specific relationship pair. However, there are additional questions to be added, and these should be asked of all adults in the household¹⁵. These include:

¹⁵ Skip codes will be required since some of the questions are only relevant for married individuals.

1. Marital status (married, living together; divorced, widowed, single)
 2. If married, does you partner or spouse live with you for at least 6 months of the year?
 3. Do you receive any regular source of income, either from working inside or outside of the household (exclude income received from spouse)?
 4. If yes, are you free to spend this on household expenditures?
 5. Is there some part of this income that you receive that you put aside and can spend for yourself without consultation?
 6. If yes, how much do you keep for yourself on average?
 7. If married, does your spouse receive any regular source of income, either from working inside or outside of the household (exclude income that you transfer to your spouse)?
 8. If yes, are they free to spend this on household expenditures?
 9. Is there some part of this income that they receive that they put aside and can spend for themselves without consultation
 10. If yes, how much do they keep for themselves on average?
 11. Do you have any adult children who have completed their schooling? If yes, do they live with you for at least 6 months of the year?
 12. Do they receive any regular source of income, either from working inside or outside of the household (exclude income received from spouse)?
 13. If yes, are they free to spend this on household expenditures?
 14. Is there some part of this income that they receive that they put aside and can spend for themselves without consultation
 15. On average, how much of this income do they keep for themselves?
 16. Who decides which schools your children should attend?
 17. Who manages the payment of school fees, and school related expenditures?
 18. Who decides on whether financial transfers should be made to your family?
 19. Who decides how much transfers to your family should be?
 20. Who decides on whether financial transfers to your spouse's family should be?
 21. Who decides on gifts for parties or weddings?
 22. Who decides how much time you spend socialising?
 23. Who decides how much time your spouse spends socialising
 24. Who decides whether you work or not?
 25. Who decides whether your spouse works or not?
 26. Who decides whether you and your partner use contraception?
 27. Are you and your spouse/partner able to conceive more children? If yes, how many more children would you like to have?
 28. Of these, how many of these children would you prefer to be boys?
 29. If it were only up to you, what is the ideal number of children you would like to have.
- In subsequent waves, these questions should be repeated in order to check for changes in decision-making status, and behaviour concerning the contribution of income to a common pot. If feasible, the questionnaires could be pre-printed with the answers from the baseline survey, such that the interviewer would simply be verifying whether the previously identified decision-maker still fulfils this role. In the event that this is no longer the case, the questionnaire should then elicit the reason for the change in status, and record the ID of the new decision maker.

C. Time Use Allocation

For each of the activities listed below, ask these 4 questions. These questions should be asked of all adults in the household.

1. Were you involved in [ACTIVITY] last week?
2. On average, how many hours per week do you spend on [ACTIVITY]
3. Were you involved in [ACTIVITY] yesterday?
4. How many hours were you involved in [ACTIVITY] yesterday?

List of Activities

Personal

Sleep, rest

Bathing, dressing

Eating

Other personal care, i.e. medical

Household/Family

Cooking, Washing dishes/pans

House Cleaning (inside or outside)

Shopping

Other Household

Child/elder care, physical

Child/elder care, reading, playing

Travel (for any purpose)

Paid work

Waged Employment

Commission work

Self-Employment

Other paid work, looking for work

Work for own use

Animal Husbandry

Agriculture

Hunting/Gathering

Fetch/Prepare fuel

Fetching water

Home manufacturing

Food processing

Other production own use

Selling home produced goods

Non work/Non personal

Education

Community/organizational work

Visiting, movies, sports, events

Participation in sports, games, hobbies

Reading, TV, radio

Others

- In subsequent waves of the panel, these same questions should be asked again, in order to examine changes in the allocation of time to various activities by individuals.

D. Individual Asset Holdings

The questions pertaining to assets need to be addressed at both the household and the individual level. Since our focus in this input document is on collecting asset information relevant to modelling intra-household decision-making and bargaining power, we focus on the individual level analysis.

