Appendix A

Results of Medline search “Willingness to pay” and “Africa”

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Appendix B

Summary of some published literature on willingness to pay for health care in Tanzania and other subSaharan African countries, and for eye care specifically

WTP in Tanzania

Abel-Smith B, Rawal P. Can the poor afford "free" health services? A case study in Tanzania. Health Policy and Planning 1992; 7(4) 329-341

This paper describes the problems (as of 1992) with the government health service due to lack of financing, then reports results of 3 studies undertaken to determine the willingness to pay for health services among the general Tanzanian population. The studies include review of prescriptions, survey of 893 outpatients at 9 facilities, and survey or 1820 households. The latter two collected interview information on WTP. The majority of users said they would be willing to pay for services if they were improved. The Tsh amounts reported were rather low. The most important quality indicators to patients were having sufficient drugs and better attitudes of doctors. The authors report how much patients already have to pay in travel and drug costs for "free" service and how much time they have to wait for service in different types of facilities. They found no association between reported WTP and a rough estimate of ability to pay (weekly expenditure). The authors conclude that modest user charges, with exemptions for the poorest (which he admits would be hard to identify) might improve quality and equity.

Bonu S, Rani M, Bishai D. Using willingness ot pay to investigate regressiveness of user fees in health facilities in Tanzania. Health Policy and Planning 2003; 18:370-382

Data on WTP collected in a survey in 1994) demonstrated that 12% of respondents were not willing to pay anything for service (defined as a "complete visit to a facility that fulfilled most of your expectations for availability of drugs, qualified staff, distance from your dwelling, quality of building and grounds and promotion of health in your community"). 34% were willing to pay Tsh 100-999 (approximately 200-2,000 in today's prices) and 12% were willing to pay at least 16,000 (32,000 in 2002 prices). The poor, older (>46 years) and women were significantly less likely to be willing to pay. Almost one quarter of the poorest 40% of the population was not willing to pay. The authors concluded that uniform user charges may be regressive, adversely affecting the poor, women, and elderly.

Walraven G. Willingness to pay for district hospital services in rural Tanzania. Health Policy and Planning 1996; 11: 428-437

A study in Mwanza Region conducted among a population based sample (n=1500 households) as well as among inpatient (n=293) and out patients (n=500) at 3 different District level hospitals sought to determine WTP for OPD services (examination and drugs), delivery, daily admission rate, and hernia operation. Interviewees were also

asked if they would prefer an insurance type scheme or a fee-for service scheme and who should be exempted from paying. Findings included:

- WTP some amount was high but the amounts suggested were below the actual costs
- The average amount (adjusted for exchange rates) respondents reported being WTP for hernia (an elective procedure which might be comparable to cataract) varied among the populations from 1473 -3665 Tsh (US$2.68- 6.66) Standard deviations were quite high, indicating that WTP varies a lot. Again, these amounts are considerably below actual costs of service.
- Initial introduction of fees for elective operations and OPD visits resulted in decreased utilization. This recovered for operation but not for OPD usage after one year.
- most respondents favored an insurance scheme

This study utilized a relatively short structured questionnaire and it was found that a large percentage (65%) of respondents reported that they were "willing to pay" less than they actually paid, leaving one wondering how "willing to pay" was interpreted by patients.

Frick KD, Lynch M, West SH, Munoz B, Mkocha HA. Household willingness to pay for azithromycin treatment for trachoma control in the United Republic of Tanzania. Bull world Health Organ, 2003;81(2): 101-7

This study in Tanzania looked at willingness to pay for azithromycin treatment for trachoma. About 40% stated they would not be willing to pay anything; lack of willingness was associated with lower maternal education and proxy indicators for lower cash availability. The authors concluded that community distribution of antibiotic for trachoma control needs to be free. Again, the relevance of this study to the question of payming for cataract surgery is questionable since one service is preventive and one is curative.

Muela HA, Mushi AK, Ribera JM. The paradox of the cost and affordability of traditional and government health services in Tanzania. Health Policy and Planning 2000; 15:296-302

This interesting qualitative study in Ifakara (Morogoro Region) looked at the reasons people may be unwilling to spend money on biomedical services when they spend large sums on traditional medicines and healing. Two points were made: first, when people believe they have "out of the order" illnesses (those caused by witchcraft or spirits) they feel they must consult traditional practitioners; for "normal illness" (e.g. malaria, diarrhea) they seek biomedical treatment. Second, when traditional practitioners are needed, there is great social pressure and financial support from family to pay for this, unlike the situation when biomedical services are needed.

