Assessment of facilitators and barriers to maternal and child health services in four rural and urban districts of Zimbabwe

Report

R Loewenson, A Kadungure, S Shamu
Training and Research Support Centre (TARSC)

With S Laver, W Mushayi UNICEF Collaborating Centre for Operational Research and Evaluation (CCORE)

Harare, May 2012

Table of Contents

Executive Summary 2
1. Background 3

2. Aims and objectives of the study 3

3. Methods 4

4. Findings 7
4.1 Features of the population studied 7
4.2 Health service availability 12
4.3 Children's health and health care 14
4.4 Women's health and health care 19
4.6 Health service accessibility and cost 23
4.7 Health service uptake and acceptability 27
4.8 Community perceptions of barriers and facilitators to health service uptake 29

5. Discussion 34
5.1 Characteristics of the sample 34
5.2 Health needs and equity in coverage 35
5.3 Availability and physical facilitators and barriers 36
5.4 Accessibility and financial facilitators and barriers 37
5.5 Acceptability and social facilitators and barriers 38
5.6 Perceived strategies and views on dealing with barriers 39

6. Conclusions 39

7. References 42
8. Abbreviations 42
Appendix A Household questionnaire 43
Appendix B: Key informant interview guide 49

Cite as: Loewenson R, Kadungure A, Laver S, Shamu S, Mushayi W **(**2012) Assessment of facilitators and barriers to maternal and child health services in four rural and urban districts of Zimbabwe TARSC, UNICEF CCORE Harare

Design: R Loewenson, S Laver, A Kadungure, S Shamu, W Mushayi
Field work: A Kadungure, S Macheka, K Ndlovu, P Mcijo, R Chikara, R Chasinda, T Muchefa, T Mudyiwa, S Marima, T Zhoya, M Majaha, B Zikhali,
Analysis: R Loewenson, A Kadungure, S Shamu
Peer review: .D Dhlakama, S Laver, W Mushayi
Report: R Loewenson, A Kadungure, S Shamu

We acknowledge the permission of Ministry of Health and Child Welfare to implement this study and the peer review by Dr D Dhlakama of the protocol and draft report

Executive Summary

This study aimed to assess the facilitators and barriers to access to maternal and child health services in women and in children under five years in Zimbabwe. It was commissioned by UNICEF and implemented by TARSC with guidance and peer review from Ministry of Health and Child Welfare. Using a cross sectional study design, interviews were implemented with 1018 households with at least one woman who was pregnant in the last year and with a live child less than 5 years of age as well as 24 key informants from community, health workers, local government and NGOs personnel.

The widest gaps in health need were by residence (urban-rural) and economic/ wealth status, including for poorest groups within urban areas. Geographical targeting and the lifting of user fees in part address economic differentials in health, but further measures are needed to support uptake, such as social communication and interaction with community health workers. The association between absence of safe sanitation and elevated risk of diarrhoeal disease points to the need to invest in improved sanitation.

The use of public services for MCH was high across all wealth groups.

Distance to services, availability of supplies and costs (transport and service) were the major barriers to service uptake and coverage, more for maternal health services than for child health services. This calls both for fee barriers to be lifted and supplies and staffing to be funded. If supply side issues are not addressed, people incur high costs to travel to more distant services with supplies and staff, increasing catastrophic expenditure even after fees are lifted.

The evidence suggests that the most critical measure is to bring the relevant staff and supplies needed for essential maternal and child health services to primary care level, to avoid the cost burdens and differentials in coverage that arise if people have to travel to reach services with supplies and staff. The service deficits identified at primary care level included vaccine supplies, contraceptives, midwives, waiting mother shelters and ambulances, with the latter two needed for referrals to district services. As follow up, comprehensive audit and gap analysis against service standards (essential benefits) at primary care level can inform resource allocation, while supply chain / bottleneck analysis can identify the causes of these shortfalls and stock-outs at primary care level.

Cost was a key barrier. *The finding that poorer groups in both urban and rural areas spend a higher share of their income on maternal health services is highly inequitable*. Lower income households find the costs of maternal health services unaffordable, with high levels of asset sales in the poorest groups that may be contributing to further impoverishment. There was a consistent view across all groups that all charges for consultation, diagnostics and medicines should be removed at primary care level (backed by improved supplies), with funding to ensure that this is also applied in urban councils. There was less consistency in the views on charges at district level.

The *facilitators* are the inverse of the barriers. In addition, community health cadres (VHWs, EHTs, CBDs) were found to support effective uptake, as do improved education and income in women and supportive family influence. These factors point to the need for measures that support women at both individual and social level, and that link women to community level actors and resources (community health workers, antenatal groups, early child education groups, waiting mother shelters) to support their decisions and actions on health.

1. Background

The 2009 Multiple Indicator Monitoring Survey (MIMS) (Zimstat and UNICEF2009) showed that infant and child mortality rates are higher in males, rural children, children of mothers with primary education and of households in the lowest wealth quintile, with larger differences by area and wealth. Measles immunisation coverage in the 12-23 month age group shows a gradient of social differentials by area, education and wealth. There was a relatively even distribution of children sleeping under insecticide treated nets and treatment with antimalarials was higher in lowest income, rural communities. For treatment of children with Acute Respiratory Infection (ARI) at a health facility there were large differences across wealth groups and provinces. The reasons for these differences would need to be further assessed.

A 2010 analysis found evidence of progress in 2010 in health outcomes, with significant reductions in HIV prevalence; improved child mortality and under-nutrition; better immunisation coverage; and some improvement in assisted deliveries (TARSC, MoHCW 2011). However these gains were not shared by all, There was evidence of gaps and widening social differentials. While geographical inequalities dominated in child mortality up to 2005, socio-economic drivers became more significant after that. Child stunting showed wide differences across mothers with different social and economic conditions. There were wide wealth, education and provincial differentials in antenatal care coverage and assisted deliveries and social differentials in access to interventions for prevention and treatment of AIDS (TARSC, MoHCW 2011).

The social differentials in maternal health begin with the unmet need for family planning and exist at all stages of the reproductive process. The unmet need for family planning is higher in adolescents and older women, for rural women with no education and in the lowest income quintile. These social gradients apply across family planning, antenatal care and assisted delivery services. In combination women in the highest wealth quintiles have *four times the delivery effectiveness* in accessing these key elements of effective maternal health care (TARSC, MoHCW 2011). It is important to explore further the barriers and facilitators that lead to social differences in the uptake of health services.

Measuring that a population accesses and utilizes a service does not guarantee that it does so according to its real needs, nor that the population that did not use the services did not need to do so. Uptake may be affected by physical and financial access, including distance, travel time, waiting time, opportunity cost of time, affordability; user fees, transport costs; cultural acceptability, beliefs, religion, gender, type of facility, neighbourhood of facility, quality of patient interaction with the health system, across respect for persons, and service orientation. It is important to understand what leads those who need services to use or not use them, and how this translates into the wide differences in coverage found for maternal and child health services, to move beyond addressing availability alone and to ensure coverage on those with highest need. This study seeks to build this understanding.

2. Aims and objectives of the study

We aimed in this study to assess the facilitators and barriers (perceived and measured) to access to maternal, neonatal and child health services in women and in children under five years in Zimbabwe.

Specific Objectives

We aimed more specifically, to;

- Assess perceived and measured facilitators and barriers to antenatal care, delivery at a health service, post natal care, prevention of vertical transmission, child growth monitoring and

immunisation, child treatment for ARI, malaria, diarrhoeal diseases and other under 5 year treatment services at primary care level in four districts of Zimbabwe in relation to:
    - physical barriers, distance, travel time, waiting time and opportunity costs of time taken
    - affordability; user fees, transport and other costs;
    - cultural acceptability, beliefs, religion, gender
    - quality of patient interaction, respect and health worker attitude, and
    - other barriers and facilitators.
- Assess the distribution of the barriers and facilitators assessed by wealth groups and residence (rural and urban).
- Explore the implications of barriers and facilitators for use of primary care services and referral to secondary level services;
- Explore the strategies that households are using and those they propose could be used to address barriers to service access;

Research Questions

i. What are the most common facilitators and barriers to uptake of maternal, neonatal and child health services?
ii. How do the facilitators and barriers to access to maternal, neonatal and child health services differ by residence, wealth and maternal education?
iii. How are communities addressing barriers to uptake of maternal, neonatal and child health services?
iv. What options do communities propose for enhancing facilitators or addressing barriers to uptake of maternal and child health services?

3. Methods

Study design:

A cross sectional study design was used, with a stratified sample from which qualitative and quantitative data was collected, allowing for analysis of variation by social factors, particularly area, wealth and mothers education.

Study population:

The study population (sampling unit) was households with at least one women of child bearing age who has had a pregnancy in the last year and a live child less than 5 years of age[1].

Sampling:

Based on resources available and the research questions, the study was carried out in two rural and two urban districts of Zimbabwe, purposively selected based on high and low maternal and child health outcomes in the MIMS (2009), and ZDHS (2010) surveys. We used analysis of Maternal and Child Health Indicators of health status and coverage of health care from the latest household data surveys (Zimstat, UNICEF 2009; Zimstat and ICF Maco 2011) to identify the provinces where gaps between maternal and child health need and health coverage are both highest and lowest, as a means to identify where barriers may be highest and lowest, as the basis for purposive sampling. (See Appendix A).Using this above data and identifying those provinces where health need vs health coverage gap is widest, the provinces identified for inclusion were Bulawayo, Harare and Mashonaland East where there is good MCH cover relative to need, and Manicaland, Mashonaland West, Midlands and Matabeleland North where there is poor MCH cover relative to need.

[1] A household refers to a person or group of related and unrelated persons who live together in the same dwelling unit(s), who acknowledge one adult male or female as head of household, who share the same housekeeping arrangements, and who are considered one unit.

The districts within these provinces were purposively selected on the basis of availability of capable research teams (See Appendix A). Within districts we used multistage cluster sampling and aimed to include 320 rural households in each district and 190 urban households (as per sample size calculation[2]) for a total of 1,020 households, viz: 640 rural and 380 urban households.

The wards in the sample were selected randomly from all wards in rural areas and all high density wards in urban areas. Within the wards a map was used to randomly select clusters of ten households in each cluster. Within the cluster a randomly selected starting point was used and all households meeting the criteria within a specified direction sampled until 10 households were included. Any respondents qualifying but not available were returned to at the end of the day and if still not available were recorded and substituted by the next qualifying household

Response rate:
The final actual sample size was 1018. The loss of 3 households in Matabeleland North and South (0.6% of the sample) was due to incomplete questionnaires as respondents withdrew during interviews due to logistic issues and not due to objections to the interview (See Table 3.1).

Table 3.1 Proposed and final sample

Province	District	Type		Number of Wards	No of Wards Sampled (*)	% total	Number of clusters	No of H/holds
Matabele-land North	Tsholotso	Rural	Proposed	22	2	9	32	320
			Sampled	22	2	9	39	317
Mash East	Goromonzi - Chikwaka	Rural	Proposed	25	2	8	32	320
			Sampled	25	2	8	43	317
Manica-land	Mutare Urban	Urban	Proposed	19	2	11	19	190
			Sampled	19	2	11	25	190
Bulawayo	Bulawayo	Urban	Proposed	29	2	7	19	190
			Sampled	29	2	7	28	194

Data collection:
We carried out data collection through interviewer administered questionnaires to gather quantitative and qualitative data as far as possible harmonising the questions with key household survey tools in the ZDHS and MIMS (see questionnaire in Appendix A). The female adult who had had the pregnancy in the last year and a live child less than 5 years of age was the one interviewed. Further, 6 key informant interviews were carried out per district (24 total) of one community leader reflecting womens interests, one from the Health Centre Committee or AIDS committee, a local government administrator and local government councillor, and a facility based and community based health service representative to gather evidence as per the framework in Appendix B.

The data collected through household questionnaire included:
1. Household profile: area, residence, wealth (using MIMs method), mothers education, mothers age, child age

[2] **Calculation of the sample size:** $n_h = z^2$ (r) (1-r) (f) (k)/ (p) (n) (e^2), where n = number of households; z = level of confidence (95%). r = key indicator to be measured by survey (59% paying fees to access health services, hence r=0.59). f = sample design effect (default value of 2.0). k = non response multiplier (average of 10% for developing countries, hence 1.1 for k). p = proportion target population (combined women of bearing age and children under 5 = 40% or 0.4). n = average household size (4 children per household) e = margin of error (0.10r = 0.059). Based on the above our sample size is 1020 households with 102 clusters of 10 households each total. With an urban-rural population ratio of 62% and 38% respectively, 64 clusters were drawn from the 2 rural districts and 38 clusters from the 2 urban districts.

2. Service use patterns in past year of antenatal care, assisted delivery, post natal care, prevention of vertical transmission, child growth monitoring and immunisation, child treatment for ARI, malaria, diarrhoeal diseases and other under 5 year treatment service at primary care level – service used; reason for choice, referral; outcome
3. Preferred vs used facility for antenatal care, assisted delivery, post natal care, prevention of vertical transmission, child growth monitoring and immunisation (including observation of Child Heath cards) child treatment for ARI, malaria, diarrhoeal diseases and other under 5 year treatment service at primary care level
4. Barriers to use and preferred facility in terms of
    - Physical barriers, distance, travel time, waiting time and opportunity costs of time taken
    - User fees paid, transport and other costs;
    - Cultural acceptability, beliefs, religion, gender
    - Perceived quality of patient interaction, respect and health worker attitude, and
    - Other barriers and facilitators;
    - Strategies used to overcome barriers to service access;

Through Key informant Interviews with the sample of community leaders, health workers, local government representatives, children and womens NGOs in districts, the data collected included

1. Barriers to use of antenatal care, assisted delivery, post natal care, prevention of vertical transmission, child growth monitoring and immunisation, child treatment for ARI, malaria, diarrhoeal diseases and other under 5 year treatment service in terms of
    - Physical barriers, distance, travel time, waiting time and opportunity costs of time taken
    - User fees paid, transport and other costs;
    - Cultural acceptability, beliefs, religion, gender
    - Perceived quality of patient interaction, respect and health worker attitude, and
    - Other barriers and facilitators.
    - Strategies used to overcome barriers to service access;
2. Knowledge and experience of cost barriers: Knowledge about official and non-official fees policy practice; waivers and criteria for eligibility; perception of user fees and other related costs
3. Implications of barriers and facilitators for use of primary care services and referral to secondary level services;
4. Strategies that households are using and propose could be used to address barriers to service access.

Pilot and data quality:

The tools were piloted in Chitungwiza and Seke and the research teams trained in a three day training programme before fieldwork commenced. The teams were supported during fieldwork through physical visits in some wards and by telephone in all others. The data was entered by three trained clerks.

Data analysis:

The data was cleaned and analysed using the the Statistical Software for Social Sciences package (SPSS). The tabulation framework was developed prior to the fieldwork in line with the research questions. Statistical significance tests on various indicators were done to establish level independence, association across variables and difference in means, through Chi Squared, Analysis of Variance (ANOVA) and T-tests.

The likert scale in the household and key informant interviews used a response scale from one to 5, with 1 corresponding to “strongly agree” and 5 corresponding to “strongly disagree”. The mean of the individual scores in each question was calculated, as well as the mean for groups disaggregated by residence, wealth, health service use, distance to services and, for key informants, by category of informant. The qualitative feedback from key informants was recorded within key themes related to the research questions by category of respondent, noting the frequency of the response.

The wealth index score for each household was calculated using the Principal Component analysis (PCA), weighted by the first PCA component. The analysis used the national index approach and combined the urban and rural wealth indices in determining the wealth index score instead of constructing separate wealth indices. In measuring the socio-economic status the study used the following assets; ownership of television, mobile and non mobile telephone, refrigerator, watch, bicycle, scotchcart, television dish, fuel type used for cooking, computer or laptop, car or truck, boat with motor, motor cycle or scooter, cultivator, deep freezer, DVD or VCD, water and sanitation facilities and ownership of animals, following the framework used in the 2009 MIMS survey. Each household surveyed was then weighted by the number of members per household and assigned wealth scores using the PCA. The households were then grouped into 5 equal quintiles. Following the MIMS approach, the wealth quintiles were expressed in terms of quintiles of individuals.

Permissions:
Authority for the field work was obtained from Ministry of Health and Child Welfare. Interviewers requested consent prior to interviews for the survey and prior to the key informant interviews. Interviewers introduced the survey and generally indicated that it is about health (without being specific on the exact focus to avoid bias in responses) (See forms in Appendix B). Interviewers guaranteed individual confidentiality of the data and information being collected, and requested permission from the respondent to proceed and noted that the respondent has the right to withdraw from the interview at any point during the interview. Whether consent was given or not was recorded. Only individuals giving consent were interviewed. The loss of 3 households in Matabeleland North and South (0.6% of the sample) due to respondents withdrawing during interviews was as noted above due to logistic issues and not due to objections to the interview.

Sources of bias and error:
We identified and managed the following possible sources of error in the methods:

- In rural areas, villages were uniformly treated as two clusters in the sampling but there was some variation in village size. We do not think this introduced any sampling bias.
- A total of 32 interviews with mothers in Bulawayo and Mutare were conducted in the presence of their husbands as the husbands refused to leave the wives alone. It is possible that on questions such as contraceptive use this could have introduced some bias in the responses. During data analysis, the responses from these questionnaires were tested for differences compared to interviews with wives only in the same area and no significant difference in responses ($p>0.05$) were found. As we did not find any bias we did not then separate these questionnaires in the analysis.
- In one village in Tsholotsho, 14 interviews of the 317 in that district were sampled by the enumerator from a household list from the village health worker that met the inclusion criteria for logistic reasons, as the systematic sampling method was not yielding households and the geographical distances were large. We tested for possible bias (improved maternal and child health outcomes) in the analysis and there were no significant differences ($p>0.05$) in responses from this group and the wider Tsholotsho sample. As we did not find any bias we did not then separate these questionnaires in the analysis.