1. Name of spouse/partner (with their ID code)
2. Highest level of education obtained by your spouse
3. Marital status (must allow for cohabitation option)
4. What kind of legal rules govern your marriage/partnership (e.g. ANC contract, community of property, common law)
5. Date of marriage/date at which partners began living together
6. When you began living together with your spouse/partner, did you move residence? (I moved into my spouse's family's residence; my spouse moved into my family's residence; I moved into my spouse's home; my spouse moved into my residence; my spouse and I both moved into a new residence)
7. At the time of your marriage/union, did you pay lobola or a dowry to your spouse's family?
8. If yes, what was the value of this payment?
9. Did you make this payment all at once, or over time?
10. Are you still making any payments in this regard?
11. Who paid for the wedding expenses? (my family; spouse's family; joint between my family and my spouse's family; my spouse/partner and I)
12. In the event that wedding expenses were shared, what fraction of wedding expenses were paid for by your family or you?
13. What was the value of assets that you owned just prior to your marriage/union?
14. Since your marriage/union, what is the value of any other assets that are held in your name only (by this we mean that you have the legal right to sell and dispose of these without consulting your spouse)
15. Have you ever been separated from your spouse/partner?
16. If yes, for how long?
17. In the event that this marriage/union ended, (through means other than death), would you be able to return to your parent's home?
18. In the event that this marriage/union ended, (through means other than death), would your economic position be: Better off; about the same; worse off.

Now we would like to ask you some questions about your family and your spouse's family at the time of your marriage/union? For each of the following categories, compare the status of your parents to your spouse's parents, and rank this on a scale of 1-5, where 1 indicates that your parents ranked higher than your spouse's parents, while 5 indicates that they ranked lower.

19. Father's job
20. Father's level of education
21. Mother's job
22. Mother's level of education
23. Parents' position in the community
24. Quality of house/neighbourhood

25. Earnings status
26. Landholdings
27. Other asset holdings

This should be set up as a matrix, and then have a second column, where the respondent is asked to repeat the ranking exercise but in relation to the CURRENT status of their parents relative to their spouse's parents.

These questions outlined above constitute the minimum data requirement in this regard. However, depending on the emphasis accorded to collecting detailed asset information at the individual level, these questions could be expanded to be far more specific. This is a debate that the NIDS team will need to resolve, but we outline these additional questions here for completeness.

I am now going to ask you some specific questions about different kinds of assets. For each of the assets listed below, please answer the following:

28. Do you currently own [x] (ownership here means the legal right to sell and dispose of the asset without consultation. Typically, it means the individual will hold the title deeds, or ownership papers)
29. Do you share this ownership with your spouse, or others? (Answer codes include: co-owned with spouse; co-owned with other household member (list ID code); sole owner)
30. What is the current total market value of [x] (the market value it would fetch if sold today)
31. What is the monthly value of any income you receive from renting/leasing [x] out?
32. If this asset were to be sold, which household members would make this decision?
33. If this asset were sold, which household members would share in the proceeds of the sale?
34. If you sold this asset, would you have to share any of the sale proceeds with your spouse? If yes, what fraction would you give your spouse?
35. Would you have to share the proceeds of this sale with any other household member? If yes, specify ID code, and state what fraction they would receive.
36. Did you own [x] before you got married.
37. Did you inherit [x]?
38. What was the value of [x] at the time of your marriage/union?
39. Did you acquire any additional [x] after you got married?
40. What is the value of [x] purchased in the previous 12 months?
41. What is the value of [x] sold in the previous 12 months?
42. Do you plan to leave [x] as a bequest for anyone? If yes, specify ID code.

List of assets:

- Farm land currently utilised by this house
- Farm land not currently utilised by this household
- Housing occupied by this household
- Housing not occupied by this household
- Livestock, poultry, or fish
- Vehicles (bikes, trucks, boats)
- Tractor
- Non-farm equipment (sewing machines, carts etc)
- Office equipment (computers, typewriters, photocopiers etc)
- Tools
- Household appliances (Radio, TV, fridge, washing machine)

- Savings, or bank deposits
- Investments/unit trusts/insurance policies
- Jewellery
- Furniture
- Stocks
- Other (specify)

E. Household Expenditures relevant for Intra-Household Allocation of Resources

These questions should form part of the broader expenditure module, since here we focus only on goods that might be useful in terms of intrahousehold allocation of resources. Also, the recall period is still to be decided. We do propose having 2 comparison periods, an annual period and then a shorter period, which could be a month, or 3 months. For each item in the list below, the following questions are asked:

1. Have the members of your household bought any [ITEM] in the last 30 days?
2. How much did you spend?
3. Did you receive any [ITEM] as a gift or in-kind transfer during the past 30 days?
4. What is the value of all the [ITEM] that you received as a gift or in-kind transfer during the past 30 days?
5. From whom did you receive this gift or in-kind transfer (If from someone in the household, record the ID code. Otherwise, record relationship to HH head)
6. Was this gift or in-kind transfer for a specific individual in the household (if yes, record their ID code, and their relationship to the donor)
7. How much did your household spend for [ITEM] during the past 12 months?
8. Did you receive any [ITEM] as a gift during the past 12 months?
9. What is the value of all the [ITEM] that you received as a gift during the past 12 months?
10. From whom did you receive this gift (If from someone in the household, record the ID code. Otherwise, record relationship to HH head)
11. Was this gift for a specific individual in the household (if yes, record their ID code, and their relationship to the donor)

Items

(For each of these items, ask in relation to 6 categories of individuals (elderly women, elderly men, adult men and women, boys and girls)

- Cosmetics
- Clothing
- Footwear
- Personal services (haircuts, shaving, manicures, etc.)
- Traditional remedies and over the counter remedies
- Modern medicines and health services (doctor fees, hospital charges, etc.)
- Entertainment (cinema, cassette rentals, cultural and sporting events, etc.)
- Sports and hobby equipment
- Toys
- Musical instruments
- Health insurance
- Membership fees
- Excursion, holiday (including travel and lodging)
- Deposits to savings accounts

- Dowry or bride price
- School fees/uniforms/equipment

F. Anthropometric data

This can be collected using the standardised anthropometric module in most LSMS surveys.

G. Interhousehold Transfers and Social Networks

We suggest that the household head and their spouse be asked to identify the social network in relation to the household. There are 2 approaches to eliciting this data – one is to simply record all the transfers, gifts and remittances received by the household, and to then record the identity of the recipient or donor in relation to that particular item. However, we favour the second approach as follows:

I am going to talk to you now about a number of **non-resident** individuals who might make transfers to this household or might receive transfers from this household. First, we will begin by identifying which of these individuals might potentially be a donor or recipient of such interhousehold transfers. The list includes the following:

- Household head's natural father, natural mother, in-laws (through marriage of their children) grandmother, grandfather, children, brothers, sisters, aunt, uncle, cousin, niece, nephew, friend, other (specify)
- Spouse's natural father, natural mother, in-laws (through marriage of their children) grandmother, grandfather, children, brothers, sisters, aunt, uncle, cousin, niece, nephew, friend, other (specify)

For each of these, ask: (for NON-RESIDENTS ONLY)

1. Is [X] alive?
2. Age of [X]
3. Gender
4. Marital status
5. Number of children
6. What is the highest level of schooling [X] has ever completed?
7. Is [X] currently employed? If yes, what is [X's] occupation.
8. How do [X's] financial circumstances compare to this household?
9. Has [X] ever lived in this household? If yes, for how many months.
10. Why did [X] leave this household
11. Where does [X] live? (town and province name)
12. How often does [X] communicate with someone in the household?
13. Who is the person that [X] communicates with most regularly?
14. What form does this communication take? (Answer codes include face to face talking, phone, mail, e-mail, SMS)
15. How often does [X] visit the household?
16. Does [X] provide any form of support the household? If yes, specify the MAIN form of support provided by [X]. (Answer codes include emotional support/friendship, cash, gifts, labour power etc)

