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Methods for measuring and valuation of Informal Care in HIV/AIDS in Africa

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Introduction

HIV and AIDS imposes huge cost to caregivers, beyond the cost that is imposed to health systems and patients. These costs need to be estimated to understand the total cost of the disease to help in designing response to the disease and in economic evaluation of the disease. This study aimed at reviewing the methods of measuring and valuing informal care in the context of HIV/AIDS.

Informal care is a nonmarket composite commodity consisting of heterogeneous parts produced (paid or unpaid) by one or more members of the social environment of the care recipient as a result of the care demands of the care recipient (van den Berg, et al., 2004)

Though Africa is one of the most hit regions of the world, there are no tools for measuring and valuing informal care in HIV and AIDS in an African context. We provide a review of the methods used to measure and value informal care and discuss their applicability in African context since many of these have been developed and widely used in high income countries.

Methods

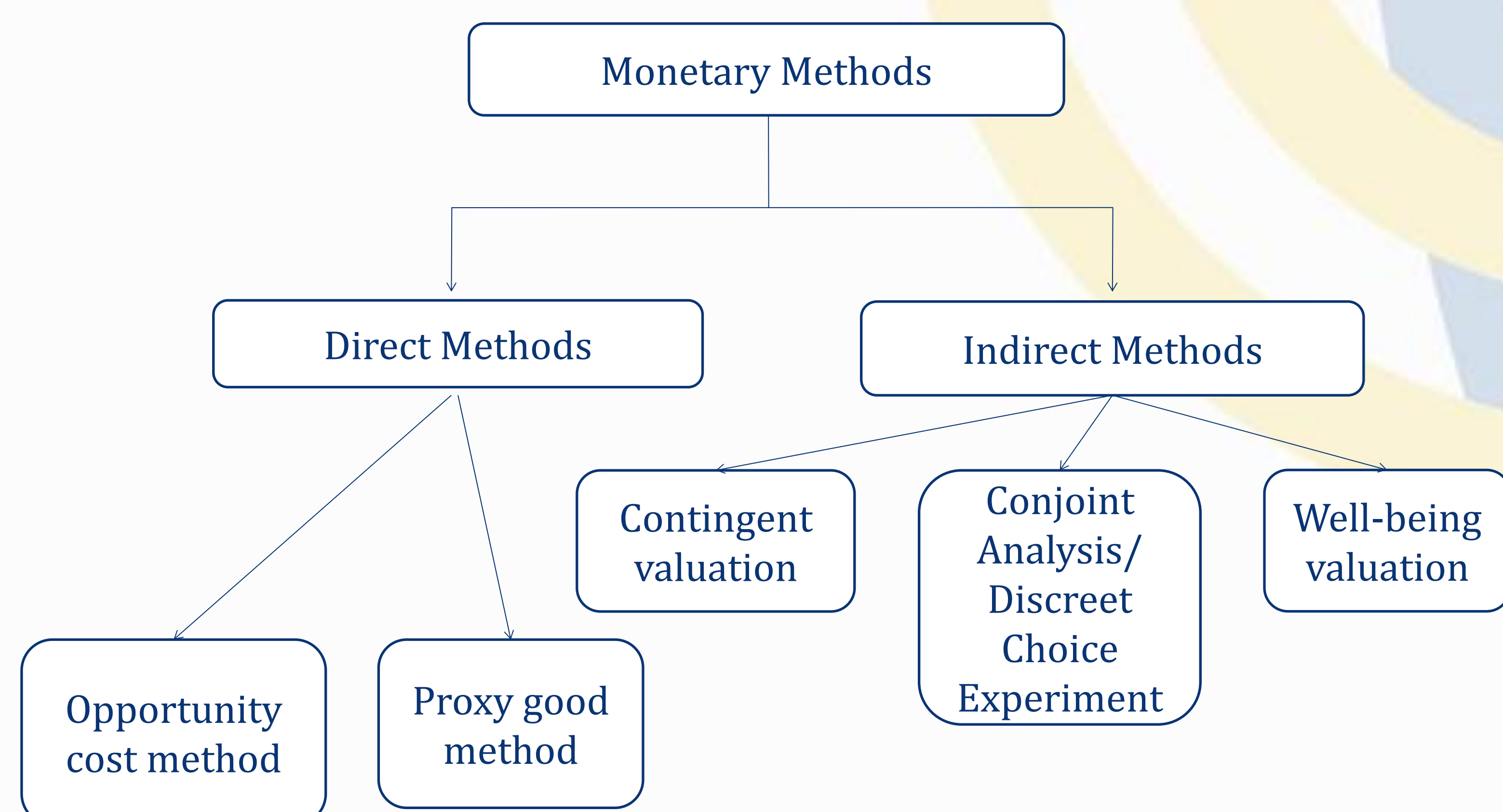
Through expert opinion, we identified methodological papers on measurement and valuation of informal care and we also searched for empirical papers that measured and valued informal care in HIV/AIDS cases in Africa. Although many articles are written on informal care in HIV/AIDS in Africa, we only identified three that attempted to measure the cost of informal care (Ama & Seloilwe; Chimwaza & Watkins; and Mahal).