Mubyazi, GM, Massaga JJ, Mjunwa KY et al. May 2000. Health financing Policy Reform in Tanzania; payment mechanisms for poor and vulnerable groups in Korogwe District. Small Applied Research Report 13. Bethesda , MD: Partnerships for Health Reform Project, Abt Associates Inc. (www.phrproject.com)

A study in Korogwe, Tanzania (Mubyazi 2000) showed that 70-80% of community leaders and focus group participants and 100% of health workers (private and

government) interviewed there supported the policy of cost sharing. Males were significantly more likely to have their own savings to use for payments than females were. Most community leaders and government officials were aware that waivers could be granted for "the poor" but patients were less likely to know about this. Patients had mixed opinions on whether user fees improved the quality; about half said all services improved, a quarter said all services worsened, and a quarter said some services improved and some worsened. Authors stress the need for formulation of an acceptable definition of "poor" for waivers.

WTP in other Africa countries

Van Der Geest S, Macwan'gi M, Kamwanga J, Mulikelela D, Masimba A, Mwangelewa M. User fees and drugs: what did the health reforms in Zambia achieve. Health Policy and Planning 2000; 15: 59-69

A general qualitative research paper on the effects of health reform in Zambia concluded that, while user fees are surely the only way forward for African governments, it is critical that patients feel they receive something for their money. Patients believed that it is reasonable to pay for drugs and surgery, but not simply for "consulting" a nurse or doctor who does not give them anything. Much community dissatisfaction was directed at government institutions that did not have adequate stocks of medicines. The authors cite the long history of successful non-profit private (usually religious) health institutions, which have always charged for services but also had good supplies of drugs.

Guyatt HL, Ocholoa SA, Snow RW. Too poor to pay: charging for insecticide treated bednets in highland Kenya. Tropical Med Int'l Health 2002;70:846-850.

Onwujekwe O, Chima R, Shu E, Nwagbo , Okonkwo P. Hypothetical and actual willingness to pay for insecticide treated bednets in five Nigerian communities. Trop Med Int Health 2001; 6:545-53

How well the "willingness" expressed in theoretical studies translates into actual payment has been questioned. Findings are variable in studies of WTP for insecticide treated bednets. In Kenya, in a rural population very similar to those in Tanzania in terms of poverty indicators, residents expressed a willingness to pay something but their ability to pay was much less than the actual costs of the nets. In Nigeria, the authors above demonstrate that theoretical WTP did correlate with actual WTP. Interestingly, they found that WTP was negatively associated with having previously been given free bednets

WTP for eye services

Shrestha MK, Thakur J, Gurung CK, Joshi AB, Pokhrel S, Ruit S. willingness to pay for cataact surgery in Kathmancu Valley. Br J Ophthalmol 2004; 88(3):319-20

This study from Nepal is the only one that looks specifically at willingness to pay for cataract surgery. Seventy-eight patients with cataract (one or both eyes < 6/60) were interviewed to determine WTP for cataract surgery. The description of the methods is inadequate to determine how patients were selected for interview or exactly what they were asked. Only half of those with cataract were willing to pay for surgery. Among

these, half were willing to pay more than $13 and half less. Factors associated with unwillingness to pay included poverty (not clear how it was measured), and unilateral cataract. Females were willing to pay less than males.

Frick KD, Keuffel, EL, Bowman RJ. Epidemiological, demographic, and economic analyses: Measurement of the value of trichiasis surgery in The Gambia. Ophthalmic Epidemiology 2001;8:191-201

Willingness to pay for trichiasis surgery in The Gambia was inferred from patients who actually accepted the surgery. Those facing a lower cost were more likely to accept surgery. The inferred WTP value was $1.43, considerably less (25%) than the true cost of providing the service ($6.13) and well below the calculated value of the lifetime lost economic productivity ($89) incurred without surgery.

Muluken M., Wondu A, Friedlander E, Courtright P. Indirect costs associated with accessing eye care services as a barrier to service use n Ethiopia. Trop Med Int Health 2004;9:426-431

Although not specifically a WTP study, in a population based study in Gurage zone, Ethiopia, 850 adults with blindness or visual impairment were identified and 802 of these were interviewed about use of services. The major reason given for not using services was that the indirect costs of accessing services were too high.

Frick KD, Lynch M, West SH, Munoz B, Mkocha HA. Household willingness to pay for azithromycin treatment for trachoma control in the United Republic of Tanzania. Bull world Health Organ, 2003;81(2): 101-7

See above under WTP studies in Tanzania

Appendix C

Dissertation Summary (Capacity to pay)

Kilima HAS. Capacity to pay and primary indicators for surgery, among cataract patients in Hai District, Kilimanjaro Region, Northern Tanzania. Dissertation submitted as part fulfillment for the award of MSc degree in Community Health. University College London August 2002.

This dissertation examined the question of ability to pay for cataract surgery. The study was conducted in rural Hai District (Kilmanjaro Region) where 231 cataract patients identified in a population-based survey were eligible for interview. Patients were asked if they were aware that cataract service was available at nearby KCMC Hospital and what they would be willing to pay for this. Of 224 interviewed, 75 (33.5%) indicated they were not willing to pay anything for cataract surgery. Willingness to pay something was significantly associated with awareness that nearby KCMC offered the service.