4. Findings

4.1 Features of the population studied

The features of the study population (noting the sampling method outlined above) are shown in Table 4.1. About a third of the sample (38%) was urban and about two thirds (62%) rural.

This compares with the MIMS survey (2009) were 31% of the households were urban and 69% were rural and also the most recent intercensal survey in 2008, where 29% was urban and 71% rural, indicating a somewhat higher urban share in our sample. The surveyed women were stable in their areas with 99% in both rural and urban areas having lived there for over 9 months in the past year.

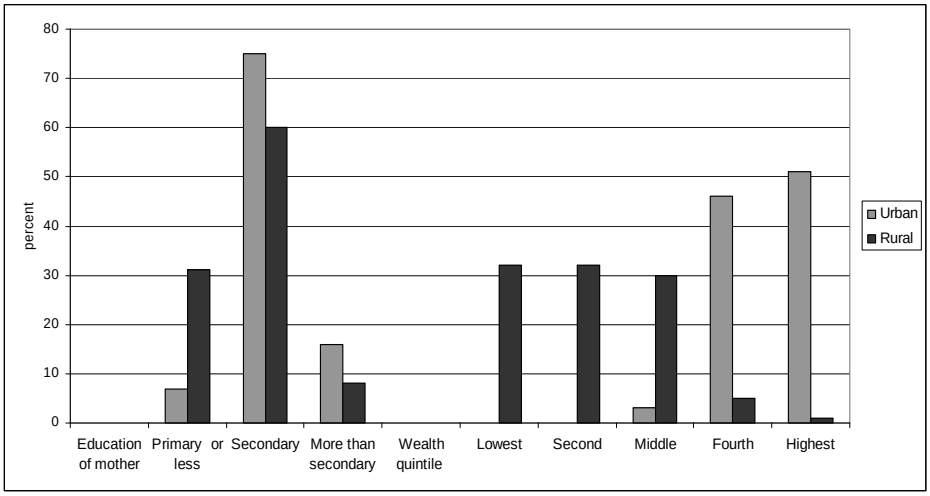
Rural and urban mothers had no significant differences in age, marital status, number of people in their household or number and gender of children. Most women were 20-34 years of age, Christian, married or cohabitating, and with secondary education.

Table 4.1 Socio-economic profile of respondents

	Urban n=384		Rural n=634		Total N=1018	
	No	**%**	**No**	**%**	**No**	**%**
Total	384	38	634	62	1018	100
Age of mother in years						
< 20	24	6	65	10	89	9
20-34	315	82	481	76	796	78
35-49	45	12	88	14	133	13
Mean Age		27.2		26.9		27.0
Religion (i)						
Traditional	47	12	87	14	134	13
Christian	258	67	358	56	616	61
Apostolic Sect	70	18	145	23	215	21
Other (Muslim, None)	9	2	44	7	53	5
Marital Status						
Single	49	13	104	16	153	15
Married, Cohabitating	302	79	456	72	758	75
Divorced, separated, widowed	33	8	74	12	107	10
Education of mother (ii)						
Primary or less	25	7	195	31	220	22
Secondary	296	75	386	60	682	66
More than secondary	63	16	53	8	116	12
Wealth quintile (ii)						
Lowest	0	0	204	32	204	20
Second	1	0	203	32	204	20
Middle	12	3	191	30	203	20
Fourth	176	46	29	5	205	20
Highest	195	51	7	1	202	20
Number of months lived in area in past year						
<3	0	0	0	0	0	0
3-5	0	0	0	0	0	0
6-9	4	1	9	2	13	1
>9	380	99	625	98	1005	99
Average number of people in the household						
Mean number of people		4.0		5.0		5.0
Number of live children per mother						
1	184	48	368	58	552	54
2	190	50	253	40	443	44
3	10	2	13	2	23	2
Mean number of children (iii)		1.55		1.44		1.48
Age of the children in months N= 1507 children (ii)						
0-11	232	39	320	35	543	36
12-35	160	27	329	36	497	33
36-60	202	34	265	29	467	31
Gender of children N= 1507 children						
Male	303	51	484	53	784	52
Female	291	49	429	47	723	48

Significance of residence by factor: (i) Chi squared test $p<0.05$ (ii) Chi squared test $p<0.01$ (iii)T test $p<0.05$

Figure 4.1 Education and wealth profile of respondents



Rural women were significantly more likely to be apostolic, with lower education attainment than urban[3]. Rural households were more likely to be in the lower wealth quintiles than urban. Although mothers ages were not significantly different rural women had significantly less children than urban (Table 4.2).

Table 4.2 Number of children under 5 years of age by mothers characteristics

Number of children under 5 years	1 Child n-552	2 Children n=443	3 Children n=23	Total N=1018
Background Characteristic	**%**	**%**	**%**	**%**
Mothers Marital Status				
Single	22	7	0	15
Married, Cohabitating	68	83	83	75
Divorced, separated, widowed	10	10	17	10
Other	0	0	0	0
Mothers age at last birthday				
<20 years	14	3	0	9
20-34years	72	86	87	78
35-39 years	14	12	13	13
Education of mother				
No Education	1	0	0	1
Primary	25	16	17	21
Secondary	60	73	83	66
More than secondary	13	10	0	11
D/K	1	1	0	1
Wealth quintile of household				
Lowest	14	27	30	20
Second	21	19	23	20
Middle	16	24	26	20
Fourth	22	18	30	20
Highest	27	12	0	20
Household income and assets				
Mean household monthly income (US$ (i)) Standard Deviation (US$)	167.9 183.1	190.7 237.1	214.6 191.4	178.9 208.7
with safe water source (ii)	87	86	82	87
with safe sanitation source	41	58	65	49

(i) T test p>0.05 no significant difference in income; no other data showed significant differences (p>0.05)

(ii) Note the definition used for safe water was as in the DHS survey. There is need for further discussion on this definition, as not all piped or borehole water can be assumed to be safe.

[3] Where religion of the respondent was significantly associated with health service uptake or coverage variables this is noted in the findings.

This is in part due to the very low number of children in Tsholotsho rural where 77% of mothers had one child, 23% two children and no mothers had three children. In Goromonzi rural the pattern was more typically rural, ie 39% with one child, 57% with two and 4% with three, and rural women having larger numbers of children. While the Tsholotsho sample did not differ on any other feature this finding in a small sample suggests that inferences cannot be drawn about the number of children by residence in this small sample. The gender of the children did not differ significantly across mothers, but the ages did, with more children in urban areas in older age groups. The number of children per mother increases from single to married women, with age of the mother- up to 34 years. Women with one child were more likely to have higher education and to be in higher wealth quintiles, although there was no statistically significant differences in income of households with one, two or three children (Table 4.2).

The wealth distribution in our survey was not significantly different to the 2005/6 ZDHS or the 2009 MIMS survey:

Table 4.3: Wealth quintile distribution of this 2011 Sample survey vs national household surveys

Residence		Sample size	Lowest	Second	Middle	Fourth	Highest
Urban	2011 sample Survey	380	0	0.3	3.1	45.8	50.8
	ZDHS 2005/6	3455	0	0	1.5	37.9	60.5
	MIMS 2009	3850	0.5	0.4	1.8	37.4	59.9
Rural	2011 sample Survey	640	32.2	32.0	30.1	4.6	1.1
	ZDHS 2005/6	7297	29.3	29.3	28.5	11.7	1.2
	MIMS 2009	8650	29.1	29.1	28.5	11.9	1.4
Total	2011 sample Survey	1020	20.0	20.0	19.9	20.1	19.8
	ZDHS 2005/6	10752	20.0	20.0	20.0	20.0	20.0
	MIMS 2009	12500	20.0	20.0	20.0	20.0	20.0

Zimstat and ICF Macro 2007; Zimstat and UNICEF2009

The significant wealth differences measured through assets also holds for income, as rural households had significantly lower average income than urban ($p<0.01$), although there were wide variances in both groups. Monthly income was reported net household income from all sources after any tax or other deductions were made at source. It included income from production activities, pensions, regular social benefits and regular remittances. Notably even though the average income was relatively higher in urban than rural households (Table 4.4, Figure 4.2), over half of urban households still earned less than $225 monthly, and 91% below $500 monthly (or below the poverty datum line).

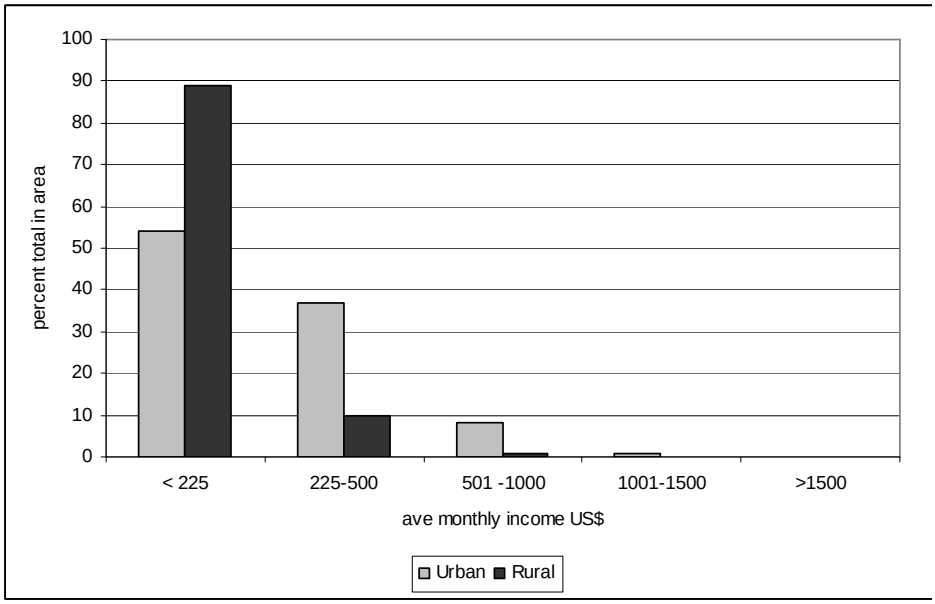
Hence while the wealth quintiles give an idea of relative status in assets, it is evident that both rural and urban households in our survey can be considered as poor. Only 9% of urban households and 1% of rural households earned above $500 monthly.

Table 4.4 Average household monthly income

	Urban N=384		Rural N=634		Total N=1018	
US$	**No**	**%**	**No**	**%**	**No**	**%**
< 225	209	54	566	89	775	76
225-500	144	37	62	10	206	20
501 -1000	29	8	5	1	34	3
1001-1500	2	1	1	0	3	1
>1500	0	0	0	0	0	0
Total	**384**	**100**	**634**	**100**	**1018**	**100**
Mean Household income		274		120		178
Standard Deviation		273		126		208

(i) T test p<0.001 Significant difference in rural and urban household average income

Figure 4.2 Average household monthly income by area



As expected urban households have higher ownership of most assets except for bicycles, scotch-carts, wheelbarrows, separate kitchens, land for farming, livestock and cultivators (Table 4.5). Cell phone ownership is much higher than land line ownership, and while radios are more common sources of media in rural areas, TVs are more common in urban areas.

More rural households have independent means of transport (including bicycles) than urban, but urban households are better equipped with domestic equipment (fridges, computers) and significantly more so with electricity. Urban households also have significantly better access to safe water and sanitation infrastructure, although the water supplies may not always be functioning.

Table 4.5 Household assets and environments

Percent of households that Own	Urban N=384	Rural N=634	Total N=1018	P value (*)
Radio	65	52	57	<0.01
Television	87	24	48	<0.01
Mobile Telephone	93	61	73	<0.01
Non Mobile Telephone	17	6	10	<0.01
Television dish	66	9	31	<0.01
DVD/VCD	77	13	37	<0.01
Bicycle	14	40	30	<0.01
Scotch-cart	6	30	20	<0.01
Car/truck	15	7	10	<0.01
Boat with motor	1	2	1	<0.05
Wheel barrow	12	55	39	<0.01
Motor cycle/ Scooter	2	6	5	<0.01
Refrigerator	64	6	28	<0.01
Deep freezer	18	4	9	<0.01
Watch	44	45	44	>0.05
Computer/laptop	12	3	6	<0.01
Electricity	90	9	39	<0.01
Separate kitchen	33	63	51	<0.01
Land for farming	11	92	61	<0.01
Large livestock	4	30	20	<0.01
Small livestock	10	72	49	<0.01
Cultivator	2	19	12	<0.01
Drinking water				
Safe sources (i)	100	79	87	<0.01
Unsafe sources (ii)	0	21	13	
Sanitation				
Safe (iii)	90	24	49	<0.01
Unsafe (iv)	10	76	51	

(*) using Chi square test

(i) Safe sources: piped into dwelling piped into tap in yard/plot public tap tube well or borehole protected dug well; protected spring;tanker truck; cart with small tank; bottled water

(ii) Unsafe sources: dug well; unprotected dug well; water from spring; unprotected spring; rainwater; surface water (river/dam/ lake /pond /stream /canal/ irrigation channel); other

(iii) Safe Flush to piped sewer system / septic tank; Flush to pit latrine; Flush to somewhere else / unknown; Ventilated Pit latrine (iv) Unsafe: Pit latrine with slab; Open pit; No facilities; Other

Note

a. the definition used for safe water was the same as that used in the most recent DHS survey available at the time of planning this survey. This was done for comparability of data, but there is need for further discussion on this definition in future surveys, as not all piped or borehole water can be assumed to be safe at the point it is consumed for drinking.

b. the total percentages of safe water (87%) and sanitation (49%) in Table 4.2 and 4.5 are the same. The disaggregations differ as they are by different stratifiers.

4.2 Health service availability

"Transport to health centres is a problem as the roads are not usable to small cars. Poor people who have no money to board buses have to foot long journeys".

Health worker, Tsholotsho

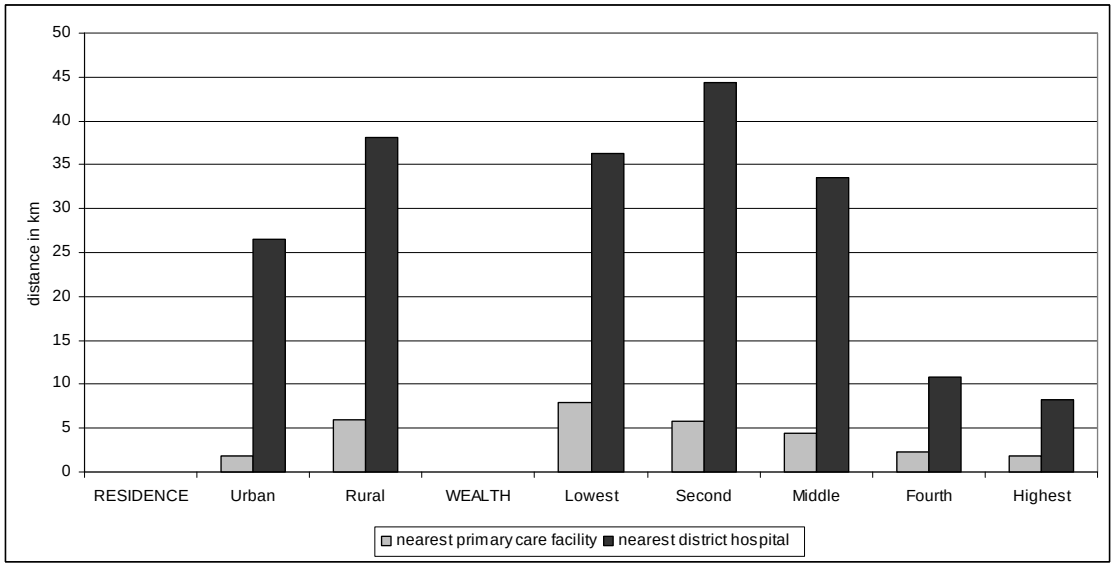
Rural mothers had significantly longer distances to travel to reach the nearest primary care clinic and district hospital (Table 4.6).