17. Has [X] sent any income to the household in the last month (or 3 months – recall period to be decided)?
18. If yes, how much money did [X] send to the household?
19. How often does [X] send income to the household?
20. What is the main purpose for which [X] sends this money? (Answer codes include school fees, burial expenses, wedding expenses, remittance, debt repayment, household survival, etc)
21. Does [X] send the money to a specific individual in the household? If yes, what is the relationship between [X] and this individual?
22. Does this money need to be directly repaid to [X]? If yes, why? (Here try to disentangle obligation from loans) And then ask what form the repayment can take (gifts, in-kind transfers or cash)
23. Has [X] given any in-kind transfers (food, clothing etc) to the household in the last month?
24. If yes, what was the nature of the transfer (Answer codes include food, clothing, supplies)
25. What was the approximate value of this in-kind transfer from [X]
26. How often does [X] make in-kind transfers to the household?
27. What is the main purpose for which [X] sends this in-kind transfer? (Answer codes include school fees, burial expenses, wedding expenses, remittance, debt repayment, household survival, etc)
28. Does [X] make the in-kind transfer to a specific individual in the household? If yes, what is the relationship between [X] and this individual?
29. Does this in-kind transfer need to be reciprocated to [X]? If yes, why? What form can the repayment take (gifts, in-kind transfers or cash)
30. Has [X] given any gifts to the household in the last month?
31. If yes, what was the nature of this gift?
32. If yes, what was the approximate value of the gift?
33. How often does [X] give gifts to the household?
34. What is the main purpose for which [X] sends these gifts? (Answer codes include school fees, burial expenses, wedding expenses, remittance, debt repayment , lobola payment, household survival, etc)
35. Does [X] give the gift the gift to a specific individual in the household? If yes, what is the relationship between [X] and this individual?
36. Does this gift have to be reciprocated to [X]? If yes, why? What form can the repayment take (gifts, in-kind transfers or cash)
37. Has [X] ever provided information about jobs or employment opportunities to anyone in the household? If yes, specify person's ID code.
38. Did [X] help this individual get the job?
39. Does [X] ever give of their time to the household (activities include childcare, household chores, labour power on agricultural plots). If yes, how often does [X] give of their time to the household?
40. Would [X] help the household in times of financial crisis?
41. On a scale of 1-10 (where 1 is not important and 10 is very important), how important is [X] to this household?
42. On a scale of 1-10 (where 1 is not important and 10 is very important), how strong is the relationship between [X] and members of this household?

Now reverse the questions in terms of the household being a potential donor:

43. Has any member of this household ever lived in [X's] household? If yes, specify person's ID code, and state how many months they lived in X's household.
 44. Why did this person leave [X's] ?
 45. How often do members of this household communicate with [X]?
 46. What form does this communication take? (Answer codes include face to face talking, phone, mail, e-mail, SMS)
 47. Who is the person that [X] communicates with most regularly? (specify ID code)
 48. How often does a member of this household visit [X]?
 49. Does this household provide any form of support to [X]? If yes, specify the MAIN form of support provided to [X]. (Answer codes include emotional support/friendship, cash transfers/remittances, gifts, labour power etc)
 50. Has the household sent any income to [X] in the last month (or 3 months – recall period to be decided)?
 51. If yes, how much money did the household send to [X]?
 52. Who in the household made the decision to send this money to [X]? (specify ID code)
 53. How often does the household send income to [X]?
 54. What is the main reason that the household sends money to [X]?
 55. Does the household expect that [X] will repay this income? If yes, why? And then probe the form that such repayment can take (income, in-kind transfers, time etc)
 56. Has the household given any in-kind transfers (food, clothing etc) to [X] in the last month?
 57. If yes, what was the nature of the transfer (Answer codes include food, clothing, supplies)
 58. What was the approximate value of this in-kind transfer to [X]
 59. How often does the household make in-kind transfers to [X]?
 60. What is the main reason that the household sends in-kind transfers to [X]?
 61. Who in the household made the decision to send this in-kind transfer to [X]? (specify ID code)
 62. Does the household expect that [X] will reciprocate pay this in-kind transfer? If yes, why? And then probe the form that such repayment can take (income, in-kind transfers, time etc)
 63. Has the household given any gifts to [X] in the last month?
 64. If yes, what was the nature of this gift?
 65. If yes, what was the approximate value of the gift?
 66. How often does the household give gifts to [X]?
 67. What is the main reason that the household sends gifts to [X]?
 68. Who in the household made the decision to send this gift to [X]? (specify ID code)
 69. Does the household expect that [X] will reciprocate this gift? If yes, why? And then probe the form that such repayment can take (income, in-kind transfers, time etc)
 70. Have members of this household ever provided [X] with information about jobs or employment opportunities? If yes, specify ID code of person who provided [X] with information.
 71. Did any member of this household help [X] get the job?
 72. Does any member of this household ever give of their time to [X's] household (activities include childcare, household chores, labour power on agricultural plots). If yes, specify ID code of person/s who provide their labour time, and state how often these individuals give of their time to [X].
 73. Would the household help [X] in times of financial crisis?
- The advantage of panel data in this regard is that it allows close examination of the ways in which the social networks upon which households rely change over time, and whether the

function of the network changes as well (shifting for example from being primarily a financial network to an information-sharing network). Subsequent waves would focus on collecting data on changes in membership of this network.