	Aware of KCMC service	Not aware of KCMC service	Total
Willing to pay	88	61	149 (66.5%)
Not willing to pay	33	42	75 (33.5%)
	121	103	224

Awareness of the service at KCMC was associated with willingness to pay, demonstrating that knowing where to go and suggesting that the good reputation (for technical quality) of KCMC increases willingness to pay

Of those who were willing to pay, the amounts they said they would pay are shown:

Amount (TSh)	Aware of KCMC service	Not aware of KCMC service	Number
<1000	4	6	10 (6.8%)
1000-5000	32	34	66 (44.6%)
>5,000	51	21	72 (48.6%)
Total	87	61	148

Again, willingness to pay more was associated with awareness of service availability at KCMC. It is unfortunate that the study did not look at amounts greater than 5,000. (The study was done at a time when the price at KCMC was 30,000, but another survey found that very few patients knew what the price was.)

Note that knowledge of where to go for treatment for blindness was quite low; 46% with VA less than 6/60 were not aware of services at nearby KCMC. Focus group discussions revealed that most people did have some knowledge about the disease cataract ("mtoto wa jicho" is the local term) and many knew that surgery was required, however there was a wide range of ideas of what the price was, from free to about 50,000

(The price was actually 30,000 at the time.) It seems reasonable to suggest that people who do not know the price are unlikely to embark on surgery. Educating people about services might increase willingness to pay.

Appendix D

Dissertation Study- Continuing barriers to acceptance of cataract surgery

Chibuga E.B. Kilimanjaro Christian Medical College, Tumaini University, August 2004. Continuing barriers to cataract surgery uptake among cataract patients in Hai district, Kilimanjaro region, Tanzania. A community based prospective (cohort) study

Summary of findings:

The study was done in Hai District in northern Tanzania. Cataract is the major cause of blindness, but few people take up the offer of surgery despite the proximity of a surgical center. In 2002, a population based survey identified cataract patients and showed that the cost of surgery (30,000 Tsh) was reported as a major barrier. The price of surgery was reduced to 15,000 Tsh. This dissertation study was a prospective study conducted among the cataract patients identified in 2002 to find out how many had had surgery since the price was reduced and to assess the continuing barriers to surgical uptake.

76% of the sample was traced. (7% died, 7% moved, 6% not located and 4% refused interview) Patients were interviewed regarding visual function, knowledge about cataract and reasons for not accepting surgery or, for acceptors, the outcome and their willingness to promote eye health services.

Acceptance of cataract surgery among the cohort rose from 6% (2002) to 18.4% in 2003. 90% of them reported awareness of available cataract surgical services. Females were more likely to accept cataract surgery than males, [OR 1.35 (95%CI: 0.43-4.23)]. Blind people were least likely to accept surgery, [OR 0.86% (95%CI: 0.10-6.00)]. The cost of surgery was the major reported barrier (45.0%), However, there was no association between reporting cost as a barrier and measures of wealth such as ownership of bicycle, cattle. watch, or radio. Unfortunately, patients who cited cost as the barrier to surgery were not questioned further (did they know the price, was it direct or indirect costs?) One interpretation is that people use cost as an excuse when there are other reasons they do not choose to take surgery.

Appendix E

Prices for cataract surgery at Tanzanian facilities

Region	Hospital	Price of ECCE with IOL	Price of surgery without IOL (if offered)	Additional charges	Number cataracts done in 2003	Mechanism for those too poor to pay	comment
Arusha	St Elizabeth's	35,000			287		
	Karatu/ Mto wa Mbu	3,000		+1,500 to open file +300 for eye drops +500 /day bed fee	100		
Dar es Salaam	CCBRT (Dar es Salaam)	50,000 for walk in					Rural outreach patients pay according to means (0-15,000)
	Muhumbili						
Dodoma	Mvumi Hospital	30,000 walk in CBR free	15,000	+1000 file +5000 "bed" + 500 eyedrops- for CBR, 5000 bed + 2000 medicine	1214 with IOL & 58 without IOL	CBM poor fund paid for 304 cataracts. Hospital allowed others free	48% walk in 52% CBR
	Mvumi outreach service (to Kiomboi, Iambi, Itiitgi, Makiungu)	25,000	15000	Variable file fees +500 eye drops	106 with IOL & 4 without IOL		All these paid full price
Iringa*	Iringa Regional Hospital (Mihale)	25,000	10,000	+500 file fee, +3000 eyedrops + food	88 with IOL & 8 wihtout	Referred to District Hospitals	
	Iringa Rural (Msava) + Kidola (Ulande)	free		3,500 eye drops +1000 for bed + food	197 with IOL & 12 wihtout		