Table 4.6: Health Service availability

	Distance to nearest primary care facility (km)		Distance to nearest district hospital (km)		Seen a VHW in past month		Seen a EHT in past month		Seen a CBD in past month	
	mean	p value (*)	Mean	p value (*)	No	%	No	%	No	%
Total	4.5		27		1018	36	1018	27	1018	25
Residence										
Urban	1.9	<0.01	26.6	<0.01	384	15**	384	19**	384	18**
Rural	6.0		38.1		634	49	634	32	634	30
Mothers education										
Primary and less	6.0	<0.01	37.5	<0.01	220	48	220	28	220	25
Secondary	4.2		25.0		672	31	672	25	672	24
>Secondary	3.4		16.6		116	45	116	35	116	34
Wealth quintile of household										
Lowest	7.9	<0.01	36.3	<0.01	204	67 **	204	41 **	204	35 **
Second	5.8		44.3		204	46	204	28	204	23
Middle	4.4		33.6		203	35	203	24	203	29
Fourth	2.3		10.8		205	17	205	25	205	27
Highest	1.9		8.2		202	18	202	16	202	13

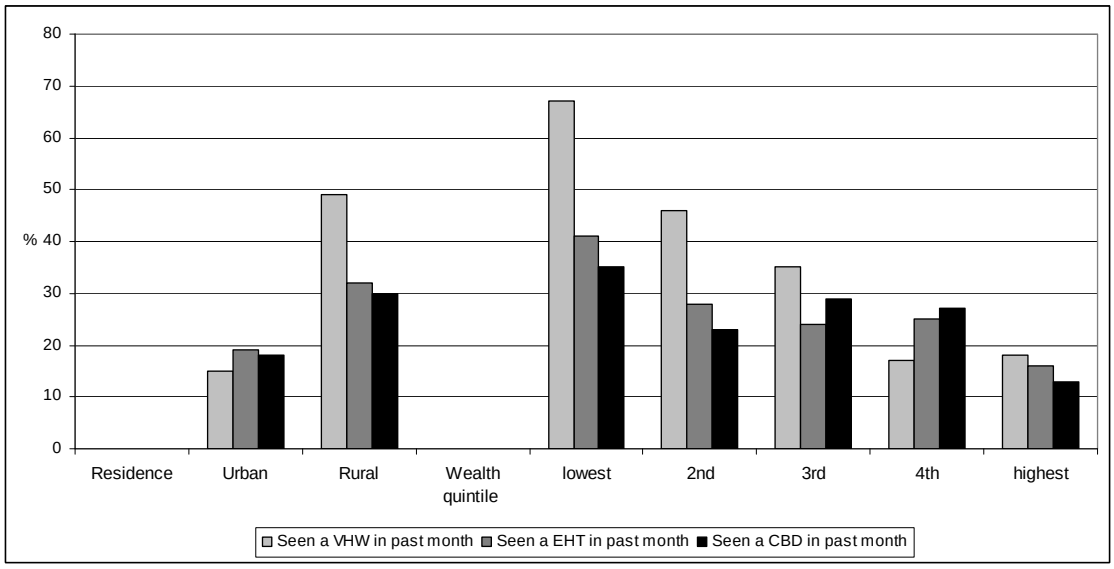
* ANOVA test ** Chi square test p<0.01

Figure 4.3: Distance to services by area and wealth



Nevertheless significantly fewer urban mothers had seen a Village Heath Worker (VHW) or Health promoter in urban areas, Environmental health technician (EHT) or community based distributor (CBD) indicating that these outreach personnel are not reaching urban mothers. Urban- rural status was the major determinant of contact with VHWs, EHTs and CBDs, and the gradient found by wealth with higher contact in lower wealth quintiles (See Figure 4.4) is largely because poorer groups live in rural areas.

Figure 4.4: Contact with community health workers by area and wealth



4.3 Children's health and health care

The reported diarrhoea prevalence in the past two weeks on this survey (27%) was higher than in the 2009 MIMS (11%). There was a relatively high rate of children needing treatment for ARI (46%) and malaria (29%) in the past year (Table 4.7).

There were significant differences in diarrhoea incidence between mothers with and without secondary education and in households that did or did not have sanitation.

With respect to ARI, significant differences in the percent of children needing treatment were found by residence (more in rural children); mothers marital status (more in single women); mothers education (more in mothers with lower education) and in lower wealth quintiles. Children needing malaria treatment followed a similar pattern, except that oldest and youngest mothers also had higher reported levels.

The reported child health coverage in this survey was higher for all indicators than the 2009 MIMS: possession of a child health card (90%) was higher than the 2009 MIMS (74%), measles and full immunisation (86% and 87% respectively) higher than the 2009 MIMS (76% and 49%) and treatment for diarrhoea with ORS (67%) higher than in the 2009 MIMS (35%). It suggests that service coverage indicators have improved since 2009.

Table 4.7: Indicators of children's health by household, mothers features

	Had a child <5 years with diarrhoea in past 2 weeks		Needed treatment for child ARI in past 12 mths		Needed treatment for child malaria in past 12 mths		P value	
							for ARI treatment	For malaria
Background Characteristic	**No**	**% total**	**No**	**% total**	**No**	**% total**		
Total N=1018	275	27	468	46	295	29		
Residence								
Urban n=384	100	26	127	33	27	7	<0.01	<0.01
Rural n=634	178	28	342	54	266	42		
Mothers Marital Status								
Single	49	32	92	60	77	50	<0.01	<0.01
Married, Cohabitating	197	26	318	42	190	25		
Divorced, separated, widowed, other	32	30	58	55	32	30		
Mothers age at last birthday								
<20 years	31	35	36	40	29	33	>0.05	<0.05
20-34years	223	28	358	45	215	27		
34-39 years	25	19	72	54	51	38		
Education of mother (i)								
Primary or less	74	33	119	53	104	46	<0.05	<0.01
Secondary	181	27	296	44	161	24		
More than secondary	21	18	51	44	39	34		
Wealth quintile of household								
Lowest	59	29	177	87	161	79	<0.01	<0.01
Second	63	31	110	54	78	38		
Middle	55	27	41	20	18	9		
Fourth	49	24	57	28	21	10		
Highest	48	24	81	40	16	8		
Household income and assets								
Mean household income		178.2		163.5		129.0	>0.05	<0.05
with safe water source	238	27	353	40	203	23	>0.05	>0.05
with safe sanitation source (ii)	55	11	89	18	35	7	<0.05	<0.05
without safe sanitation source	445	89	405	82	465	93		

(i) Chi square test p<0.05 significant difference in diarrhoea incidence by mothers education
(ii) Chi square test p<0.05 significant difference in diarrhoea incidence by sanitation

Table 4.8 (overleaf) shows that while child heath coverage was generally higher in urban, older and more educated mothers, this was not statistically significant, except in the case of treatment of diarrhoea with ORS by residence (higher in urban areas) and possession of a child health care by age (higher in older mothers). As Table 4.8 shows, the relationship between coverage of child health and household wealth is irregular and there is no significant difference in household income of those at different levels of coverage. Possession of a child health card and full immunisation are at similar levels across all wealth quintiles. However ORT treatment for diarrhoea is higher in the lower two and highest wealth quintiles whilst treatment at a facility or pharmacy is higher in the middle quintiles (3rd and 4th). The reasons for this are not clear.

Table 4.8: Indicators of children's health care uptake by household and mothers features

	Children <5 have a child health card		Children 12 -23 mths immunised for measles		Children 12-23 mths fully immunised		Children with diarrhoea treated with ORS or ORT		Children with diarrhoea treated with medicine	
	Total <5s	% with card	Total 12-23 mths	% fully immu-nised	Total 12-23 mths	% fully immu-nised	# children with diarrhoea	% total trea-ted	# children with diarrhoea	% total treated
Total	1507	90	272	86	272	87	275	67 *	275	19
Residence										
Urban	594	91	78	95	78	91	88	76	88	26
Rural	913	88	194	84	194	86	177	66	177	16
Mothers Marital Status										
Single	185	94	53	91	53	90	49	67	49	8
Married, Cohabitating	1162	93	194	88	194	87	195	69	195	18
Divorced, widowed, separated, other	158	86	25	72	25	84	31	55	31	35
Mothers age at last birthday										
<20 years	121	73	27	85	27	85	31	58	31	13
20-34 years	1198	91	210	86	210	87	219	67	219	20
35-49 years	188	91 *	35	97	35	89	25	76	25	16
Education of mother										
Primary and less	299	81	74	82	74	82	73	71	73	12
Secondary	1033	91	168	89	168	89	177	65	177	21
Above secondary	162	96	26	92	26	88	21	71	21	23
Wealth quintile of household										
Lowest	338	86	77	90	77	87	60	77	60	8
Second	293	92	69	81	69	84	63	73	63	13
Middle	323	90	44	77	44	84	54	52	54	30
Fourth	296	93	48	100	48	96	49	63	49	29
Highest	257	96	34	88	34	85	49	71	49	16
Mothers religion (*)										
Traditional	185	93	30	86	30	83	28	61	28	18
Christian	911	94	173	89	173	88	172	67	172	21
Apostolic Sect (i)	313	79	56	84	56	84	64	69	64	13
Other (Muslim, None)	78	92	13	92	13	92	11	55	11	18
Household income and assets										
Mean h/hold income US$	1507	184.3	272	159.9	272	157	275	171.7	275	239.7
with safe water	1303	91	232	91	91	90	241	68	241	18
with safe sanitation	782	91	88	94	94	89	116	71	116	20

(*) = Chi square test p<0.05; all other data not statistically significant (i See footnote 4 overleaf)

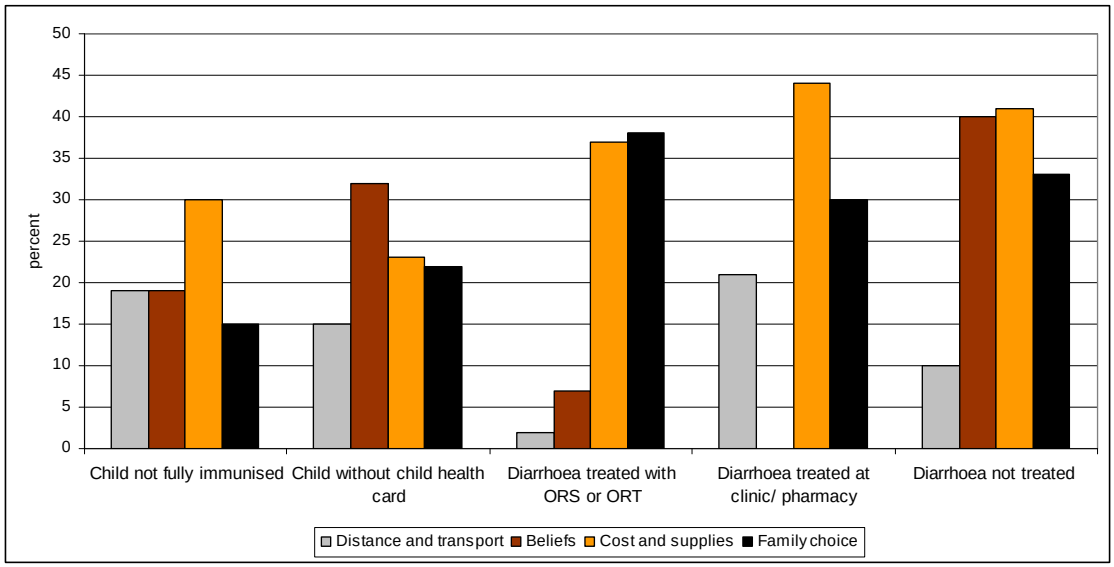
Respondents themselves cited a number of factors influencing their patterns of service use (Table 4.9).. As outlined earlier, reported coverage of selected child health services was relatively high, particularly in urban, older and more educated mothers.

Table 4.9 Community cited barriers to child health services

Outcome	**No**	**% citing**					
		Distance/ transport to facility	Cultural/ religious beliefs	Costs and availability of supplies	Health worker advice	Partner/ Family choice	Oppor-tunity costs
Child not fully immunised	29	19	19	30	0	15	19
Child without child health card	155	15	32	23	Na.	22	n.a
Diarrhoea treated with ORS or ORT	163	2	7	37	Na	38	4
Diarrhoea treated at clinic/ pharmacy	43	21	0	44	Na	30	1
Diarrhoea not treated	10	10	40	41	Na	33	2

There did not seem to be a strong area or wealth gradient in these services, particularly in possession of a child health card and full immunisation. For those not covered by the selected services, cost was most frequently cited as the major barrier, together with influence of partners or family.

Figure 4.5 Community cited barriers to child health services



]

Table 4.10 explores further the reasons for not having a child health card. The most common reason given is due to cultural and religious beliefs, the frequency of this being statistically significant (Chi Squared $p<0.01$). The main religious group raising this was Apostolic. As noted below, cultural / religious beliefs were not significant factors in other aspects of child health, such as whether children had diarrhoea ($p>0.05$), or in the management of diarrhoea ($p>0.05$)[4]. A strong association with the apostolic faith was not found with these factors. In all of these issues other socioeconomic, availability and access factors had greater influence, as discussed below.

While 'not attending child health' is more common for poorer, rural mothers than wealthier urban mothers, the differences are not statistically significant. The influence of partners appears to be greater in higher wealth quintiles.

There were statistically significant differences in the distances to the nearest clinic, hospital and time taken to visit a facility across the groups of respondents who raise different factors, with not attending child health more common where distances and time taken are longer.

The most common reason given in the interview survey by respondents for children not being fully immunised was vaccine availability (30% of those not immunised), for both rural and urban areas. Lower wealth quintiles also raised cultural beliefs and costs of lost work time although the findings were not statistically significant. The most common reason given in the interview survey by

[4] Child health cards were recorded as produced and seen. Immunisation was as reported by the mother and verified on the Child Health Card. Verbal reporting of measles and full immunisation in Apostolic households was however 5% points higher than possession of a Child Health Card. This was recorded but it was not possible to verify this immunisation status. If it is assumed in the analysis that if no child health card was shown then no immunisation is possible then immunisation is also significantly lower in Apostolic women. However as they may be other reasons for not being able to show the Child Health Card – eg women may not want to be open about it – we show the reported immunisation in the table. If the verbally reported rates are used then rates do not significantly differ for this group. Apostolic women may also feel that they *should* report their children as being immunised. This needs further more focused inquiry.

respondents for children with diarrhoea in the past two weeks not being given ORT or medical care for diarrhoea was cultural beliefs and costs (40% and 30% respectively) although the numbers were very small (10) and the findings not statistically significant.

"There is not enough information on child health services for those who do not visit clinic regularly. Most child medicines are prescribed and parents have to buy them. The poor mothers struggle to buy them."

Urban health worker

Table 4.10 Barriers to child health card possession

Background Characteristic	No	Percent of children less than five years without a child health card citing reason for not having health card as					
		Not available at facility	Not obtained from facility	Lost card	Cultural/ religious beliefs	Not attending child health	Partner/ family member has it/ other
Total	155	8	7	23	32	7	22
Residence							
Urban	56	2	5	29	32	0	32
Rural	99	12	8	20	32	11	16
Wealth status							
Lowest	38	5	8	21	39	16	11
Second	25	16	4	24	32	8	16
Middle	36	17	8	17	28	6	25
Fourth	25	4	12	36	16	4	28
Highest	31	0	3	23	42	0	32
Religion							
Traditional	14	25	0	17	0	25	33
Christian	65	10	12	35	8	0	35
Apostolic Sect	68	7	4	17	54	4	13
Other (Muslim, None)	8	0	25	38	0	25	13
Health status and services							
Ave Distance in km to nearest clinic (**)	155	3	5	3	4	15	6
Ave Distance to nearest district hospital in km (**)	155	30	39	21	15	14	17
Saw a VHW in past month (*)	155	31	18	56	24	18	15
Ave amount paid for transport for last visit in US$	155	5	1	2	1	1	1
Ave time taken to reach facility for last visit in minutes (**)	155	49	45	40	15	175	46

(**) t test p<0.01 (*) Chi square test p<0.01

In the key informant interviews, children were reported by community leaders to suffer reactions to vaccines and that this and medicine stock-outs was a reason for people not using services.

"Having kids vaccinated has resulted in some reactions in some children and any negative reactions have no remedy. As a result we lose the kids because of these programmes. The poor who cannot take their kids to private doctors are most affected"

Rural community leader

Key informants from local government and health workers identified transport, beliefs and facility charges as barriers to use of child health services.

"Inadequate medicines at clinics and mothers lacking resources to pay user fees is a major issue, especially in households with unemployed breadwinners and elderly headed households"
Children's non government organization official

4.4 Women's health and health care

While the sample included women pregnant at any time in the past year, only 18% were currently pregnant. Of the total sample nearly half indicated that the pregnancy was not wanted or wanted later, which is a high share. This was more commonly reported in rural, poorer, single and divorced women (significantly so in relation to wealth and age) (Table 4.11). It was not significantly associated with religion (p>0.05).

Table 4.11 Women's Health by household, mothers features

	Currently pregnant		Pregnancy not wanted (wanted later or not wanted)		Modern Contraceptive used (i)		Desired contra-ceptive used	
Background Characteristic	No	%	No	%	No	%	No	% total
Total (N=1018)	183	18	478	47	825	81	855	83
Residence								
Urban N=384	58	15	134	35	311	81	319	83
Rural N=634	127	20	342	54	514	81	526	83
Mothers Marital Status								
Single N=153	14	9	112	73*	115	75	127	83
Married, Cohabitating N=758	152	20	311	41	629	83	629	83
Divorced, separated, widowed, other N=105	21	20	62	59	81	77	85	81
Mothers age at last birthday								
<20 years N=89	11	12	3	3	58	65	77	86
20-34 years N=796	159	20	374	47	661	83	653	82
35-49 years N=133	16	12	57	43	106	80	109	82
Education of mother								
Primary or less N=213	40	19	106	47	166	78	173	81
Secondary N=672	121	18	316	47	551	82	558	83
> secondary N=116	19	16	52	45	99	85	99	85
Wealth quintile of household								
Lowest N=204	20	10	141	69 *	173	85	171	84
Second N=204	45	22	118	58	159	78	163	80
Middle N=203	59	29	87	43	160	79	164	81
Fourth N=205	41	20	68	33	166	81	178	87
Highest N=202	18	9	77	38	166	82	164	81
Household income and assets								
Mean household income		172.5		150.5		180.5		181.6
with safe water N=882	150	17	406	46	714	81	767	87
with safe sanitation N=496	79	16	188	38	397	80	397	80
Number of living children of mother								
1-2 N=552	121	22	276	50	420	76	464	84
3-4 N=443	58	13	195	44	390	88	363	82
5+ N=23	1	4	15	65	19	83	13	58 **

(i)Includes female and male sterilisation, pill, IUD, injection, implant, male and female condom, diaphram,foam/jelly, lactating and rhythm method

* Chi square test p<0.01 ** Chi square test p<0.05

Very few women in the under 20 year age group reported that they did not want their pregnancy. Not surprisingly use of modern contraceptives was generally high (81%). Lowest contraceptive uptake was in young single mothers and highest in married women with secondary education 20-34 years old, and in poorest wealth quintile, although the variation is small across all. Contraceptive uptake was high as was the percent of women indicating that they were using the desired contraceptive, indicating relatively low service barriers for this area of reproductive health (This is further discussed with Table 4.13).