H. Questions on Social Cohesion

(a) Organisational Memberships

These questions can be set up in a question matrix with the list of potential organisations being listed in the first column. The list of potential organisations is as follows:

- Farmer/fisherman group or co-operative
- Other production group
- Traders or business association
- Professional association (doctors, teachers, accountants etc)
- Trade union or labour union
- Neighbourhood/village committee
- Religious or spiritual group
- Political group or movement
- Cultural group or association (arts, music, theatre, film)
- Burial society
- Finance, credit or savings group/stokvel
- Education group (parent-teacher association, school committee)
- Health group
- Water and waste management group
- Sports group
- Youth group
- Music group/choir
- NGO or civic group (Rotary Club etc)
- Other

If the questions are to be addressed to all adult individuals in the household, then simply ask the individual whether they belong to any of these groups. If these questions are going to be addressed to a single informed household respondent, then in relation to each of these, ask the following:

1. Do any members of this household belong to this group?
2. If yes, how many household members belong to this group. Specify ID codes.

In relation to each group (or membership), ask:

3. How often does this group hold meetings? (Answer codes include daily, weekly, bi-weekly, monthly etc)
4. How does one become a member of this group (Born into group; required to join; invited; voluntary, other)
5. How large is this group? (approximate number of members)
6. Does this group have membership fees? If yes, how much are they per month?
7. What is the main benefit of belonging to this group? (improves household's current livelihood or access to services; important in times of emergency; benefits the community; enjoyment/recreation; spiritual, social status, self esteem; other (specify))
8. In the event that a group helps the household access services, what is the main service that

- the group helps the household access? (Education or training; health services; water supply or sanitation; credit or savings; agricultural inputs or technology; irrigation; other)
9. How many meetings does this person attend each month?
 10. How actively does this person participate in the group's decision-making processes? (Answer codes include: Leader; Very active, somewhat active; does not participate in decision making)
 11. How long has this individual been a member of this group.
 12. Has this individual ever received financial assistance (income or in-kind transfers) from any member of this group?
 13. Has this individual ever provided financial assistance (income or in-kind transfers) from any member of this group?
 14. Has this individual ever received information about job opportunities from any member of this group?
 15. Has this individual ever provided information about job opportunities to any member of this group?
 16. Has this individual ever received unpaid labour assistance (childcare, labour in agricultural activities, cleaning, and household chores) from any member of this group?
 17. Has this individual ever provided unpaid labour assistance (childcare, labour in agricultural activities, cleaning, household chores) to any member of this group?

(b) Social connectedness, co-operation and collective action

18. About how many close friends do you have these days? (These are people you feel at ease with, can talk to about private matters and call on for help)
19. If you suddenly needed a small amount of money, how many people beyond your immediate household could you turn to who would be willing to provide the money? (in rural areas, this amount can be set at the level of being enough to cover expenses for the household for a week; while in urban areas; it can be set as being equal to a week's wages).
20. For those with a non-zero answer above, ask "Of these people, how many of these individuals would be able to give you this money today if you asked for it?"
21. Are most of these people of similar/higher/lower economic status than you?
22. Do you know your neighbours?
23. How often do you socialise (eat together, talk, play sports) with your neighbours.
24. If you suddenly had to go away for a day or two, could you count on your neighbours to take care of your property?
25. If you suddenly had to go away for a day or two, could you count on your neighbours to take care of your children?
26. If you suddenly faced a long-term shock (such as the death of a breadwinner, a harvest loss, or job loss), how many people beyond your immediate household could you turn to who would be willing to provide the money?
27. For those with a non-zero answer above, ask "Of these people, how many of these individuals would be able to assist you in this way today if you asked for it?"
28. Are most of these people of similar/higher/lower economic status than you?
29. In the last month, how many times have you met up with people in a public place either to talk or have food or drinks?
30. In the last month, how many times have people visited your home.
31. In the last month, how many times have you visited people in their home?