	Njombe District Hosp (Nyambwe)	free			140 with IOL & 16 without		
	Mafinga District (Kitumba)	free		0- 5,000 for bed +3500 eyedrops			
	Ilembula Lutheran Hospital (Msigomba)	25,000	10,000	none	285 with IOL &14 without	CBM supports 5 cases free/mo	141 were done during free week
Kagera	Ndolage						
	Karagwe						
Kilimanjaro	KCMC	15,000		none	1,560		These are 2003 numbers
Manyara	Babati/Magugu(served by KCMC outreach)	3,500		+ 300 to open file + 500 for eye drops	55		
	Haydom (served by KCMC outreach)	8,000		+ 500 for eye drops + 2500/day	156		
Mbeya							
Morogoro	Morogoro Gov't Hospital						
Mtwara	Ndolage	15,200			374	CBM, Hospital	
	St Benedict's Hosp, Ndanda	15,000	6,000	+1500 file + "bed fee"	355 with IOL & 28 without	CBM poor fund + hospital allows free	8 used poor fund & 162 done free during CBM promo week
	St Benedict's Hosp outreach to Sokoine, Ligula, Mneno, Luagala, Nanyamba	10,000	6,000	+2000 file	58 with IOL & 2 without	Hospital does some free	49 of these paid full price
Mwanza	Singerema (Kaji)	*40,000*			900 (1/2 free paid by Lions)	Lions, CBM, other fund	
	Bugando Med						

	Centre						
Ruvuma	Regional hospital	13,000?		?	71 w?iol, 3 w/o IOL		
	outreach	"Free"		?	308 w/ IOL, 8 w/o IOL		
Singida	Singida Regional Hospital	30,000	5,-000	+500 to open file + 500 eye drops – not charged for those without IOL	299 w/ iol 21 without IOL	No regular system but 160 cases wer done free during promotions	
Shinyanga							
Tabora	Nkinga Hospital (served by KCMC outreach)	20,000	20,000	+400 file +500 eyedrops	322 with IOL & 9 without	Yes but not enough	"most" pay full pirce
	Tabora Regional Hospital –Kitete (also gets outreach visits from CCBRT)	25,000 (CCBRT charges only 10,000)	1,000	+1,000 file	W/IOL: 30 hospital; 40 CCBRT W/o IOL: 45		
Tanga	Lushoto (served by KCMC outreach)	6,000			102		+500 to open a file
	Wasso (served by KCMC outreach)	3,000		+10,000 bed	61		

* Patients in Iringa Region are charged various amounts. If patients at the Regional Hospital cannot pay they are referred to a District for "free" surgery. In the Districts, surgery may be doe at District Hospitals or at outlying Health Centres; these both set their own prices for bed fee (usually about 1,000 Tsh at government facilities and up to 5,000 at private). Eye drops are generally 3000-3500 per bottle. Food is not included and patients must supply their own.

Appendix F

Additional data on income and consumption

Table F1- Monthly household income by source (summarized from HBS B9.1)

Source	Dar es Salaam (%)	Other urban (%)	Rural (%)	Mainland Tanzania (%)
Wages and salaries	41,931 (34)	22,291 (21)	3,956 (7)	8,657 (13)
Cash from sale of crops, other plants	1,072 (<1)	6,995 (6)	12,265 (21)	10,899 (16)
Cash value of consumption of own produce	475 (<1)	6,663 (6)	15,459 (27)	13,379 (20)
Cash from hunting fishing, gathering	707 (<1)	3,217 (3)	3,921 (7)	3,645 (5)
Cash from sale of livestock	611 (<1)	2,793 (3)	3,735 (6)	3,430 (5)
Cash from purchased goods and possessions	44,559 (36)	33,443 (31)	5,593 (10)	11,722 (17)
Cash from services, homemade goods	10,849 (9)	11,345 (11)	3,059 (5)	4,677 (7)
Various in kind payments	1,390 (1)	1,581 (1)	690 (1)	857 (1)
Remittances and gifts	7,456 (6)	7,408 (7)	4,057 (7)	4,725 (7)
Allowances, social security	5,306 (4)	665 (<1)	126 (<1)	485 (<1)
Loans obtained	2,308 (2)	2,866 (3)	1,288 (2)	1,571 (2)
other	6,363 (5)	7,711 (7)	2,985 (4)	3,849 (5)
TOTAL	**123,027**	**106,978**	**57,134**	**67,896**

Table F2- Percentage of consumption expenditure for different categories of expenditure.

category	Dar es Salaam	Other urban	Rural areas	Mainland Tanzania
Food-purchased	52.2	52.8	35.2	38.6
Food- not purchased	2.1	7.9	31.8	26.8
Durables	7.8	8.0	7.1	7.3
Medical expenses	2.9	2.4	2.1	2.2
Education expenses	4.0	3.0	1.6	2.0
Other non durables	31.1	25.9	22.1	23.1
total	100	100	100	100
% used for food	54.2	60.7	67	65.4

Appendix G

The Household Budget Survey

An important source of information was the 2000/2001 Household Budget Survey (HBS). The National Bureau of Statistics conducted this large survey with assistance from Oxford Policy Management (UK). Data were collected from May 2000-June 2001.

A nationally representative sample of 22,178 households were interviewed. Households (about 1000 per Region) were selected from regional samples of the National Master Sample and sampling weights were used to make the estimates representative of mainland national and regional populations.