As shown in Table 4.12, other areas of women's health care are less evenly distributed across women's social and economic features. Urban women had significantly higher use of ANC, but significantly lower levels of attendance of their *desired* service and lower levels of attendance than they desired compared to rural women (Table 4.12). Married, older, more educated and wealthier women were also significantly more likely to attend ANC. Religion was associated with frequency of ANC uptake (lowest for 4+ times in Apostolic) and those with 'traditional' religions had lower uptake of ANC, Family planning desired and delivery.

Table 4.12: Indicators of women's health care uptake by household and mothers features

	Times attended ANC in past year		**ANC attendance**		**Those seeking FP attending service wanted**		**Those seeking ANC attending service wanted**		**Those seeking delivery attending service wanted**	
	1 or less times (%)	4 or more times (%)	Mean times atten-ded	Mean times wished to attend	# need-ing FP	% attending service wanted	No need-ing ANC	% attend-ing ANC	# need-ing delivery	% atten-ding delivery
Total	10	66	4.5	6.2	784	70	813	72	771	65
Residence										
Urban	9	72**	4.8	6.6*	274	62**	323	60**	312	51**
Rural	11	62	4.2	6.0	510	74	490	80	459	75
Mothers Marital Status										
Single	8	58	4.2	5.7**	123	67**	112	80**	104	80**
Married, Cohabitating	11	68	4.6	6.4	593	73	625	72	593	63
Divorced, widowed separated,	8	62	4.1	6.2	68	49	76	59	74	60
Mothers age at last birthday										
<20 years	19	54*	3.6**	5.8	64	86**	78	78	72	67
20-34 years	10	66	4.4	6.3	623	69	656	72	626	65
35-49 years	6	69	5.0	6.4	97	65	79	68	73	66
Education of mother										
Primary and less	19	56**	3.7*	5.8*	177	75**	161	88**	156	75*
Secondary	9	66	4.5	6.3	525	71	572	69	538	63
+ Secondary	3	85	5.5	6.9	82	50	80	63	77	62
Wealth quintile of household										
Lowest	9	62**	4.3**	5.9**	184	63**	129	88**	126	88**
Second	14	52	3.9	6.1	163	81	175	82	166	76
Middle	12	65	4.2	6.0	142	83	169	73	151	64
Fourth	10	66	4.7	6.8	154	68	177	68	171	60
Highest	6	84	5.2	6.5	141	55	163	52	157	42
Religion										
Traditional	7	69	4.7	6.5	103	48**	76	57**	75	52
Christian	7	70	4.7	6.4	412	71	479	70	422	67
Apostolic Sect	22	52*	3.7	5.6	137	80	146	85	145	67
Other,Muslim,None	11	60	4.1	6.3	33	80	43	75	36	64
Household income and assets										
Mean household income US$	136	202.0 *			784	153.7**	813	158.7**	771	155.7**

** p<0.01 * p<0.05 Chi test for group data, t test for means

Report of attending the family planning service desired was significantly lower in single, older, educated and wealthier women. Report of attending the ANC and delivery service desired was significantly lower in divorced, educated and wealthier women.. This gap between desired service and service used may relate more to the desire in wealthier, urban groups to use private providers than to barriers to public services in these groups.

As noted above, 81% of women reported having used a modern contraceptive and 83% were on the contraception they desired. Table 4.13 below shows that the main reason given for the choice of contraception is availability at the health facility (59%), followed by partner or health worker advice (29%) with availability being a significantly stronger determinant for lower wealth quintiles and rural women, and partner/ heath worker advice significantly higher in urban, wealthier women. Religion was not raised as a major factor in this decision. Mothers' marital status, education and the distance to services did not have a significant association with the reason given.

Table 4.13 Community cited reasons for choice of contraceptive use

Background Characteristic	**No**	**responses on reason for choice of contraception as**					
		Availability at health facility/ elsewhere	Cost at facility or elsewhere	Cultural/ Religious reasons	Partner/ Health worker advice	Other (i)	
Total	841	59	8	2	29	2	
Residence (**)							
Urban	329	45	13	4	36	3	
Rural	513	68	5	0	24	2	
Mothers Marital Status							
Single	116	69	9	1	20	2	
Married, Cohabitating	643	57	8	2	30	2	
Divorced, separated, widowed, other	83	59	8	0	29	4	
Education of mother							
Primary and less	179	69	6	4	18	2	
Secondary	565	57	8	1	31	3	
More than secondary	98	51	11	0	36	2	
Wealth status (**)							
Lowest	180	79	3	1	17	0	
Second	158	65	6	0	27	3	
Middle	153	58	9	0	28	5	
Fourth	173	46	11	2	39	1	
Highest	178	47	11	6	32	4	
Health status and services							
Ave distance to nearest clinic in km		4.2	4.3	10.0	3.2	3.4	
% saw a CBD in past month	842	27	7	13	34	38	
Ave time in minutes to reach facility for last visit	842	48.5	59.7	240.0	40.5	55.6	

NB: multiple responses possible i.e one woman could use more than one method and have a different reason for each method so the totals are the combined frequencies

(i) Other includes 'easier to use' and 'perceived to be safe'

(**) Chi square $p<0.01$

The main reason given by both rural and urban respondents across all education levels for the choice of delivery site was availability at the health facility of staff and medicines (51%), followed by access (transport and cost). Cost was a more significant factor for example for Apostolic sect respondents than beliefs. Acceptability was a significantly stronger determinant for lower wealth quintiles and cost and availability of supplies and staff significantly higher in wealthier women (Table 4.14). Distance and time to reach the facility were significantly higher in those citing availability of staff and supplies as a factor ($p<0.01$) , confirming that people will travel longer distances to access such services, especially in the higher wealth quintiles when they can apply resources to do this.

A significantly higher share of those who saw a VHW in the past month noted that their choice was made on referral by a health worker (p<0.01), suggesting an important role for VHWs in referring deliveries. The same did not apply to CBDs.

Table 4.14 Respondents reasons for choice of delivery site

Characteristic	No	responses on reason for choice of place of delivery as (C20)				
		Availability & access: cost, distance, transport	Availability: staff, drugs, quality of care	Cost: consultation medicine, other	Acceptability: beliefs, partner / family choice	Referred by health worker
Total	678 i	27	51	8	6	8
Residence						
Urban	276	24	52	17	3	3
Rural	402	29	50	2	8	11
Mothers Marital Status						
Single	82	8	61	8	8	15
Married, Cohabitating	535	30	49	9	6	7
Divorced, separated, widowed, other	61	29	58	5	5	3
Education of mother						
Primary and less	134	28	47	4	12	9
Secondary	477	27	51	10	5	8
More than secondary	67	27	59	6	5	3
Wealth status **						
Lowest	92	12	49	2	14	22
Second	151	28	53	1	6	12
Middle	142	39	48	4	6	3
Fourth	147	37	44	14	2	3
Highest	146	14	61	18	4	3
Religion						
Traditional	77	29	60	8	4	0
Christian	423	26	52	7	7	9
Apostolic Sect	147	27	44	14	6	10
Other (Muslim, None)	38	37	50	5	3	5
Place of delivery used (ii)						
Public/ not for profit services (	599	27	52	8	5	8
Private for profit services	16	6	75	0	13	6
Other	69	28	42	12	13	6
Health status and services						
Ave Distance to nearest primary care in km	155	3.3	5.9	2.1	2.8	4.1
Ave Distance to nearest district hospital in km (**)	155	24.8	51.1	11.4	17.1	24.2
% saw a VHW in past month (**)	678	35	27	4	38	51
% Saw a CBD in past month	678	36	15	12	22	22
Ave $ amount paid for transport for last visit		2.3	2.7	1.9	1.8	4.1
Ave time in minutes to reach facility for last visit		42.7	63.5	26.7	42.7	46.5

(i) Total Number of women who needed delivery services in the past year and indicated actual facility used. Not all pregnant women had yet delivered.

(**) Chi square p<0.01

(ii) Chi square p<0.05 for public or private service by wealth

In the key informant interviews poor members of communities were reported by community leaders to face barriers in safe deliveries due to the absence of a waiting mother shelter in one area and transport and distance to services in another, and it was proposed that access barriers could be overcome through service outreach and improved transport facilities. Health workers and women's organisations also raised these problems, as well as culture, religion and stigma in elderly and young people and lack of access to information.

"Youths face cultural barriers, if they are pregnant, they are afraid to come for services early. Chronic patients also need maternal services but sometimes we wont be having their drugs and they go to the hospital which is far. Some of the poor in this area struggle to pay the consultation costs that we charge"
Health Worker, Bulawayo

Key informants *most commonly* proposed that service coverage barriers could be addressed through health education, coordination across providers and agencies, improved transport networks and services, encouraging and enforcing use of services by sects that are dropping out and by ensuring resource support to clinics for mobile services, to ensure care is not charged at point of care and to ensure that all PHC services are available at clinics. The box below shows some examples of statements by different types of key informants on how to address the barriers to service coverage:

Box: Examples of key informant views on how to address barriers to service coverage:
Community leaders stated that we can improve service coverage by….
"…improving the road networks, and if local authorities and central government co-ordinate their efforts in infrastructural development and ensure at least an ambulance in one of the clinics"
".....health education, perhaps through a door to door campaign"
"……law enforcement to compel all sects to use facilities"
".....enforcing the free care policy for mothers and children, ensuring all services required by pregnant mothers are under one roof, having youth friendly services, and programmes in schools and tertiary colleges"

Health workers stated that we can improve service coverage by….
".....establishing waiting mother shelters, ensuring an ambulance service and road maintenance"
".....forcing those who no not use services because of religious and cultural practices, such as Apostolic sect members, to bring their children to services'"

Officials of women and children's non government organisations stated that we can improve service coverage by….
"……..encouraging people to do some informal work to raise money needed for fees"
"…… government providing everything needed to secure life of a mother, newly born baby and nurse at each clinic"
"……..offering maternal health services free with adequate resources provided by government"
".…….mobile clinics going to rural areas to meet mothers and children closer to homes or schools"

4.6 Health service accessibility and cost

The costs for the last childbirth since the dollarization in February 2009 were obtained. From the interview survey the finding was that 81% of mothers delivered at public, or not for profit services, 14% at other providers (traditional/ faith) or home and only 2% at private for profit providers. The data thus primarily reflects the costs in public and not for profit providers and there were insufficient mothers delivering privately to analyse these costs separately. Only 7% of mothers were covered by medical aid, further discussed later.

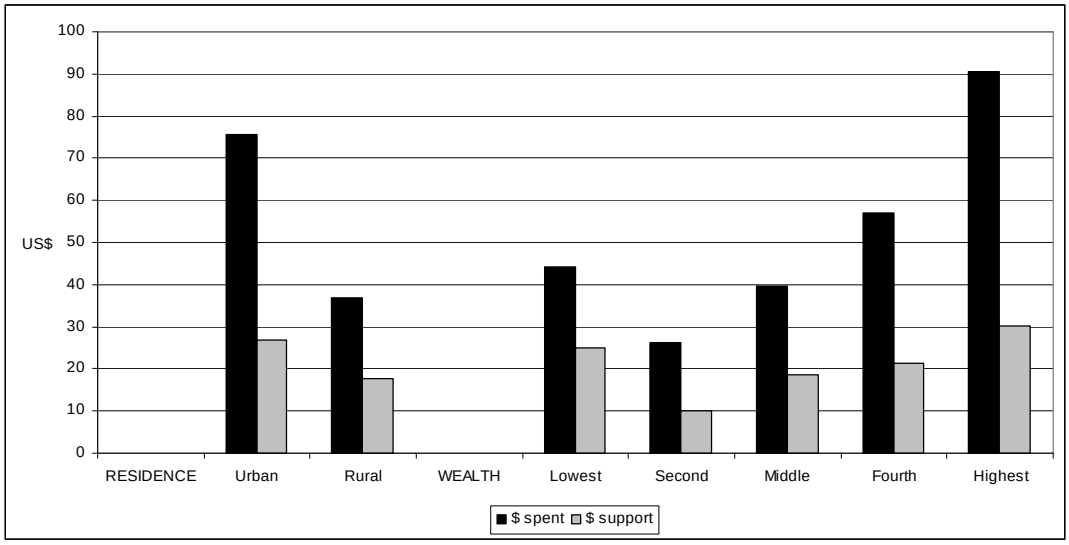
The cost per mother associated with the last childbirth after February 2009 is shown in Table 4.15 and Figure 4.6. The average cost per mother associated with the last childbirth after February 2009 was $51.50 with the majority of this (63%) from consultation fees (Table 4.15).

Table 4.15: Costs for last childbirth after February 2009

	Average US$ spent on					Average US$ received from				
	Consul-tation fees	Trans-port to service	Medicine and supplies	Other items *	TOTAL	Support from family	Other supp-ort **	Borrow-ed funds	Asset sales	TOTAL
Total	32.3	7.4	8.3	3.5	51.5	8.6	4.8	4.6	3.0	21.1
Residence										
Urban	51.0	9.0	8.1	7.6	75.6	9.7	7.7	8.2	1.2	26.8
Rural	20.9	6.5	8.4	1.0	36.8	8.0	3.1	2.4	4.1	17.6
p- value					<0.01					<0.01
Marital status										
Single	30.1	7.6	9.6	2.3	49.7	10.6	7.7	3.9	4.4	26.7
Married, Cohabitating	32.1	7.5	7.8	3.6	50.9	8.0	4.1	4.7	3.0	19.8
Divorced, separated, widowed	36.6	7.0	9.9	4.3	57.7	10.1	5.7	5.1	1.2	22.1
p-value					<0.05					<0.05
Mothers age at last birthday										
<20 years	22.0	4.7	8.0	2.1	36.8	7.3	2.0	3.8	0.6	13.6
20-34years	32.5	7.3	7.4	3.6	50.8	8.1	4.1	5.0	3.5	20.7
35-39 years	37.8	9.9	13.7	4.0	65.4	13.0	10.9	2.9	1.6	28.4
p- value					>0.05					>0.05
Education of mother										
Primary or less	17.8	5.3	7.7	0.9	31.8	5.8	0.8	2.7	2.5	11.8
Secondary	34.3	7.7	8.2	3.7	53.9	8.9	4.2	5.8	3.5	22.4
>Secondary	47.5	9.6	10.4	7.3	74.8	12.9	16.3	1.8	1.0	32.0
p- value					<0.01					>0.05
Wealth quintile of household										
Lowest	20.3	8.4	15.1	0.4	44.2	7.7	7.9	1.3	8.2	25.1
Second	15.7	4.6	4.8	1.2	26.3	5.5	0.5	2.3	1.8	10.1
Middle	25.7	6.3	6.2	1.4	39.5	9.9	1.2	4.2	3.4	18.7
Fourth	36.8	7.0	6.7	6.4	56.9	9.2	3.1	7.9	1.0	21.3
Highest	63.1	10.9	8.7	8.1	90.7	10.9	11.4	7.4	0.4	30.1
p- value					<0.01				<0.01	<0.05

*Other items refer to cotton wool, gloves, buckets, candles, spirit.
** Other support refers to support from church, formal workplace and friends

Figure 4.6: Costs for last childbirth after February 2009



Mothers received some support for these payments (an average of $21.10, and 41% total costs), primarily from family, church and formal workplaces. Costs were significantly higher for urban mothers, and associated with this for more educated and wealthier mothers. Urban (wealthier) mothers also obtained significantly higher levels of support for these costs. Although rural mothers are further from services, as noted earlier, their transport costs were lower on average than urban mothers. Costs and support did not vary significantly by age. While the different types of costs followed this general pattern, there was a significantly higher level of asset sales in the poorest wealth quintile, suggesting that mothers in this poorest group were further impoverishing themselves to meet the costs of childbirth.

While asset sales may be a measure of last resort, there were also other signs of disadvantage due to costs of care. Six percent of urban households and 7% of rural households noted that they were forgoing other needs to meet costs of health, including food (4%); education (1%); recreation (0.6%), clothing (0.4%) and shelter (1%).

Key informants confirmed this picture. They reported a range of charges for services, including for medicines, consultation, maternity, security fees, specialist services and ambulance services. They suggested that despite this people come with chickens, sell assets to meet costs, borrow, carry out informal trade, forgo school fees to meet charges and maternal booking fees, and health workers noted that maternal bookings are on the rise.