Results

Measuring of informal care with the aim of determining the cost involves the estimation of time caregivers devote to care giving activities. Recall method is mostly used although the diary is considered as "gold standard". The methods are summarized in the table below.

Method	Description	Applicability to HIV/AIDS in Africa
Recall method	<ul style="list-style-type: none"> Respondents are requested to recall time spent on a list of activities during for a given period Accuracy depends on questions posed and the recall period used 	<ul style="list-style-type: none"> Some care activities may be missed because the respondent or care giver to do not define them likewise Concept of time in rural African settings different from that of the north Difficult to measure time allocated to care activities that are done simultaneously
Diary method	<ul style="list-style-type: none"> Respondents describe a day's activities along with an assignment of the starting and stopping times for each activity, recorded in fixed 5-to10-minute intervals 	<ul style="list-style-type: none"> Many may not record appropriately because of low literacy levels Concept of time in rural African settings different from that of the north
Holman's approach	Respondents are asked a single question to generate time allocated to care giving retrospectively	<ul style="list-style-type: none"> Lack of disaggregation of informal care activities leave the respondent to define what informal care giving.
Direct observation	Involves directly observing and recording the individuals	<ul style="list-style-type: none"> Not possible to implement at times when home visitations are not acceptable.

Monetary value of informal care are determined through methods that directly measure the value of lost time by using market wages or indirectly by eliciting values from care givers. The figure and the table summarizes.



Method	Description	Applicability to HIV/AIDS in Africa
Opportunity cost method	<ul style="list-style-type: none"> Time spent in providing care is valued by using the market wage thereby measuring forgone benefits. 	<ul style="list-style-type: none"> Not possible to observe market wage for most Africans because many are self employed or do work in informal sectors
Proxy good method	<ul style="list-style-type: none"> Time spent in providing care is valued by a wage of an activity that is a close substitute to the care activity. 	<ul style="list-style-type: none"> Difficult to find close substitutes for all informal care activities in Africa.
Contingent valuation method	<ul style="list-style-type: none"> Assesses how much a caregiver is willing to pay or accept for care giving 	<ul style="list-style-type: none"> Applicable in Africa but need to be careful with framing of questions that should not reflect that caregivers expect a payment for the service.
Conjoint analysis/ Discrete choice experiment	<ul style="list-style-type: none"> Assesses the values of attributes of care giving. Care givers are requested to rank different informal care situations or tasks. 	<ul style="list-style-type: none"> Same as in contingent valuation method Appears to be useful given the heterogeneous nature of informal care in Africa
Well- being valuation	<ul style="list-style-type: none"> Calculates amount of income that can be given to caregivers to compensate for his/her time. It exploits actual experiences measured via self reported wellbeing, hence not hypothetical 	<ul style="list-style-type: none"> Advantageous over CVM and CA/DCE because it puts less cognitive burden on respondents. Requires substantial number of respondents

Discussion

In Africa and for HIV/AIDS cases, there have been few attempts to obtain estimates of the value of informal care probably due to the difficulties that are faced in adapting the existing methods to African context. Novel approaches for Africa should take account of the unique features of the social groups being studied in measuring and valuing informal care.

The tool for measuring time in Africa should modify the diary to consider differences in the concept of time between Africa and high income countries. Activities in rural parts of Africa are attached to changes in nature such as cock crow, sun rise, midday meal, etc and not necessarily hours and minutes. Dividing the day according to these changes in nature and asking care givers to state what they did in each slot with estimated times would generate better estimates than when the day is divided into fixed time intervals as in a standard diary.

The opportunity cost method is the theoretically appropriate method of valuing informal care time but its application is limited due to the problems of measuring wages. The indirect methods of contingent valuation are useful in such a situation. We propose that the indirect methods should be used to determine the unit value of time which should be used in the opportunity cost method framework. The questions in the indirect methods should directly link the wage and informal care provision so as to take care of the already existing culture of caring for the sick in Africa. We propose the questions that will measure the following:

- The minimum amount of money a caregiver would be willing to accept if he/she provided care to a stranger;
- The maximum amount of money the caregiver would be willing to pay somebody who would provide care on his or her behalf;
- The minimum amount of money the caregiver would be willing to accept if the caregiver got a job that is in line with his/her qualifications (reservation wage)

References

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