Information on a wide variety of subjects was collected, including the family and housing, education, health and water, economic activities, consumption, income, and poverty.

Information was collected using one main household questionnaire along with a diary recording household consumption expenditure and income over a month. Completion of the diaries was supervised daily for illiterate heads of households and every few days for other households.

Because the survey was largely concerned with poverty and because many rural Tanzanians are subsistence farmers, the investigators included the cash value of crops grown and consumed by the family. Thus, the figures for Tsh (whether income or consumption expenditure) in a household do not represent the actual cash available. Only about 60% (less in many of our interviews) is available as cash.

The complete final report from the HSB, including methods and technical notes, has been published and can be downloaded from http://www.tanzania.go.tz/statistics.html

Appendix H- method of calculation of household expenditure by quintile

The HBS published figures for the mean consumption expenditure per household in Dar es Salaam, other urban, rural, and mainland Tanzania. (Table 2) They also published the percentage share of total consumption expenditure by quintile (Table 3). We calculated the consumption expenditure in each quintile by the following:

(e.g. for mainland Tanzania, quintile 1)

Let n equal total number of mainland households. The total amount of expenditure in all mainland households = 59,935n.

Quintile 1 accounts for 6.9% of the total (59,935n) = 4135n

Quintile 1 comprises 1/5 of the households, or n/5

Therefore the average expenditure per household in quintile 1 = 4135n/ (n/5) = 20,677

The same method is used to calculate expenditure in each quintile.

This is much less accurate when we look at the top and bottom 10% because the figures for % consumption are known only for overall Tanzania, and not specifically for Dar, other urban and other rural. However, the values for mainland Tanzania (an average of the others) ought to be reasonably accurate.

CAPACITY TO PAY AND WILLINGNESS TO PAY QUESTIONNAIRE
(short interview)

_
Date

1.Jinsia ☐ mume ☐ mke

2. Wewe ni kabila gani?_____

3. Hali ya ndoa: ☐ sijaoa/sijaolewa ☐ nimeolewa/nimeowa
☐ Mjane

4. Idadi ya watoto wako unaoishi nao ☐ wanaofanya kazi

5.Idadi ya watoto wako ambao hawaishi nyumbani ☐ mahali wanapoishi_____
wanaofanya kazi

6. Vitu vilivyopo katika familia

saa	radio	bicycle
☐ ndiyo	☐ ndiyo	☐ ndiyo
☐ hapana	☐ hapana	☐ hapana

ng'ombe
☐ ndiyo
☐ hapana

7. Je ni kiasi gani uko tayari kulipa ili macho yako yaweze kuona tena? ☐ Tsh

CAPACITY TO PAY AND WILLINGNESS TO PAY QUESTIONNAIRE (short interviews0

_
Date

1.sex ☐ male ☐ female

2. What is your tribe?_____

3. Marital status: ☐ not married ☐ married
☐ widowed

4. How many children live with you? ☐ how many work? ☐

5.How many chulren do you have elsewhere? ☐ where? _____
how many have work?_____

6. Which do you have at home? watch ☐ yes ☐ no
radio ☐ yes ☐ no
bicycle ☐ yes ☐ no
cattle ☐ yes ☐ no

In Kilimanjaro only, the interviewer now says: "It actually costs more than 15,000 Tsh to do a cataract operation- equipment, accomodation, food, etc)

7. How much are you and your family ready to pay to regain your eyesight? ☐ Tsh

Willingness To Pay (WTP) project

Interview guide #2

Semi-structured interviews
with patients who came (and paid) for cataract surgery *(A similar guide #1 was used for patient who had not had surgery)*

INTRODUCTION

Introduce yourself and the KCCO. Place your visit in the context of a research project, not as the «arm» of KCMC tracking down patients in the communities. You can say, per example, that it is important for international organizations and donors to understand the barriers to eye care services faced by patients in [X] region. It is thus crucial for us to talk directly with people with eye problems in order to develop better programs.

Ask the respondent if you can use the recorder. Explain that it allows you to listen to what people are saying without interrupting them (writing down every answer). We will take all the necessary steps to ensure confidentiality.

LEAD OFF COMMENTS/QUESTIONS

Summarize what we know about their situation and validate with them (diagnosed at a DRS or during the 2002 survey, etc.). Ask the respondent to describe chronologically (if possible) what happened since they were told they have cataract (contacted children, church, went to see another doctor to get a second opinion, consulted a traditional healer, etc.).

Possible questions:

> Can you tell me, approximately, when you first noticed that your vision was decreasing? What did you do? Did someone around you (family member, doctor at local dispensary, traditional healer, other) diagnosed cataract (mtoto wa jicho)? How did you find out that you had mtoto wa jicho?
>
> You came to the DRS in ____ on _____ 200X, were you referred by the dispensary or a local hospital?

CORE ISSUES

Explore the process that led the patient to come for surgery

Beliefs regarding cataract and cataract surgery

Guidelines: This part is related to the lay knowledge concerning cataract and cataract surgery.