"Fee charges discourage people from using services. They forgo payments of rates, school fees or even skip some of their meals or buying bread. Some live completely without seeking any medication"
. Women NGO, Bulawayo

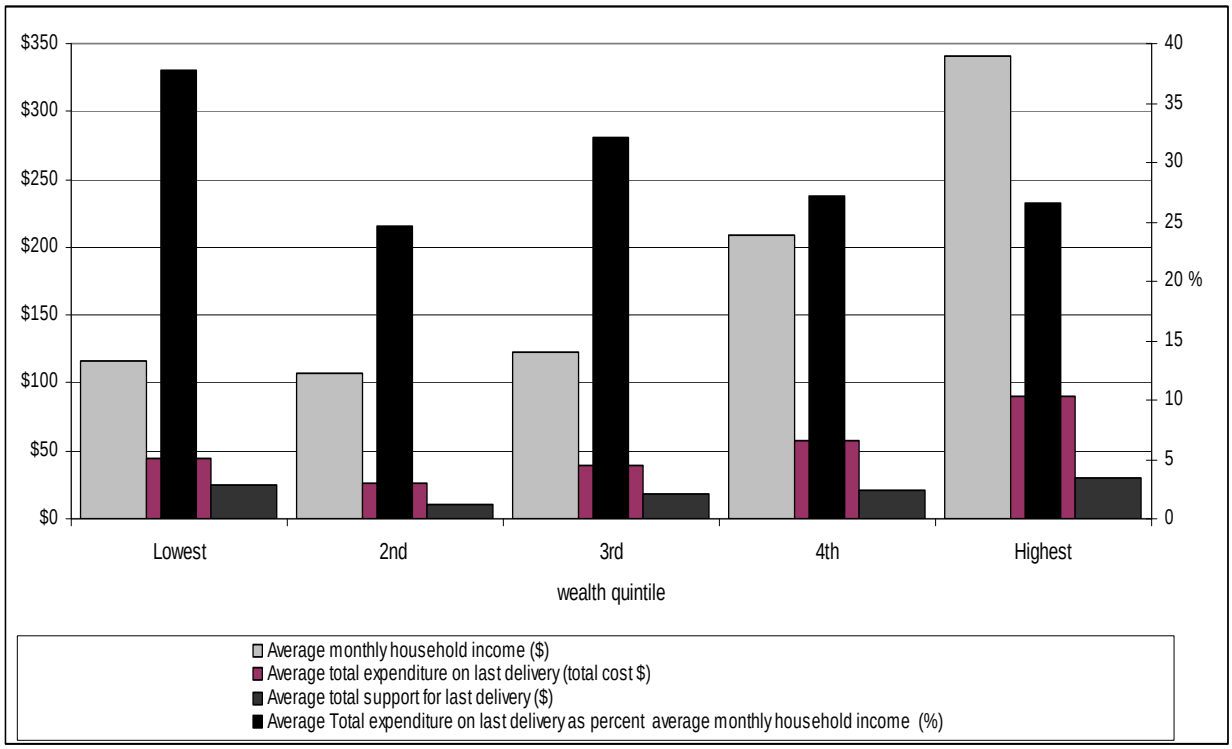
Table 4.16 and Figure 4.7 show the level of health care costs across the different wealth quintiles. The absolute amount spent on the last delivery is higher in the lowest than the second quintile, then rises by wealth quintile after the lowest quintile. However expenditure on the delivery as a share of monthly income *falls* as wealth quintile increases, from 38% in the poorest to 27% in the highest quintile. This indicates that *poorer groups spend a higher share of their income* on these services, which is *highly* inequitable.

Table 4.16 Health care cost vs incomes across wealth quintiles

Indicator	**Wealth quintile**					P value for difference across quintiles
	Lowest	2nd	3rd	4th	Highest	
Average monthly household income ($)	116.6 (i)	106.6	122.8	208.5	341.1	p<0.01
Average total expenditure on last delivery (total cost $)	44.2	26.3	39.5	56.9	90.7	p<0.01
Average total support for last delivery ($)	25.13	10.11	18.74	21.32	30.12	p<0.05
Average Total expenditure on last delivery as percent average monthly household income (%)	37.7	24.6	32.1	27.2	26.6	p>0.05

(i) boosted by two households in the sample having sold cattle to raise money for school, health

Figure 4.7 Health care cost vs incomes across wealth quintiles



As noted above insurance cover to meet these costs was extremely low, at only 7% of mothers. Table 4.17 shows that medical aid scheme coverage was significantly higher in urban areas, in more educated and wealthier mothers. Of the 66 mothers on medical aid, 50% were in the highest wealth quintile and 96% were at secondary level or higher education. Financial need would appear to be highest in the poorest urban mothers, for whom costs are higher – being urban- and support lower. There were no mothers in the lowest quintile in the urban sample in this survey but this does not preclude the presence of such urban poverty and stress in the wider population. Not surprisingly insurance cover was significantly higher in the 2% of women using private services ($p<0.01$).

Table 4.17: Coverage by Medical aid schemes

Membership to a medical Aid Scheme	No	Percentage
Total	1018	7
Residence (**)		
Rural	634	4
Urban	384	12
Education of Mother (**)		
Primary and less	220	1
Secondary	682	6
More than Secondary	116	17
Wealth Status (**)		
Lowest	204	4
Second	204	2
Middle	203	3
Fourth	205	7
Highest	202	16
Service used for delivery		
Public/ not for profit services	632	7
Private for profit services	16	50
Other	120	3

** Chi square test $p<0.01$

4.7 Health service uptake and acceptability

Table 4.18 shows the distribution of the type of facility desired for various heath care needs vs those used. For most services respondents both desired and used public or mission clinics, with limited gap between the levels desiring and using services.

Table 4.18: Health Service use by type

	Service type							
	Public / Mission Clinic	Public/ Mission Hospital	Private clinic	Private hospital	Phar-macy	Traditio nal/ Faith based	Home / none	
Family Planning								
% desiring service type	60	16	6	3	2	0	12	
% using service type	64	16	1	0	3	1	14	
Antenatal Care								
% desiring service type	60	18	9	4	0	0	9	
% using service type	73	15	2	0	0	0	9	
Assisted Deliveries								
% desiring service type	46	25	11	5	0	0	12	
% using service type	50	31	1	1	0	2	15	
Post Natal Care								
% desiring service type	66	14	7	4	0	0	9	
% using service type	80	9	1	0	0	0	10	
VCT								
% desiring service type	55	24	5	0	0	0	16	
% using service type	62	21	2	0	0	0	14	
ARI treatment for under 5s								
% desiring service type	50	16	6	1	0	0	27	
% using service type	55	15	1	0	1	0	27	
Malaria Treatment for under 5s								
% desiring service type	39	19	2	0	0	0	40	
% using service type	40	19	0	0	0	0	40	

Public/ mission hospitals were more commonly desired and used for assisted deliveries and for Voluntary counselling and testing (VCT), and home or no care more commonly desired and used for malaria and ARI treatment. In relation to clinics, levels of use were always higher than desired except for malaria treatment, while aspiration to use services was greater than levels of use for all areas for private clinics and hospitals, and marginally so for public/ mission hospitals in relation to ANC, post natal care and VCT.

While home and no care is common for malaria and ARI, this does appear from the table to be by intent, there are small differences between desired levels and levels of use for home/ no care across all the areas of service delivery in the table. This suggests that the main gap between preference and use of services is in relation to private services generally and hospital care for ANC, PNC and VCT. In the main the gaps are small, and probably most pronounced in relation to the desired use of private clinics for deliveries. Generally people would shift from using public/ mission clinics to these services if they could.

As shown in Table 4.19, wealth quintile is the respondent feature most commonly associated with significant differentials in service use across all types of services, with markedly different shares of people using the desired service in the lowest wealth quintile. Urban and more educated mothers have significantly lower use of desired services for family planning, ANC and deliveries, but significantly higher for VCT and malaria. Older, separated/divorced mothers have lower use of desired services for most services.

Table 4.19: Respondent features and Service use

Number and percent using desired service	Family planning		ANC		Deliveries		VCT		Child malaria treatment	
	No	%	no	%	no	%	no	%	no	%
Total	784	70	813	72	771	65	692	74	297	74
Residence										
Urban	274	62**	323	60**	312	51**	161	85**	28	92**
Rural	510	74	490	80	459	75	531	70	269	66
Mothers Marital Status										
Single	123	67**	112	80*	104	80**	112	75	76	71*
Married, Cohabitating	593	73	625	72	593	63	510	75	190	78
Divorced, separated, widowed, other	68	49	76	59	74	60	70	68	31	58
Mothers age at last birthday										
<20 years	64	86*	78	78	72	67	64	85*	29	90**
20-34 years	623	69	656	72	626	65	533	75	217	76
35-49 years	97	65	79	68	73	66	95	64	51	50
Education of mother										
Primary and less	177	75**	161	88**	156	75*	172	75	100	69**
Secondary	525	71	572	69	538	63	456	75	160	79
More than secondary	82	50	80	63	77	62	64	71	37	60
Wealth quintile of household										
Lowest	184	63**	129	88**	126	88**	184	63**	162	54**
Second	163	81	175	82	166	76	160	82	78	89
Middle	142	83	169	73	151	64	168	67	19	74
Fourth	154	68	177	68	171	60	109	83	21	89
Highest	141	55	163	52	157	42	71	82	17	83
Household income and assets										
Mean household income US$		153.6 **		158.7 **		155.7 **		157.1		143.1
with safe water source	784	71	813	71	771	65	692	76	297	78
with safe sanitation	784	63	813	60	771	52	690	76	297	76

* Chi square test p<0.05; ** Chi square test p<0.01

Table 4.20 overleaf indicates that there is no significant difference in the distribution of service type by provider type nor in the mean waiting times for services across the different providers, although waiting times in public and mission services appear to be longer than private. Service use across providers also does not differ significantly by residence, education of the mother or wealth. There is a significant difference in transport used for different providers, with greater use of bicycle, foot and scotch-cart for public clinics, of cars and ambulance for mission / public hospitals and of own car for private clinics.

The reported transport and consultation costs were significantly higher in private services (p<0.01). Satisfaction levels were higher for private clinics and hospitals, and lowest for public/ mission hospitals, and the differences were significant (p<0.01).

All key informants except community leaders raised the issue of service fees suggesting that fee barriers needed to be reduced, particularly at clinic level, but also noted that these were not the only barriers. Services needed to be reliable and adequately resourced.

"The central government should provide sufficient funds to all health centres so as to relieve this burden from the citizens, more so in rural areas, where most of the poor people live"

Rural community leader

"At clinic level, services must be free for pregnant mothers and children. At hospital, the government should subsidise the cost"

Health worker

Table 4.20: Service use patterns for last PHC visit N=882)

Background Characteristics	Public/ Mission clinic	Public / mission hospital	Private for profit clinic/GP/ pharmacy	Private hospital	Traditional / Faith based	Home / no care	Total
Total	77	17	3	0	2	1	100
Type of service							
Emergency Treatment	67	31	3	0	0	0	100
Non Emergency Treatment	71	19	4	0	3	3	100
Chronic Care	87	13	0	0	0	0	100
ANC, Delivery, Post Natal, Other	81	13	3	0	2	1	100
Ave waiting time in minutes for consultation	58.8	46.0	24.5	20.0	16.8	17.3	54.6
Ave times revisit in past year for same treatment	2.3	2.2	2.5	1.5	0.9	3.1	2.3
Residence							
Urban	82	11	4	1	2	0	100
Rural	74	20	2	0	1	3	100
Education							
Primary or less, D/K	75	16	1	0	5	2	100
Secondary	79	16	2	0	1	2	100
Higher than secondary	70	21	8	1	0	0	100
Wealth Status							
Lowest	68	29	1	0	2	1	100
Second	75	18	2	0	1	4	100
Middle	81	14	1	0	1	3	100
Fourth	82	12	4	1	2	0	100
Highest	81	10	6	1	2	0	100
Transport Used *							
Public Transport	52	44	3	0	1	1	100
Car	36	22	39	3	0	0	100
Ambulance	44	49	4	1	1	0	100
Foot, Wheelbarrow, Scorch cart	93	3	0	0	2	1	100
Bicycle, other	55	23	0	0	0	23	100
Average payments made US$ **							
For Transport	1.3	4.8	8.4	5.0	0.9	0.4	2.1
For Consultation	2.9	6.9	44.3	0.0	3.1	0.5	4.7
For Medicines	1.9	7.6	25.7	12.5	6.3	0.4	3.6
Total payments (i)	6.0	19.3	80.9	17.5	11.6	1.6	10.4
Perceptions							
% satisfied	81	79	96	100	81	89	81

*Chi square p<0.01 for transport used by provider type **ANOVA p<0.01 for payments made by provider type

They noted the need for all primary care services to have a comprehensive range of services available under one roof, but also that some communities were too remote and needed mobile outreach services. Beyond this communication between staff and communities and more active outreach was noted by key informants to be important to encourage service uptake.

"Lets encourage good mother health worker interactions. Medicines for children should be prioritised. Services for mothers and children should be provided simultaneously. The policy for children not to pay is good and should be there forever"

Rural health worker

4.8 Community perceptions of barriers and facilitators to health service uptake

Communities were asked for their own perceptions of facilitators and barriers using a likert scale to indicate the strength of their agreement and disagreement with the statements given. Table 4.21 overleaf shows that generally respondents did not agree that district hospitals should charge for *all* health services (without specifying the type of care). There was further strongest agreement that pregnant women and children under 5 years specifically should not be charged for health services at clinic and hospitals. A relatively strong view was thus found in community respondents against charges at point of care at primary care and district hospital level, both for pregnant women and children and more generally.

There was some variation in views by social group or service access. All social groups agreed that pregnant women and children under 5 years should not be charged for health services at clinic and hospitals. While most social groups disagreed with district hospitals charging for services, this in the lowest wealth quintile and living far from district hospitals were more neutral in their view.

Those in the lowest wealth quintile had higher agreement that their public services were adequate and that communities should contribute to their care. This may be a view that is more widely held in rural communities. Those in higher wealth quintiles disagreed more strongly that people had enough information to manage their health. Users of public and mission services had similar views and also felt that while costs are a barrier to women and children using services, communities should contribute to their services. They also agreed more strongly with the statement 'private care costs but provides better quality care' than users of private care services. Users of private care services had a much poorer perception of public services than others, despite their being affordable, seeing the services as less adequate, informative and with poor communication to patients.

Table 4.21 Community perceptions of services

NUMBER	N= 990	N=204	N=202	N=741	N=254	N=877	N=43	N=131
	All	wealth quintile		distance to nearest clinic		users of services		those borrowing funds to use services
Average rating for		lowest	highest	<5km	>5km	public/ mission	private for profit	
E1 The public clinics in my area provide the services we need	2.4	1.7	2.8	2.6	1.8	2.7	3.2	2.7
E2. The public hospitals in my area provide the services we need	2.4	1.7	2.9	2.6	1.8	2.8	2.8	2.7
E3. The public health services in my area are easy to reach	2.5	2.2	2.4	2.5	2.3	2.5	2.7	2.8
E4. The public health services in my area are not affordable	2.7	2.1	3.1	2.9	2.2	2.8	3.1	2.9
E5. The public health services in my area are of acceptable quality	2.5	1.9	3.0	2.7	1.9	2.6	3.0	2.9
E6. The health workers at public health services in my area treat patients well	2.4	1.8	3.0	2.6	1.9	3.0	3.1	2.8
E7. The health workers at health services in my area communicate with patients	2.3	1.8	2.8	2.5	1.9	2.5	3.0	2.6
E8. There is adequate community information and outreach for health	2.7	2.0	3.4	2.9	2.1	3.2	3.0	3.3
E9. Clinics should not charge for any health services	2.0	1.7	2.7	2.1	1.7	2.0	1.8	1.8
E10. District hospitals should charge for all health services	3.2	2.5	3.5	3.5	2.5	3.8	3.7	3.8
E11. Pregnant women and children under 5 years should not be charged for health services at clinic and hospitals	1.5	1.6	1.6	1.5	1.5	1.6	1.5	1.5
E12. Private care costs but provides better quality care	2.3	2.5	1.9	2.2	2.5	1.6	2.4	2.0
E13. Communities should contribute to health care	1.8	1.5	2.1	1.9	1.5	1.4	1.9	1.8
E14. The costs of health care are stopping women and children from using services	2.0	2.7	1.9	1.9	2.5	1.6	1.5	1.5

Responses 1= Strongly agree; 2= agree; 3 = no firm opinion; 4 = disagree; 5= strongly disagree The average ratings shown for the category

We also asked the key informants their perceptions of services, and their views are shown in Table 4.22 below. As for communities, overall there was agreement that pregnant women and children under 5 years should not be charged for health services at clinic and hospitals and disagreement that district hospitals should charge for all health services, ie views around costs of care. There was some variation in views by type of key informant. Community leaders had the strongest views, seeing their services as inaccessible, with inadequate outreach, although with good treatment by health workers.

