



Karolinska Institutet

Department of Public Health Sciences
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Utilization of Preventive Maternal and Child Public Health interventions in Sub-Saharan Africa: a Multilevel Analysis of Individual and Small-Area Socio-economic Disadvantage

AKADEMISK AVHANDLING

som för avläggande av medicine doktorsexamen vid Karolinska Institutet offentligens försvaras i Aulan, Division of Social Medicine, plan 2, Norrbaka

Torsdagen den 8 September 2011, kl 9.00

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Stockholm 2011

ABSTRACT

Background: Uptake of programmatic maternal and childhood preventive interventions continue to be sub-optimal in sub-Saharan Africa with wide variations within and across the countries. There is evidence suggestive of socioeconomic inequities in access to and coverage of preventive health intervention. In the context of maternal and child health (MCH) in sub-Saharan Africa, women and children among the poor are more disadvantaged in terms of access to life saving preventive interventions. In other words, MCH is likely to show inequities in utilization. While this is true, a distinction between social economic disadvantage at the individual and community level in relation to care utilization is so far under studied in sub-Saharan Africa. Such distinction is important to inform at which level/levels public health policy towards improving care utilization should be directed.

Aims: This thesis examined the influence of individual measures of socio-economic indicators and neighborhood socioeconomic disadvantage on uptake of preventive maternal and childhood health care intervention in sub-Saharan Africa.

Methods: Retrospective analysis was performed using data from several rounds of Demographic and Health Surveys (DHS) conducted during 2003 - 2008 in sub-Saharan Africa. Multilevel-modelling (**studies I& IV**)-and Multilevel discrete choice analytical techniques (**studies II&III**) were applied on various individual indicators of SES such as occupation, education, health insurance coverage and household wealth to understand their association with maternal and child programmatic preventive intervention uptake.

Also, measure of neighbourhood socio-economic disadvantage was estimated based on an index which comprised a percentage of respondents who were unemployed or not working, and living below 20th percentile of the wealth index; those that are resident of rural areas were also computed, and used in the analysis.

Results Uptake of preventive maternal and child healthcare intervention were marked with inequities. Three out of five measure of individual socio-economic status were associated with choice of appropriate treatment for childhood diarrhoea management, while high level of neighbourhood socio-economic disadvantage was associated with choice of in appropriate treatment option (study 1). Access to preventive life saving public health interventions i.e. Vitamin A capsule were associated with higher level of neighbourhood socio-economic disadvantage and four measure of individual socio-economic position. In addition, geographic location also contributed largely to high level of inequities observed (Study II). In study III, community attended antenatal care from physician, high level of neighbourhood socio-economic disadvantage, partner's education; partner's occupation, women's education and occupation were the determinants of socio-economic inequities in obstetrics care utilization. The choice of facility based delivery; either public or private were associated with all the measures of individual level socio-economic status relative to home delivery. However, higher neighbourhood socio-economic disadvantage was only associated with choice of home delivery for child birth but not government health facilities (study IV). No associations were seen between choices of private facilities relative to home delivery.

Conclusion: The results show that among women and children in sub-Saharan Africa, socioeconomic position is an important determinant of access to and uptake of preventive intervention. Specifically, individual measure of socioeconomic position such as education, occupation and in some cases household wealth status contributes to inequities in uptake of preventive intervention. In addition, socioeconomic characteristic of the neighbourhood where women and children live may constitute a major disadvantage. In summary, there is need to acknowledge the relevance of socioeconomic factors both at the individual and community level in developing strategies aimed at scaling up both community and facility based preventive intervention. Specifically more attention should be given to demand side mechanisms aimed at reducing catastrophic spending on access to life saving interventions for the disadvantaged. The findings from these studies may serve as a means to open up the need to targeting preventive health intervention at the economically disadvantaged group at the community level as demand for highly innovative intervention begin to surge.

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ISBN 978-91-7457-431-9