Perceived causes (ex: age, nutrition, God, etc.)
Perceived symptoms and severity
Perceived benefits of surgery & other treatments
Perceived barriers to surgery

Possible questions:

What did you know about mtoto wa jicho before surgery? Do you know more about it now? Please explain…

What do you think is/are the cause(s) of mtoto wa jicho? Why are some people affected while others are not?

Do you think mtoto wa jicho always lead to blindness or can it stop progressing at some point? Please explain.

Did you always think mtoto wa jicho could be treated? Did someone influence you before you decided to come for surgery (friend, doctor, counsellor, etc.) or was it a personal decision all along?

Do you think there are other ways to treat mtoto wa jicho?

What did you know about cataract surgery before coming to KCMC? Was it different than what you expected?

Do you think that you could see better with glasses?

Were you afraid of cataract surgery? Do you think cataract surgery can have negative impacts on a patient afterwards? If yes, what kind of impacts? Do you know people in this community who are afraid of cataract surgery? Do you know why? What are they saying about cataract surgery?

Describe the economic situation of the patient (and his/her relatives if he/she live with them)

Guidelines: It is extremely important not to be judgmental (ex: some patients may appear «rich» by local standards and still say they are too poor to pay). If they are willing to go into details then describe all the sources of income and try to come up with a general amount per year. Do the same for the

expenditures (use the annex as a guide). Explain again that this is a research project and that we ensure confidentiality. No one at KCMC will know about their personal situation. It will NOT in any way affect how much they will have to pay in the future.

Describe the economic activities: maize, beans, animals, etc. The "typical" quantity per year, how much they keep for themselves, how much they are able to sell on the market? Do they grow enough food for the year (basic foods like maize, rice or beans) or they have to buy some during the year?

Use table (ANNEX 1).

Possible questions:

May I ask you how you paid for your cataract surgery? Did you come up with the money yourself (how)? If someone helped you, who was it and how much did that person or those persons contribute?

By local standards, i.e. compare to other people your age living in this community, do you consider yourself economically to be 'average', 'above average' or 'below average'? Please explain what you mean by each category and how you define them?

Do you still have an income? What about your spouse, does he/she have revenues? Please describe how you can get money on your own.

Do you have children who are in a position to help you financially? May I ask you to describe their situation (land, sources of income, expenditures, etc.)?

How can we (KCMC) recognise someone who is really too poor to pay? Is it someone who doesn't have the money NOW? Someone with no child(ren)? No land?

Describe the healthcare decision-making process in the family

Guidelines: In general and for this particular situation who is involved in making a health care decision and who should pay or might contribute financially? Did the patient try to contact relatives? If not, why?

Possible questions:

Do you think many people your age need to ask their children to pay all or part of the 15 000 tsh for cataract surgery?

Do you expect your children to help you financially when you need drugs or medical treatments? Please explain.

(If that was the case) Did you feel comfortable asking your children to help you pay for cataract surgery? Please explain.

(For women with a spouse) Did you discuss with your husband the need to go for cataract surgery? What did he say? Did you have to convince him?

How long did you wait between coming for surgery (after you were told you needed surgery)? Explain the delay (if there was one).

Explore the concept of willingness to pay for cataract surgery…

Guidelines: Do they think that 15 000 tsh is a reasonable price for such services (surgery, transport, 3 days on the ward, etc.)? How much do they think it can cost KCMC to actually perform the surgery?

It would be interesting to explore the concept of WTP through comparisons… This is very exploratory since I'm not sure how people will react to these kinds of scenarios…

Possible (additional) questions:

Do you think that 15 000 tsh is something that most people your age can pay for cataract surgery? Please explain and give examples.

Do you consider 15 000 tsh a reasonable price for cataract surgery?

Do you think that by charging 15 000 tsh KCMC is making a profit? Do you think 15 000 tsh can cover the cost of a cataract surgery at KCMC? (later you can tell them that the 'real' price of a cataract surgery is around 50 000 to 60 000 tsh.)

For the same price, all included (transport, etc.) would you prefer to have a cataract surgery at a hospital in Dar or Nairobi or at KCMC? Please explain.

Before 2002, the price for cataract surgery was 30 000 tsh. Would it have been possible for you to pay that amount?

What is the maximal amount you would be ready or able to pay for a cataract surgery?

Would it depend on your visual acuity?

Do you think patients can get help at KCMC to help them pay for the surgery?

Do you think your community leaders could help poor patients to go for surgery at KCMC?

SATELLITE ISSUES

Medical history & experience with the health care system

Guidelines: Sometimes, «fear» of medical treatments comes from an unpleasant previous experience with a doctor or at a hospital. Try to find out if the patient has been to KCMC before and if he/she was satisfied with his/her visit there. Also, it would be interesting to know what has been the biggest amount of tsh ever paid by the patient for a medical treatment (drugs or hospital stay, etc.).

Possible questions:

Did you ever go to a hospital for a surgery (any)? If yes, please explain. Did you ever stay at a hospital for more than one day? Were you satisfied with the services you received? Please explain.