Table 4.22 Key informant perceptions of services

	Category of key informant					
	Commu-nity leader N=3	Health worker N=11	Local govern-ment rep N=4	Children/ Women NGO N=4	Other N=2 funder & traditional midwife	Total N=24
C1 The public clinics in my area provide the services we need	2.7	2.0	2.5	3.0	3.0	2.4
C2. The public hospitals in my area provide the services we need	3.0	2.2	3.0	3.3	2.5	2.6
C3. The public health services in my area are easy to reach	4.7	2.3	2.8	2.5	2.0	2.7
C4. The public health services in my area are not affordable	2.3	2.7	3.3	2.3	2.5	2.7
C5. The public health services in my area are of acceptable quality	2.3	2.0	2.0	3.3	3.5	2.4
C6. The health workers at public health services in my area treat patients well	1.7	1.9	2.3	3.0	2.0	2.1
C7. The health workers at health services in my area communicate with patients	1.7	1.7	1.5	1.8	2.0	1.7
C8. There is adequate community information and outreach for health	3.7	3.2	2.3	2.3	3.5	3.0
C9. Clinics should not charge for any health services	2.3	3.1	2.3	2.0	3.0	2.7
C10. District hospitals should charge for all health services	3.3	3.0	3.5	2.0	3.5	3.0
C11. Pregnant women and children under 5 years should not be charged for health services at clinic and hospitals	1.0	2.0	1.3	2.8	1.5	1.8
C12. Private care costs but provides better quality care	3.0	2.4	2.3	2.5	3.0	2.5
C13. Communities should contribute to health care	1.7	1.6	2.3	2.0	1.5	1.8
C14. The costs of health care are stopping women and children from using services	1.7	2.6	2.0	1.8	1.0	2.1

Responses 1= Strongly agree; 2= agree; 3 = no firm opinion; 4 = disagree; 5= strongly disagree
The average ratings shown for the category

On interview, community leaders reported that their services had improved, but that poor facilities, shortage of qualified staff and medicines still needed to be addressed.

"The services are fair but there is room for improvement especially in the Antenatal Care education given to expecting mothers".

Women NGO representative, Bulawayo

The boxes overleaf provides examples of key informant statements. The text provides the views most frequently expressed.

Local government workers considered their health services to be affordable, but local women and children's NGOs had the view that services were not adequate as related to need and not all of acceptable quality. While community leaders and NGOs felt that the costs of care were stopping some women and children from using services, that communities should contribute to their health services.

Local health workers in the key informant interviews were largely satisfied with services, seeing that communities are participating, medicines are available, although with some staff shortfalls. However local government representatives and women's non government organisations were somewhat less satisfied, citing limited ARVs, transport shortages, medicine stock-outs, inadequate health workers and long queues at points of service with too few services to meet demand.

Key informants pointed to particular problems with male involvement in services, and with particular areas of service delivery, including vaccine shortages; ambulance services; waiting mother shelters ; rehabilitation services, eye care; CD4 machines for ART; and condom distribution.

Box: Examples of key informant views on services:

Community leaders described service issues to address as ….
"… the lack of mothers shelter in health centres, so mothers have to commute back and forth to health centres. Poor people are mostly affected because they end up walking to these centres for days"
"… the long distances mothers travel to access services, and congested waiting mothers shelters. Non availability of ambulances is also an issue. Women in remote rural areas are the most affected"
"…. The lack of ambulances and CD4 counting machines in the area"

Health workers raised barriers to be addressed as….
"….distance to facilities, unavailable waiting mothers shelters for women who come from far away places"
"…. some essential drugs that are sometimes not available"
"…. medicines that are not available for pregnant mothers, as well as gloves used during delivery"
"… mothers' fear of being open with their partners when tested HIV positive, especially in married women"
"….men's active participation in health education"

Officials of women and children's non government organisations identified that improvements still need to be made in ….
"….distribution of condoms, especially female condoms"

Key informants had diverse views on what to do about charges, without a clear view emerging within or across groups of informants. There were three broadly held views across groups,

- To remove fee charges at both clinic and hospital level
- to remove fee charges at clinic level and reduce charges at hospital level, or charge those coming in without referrals- this was the most commonly held view
- to charge at both levels but subsidise those who cannot afford them, or vulnerable groups

Key informants felt that communities should contribute to their health services by providing labour, maintaining infrastructure, participating in services and their planning; mobilising resources for health centres; reporting diseases, sharing information and monitoring treatment of patients within the community. They did not raise direct funding through fees as a role for communities.

Box: Examples of key informant views on community roles:

Community leaders identified that communities can….
"…ensure maintenance of buildings, water and sanitation to avoid inconveniences"

Health workers identified that communities can….
"…be involved in decision making and mobilising resources to support their health services"
"…participate in projects meant for them, such as by moulding bricks"
"….-operate by bringing the children and coming for services at the right times"
Non government organisation officials identified that communities can ….
"…form groups and pay a monthly premium which can be used as a sort of medical aid"
"…as owner of the health centres, play a role in development and monitor treatment of patients"

5. Discussion

In this section we discuss the findings in terms of the four research questions posed.

i. What are the most common barriers to uptake of maternal, neonatal and child health services?
ii. How do the facilitators and barriers to access to maternal, neonatal and child health services differ by residence, wealth and maternal education?
iii. How are communities addressing barriers to uptake of maternal, neonatal and child health services?
iv. What options do communities propose for enhancing facilitators or addressing barriers to uptake of maternal and child health services?

5.1 Characteristics of the sample

Before doing this it is important to note features of the respondents that are pertinent to these findings. While the sample size of 1018 allows for statistical testing across rural urban and wealth groups, the study was implemented in only two rural and two urban districts due to resource constraints. We thus randomly sampled districts from those with highest and lowest performance on relevant socio-economic, health and health care indicators, as discussed in the methods (Table 3.1). The findings are thus likely to represent the range of outcomes and other districts to lie in between. We did not find major sources of bias or error in the methods. We make clear that the survey and informant responses present what is reported by mothers and key informants and thus the conclusions are stronger where we are able to triangulate information from different responses. The research tool used was very long, with many variables, lending itself more to descriptive profiling than analytic work. We thus suggest in the conclusions that any follow up research now give more specific focus in a shorter tool to the issues and relationships that emerge as important from this broader study, and that in doing this a more representative sample is selected.

Notwithstanding the limited number of districts covered, the sample was similar in distribution of its features to that of the 2007 ZDHS and 2009 MIMS. A small urban bias was a reflection of the sample size needed for statistical testing of rural-urban differences. The respondents had stable residence, so we are confident that their status as rural or urban reflects the features of these areas. Generally rural areas had lower wealth, lower income respondents, with lower levels of education. We also noted more apostolic sect women in the rural sample. Urban households had more domestic assets (kitchen goods) and rural more household transport assets (bicycles, scotchcarts) and urban households better access to water and sanitation infrastructure, although not always functioning. However this does not imply that urban areas are wealthy: in fact we also note that while wealth levels are relatively higher in urban areas, 54% earn a monthly household income of below $225 and 91% below $500, suggesting high levels of urban poverty in the sample. Only 9% of urban respondents and 1% of rural respondents earned more than $500 per month as a household (Table 4.4). This is thus a sample largely of poor households, whether urban or rural. We thus refer in places to ‘less poor’ than to wealthier, to avoid a false impression of all but a very small number of these women having wealth.

We found that mothers education was associated with wealth and residence, with more women educated to secondary level and above in urban and higher wealth households. It is not possible to comment on the line of causality, ie whether wealth determines education status or whether education status determines wealth, but it is likely that existing household endowments have generated social stratification that reflect both (ie that children from wealthier households have better possibilities of completing secondary education, obtaining better employment, earning higher incomes and accumulating greater assets). Given this association between mothers education, urban residence and wealth, unless the patterns were visibly different or mothers education is a stronger determinant than wealth or residence, we comment disaggregations along on residence and wealth and the association with mothers education can be taken as a given. We did not find the same association with age or marital status.

5.2 Health needs and equity in coverage

The discussion on barriers and facilitators needs to be put in the context of health needs and equity in health care coverage. In relation to child health needs, comparing to the 2009 MIMS we found in this sample higher rates of child diarrhoea in the past two weeks (27% vs 11%) with significantly higher rates in households without safe sanitation but no differentials by wealth or residence. We found higher levels of reported need for child ARI treatment compared to the 2009 MIMS (46% vs 29%), and significantly higher report of this and of need for child malaria treatment in rural, poorer households. Not surprisingly the rate ratio for rural:urban in need for malaria treatment was 6:1. However it was also 9.9:1 for lowest: highest wealth quintile, and the need for ARI treatment rate ration was similarly high at 2.2:1 for lowest to highest wealth quintile (Table 4.7). In relation to women's health needs, a large share of women (47%) said that they did not want to have the pregnancy, or did not want it then. While this was not significantly different across residence, the lowest wealth quintiles were 1.8 times more likely to state this than the highest (Table 4,11).

It would thus appear that health need was generally high across the whole sample, but particularly in low wealth quintile and rural women and their children. One would thus expect to find their uptake of services greater to meet this greater level of need. Households without safe sanitation had significantly higher risk of child diarrhoea.

This survey shows an improvement in health care coverage compared with similar indicators in the 2009 MIMS survey, with possession of a child health card at 90% vs 74% in the MIMS, immunisation at 87% vs 49% in the MIMS, and diarrhoea treatment with ORT at 67% of children with diarrhoea compared to 35% in the MIMS (Table 4.8). While there are likely to be some differences due to sample size differences, we have reason to believe that there has been an improvement in health care coverage in 2010 and 2011, based on the preliminary findings of the 2010 ZDHS and other reports (TARSC, MoHCS 2011; Zimstat and ICF Macro 2010).

There appeared to be higher equity in child health care coverage than in coverage of women's health. There was little difference across area or wealth groups in coverage with immunisation or in possession of a child health card, although use of ORT was higher in urban areas (Table 4.8). While these services may be more accessible at primary care level, one of the facilitators to uptake may be in mother's greater and more rapid uptake of services for child health problems due to high level of caring for children across all social groups.

The role of religion may be changing, and needs further exploration through more focused inquiry. For those *not* having a child health card (a very small share of the sample), cultural and religious beliefs was the most common reason raised, particularly by Apostolic women. Notably even in this group 79% had a child health card. There was a gap between key informant perceptions and the findings from the household survey. There was, for example, a wide perception amongst health worker key informants that religion (particularly Apostolic) is a barrier to uptake of child health services. However religion was not a significant factor in reported indicators of child health other than possession of a child health card, such as diarrhoeal disease incidence or management, and the findings on immunisation need further investigation. Distance to services, vaccine availability appear to have a more significant influence on child health service coverage. Community leaders in the key informant survey identified negative reactions to vaccines as a key barrier to uptake, while households more commonly reported non availability of vaccines at the time of visiting clinics as a key factor. *This raises two issues: First that there may be a shift in the role of religion in child health that would need to be further assessed through more focused survey, and secondly that perceptions of health system and community spokespersons may not always reflect perceptions or experience of affected communities, which would in key areas need to be gathered through more direct means.*

For women's health, women across all social groups appear to mainly use public services. Uptake appears to be lower, with lower uptake in poorer, less educated, rural women, but more dissatisfaction with public services in higher income, urban women. While there appears to be some inequity in coverage of women's health services, it is also important that higher income groups are

largely not yet segmented into private sector services, and continue to exert demand for quality improvements in the public sector. Only (58%) of women with five or more children indicated that they were using their desired contraception, compared to over 80% for those with less than 4 children, despite the greater need of the former. Less poor, urban women had significantly higher attendance at ANC than rural, (10% points higher) although they were also more dissatisfied with their ANC and contraception services than rural, poorer women (Table 4.12). The majority of the women (89%) reported that they deliver at public and not for profit services, with only 2% of the sample using private services and the rest delivering at home or with traditional assistance. The numbers are inadequate in the private sector uses to assess the relationship with wealth. However medical insurance cover was four times higher in the highest than the lowest wealth quintile and three times higher in urban than rural areas. It was also 17 times higher in mothers with highest than lowest education levels, suggesting that higher levels of education in women opens opportunities for forms of employment that provide access to such financial support (Table 4.17). Mothers education was more prominently associated with indicators of health care uptake and health care coverage than of health need, indicating the importance of this factor in effective use of the available services. This is not different to the findings from other studies, which point to wealthier groups more rapidly and effectively taking up existing health care resources when these are offered on a universal basis (Gwatkin et al 2004). This may reflect some level of inequity in benefit incidence. However, the fact that higher income, more educated women use public services, and are, as found, more likely to express dissatisfaction with public services due to expectations of care, may be important to raise the demand for quality improvements in the public sector. This demand for quality could be lost if such women shifted to use of private services, which would happen if private services become more affordable and if the public sector is not responsive to quality concerns.

It would thus appear that while child health services are more equitable in that those with high health need do not have worse coverage than those with lower health need, the same is not the case for women's health services. This has also been found in other recent reports focused on equity in health in Zimbabwe (TARSC, MoHCW 2011)

5.3 Availability and physical facilitators and barriers

Distance to services and availability of supplies at facilities are the major barriers in PHC services.

The findings show that rural areas have significantly longer distances to travel to access services than urban, with clinics 3.2 times further (6km vs 1.9km); and hospitals 1.4 times further (38.1km vs 26.6 km). Equally poorest households travel 4.2 times the distance to access a clinic and 4.4 times the distance to access a hospital. These differences in distance are important as the findings show (in Table 4.14) that not attending child health was significantly more commonly reported where distance to services and travel times to facilities were longer. Waiting mother shelters were noted to be an important support for mothers who travel long distances to access equipped maternity services.

Availability of vaccine supplies was cited as a significant reason for not being immunized in both rural and urban areas (30% of those whose children were not immunized citing this) and stockouts were noted by key informants. Availability of contraceptives at facilities was cited as the most significant barrier in coverage with the desired contraceptive (59% of those not covered), more in rural areas (68%) than in urban (45%), and more commonly cited in the lower wealth quintiles. Distance was less an issue that availability of supplies.

While rural people face a disadvantage in the availability and proximity of their services, the survey showed that they do have significantly greater contact with the range of community health workers (VHWs, CBDs, EHTs) and that this contact is important for supporting their uptake of services. The poorer community health worker presence in urban areas particularly disadvantages uptake in the poorest urban households. Poorest quintile women reported 3.7 times the level of contact with VHWs than their urban, highest wealth quintile counterparts, 2.5 times the contact with EHTs and 2.7 times the contact with CBDs. Rural women reported 3.3 times the contact with VHWs than urban, 1.7 times the contact with EHTs and 1.7 times the contact with CBDs (Table 4.6). Seeing a

VHW was significantly associated with having a child health card and was a factor in choice of place of delivery, as discussed under social facilitators later. The weak provision of urban primary health care services has been noted in other reports (TARSC, CWGH 1999), but this survey shows that this gap in urban areas is likely to have a significant bearing on service uptake and coverage in the poorest urban households, to their disadvantage.

5.4 Accessibility and financial facilitators and barriers

Cost was the most frequently cited barrier in relation to gaps in coverage of immunization, ORT treatment in all areas; and in desired contraceptive use in urban wealthier households. For maternal health delivery services, poor availability of staff and resources at primary care services, and thus transport costs to more distant services were raised as barriers. With only 7% of the total sample covered by insurance, and these in the higher wealth quintiles and urban women, most households make payments to services through out of pocket spending based on charges that apply at the time of care. Zimbabwe has a policy of 'free health care' at primary care level, but it is well documented that this policy is not comprehensively implemented and that even where consultation fees are not charged, there may be costs of medicines, transport and other necessary supplies., especially when these have to be privately purchased when not available in facilities (TARSC, MoHCW 2011).

With 81% of mothers delivering at public, or not for profit services in the sample, cost information largely relates to these providers. The average total costs of the last delivery (post dollarization in 2009) in this survey was $51.50, of which 63% was from consultation fees (Table 4.15). For urban areas the cost of $75.60 was double that of rural, primarily as the consultation fee was also double that of rural areas. This average cost was 29% of the average monthly income. If spread over an approximately 6-7 month period it means that 4-5% of monthly income has to be used to meet these costs.

While the costs of maternal health (pregnancy and delivery) for those in the highest wealth quintile was double the costs of those in the lowest, the findings show that this cost burden is not progressive. Poorer groups spend a higher share of their income on maternal health services, which is highly inequitable. The survey indicates that this cost burden on lower income households is not affordable and is leading to asset sales and possibly impoverishment in the lowest income households:

- There was no difference in the level of support received between high and low wealth quintile women, indicating that women in lower wealth quintiles do not have greater access to measures for financial protection to meet costs, which is a feature of equitable financing;
- Further asset sales to meet delivery costs were *twenty one times* higher in the lowest wealth quintile than the highest (Table 4.15) indicating the stress that these poorest households may be facing in meeting these charges. While the sale of assets was 3.4 times higher in rural than urban households, it is likely that urban households in the lower wealth quintiles who face higher charges also experience stress from these higher charges. The system is thus not protecting against impoverishment due to health care charges, which is a further feature of equitable financing.
- While the absolute amount spent on the last delivery rises by wealth quintile after the lowest, the expenditure on the last delivery as a share of monthly income *falls* as wealth quintile increases, from 38% in the poorest to 27% in the highest quintile. This indicates that *poorer groups spend a higher share of their income* on these services, which is *highly* inequitable.

It appears that maternal health charges are extremely high for the poorest households. There was also a gradient of average costs for use of other PHC services for the last visit between clinics ($6); hospitals ($19) and private primary care $81), (Table 4.20). However, but the significantly higher public sector costs for maternal health services would appear to be one factor explaining the greater inequality found in women's health services than in child health service.

