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EQUITY IN UTILIZATION OF MATERNAL HEALTH SERVICES IN BEIRA: AN OPPORTUNITY TO MAXIMIZE THE SCALE-UP OF PAEDIATRIC HIV TREATMENT AND CARE SERVICES

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INTRODUCTION

Strong health systems are essential for equitable and sustainable HIV/AIDS programs. Universal accessibility is a key requirement for equity. This is particularly important in low-income countries where there is a surge in the urban poor: the often better average health statistics for urban compared to rural areas may hide inequities within the former. In Beira city, only 34% of HIV positive children who are eligible for antiretroviral therapy (ART) are on treatment. The maternity ward is a critical entry point for provision of services for HIV prevention, treatment and care for women and children. Inequity in access to delivery service is hence likely to extend to these HIV-related services. Monitoring equity in utilization of delivery service is rare; partly due to lack of valid and easy to use tools for stratifying users into socio-economic groups.

Objectives: to develop and apply a simple tool to measure equity in utilization of delivery care service and to assess the availability of essential HIV/AIDS services in an urban setting in Mozambique.

METHODS

Setting: Beira city, Mozambique; 457,800 inhabitants

Study population: Women utilizing maternity services at the hospital and at 10 health centers

Study design: Health facility based cross sectional study

Development and validation of the tool: Women in urban areas in five provinces in the Mozambique 2011 demographic and household survey (DHS) constituted the reference population. We performed factor analysis of all proxy wealth variables and classified women into wealth quintiles. We cross-tabulated all proxy wealth variables against wealth quintiles and selected six of them (Table 1) that differentiated well across the quintiles. We then assigned weighted scores to the six variables and assessed their validity and reliability with reference to the DHS wealth index. We then included the six variables in a questionnaire.

Data collection: Data were collected from women who were utilising delivery service at all health facilities from April to May 2013. A health facility survey was conducted to assess the availability of HIV/AIDS services, supplies and drugs.

Data analysis: We used descriptive statistics to summarize the characteristics of maternity service users. We compared data from the maternity service users with that of women in the DHS using design based F tests. Institutional delivery coverage was estimated using facility statistics.

RESULTS

The equity tool was valid (rho=0.935) and reliable (kappa 0.636, 95% CI: 0.62-0.66). Data were collected from 1423 women. Delivery service users were younger and slightly more educated than women in the DHS (Table 2). Among delivery service users, 16.1% and 24.1 belonged to the 1st and 5th wealth quintiles, respectively. This distribution was not significantly different when compared to the DHS data (p=0.420, Figure). Additionally, women delivering at the hospital had the same wealth status as those delivering at HCs (p=0.272). Institutional delivery coverage was 97.9%. All health facilities were conducting rapid HIV testing and providing ARV drugs to mothers and babies. Combined ARVs for mothers and new-borns were missing at four HCs.

Table 1: weighting wealth scores

Variable	Category	Raw score	Rescaled score	Weight	Weighted score
Has electricity	Yes	1	1	6	6
	No	0	0		0
Main floor material	Cement/tiles/carpet	1	1	5	5
	Earth/sand/dung	0	0		0
Main cooking fuel	Electricity/gas	2	1	4	4
	Coal/Charcoal	1	0.5		2
	Wood/straw/grass	0	0		0
Main roof material	Iron/lusalite/tiles/cement	1	1	3	3
	None/thatch/palm/polythene	0	0		0
Has a mobile telephone	Yes	1	1	2	2
	No	0	0		0
Has a watch	Yes	1	1	1	1
	No	0	0		0

Table 2: Characteristics of women in the Mozambique DHS urban sample and those utilizing delivery services in Beira

Characteristics		DHS urban sample n(%)	Delivery service users n	F test P value*
Socio-demographic			(%)	
Age	<20	134 (6.7)	318 (22.5)	<0.001
	20-29	801 (40.3)	800 (56.7)	
	30-39	661 (33.3)	257 (18.2)	
	>39	391 (19.7)	37 (2.6)	
Educational background	No education	230 (11.6)	92 (6.5)	<0.001
	Incomplete primary	843 (42.4)	297 (20.9)	
	Complete primary	254 (12.8)	227 (16.0)	
	Incomplete secondary	486 (24.4)	646 (45.4)	
	Complete secondary/higher	175 (8.8)	161 (11.3)	
Proxy wealth variables				
Has electricity		1387 (69.8)	1080 (75.9)	0.145
Main floor material	Earth/sand/dung	471 (33.7)	269 (18.9)	0.189
	Cement/tiles/carpet	1517 (76.3)	1154 (81.1)	
Main cooking fuel	Wood/straw/grass	707 (35.6)	444 (31.2)	0.507
	Coal/charcoal	950 (47.8)	748 (52.6)	
	Electricity/gas	331 (16.6)	231 (16.2)	
Main roof material	None/thatch/palm/polythene	245 (12.3)	146 (10.3)	0.562
	Iron /tiles/cement/lusalite	1742 (87.7)	1277 (89.7)	
Has a cellphone		1741 (87.6)	1270 (89.2)	0.490
Has a watch		523 (26.3)	513 (36.1)	0.109
Total		1987	1423	
Delivery service users: n=1412 for age; DHS sample: n=1988 for cellphone and floor.				

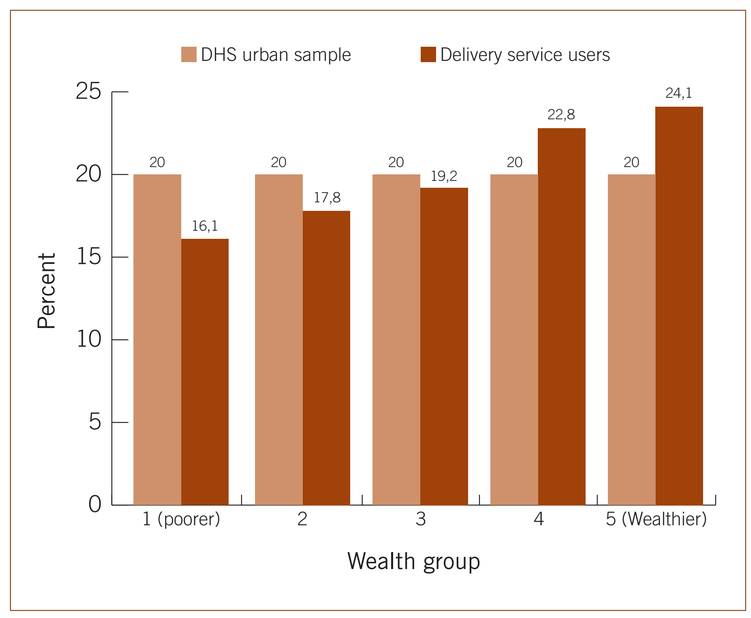

Figure: Distribution of women in the Mozambique DHS urban sample and those utilizing delivery services in Beira by wealth group (p=0.420).

CONCLUSION

Access to institutional delivery in Beira is virtually universal and equitable. These two health system properties provide an excellent opportunity to maximize uptake of HIV prevention and treatment services for mothers and children. Shortage of drugs at HCs may result into missed opportunities and threaten the quality of care. This tool can be used periodically to monitor the extent to which the equity is being sustained.

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Doctors with Africa CUAMM is the largest Italian non-governmental organization working to improve the health of African populations.

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