What is the biggest amount you ever had to pay for a drug or a medical treatment? Please explain.

Describe the «experience» of the patient

Guidelines: We must understand the «meaning» that the patient attaches to his sight and the fact that it is slowly diminishing. We can talk here about quality of life and the different (daily or not) activities that the patient used to do, is doing and wants to keep on doing.

Possible questions:

Can you describe to me one of your typical day and week just before the surgery? What has changed since the surgery?

What are the things that you can do now that you couldn't do just before the surgery? Please describe…

Would you recommend cataract surgery to a friend, relative or another community member seeking your advice?

Interview code ☐ **Land available (acre)** ☐ **Own** ☐ **Rent** ☐ **If rent, price** ☐

Cattle (nb) ☐ **Goat (nb)** ☐ **Chicken(nb)** ☐

Maize	☐	**bags**	**Keep :**	☐	**bags**	**Sell**	☐	**bags at**	☐	**tsh =**	☐	**tsh per year**	**When**	☐
Beans	☐	**bags**	**Keep :**	☐	**bags**	**Sell**	☐	**bags at**	☐	**tsh =**	☐	**tsh per year**	**When**	☐
Rice	☐	**bags**	**Keep :**	☐	**bags**	**Sell**	☐	**bags at**	☐	**tsh =**	☐	**tsh per year**	**When**	☐
Other crop ☐	☐	**bags**	**Keep :**	☐	**bags**	**Sell**	☐	**bags at**		**tsh =**	☐	**tsh per year**	**When**	☐
Coffee	☐	**kilo**	**Keep :**	☐	**kilo**	**Sell**	☐	**kilo at**	☐	**tsh =**	☐	**tsh per year**	**When**	☐

Banana **Sell for** ☐ **tsh per** **Week** ☐ **Month** ☐ **Year** ☐

Paid job : ☐ **tsh per** **Day** ☐ **Week** ☐ **Month** ☐ **Total Year** ☐

Who ☐

Vegetables **Sell for** ☐ **tsh per** **Week** ☐ **Month** ☐ **Year** ☐

Milk **Sell for** ☐ **tsh per** **Day** ☐ **Month** ☐ **Year** ☐

Egg **Sell for** ☐ **tsh per** **Day** ☐ **Week** ☐ **Month** ☐

Other ☐ **Sell for** ☐ **tsh per** **Day** ☐ **Week** ☐ **Month** ☐ **Year** ☐

Livestock	**Sell**	**Cattle**	☐	**How many?**	☐	**at**	☐	**tsh =**	☐ **tsh per year**
		Chicken	☐	**How many?**	☐	**at**	☐	**tsh =**	☐ **tsh per year**
		Goat	☐	**How many?**	☐	**at**	☐	**tsh =**	☐ **tsh per year**

List other sources of income : **Transfer :** ☐ **tsh per year** **Local business :** ☐ **tsh per year**

Other( ) : ☐ **tsh per year** **Other( ) :** ☐ **tsh per year**

ANNEX 1: WTP- HOUSEHOLD INCOME (Total per year:)

WTP- Household Expenditures

Interview code:

BUY Maize ☐ ☐ bags or kilo per ☐ at ☐ tsh

Rice ☐ ☐ bags or kilo per ☐ at ☐ tsh

Beans ☐ ☐ bags or kilo per ☐ at ☐ tsh

Fruits & Vegetables ☐ ☐ tsh per ☐ Meat ☐ ☐ tsh per ☐

Cooking oil & Condiments ☐ ☐ tsh per ☐ Water ☐ ☐ tsh per Day ☐ Week ☐

Other (food) ☐ ☐ tsh per ☐ Other ☐ ☐ tsh per ☐

☐ ☐

WTP- Household Expenditures

BUY/PAY	Clothing	☐	☐ tsh per year		
	House Equipment & Roofing	☐	☐ tsh per year		
	School fees	☐	☐ tsh per year		
	Livestock	☐	What	for	tsh per year
	Rent	☐	☐	Farm equipment	tsh per year
	Medical care	☐	☐ tsh per ☐		
☐					

Other	☐	tsh per
Other	☐	tsh per

Appendix L

– Regional differences in poverty in Tanzania

–

We show 3 tables here, each of which ranks Regions according to different indicators. It is clear than rank depends on which indicators are used. With caution, we suggest that Dar, Kili, Ruvuma, Iringa usually appear in the top half while Kagera, Coast (Pwani), Kigoma, Dodoma and Lindi are in the bottom.

The HBS did not publish mean household monthly income by Region, rather they published *per capita* household income and consumption expenditure, broken down for urban and rural. They also published other measures of poverty including percent below food and basic needs poverty line. Correlations among these different measures of poverty (or wealth) were best for the combined (rural plus urban) consumption expenditure per capita; thus we present it below, along with % below poverty lines.

The last three columns show the rank (poorest =1, richest = 20), according to the 3 different measures of poverty in the first 3 columns.