While the lowest quintile households in rural areas seem most affected by the lack of financial protection, it is also likely that urban households in the poorer quintiles who face higher charges and have no insurance are equally vulnerable. Both groups merit attention for improved financial protection, covering consultation and medicine charges and backed by resources to ensure that supplies are available at services accessible to these groups. This is not simply a matter of lifting consultation fees, although this is clearly a major aspect. The finding that the lowest wealth quintiles spent $15.10 on medicines for deliveries compared to $4.80 in the next higher quintile and $8.70 in the highest suggests that this poorest group may be using services where such supplies are not available and thus forced to purchase them, further adding to their cost burden. They may also have higher levels of ill health demanding greater spending on medicines. Hence financial protection measures would need to cover both consultation and medicine charges *and* availability, noting the problem of stockouts raised earlier.

5.5 Acceptability and social facilitators and barriers

Most women reported using the services desired, although with greater desire than use in relation to hospitals vs clinics and in relation to private vs public services. In the case of hospitals this appears to relate to concerns raised earlier of availability of supplies, and is particularly pronounced in relation to ANC, deliveries and VCT, while in relation to private services there is a perception that private services offer better quality care.

Patterns of service uptake are affected by cost and availability issues as raised earlier. However social facilitators and barriers were cited in some cases. Religious and cultural beliefs influenced possession of a child health card, family and partner influence was the second most commonly cited reason for non uptake of immunization, use of ORT and possession of a child health card, and social beliefs to influence whether to treat diarrhoea with ORT. Partners and health workers were reported to have influential bearing in decisions on contraceptive use, moreso in urban, high income women. There was a key informant perception that negative physical reactions to vaccines in children deterred parents from immunization.

As noted earlier, the relative weight of these social factors would need to be assessed through more focused inquiry, but this survey suggests that economic, access and availability factors have stronger influence on uptake and coverage of child and maternal health services and that social factors can be positively influenced by social communication, such as by community health workers.

More positively, as noted earlier, households were found to have significantly higher possession of a child health card if they had seen a VHW and other community health worker, and VHWs were also reported to be influential in choices of place of delivery. The presence of PHC workers, the communication between health workers and clients and the role of social networks generally does thus appear to have a bearing on whether to use services and which services to use, even while cost and other factors can then affect the ability to act on that decision.

Satisfaction with services was wealth related, with less poor and urban groups less satisfied than poorer, rural women. Urban, highest wealth quintiles and educated women were least satisfied with public services, especially for ANC, family planning and deliveries, although less so for malaria treatment and VCT. This has been found in other surveys, and appears to relate to rising expectations with increased education, awareness of rights and opportunity, and greater demand on services where spending is higher (TARSC, CWGH 1999).

While it may appear that this is not a concern, given the concentration of dissatisfaction in less poor groups, as noted earlier, if these higher income groups migrate out of public services, their demand for and contribution to quality of care in public health system is lost, as is the solidarity financing needed for equity, undermining universal health coverage. While it is important to address the financial and availability barriers in the lower income groups, there also needs to be some response to the dissatisfaction with services in these less poor groups.

5.6 Perceived strategies and views on dealing with barriers

The strategies and responses to current conditions are apparent in the use or non use of services, in the pattern of service use and the actions taken to afford costs, such as asset sales, discussed in earlier sections. There was a perception in the key informant interviews and women respondents that their services had improved, but that poor facilities, shortage of qualified staff and medicines still needed to be addressed. There was also a view that communication and information flow between services and people, individually in consultations and more broadly through social outreach also needed to be improved.

The proposals made for addressing barriers covered improved health education and promotion of uptake, including in sects with beliefs preventing use of services, better co-ordination across agencies working in health, improved transport services, improved supplies particularly at clinics and mobile service outreach to remote areas.

Key informants had diverse views on what to do about charges, without a clear view emerging within or across groups of informants, suggesting that how to move away from charges at point of care is an area that needs further investigation and dialogue. The most commonly held view was to remove fee charges at clinic level and reduce charges at hospital level, or charge those coming in without referrals. There was however much more consistency in the women respondents, who held the view that there should be no charges for pregnant women and children at primary care clinics or district hospitals, and that district hospitals should not charge for any services.

There was thus a consistent view across all groups that all charges be removed at primary care level (backed by improved supplies). Women in communities felt the same should apply at district hospital level, while key informants did not have one consistent view.

There were perceptions raised that rather than through fees, communities should contribute to their health services by providing labour, maintaining infrastructure, participating in services and their planning; mobilising resources for health centres; reporting diseases, sharing information and monitoring treatment of patients within the community.

6. Conclusions

This study provides (further) evidence to that found in other studies as input to policy debates and planning in Zimbabwe. Ten major points of conclusion and recommendation are raised below emanating from the study:

1. While the study did not seek to make specific conclusions on risk- health relationships, it does point to the significant importance of absence of safe sanitation in the elevated risk of diarrhoeal disease and the need to invest in improved sanitation as a public health priority.
2. The findings draw attention to the need to factor health need in planning across two critical dimensions: residence (urban-rural) *and* economic/ wealth status. While the former has been addressed for some in geographical targeting of strategies and resources, the latter is less well addressed, particularly for poorest groups within urban areas. Debates on financial protection and the lifting of user fees in part address this, but the study highlights that a more comprehensive primary health care approach is needed, such as through social communication, information and community health workers (VHWs, CBDs, EHTs) to support service uptake in these groups. Hence for example the lower contact with community health workers in urban areas particularly disadvantages urban poor people, and needs to be addressed.
3. The study found that distance to services, availability of supplies and costs (transport and service) are the major barriers to service uptake and coverage. This is moreso for maternal health (assisted delivery) services than for child health services, and the social differentials in

coverage of child health services was lower than for maternal health services. This means that beyond policies aimed at lifting fee barriers (discussed in point 5), more attention needs to be given resourcing and addressing supply side issues. If supply side issues are not addressed, people may continue to incur high costs to go to those services where supplies are found, may purchase supplies outside public services, or may make informal payments to access them within public services. This supply side shortfall and such compensatory spending by households is identified as leading to the rise in catastrophic expenditure found in Uganda even *after* fees were lifted (Zikusooka et al 2011).

4. It appears from the evidence that the most critical measure is to bring the relevant staff and supplies needed for essential maternal and child health services to *primary care level.* This will also improve the primary care level as a more equitable entry point for referral to district hospitals for more complicated conditions, rather than district hospitals being used for primary care by those who can afford it. While people were found to be willing to travel distances to reach secondary level services that have supplies and staff, the transport costs and distance were found to be a major barrier. Having to travel to district level services leads to inequity in coverage relative to need, and contributes to poor financial protection (discussed below). The service deficits identified at primary care level included vaccine supplies, contraceptives, midwives, waiting mother shelters and ambulances, noting that the latter two are important for referrals to district services. A more detailed supply chain / bottleneck analysis may be needed to identify and address reasons for why supplies like vaccines and contraceptives do not reach primary care level. A more comprehensive audit and gap analysis against service standards (essential benefits) could raise planning and budget attention to addressing the deficit at primary care and community level.

5. Cost was a key barrier. The finding that poorer groups in both urban and rural areas spend a higher share of their income on maternal health services is highly inequitable, while the finding that this cost burden on lower income households is not affordable and is leading to asset sales indicates that it is contributing to impoverishment. For both reasons this needs to be addressed in *both* urban and rural areas. Improving supplies at primary care level will partially address transport cost barriers. There was a consistent view across all groups that all charges be removed at primary care level (backed by improved supplies). The study highlights that this is not simply an issue for rural areas, as noted above, and funding arrangements need to ensure that urban councils do not charge fees at primary care level.

6. There was less consensus on what to do about charges at district level, with most proposing that there be no charges for pregnant women and children at district hospitals. Other proposals ranged from no charges for all district level services to reduced charges or charges for those coming in without referrals. The survey points to the need for free care policies at primary care level to cover consultation fees, diagnostics and medicines. In relation to district level, until the primary care gap is addressed, it particularly points to the need to address transport, consultation, diagnostic and medicine charges for maternal health services, within a broader policy dialogue aimed at moving from charges to prepayment for all services. A number of ways exist for communities to contribute to improving quality of services (eg through labour and material contributions), other than as fee payments for basic entitlements.

7. The study raises other barriers, less significant than those above. The role of religion is noted to be changing, and it is suggested that planning be informed more by what is actually going on on the ground than by perceptions at higher levels. The survey suggests that while Apostolic religion is associated with lower coverage of child health cards, possibly immunization and with *frequency* (rather than overall coverage) of ANC attendance, it is not associated with lower coverage of other areas of maternal or child health. The coverage rates for child health cards are in fact higher (79%) than indicated by key informant perceptions. There is an argument for the law to include a duty for the state to compel

immunization in circumstances such as epidemics, where this is justified to protect all children, as outlined in the Public Health Act review. However, the survey also indicates that would be useful to better understand what factors have led to the 79% *coverage* found in the Apostolic sect, (rather than the gap) and further institutionalize these factors that promote uptake. For example this may include recruiting and training community health workers from amongst these groups, including them in community health committees and so on.

8. In terms of *facilitators*, the inverse of the barriers apply – ie they include reliable availability of supplies at primary level services, community health workers to support uptake, and financial protection to avoid cost barriers. The study adds evidence to the importance and value of investing in community health cadres (VHWs, EHTs, CBDs) as important to support effective uptake and use of services and to close inequities in health. It also raises the option of mobile health services for areas where distances to care are particularly high.

9. Women play a central role in the uptake of maternal and child health (MCH) services, and women's ability to 'act on their instincts' appears to play an important role. MCH service uptake was affected by maternal education, maternal wealth, family influence, community health worker referral. These factors point to the importance of measures that specifically support women at both individual and social level. Such measures include: closing the gender gap in secondary education; improving women's economic opportunities and autonomy; improving availability of resources for women to act on health within local communities (eg for oral rehydration, for good nutrition; for family planning etc); raising the priority for women and children's health and the role of women in decision making in social norms and networks; and linking women with community level actors and resources like community health workers, antenatal groups, early child education groups, waiting mother shelters etc to support their decisions and actions on health.

10. The fact that use of public services for maternal and child health is high across all wealth groups is raised as a facilitator[5]. At present this wide use of public services across all wealth quintiles may relate more to the cost of private services than the quality of public services, and dissatisfaction with public services was higher in less poor groups. This should be an impetus to the public sector to improve the quality of public services to involve and keep these higher income groups in the system. They are needed both as contributors and as people who can drive demand for and contribute to social processes for better quality care. If these higher income groups migrate out of public services, their demand for and contribution to quality of care in public health system is lost, as is the solidarity financing needed for equity, undermining universal health coverage.

[5] Keeping in mind that even the highest wealth group cannot be regarded as wealthy in terms of absolute levels of income.

7. References

1. Central statistics office and ICF Macro (2006) Zimbabwe Demographic Health Survey (ZDHS), 2005-6, CSO, Harare
2. Gwatkin DR, Bhuiya A, Victora CG (2004) 'Making health systems more equitable,' *Lancet* 364: 1273-1280.
3. Ministry of Health and Child Welfare (MoHCW) (2009)' National Health Strategy 2009-2013 for Zimbabwe' MoHCW, Harare
4. Tanahashi T (1978) Health Services Coverage and its evaluation Bulletin of the World Health Organisation 56(2) 295-303
5. TARSC, MoHCW (2011) Equity Watch: assessing progress towards equity in health in Zimbabwe, EQUINET Harare.
6. TARSC, CWGH (2009) Health where it matters most: an assessment of primary health care in Zimbabwe, March 2009, Report on a community-based assessment, TARSC, Harare.
7. Zikusooka CM, Loewenson R, Tumwine M, Mulumba M, (2010) EQUITY WATCH: Assessing progress towards equity in health, Uganda, 2010, EQUINET, Kampala and Harare

8. Abbreviations

AIDS	Acquired Immuno Deficiency Syndrome
ANC	Antenatal care
ARI	Acute Respiratory Infection
CBD	Community Based Distributor
CCORE	Collaborating Centre for Operational Research and evaluation
CSO	Central statistics office
EHTs	Environmental health technician
GoZ	Government of Zimbabwe
MCH	Maternal and Child Health
MIMS	Multiple Indicator Monitoring Survey
MOHCW	Ministry of Health and Child Welfare
Nat Pharm	National Pharmaceutical Company of Zimbabwe
NGO	Non Governmental Organisation
ORS	Oral rehydration solution
PCA	Principal Component Analysis
PLHWA	People living with HIV and AIDS
PMTCT	Prevention of vertical transmission of HIV
PNC	Post natal care
TARSC	Training and Research Support Centre
UN	United Nations
VCT	Voluntary counseling and testing
VHW	Village Health Worker
VMAHS	Vital Medicines Availability and Health Services Survey
ZDHS	Zimbabwe demographic and health survey

Appendix A Information used to identify provinces for sampling

	% in lowest wealth quintile *	% in highest wealth quintile (*)	% h'olds with safe water *	% children entering primary school *	% women receiving and controlling cash earnings *
Socio-economic information – social determinants of health (SDH)					
Manicaland	16.0	8.2	54.7	93.8	28.8
Mash Central	23.8	5.0	39.0	86.7	45.9
Mash East	11.5	6.2	62.2	90.4	44.9
Mash West	23.7	12.0	57.8	87.2	35.4
Mat North	69.5	5.4	37.4	92.3	34.6
Mat South	33.1	5.5	28.8	93.9	39.8
Midlands	25.5	17.5	46.7	91.2	13.3
Masvingo	23.2	6.4	42.4	95.5	41.8
Harare	0	59.9	85.6	95.1	31.3
Bulawayo	0	71.9	99.9	97.9	23.4

	% <5yrs <2SD under-weight **	IMR *	% <5yrs with diarrhoea in past 2 wks *	% <5yrs with fever *	% <5yrs with ARI *	% unmet need for family planning *	Adole-scent birth rate *	Adult HIV preva-ence *
Health need								
Manicaland	2.1	63	14.4	10.6	6.7	30.2	4.3	19.7
Mash Central	3.8	71	10.8	12.5	5.4	33.9	4.1	18.5
Mash East	3.7	66	12.1	9.4	4.5	31.1	3.8	18.0
Mash West	2.4	66	14.1	9.5	5.8	32.1	3.9	19.1
Mat North	5.8	46	6.9	4.9	8.5	19.1	4.8	19.0
Mat South	4.1	37	7.2	0.1	5.3	18.0	4.4	20.8
Midlands	2.7	66	9.0	4.1	7.6	32.2	3.9	16.1
Masvingo	2.1	52	11.1	4.8	10.2	35.6	4.3	15.1
Harare	2.8	58	11.7	10.3	4.6	2.5	2.5	19.3
Bulawayo	2.3	54	11.4	1.9	5.0	2.7	2.7	16.8

	% children <5yrs with fever seeking treatment **	% <5yrs given any ORT**	% children 12-23 mths fully vacci-nated **	% women 15-49 using any modern contracep-tion **	% women 15-49 using ANC **	% women Delivering with skilled provider **	% <5yrs sleeping under treated bednet *
Health system coverage							
Manicaland	35.7	62.1	45.6	54.5	86.7	60.3	20.5
Mash Central	42.2	60.9	67.3	61.6	91.8	51.4	25.3
Mash East	34.6	78.1	79.6	60.8	86.8	59.9	18.9
Mash West	24.9	44.4	73.1	61.2	87.4	55.0	14.0
Mat North	49.9	59.2	65.7	49.3	92.9	65.7	25.9
Mat South	56.2	77.6	72.6	45.2	95.9	71.6	1.4
Midlands	39.3	61.7	57.3	57.7	91.5	64.7	17.6
Masvingo	31.9	68.1	55.9	54.0	94.1	75.2	15.2
Harare	31.7	68.3	67.7	58.2	87.0	83.5	15.7
Bulawayo	20.9	77.7	83.3	59.2	92.1	88.4	12.3

(*) = Zimstat, UNICEF 2009 (**)Zimstat and ICF Maco 2011
Shading top (green) and bottom (red) two for health in each indicator

Appendix B Household questionnaire 9/2011

Household Interview with a female adult of child bearing age who has had a pregnancy in the last year and a live child less than five years of age who has lived in the area in the last year.
Only include if the answer to ALL questions below is YES for ANY female respondent in the household:

1. Have you had a pregnancy during the past year?..... If YES proceed, if NO move to next respondent
2. Do you have a live child less than five years? ..... If YES proceed, if NO move to next respondent
3. Have you lived in this area in the past year? ..... If YES proceed, if NO move to next respondent

Interviewers will ensure that:

a. They check for availability of the respondent and if available proceed. If not return at the end of the day and if not available by the end of the time in the ward then record as a loss to follow up and replace with the next household meeting the criterion.
b. They introduce the survey and generally indicate that its about health (without being specific on the exact focus which will otherwise bias responses)
c. Guarantee confidentiality of the data and information being collected.
d. Get permission from the respondent to proceed and that the respondent has the right to withdraw from the interview at any point during the interview.
e. Record if the consent is not given and go to the next sampled household. If the consent is given then proceed.
f. They thank the respondent for the interview at the end of the interview

A: General

Item	**Response (Fill *non shaded* spaces or circle the option that applies)**	**Code**
Enumerator	Name: Signature:	
Date of interview	Time: Day: Month:	
A1. Province Name	1. Matabeleland North 2. Mash East 3. Manicaland 4. Bulawayo	
A2. District Name	1. Tsholotso 2. Goromonzi- Chikwaka 3. Mutare Urban 4 Bulawayo	
A3. District Type	1. Urban Ward 2. Rural Ward	
A4. Household I.D		
A5. Questionnaire status	1. Completed 2. Respondent found but not competent, not completed 3. Respondent not found, not completed 4. Respondent refused, not completed	