32. In the last 3 months, how many times have you gotten together with people to play games, sports or other recreational activities?
33. How many times in the past 12 months, did you participate in a family/village/neighbourhood festival or ceremony (wedding, funeral, religious etc)
34. In the past 12 months, have you done any of the following (yes/no)
- Attended a village/neighbourhood council meeting, public hearing or public discussion group
 - Met with a politician, called him/her, or sent a letter
 - Participated in a protest or demonstration
 - Participated in an information or election campaign
 - Alerted newspaper, radio or TV to a local problem
 - Notified police or court about a local problem

(c) Questions on trust and solidarity

35. Generally, speaking, would you say that most people can be trusted, or that you can't be too careful in your dealings with other people? (Ans: Most people can be trusted; You can't be too careful)
36. In general, do you agree or disagree with the following statements: (Agree strongly, agree somewhat, neither agree nor disagree; disagree somewhat; disagree strongly)
- Most people who live in this village/neighbourhood can be trusted
 - In this village/neighbourhood, one has to be alert or someone is likely to take advantage of you
 - Most people in this village/neighbourhood are willing to help you if you need it
 - In this village/neighbourhood, people generally do not trust each other in matters of lending and borrowing money
37. How often do people in your village/neighbourhood help each other out? (Use a 5 point scale where 1 = always helping out, and 5 = never helping out).
38. In the past 12 months, have you worked with others in your village/neighbourhood to do something for the benefit of the community?
39. If yes, was participation voluntary or required?
40. How likely is it that people who do not participate in community activities will be criticised or sanctioned?
41. In the past 12 months, how often have people in this village/neighbourhood gotten together to jointly petition government officials or political leaders for something benefiting the community? (Never, once, a few times, many times >5)
42. Were these petitions successful? (yes, all were successful, most were successful; most were unsuccessful; none were successful)
43. How strong is the feeling of togetherness or closeness in your village/neighbourhood? (Very distant; somewhat distant; neither distant nor close; somewhat close; very close)
44. There are often differences in characteristics between people living in the same village/neighbourhood. For example, differences in wealth, income, social status, ethnic background/race. To what extent do such differences characterise your village/neighbourhood? (To a very great extent, to a great extent, neither great nor small extent; to a small extent; to a very small extent)

45. Do any of these differences cause problems? (yes/no)
46. If yes, what are the 2 MAIN differences that most often cause problems in this village/community? (Answers include: differences in: education, landholding, wealth/material possessions, social status, religious beliefs, ethnic background or race; political party affiliations; gender (between men and women); age (between young and old), residency (between long term and recent residents)
47. Have these problems ever led to violence.
48. In your opinion, is this village/neighbourhood generally peaceful or marked by violence? (in subsequent waves, can ask whether has improved or not)
49. In general, how safe from crime and violence do you feel when you are alone at home? (Very safe, moderately safe, neither safe nor unsafe, moderately unsafe; very unsafe)
50. How safe do you feel when walking down your street alone after dark (Very safe, moderately safe, neither safe nor unsafe, moderately unsafe, very unsafe)
51. In the past 12 months, have you or any member of the household been a victim of violent crime (such as assault or mugging)
52. If yes, how many times?
53. In the past 12 months, has your house been burglarised or vandalised? If yes, how many times?
54. In the past 12 months, have you been the victim of domestic violence? If yes, how many times?

(d) Questions on Access to Communication and Information

55. How long does it take you to reach the nearest working post office? (In minutes)
56. How long does it take you to reach the nearest working telephone? (In minutes)
57. In the past month, how many times have you made or received a phone call?
58. How many times in the last month have you read a newspaper, or had one read to you?
59. How often do you listen to the radio? (Every day, a few times a week, once a week, less than once a week, never)
60. How often do you watch television (Every day, a few times a week, once a week, less than once a week, never)
61. Did you vote in the last local election? If no, why not?
62. Did you vote in the last national election? If no, why not?
63. In the past 12 months, did your household have to pay some additional money to government officials to get things done? (yes, often; yes, occasionally, no)
64. If yes, are such payments effective in getting a service delivered or a problem solved? (yes, usually; yes but only occasionally; usually not)
65. In the past 12 months, did your household have to pay some additional money to employees of service delivery agencies (e.g. Telkom, Eskom) to get things done? (yes, often; yes, occasionally, no)
66. If yes, are such payments effective in getting a service delivered or a problem solved? (yes, usually; yes but only occasionally; usually not)