	Per capita monthly consumption expenditure (rural + urban) Tsh	% population below food poverty line	% population below basic needs poverty line	Poverty rank (by basic needs poverty line)	Poverty rank (by food poverty line)	Poverty rank rank (by consumption expenditure)
Arusha	10323	25	39	8	7	13
Dodoma	8535	13	24	18	13	7
Dar	21949	7	18	20	20	20
Iringa	11178	10	29	16	17	17
Kagera	9006	18	29	15	10	8
Kigoma	7322	21	38	9	9	3
Kilimanjaro	11173	11	31	12	16	16
Lindi	9452	33	53	2	2	10
Mara	7952	36	46	4	1	4
Mbeye	12625	8	21	19	19	19
Morogoro	9981	14	29	14	12	12
Mtwara	12374	17	38	10	11	18
Mwanza	8149	30	48	3	3	6
Pwani	10454	27	46	5	6	15
Rukwa	6731	12	31	13	14	1
Ruvuma	9563	27	41	7	5	11
Shinyang	7990	22	42	6	8	5
Singida	6927	28	55	1	4	2
Tabora	10386	9	26	17	18	14
Tanga	9261	11	36	11	15	9

Appendix L- Region variation in poverty

Indicator	Value in least deprived region	Value in most deprived region	Most deprived regions
Per capita GDP in 1997 (Tsh)	371,811 (US$608)	95,623 (US$156)	Kilimanjaro, Dodoma, Kagera, Kigoma
Literacy rate (per cent) 1/	96.4	68.1	Shinyanga, Arusha, Singida, Kigoma
Gross primary school enrollment rate (%)	100	63.0	Kagera, Kigoma, Rukwa, Tabora, Dodoma
Boys	99	65.0	Tabora, Dodoma, Kagera, Kigoma, Rukwa.
Girls	100	60.0	Tabora, Dodoma Kagera, Kigoma, Rukwa
Life expectancy (years)	59	45	Dodoma, Morogoro, Mtwara, Kagera, Rukwa, Iringa.
Men	57	44	Dodoma, Morogoro, Mtwara , Kagera, Rukwa, Iringa
Women	62	45	Dodoma,Morogoro, Mtwara, Kagera, Rukwa, Iringa.
Infant Mortality (per 1000)	52	130	Kagera, Mtwara.Dodoma, Lindi,
Under-five mortality (per 1000)	78	220 .	Dodoma, Lindi, Kagera. Mtwara
Low birth weight (per cent)	4.7	15.6	Mara, Ruvuma, Mwanza, Morogoro
Sever malnutrition (per cent)	2.7	14.7	Iringa, Lindi, Kagera,Singida
Food security (cereal equivalent) 2/	590	177	Coast, Dodoma, Morogoro, Tanga.
1/ For women the most deprived regions were Shinyanga, Tabora, Coast and Kigoma 2/ Availability of cereal equivalent levels (in kilograms) during 1992-96			

United Republic of Tanzania: Interim Poverty Reduction Strategy Paper, October 2000

Regional variations in poverty indices

Regional[6]/	Food security	Unemploy-ment	GDP per capita	Female illiterate Rate	Gross Enrollment (prim. School)	Health Status[7]/	Health services [8]/	Nutrition level [9]/	Total
Dodoma	3	18	3	7	6	2	11	10	60
Kagera	10	15	1	11	4	1	5	3	50
Lindi	5	6	10	8	2	4	18	6	59
Kigoma	6	4	2	4	4	10	9	15	54
Coast	4	5	7	3	9	9	13	11	61
Morogoro	2	8	8	14	14	7	13	7	73
Mara	7	9	6	15	18	3	7	2	67
Tanga	1	3	5	16	12	13	13	17	80
Mtwara	9	11	9	8	13	8	12	9	79
Rukwa	18	14	19	5	3	5	2	5	71
Arusha	8	7	18	11	7	17	2	14	84
Mwanza	14	18	14	6	10	10	9	8	89
Iringa	11	20	17	17	17	5	13	1	101
Mbeya	15	12	11	13	15	10	7	12	95
Shinyanga	16	13	15	1	7	16	1	18	87
Tabora	17	17	12	2	1	18	4	19	90
Singida	12	19	13	10	10	19	5	12	100
Kilimanjar	13	2	4	20	20	20	20	16	115
Ruvuma	19	10	16	18	15	15	19	3	115
DSM	20	1	20	19	19	13	13	20	125

[6]/ Rank"1" Implies most deprived regional and "20" least deprived region.
[7]/ Weighted average ranking for infant mortality rate, life expectancy and crude death rate
[8]/ Average weighted and ranking for population per health facility and population per hospital bed
[9]/Average weighted rate for population per health facility and population per hospital bed

Source: Poverty and Welfare Monitoring Indicators, Vice President's Office, Dar es Salaam November 1999. Presented in the United Republic of Tanzania: Interim Poverty Reduction Strategy Paper, October 2000