A: Respondent characteristics

Item	**Response (Fill *non shaded* spaces or circle the option that applies)**			**Code**
A6. Respondent highest level of Schooling attained	0 = preschool 1 = primary 2 = secondary 3 = higher 8 = don't know			
A7. Number of months lived in the area in the past year				
A8. In the past year been away for over one month?	1 = Yes 2 = No			
A9. Respondent children under five years (list age in years and gender of all children)	Age in months	Gender (circle option)	Code 1	Code2
		1. male 2. female		
		1. male 2. female		
		1. male 2. female		
		1. male 2. female		
A10 Respondent religion	1= Traditional 2= Roman Catholic 3= Protestant 4= Pentecostal 5= Apostolic Sect 6= Other Christian 7= Muslim 8= None 10= Other			
A11. Respondent age at last birthday				
A12. Respondent marital status	1= Single 2 = Married 3 = Divorced 4 = Separated 5 = Cohabiting 6 = Widowed 7 = Other			
A13. Total Number of people who slept in the respondent's household last night				

B. Household wealth and income

Does your dwelling, household have the following? (circle correct option)			Code		(circle correct option)		Code
B.1	Radio	Yes=1 No =2		B.12	Car/truck	Yes=1 No =2	
B.2	Television	Yes=1 No =2		B.13	Boat with motor	Yes=1 No =2	
B.3	Mobile Telephone	Yes=1 No =2		B.14	Wheel barrow	Yes=1 No =2	
B.4	Non Mobile Telephone	Yes=1 No =2		B.15	Motor cycle/ Scooter	Yes=1 No =2	
B.5	Refrigerator	Yes=1 No =2		B.16	Separate kitchen	Yes=1 No =2	
B.6	Electricity	Yes=1 No =2		B.17	Land for farming	Yes=1 No =2	
B.7	Watch	Yes=1 No =2		B.18	Large livestock	Yes=1 No =2	
B.8	Bicycle	Yes=1 No =2		B.19	Small livestock	Yes=1 No =2	
B.9	Scotch-cart	Yes=1 No =2		B.20	Cultivator	Yes=1 No =2	
B.10	Television dish	Yes=1 No =2		B.21	Deep freezer	Yes=1 No =2	
B.11	Computer/laptop	Yes=1 No =2		B.22	DVD/VCD	Yes=1 No =2	

Item	Response (Fill *non shaded* spaces or circle the option that applies)	Code
B19. Hectares of land owned		
B20. Number of livestock owned	Cattle	
	Horses/Donkeys/Mules	
	Goats	
	Sheep	
	Pigs	
	Chickens and other poultry	
B21. Main source of drinking water	1 = piped into dwelling 2 = piped into tap in yard/plot 3 = public tap 4 = tube well or borehole 5 = dug well 6 = protected dug well 7 = unprotected dug well 8= water from spring 9 = protected spring 10 = unprotected spring 11 = rainwater 12 = tanker truck 13 = cart with small tank 14 = surface water (river/dam/ lake/pond/stream/canal/irrigation channel) 16 = bottled water 17 = other	
B22. Toilet facility used by household	1 = Flush to piped sewer system / septic tank 2 = Flush to pit latrine 3 = Flush to somewhere else / unknown 4 = Ventilated Put latrine 6 = Pit latrine with slab 7 = Open pit 8 = No facilities 9 = Other	
B23. Type of dwelling	1= Traditional 2 = Mixed 3 = Detached 4 = Semi detached 5 = Flat/town home 6 = Shacks 7 = Other [Observe and record]	
B24. Type of floor in dwelling	1 = Earth, sand or dung 2 = Wood planks 3 = polished wood 4 = Vinyl or asphalt strips 5 = ceramic tiles 6 = Cement 7 = Carpet 8 = Other [Observe and record]	
B25. Materials of walls	1 = Cane/trunks 2 = Pole and dagga 3 = Stone with mud 4 = Plywood 5 = Carton 6 = Reused wood 7 = Cement 8 = Stone with lime/ cement 9 = Bricks 10 = Cement blocks 11 = wood planks/ shingles 12 = Other [Observe and record]	
B26. Fuel used for cooking	1 = Electricity 2 = Liquefied Petroleum gas (LPG) 3 = Biogas 4 = Kerosene 5 = Charcoal 6 = Wood 7 = Crop residue or saw dust 8 = Animal waste 9 = None or no cooking/ 10 = Gel 11 = Other	
B27 Number of rooms used for sleeping		
B28 Average Household monthly Income in US$		
B29 Income from production / farming/ informal work in past mth (US$)		
B30 Income from production / farming/ informal work in past year in US$		
B31 Income from other sources in past month in US$ List sources		
B32 Income from other sources in past year in US$ List sources		
B33 Family contributions to health costs in past year in US$		
B34 Are you a member of medial aid scheme?	1= Yes 2 = No	
B35 Insurance / medical aid/ company contributions to health costs in past year in US$	1 = None 2=Co-payment	
B36 Other contributions to health costs in past year in US$		

C. Service use patterns

Item	Response (Fill *non shaded* spaces or circle the option that applies)		Code
C1 Distance to the nearest primary care service (km)			
C2 Distance to the nearest district hospital (km)			
C3. Do children under five years have a child health card? (ask to see it)	Age of child (mths)	Has card (circle option)	Code2
		1. yes 2. no	
		1. yes 2. no	
		1. yes 2. no	
		1. yes 2. no	
C4 If no child health card why not?	1 = Not available at facility 2 = Not obtained from facility 3 = Lost card 4 = Cultural / religious beliefs 5 = Not attending child health 6 = Partner has it 7 = Family has it 8 = N.A. 9 = other (specify)		
C5. Are children 12-23 mths fully immunised for age?	Age (mths)	Has vaccination for (circle all options)	Code2
		1. BCG 2. DPT1 3 = DPT2 4 = DPT3 5= polio 6 = measles	
		1. BCG 2. DPT1 3 = DPT2 4 = DPT3 5= polio 6 = measles	
C6 If not fully immunised why not?	1 = Distance to facility 2 = Transport availability / cost to facility 3 = Time away from work 4 = Availability of vaccine 5 = Reaction to vaccine 6 = Costs of vaccine 7 = Other costs 8 = Cultural / religious beliefs 9 =Health worker advice 10 = Partner choice 11 = Family choice 12 = N.A 13 = other (specify)		
C5. Respondent pregnant past year?		1 = Yes 2 = No	
C6. Respondent currently pregnant?		1 = Yes 2 = No	
For this recent the pregnancy did you at the time	want to become pregnant then. . . . . 1 want to wait until LATER . . . . . 2 not want to have any (more) children at all?. 3		
C7. Contraception currently used	1= female sterilization . 2 = male sterilization 3 = pill 4 = IUD 5 = injection 6 = implant 7 = male condom 8 = female condom 9 = diaphragm 10 = foam/jelly 11 = lactating 12 = rhythm method 13 = withdrawal 14 = none 15= na as pregnant 16 = other (specify)		
C8. Is contraceptive used the one respondent desired?		1 = Yes 2 = No	
C9. Reason for use?	1= Availability at health facility 2 = Availability elsewhere 3 = Cost at facility 4 = Other cost 5 = Cultural , religious reasons 6 = Partners choice 7 = health worker advice 8= Other		
C10. How many times have you attended ANC for the most recent pregnancy?			
C11. How many times would you want to have attended ANC for the most recent pregnancy?			
C12. What affected the number of times you attended ANC for the most recent pregnancy?	1 = Distance to facility 2 = Transport cost to facility 3 = Transport availability to facility 4 = Time away from work 5 = Availability of drugs 6 = Availability of staff 7 = Quality of care 8 = Costs of consultation 9 = Costs of medicines 10 = Other costs 11 = Cultural / religious beliefs 12 =Health worker attitudes 13 = Partner choice 14 = Family choice 15 = Health worker referral 16 = N.A. 17 = other (specify)		
C13. Did any of your children have diarrhoea in the past 2 weeks?		1 =Yes 2 = No	
C14. How did you manage it?	1= no action 2 = ORS at home 3 = ORT at facility 4 = medicine from pharmacy 5 = Medicine at facility 6= traditional remedy 7= N.A. 8 = other (specify)		
C15.Why did you manage it this way?	1 = Distance to facility 2 = Transport availability / cost 3 = Time away from work 4 = Availability of ORT/drugs 5 = Quality of care 6 = Costs of consultation/ medicines / ORT 7 = Other costs 8 = Cultural / religious beliefs 9 =Health worker advice 10 = Partner choice 11 = Family choice 12 = availability of safe water 13 = N.A. 14 = other (specify)		
C16.Have you been told how to make ORS in the past year?		1 =Yes 2 = No	
C17. Have you seen a village health worker in the past month in your ward?		1 =Yes 2 = No	
C18. Have you seen an environmental health officer in your ward in the past month?		1 =Yes 2 = No	
C19. Have you been visited by a community based distributor in the past year?		1 =Yes 2 = No	

C20. In the past 12 months have you needed to use the services below, and if so please answer the subsequent questions (note next to table any other issues raised on service use):

i. Facility preferred / used

1 = Public clinic 2 = Public district hospital 3 = Public other hospital 4 = Private for profit clinic / GP
5 = Private mission clinic 6 = Private for profit hospital 7 = Private mission Hospital 8 = Pharmacy
9 = Traditional or Faith healer/attendant 10 = herbalist / homeopath 11 =Home care 12 = No care 13 = other

ii. Reason for choice

1 = Distance to facility 2 = Transport cost to facility 3 = Transport availability to facility 4 = Quality of care
5 = Time away from work 6 = Availability of drugs 7 = Availability of staff 8 = Costs of consultation 9 = Costs of medicines 10 = Other costs 11 = Cultural / religious beliefs 12 =Health worker attitudes
13 = Partner choice 14 = Family choice 15 = referred by health worker 16 = Not applicable 17 = other (specify)

iii. Satisfaction level

1= extremely satisfied 2= satisfied 3 = indifferent 4 = not satisfied 5= extremely dissatisfied

Item #		Needed in past 12 months? Yes= 1, No = 2	Where did you **want** to go for care? See code (i) above	Reason for choice of preferred facility See code (ii) above	Where did you actually go for care? See code (i) above	Reason for choice of facility used. See code (ii) above	Rate your level of satisfaction with the service used (see code iii above)
1	Family planning						
2	Voluntary counselling and testing						
3	Antenatal care						
4	Delivery						
5	Post Natal care						
6	Other care for mother, specify ……						
7	Child treatment for ARI/ fever						
8	Child treatment for malaria						
9	Other treatment specify ……						

C21. For your last visit to a primary care facility (clinic) for yourself or one of your children under 5 years of age please answer the following questions:

Item	**Response (fill *non shaded* spaces or circle the option that applies)**	**Code**
C21a. What type of service was it?	1 = Public clinic 2 = Public district hospital 3 = Public other hospital 4 = Private for profit clinic / GP 5 = Private mission clinic 6 = Private mission Hospital 7 = Private for profit hospital 8 = Pharmacy 9 = Traditional or Faith healer/attendant 10 = herbalist / homeopath 11 =Home care 12 = No care 13 = other	
C21b. What was it for?	1= Emergency treatment 2 = Non emergency treatment 3 = Chronic care 4 = ANC 5 = Delivery 6 = Post natal care 7 = Other	
C21c. How did you get to the service?	1= By bus/public transport 2 = Own car 3 = other car 4 = bicycle 5 = Wheelbarrow / scotchcart 6 = ambulance 7 = Foot 8 = Other	
C21d. How much did you pay for transport (in US$)		
C21e. How much time did it take to get from your home to the facility? (minutes)		
C21f. How much time did you have to wait to be seen at the facility? (minutes)		
C21g. How much did you pay for the consultation (in US$)		
C21h. How much did you pay for medicines and other (in US$)		
C21i. How satisfied were you with the care?	1= extremely satisfied 2= satisfied, 3 = indifferent 4 = not satisfied 5= extremely dissatisfied	
C21j. How many times have you had to return for this same care in the past year?		

D. Other Economic and fee issues:
For your last childbirth, and *only for deliveries after February 2009*

Item	Response (Fill *non shaded* spaces or circle the option that applies)		Code
D1 What was the total spent on consultation fees for ANC and delivery in US$			
D2 What was the total spent on transport to services in US$			
D3 What was the total spent on medicines and other medical supplies in US$			
D4 What other items did you pay for and what was the total spent in US$?	Items: Cost:		
D5 What support did you get for this from family in US$			
D6 What support did you get from other sources for these costs in US$?	Source: US$:		
D7 Did you have to borrow money to pay for these services? What amount in US$	1= Yes 2 = No US$		
D8 Did you have to sell assets to pay for these services? For what amount in US$	1= Yes 2 = No US$		
D9 Did you have to forego any other needs to pay for these costs? What?	1= Yes 2 = No Items:		

E. Perceptions of services and costs; *Ask:* Indicate your view on the following statements

1= strongly agree 2= agree 3 = no firm opinion 4 = disagree 5= strongly disagree

Item	Response (Write in the unshaded space provided the number that corresponds to the respondents view in the likert scale above)	Code
E1 The public clinics in my area provide the services we need		
E2. The public hospitals in my area provide the services we need		
E3. The public health services in my area are easy to reach		
E4. The public health services in my area are not affordable		
E5. The public health services in my area are of acceptable quality		
E6. The health workers at public health services in my area treat patients well		
E7. The health workers at health services in my area communicate with patients		
E8. There is adequate community information and outreach for health		
E9. Clinics should not charge for any health services		
E10. District hospitals should charge for all health services		
E11. Pregnant women and children under 5 years should not be charged for health services at clinic and hospitals		
E12. Private care costs but provides better quality care		
E13. Communities should contribute to health care		
E14. The costs of health care are stopping women and children from using services		

F. Other comments

F1. What do you think should be done to make services for mothers and children easier to reach and use?

F2. What do you think should be done to make services for mothers and children better quality?

F3. Do you have any other comments on health services in your area?

Appendix C: Key informant interview guide

Guide to the interview with a sample of community leaders, health workers, local government representatives, children and women NGOs in the district.

Interviewers will ensure that:

a. They introduce the survey and generally indicate that its about health (without being specific on the exact focus which will otherwise bias responses)
b. Guarantee confidentiality of the individual information being collected but that information for all groups will be reported and quotes used will give category of person and of rural /urban but no name.
c. Get permission from the respondent to proceed and that the respondent has the right to withdraw from the interview at any point during the interview.
d. Record if the consent is not given and go to the next sampled informant. If the consent is given then proceed.
e. They thank the key informant at the end of the interview

A: General

Item	**Response (Fill *non shaded* spaces or circle the option that applies)**	**Code**
Enumerator	Name: Signature:	
Date of interview	Time: Day: Month:	
1. Province Name	1. Matabeleland North 2. Mash East 3. Manicaland 4. Bulawayo	
2. District Name	1. Tsholotso 2. Goromonzi- Chikwaka 3. Mutare Urban 4 Bulawayo	
3. District Type	1. Urban ward 2. Rural ward	
6. Category of Key Informant	1 = Community Leader 2 = Health worker 3 = Local government representative 4= Children NGO/ Women NGO 5 = Other –specify:	
10. Result of Interview	1. Completed 2. Respondent found but not competent, not completed 3. Respondent not found, not completed 4. Respondent refused, not completed	

B. Guide questions:

(Write responses in the spaces provided. Use the back of the page if the response does not fit in the space and ensure question number shown with additional response).

B1. What role do you play in maternal and child health services in your district?

B2. How satisfied are you with the availability of services for maternal and child health in your area? Why?

B3. How satisfied are you with the overall quality of services in your area? Why?

B4. What are the main barriers women face in using maternal health services? Which women are particularly affected by each of the barriers you raise?

B5. How do you think these barriers to maternal health services could be overcome?

B6. What are the main barriers people face in using child health services? Which households are particularly affected by each of the barriers you raise?

B7. How do you think these barriers to child health services could be overcome?

B8. Are there particular services that people are not accessing or using in this area? Why? What could be done to improve access to these services?
B9. What factors encourage people in your area to use maternal and child health services?

B10. Which services in your area charge user fees at clinic level? What other costs do people have to pay to use services?

B11. Do you think that these charges discourage people from using services when they need them? What are people doing to meet the costs?

B12. What do you think should be done about fee charges at clinic level? At hospital level?

B13. In what way do you think communities should contribute to their health services?

C. Perceptions of services and costs; *Ask:* Indicate your view on the following statements

1= strongly agree 2= agree 3 = no firm opinion 4 = disagree 5= strongly disagree

Item	**Response (Write in the unshaded space provided the number that corresponds to the respondents view in the likert scale above)**	**Code**
C1 The public clinics in my area provide the services we need		
C2. The public hospitals in my area provide the services we need		
C3. The public health services in my area are easy to reach		
C4. The public health services in my area are not affordable		
C5. The public health services in my area are of acceptable quality		
C6. The health workers at public health services in my area treat patients well		
C7. The health workers at health services in my area communicate with patients		
C8. There is adequate community information and outreach for health		
C9. Clinics should not charge for any health services		
C10. District hospitals should charge for all health services		
C11. Pregnant women and children under 5 years should not be charged for health services at clinic and hospitals		
C12. Private care costs but provides better quality care		
C13. Communities should contribute to health care		
C14. The costs of health care are stopping women and children from using services		

D Other comments *(continue overleaf if needed)*

Do you have any other comments about the barriers people face to using services in your area and how they can be overcome?