

## **Monitoring and Evaluation of the TNVS**

### **Report on 2005 TNVS Household, Facility and Exit surveys**

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## Table of Contents

Executive Summary .....	3
List of tables.....	5
Acknowledgements.....	7
Introduction.....	8
Methodology.....	8
Results.....	15
3.1 Characteristics of the sample .....	15
3.2 Coverage and use of vouchers .....	17
3.3 Coverage of ITNs: Target groups and all household members .....	24
3.4 Antenatal care coverage, timing of first use and use of IPT .....	35
3.5 Insecticide treatment .....	37
3.6 Information and awareness .....	39
3.7 Infrastructure availability (equipment, drugs) in RCH facilities .....	43
4. Discussion and conclusions .....	44
Appendix 1: Results of socioeconomic status index analysis.....	46
Appendix 2: Sampling procedures.....	49
Appendix 3: Questionnaires.....	50

## **Executive Summary**

This report presents the findings of the 2005 household, facility and exit surveys undertaken as part of the Monitoring and Evaluation of the Tanzania National Voucher Scheme. The surveys were undertaken in June-August 2005 in 21 randomly selected districts, stratified by launch date into three phases (early, middle and late).

The main findings are as follows:

### **Coverage and use of vouchers:**

- Voucher coverage, defined as the proportion of pregnant women attending RCH in launched districts who received a voucher, ranged from 40.7% (household, currently pregnant) to 48% (previous pregnancies).
- Vouchers had been redeemed by 62.1% (household survey, currently pregnant women) to 78% (household, previous pregnancies) of women.
- The average top-up paid by women to purchase a net with a voucher was approximately TSh 1000, and very consistent across information source. The top-up paid was higher for larger nets. There is some suggestion that nets purchased using vouchers are larger than those purchased without vouchers.
- Evidence that the voucher scheme is helping to get nets into households is provided by information that there is a larger proportion of recently purchased (<6 months) nets in launched than non-launched districts.

### **Bednet use among vulnerable groups:**

- Estimates of bednet use among currently pregnant women provided by the household and exit surveys range from 25% (household) to 48% (exit) for any net, and from 11% (household) to 31% (exit) for a recently-treated net.
- Bednet use (any net and recently-treated net) among the lowest socioeconomic quintiles appears to be higher in launched districts than in non-launched districts, though this difference is not statistically significant.
- Bednet use among children under 5 is estimated at 28% for any net and 9% for a recently treated net.

### **Timing of antenatal care use:**

- Evidence from the household, facility and exit surveys all indicate that women are visiting RCH facilities earlier in their pregnancies in those districts where *Hati Punguzo* is being provided.
- Between 66% (household, currently pregnant) and 72% (exit survey) of women report having received at least one dose of IPT.

### **Insecticide-treatment of nets:**

- 48% of all nets in households are reported to have been ever-treated, and 30% to have been treated within the previous 12 months. Insecticide-treatment of nets is correlated with socioeconomic status, age of net and urban residence.

### **Awareness and knowledge of *Hati Punguzo*:**

- Overall, 40-45% of respondents had heard of *Hati Punguzo*. Awareness was highest among RCH users interviewed in the exit survey (45%). In launched

districts, awareness was 52% among household heads, 60% among currently pregnant women in the household survey and 71% among RCH exit survey respondents.

- The most common source of information for household heads was radio, followed by MCH. For currently pregnant women, MCH was more commonly reported as the source of information, followed by radio.
- Correct responses to questions about eligibility for *Hati Punguzo* (pregnant women) were provided by 46% of currently pregnant women in the household survey in launched districts, and 56% of exit survey respondents.
- Only 19% of women leaving a RCH facility in launched districts knew the value of the voucher

**Voucher availability:**

- 58% of facilities in launched districts, and 69% of launched facilities had vouchers in stock on the day of the survey

There are a number of limitations to the results which must be borne in mind when interpreting differences, particularly in ITN coverage. The most important among these is that the results represent the state of ITN coverage at a single point in time, and we do not have a true baseline for those districts which had launched prior to the survey. Differences among districts in socioeconomic status, which is shown to be an important determinant of bednet use, mean that it is not possible to attribute differences to the impact of the voucher scheme. Nonetheless, a stronger measure of impact will be available through comparison with the planned 2006 surveys.

## List of tables

- Table 1. TNVS Monitoring and Evaluation – sampled M&E districts
- Table 2. Sample size calculations for household survey
- Table 3. Characteristics of sampled households/individuals (after cleaning), TNVS June 2005
- Table 4. Coverage of voucher, pregnant women from three data sources, TNVS June 2005
- Table 4a. Coverage of voucher, pregnant women from Exit and Facility surveys by individual facility launch status, TNVS June 2005
- Table 5. Multivariate analysis of determinants of receipt of a voucher in Launched Districts. Adjusted analysis of odds of receiving a voucher, TNVS June 2005
- Table 6. Use of voucher, pregnant women from two data sources, TNVS June 2005
- Table 7. Mean top-up paid by size of net bought, Exit and household surveys
- Table 8. Size of net purchased, by whether or not the net was purchased using a voucher (reported by household head)
- Table 9. Cost of using voucher
- Table 10. Summary of results on bednet use, pregnant women, household and exit surveys, TNVS June 2005
- Table 11a. Bednet use amongst pregnant women, bivariate analysis, Exit Survey, TNVS June 2005
- Table 11b: Multivariate analysis of determinants of bednet use amongst pregnant respondents to Exit survey. Adjusted odds of receiving a voucher, TNVS June 2005
- Table 12a. Bednet use among currently pregnant women, bivariate analysis, household survey
- Table 12b. Multivariate analysis of determinants of bednet coverage, currently pregnant women, household survey. Adjusted odds of sleeping under a net the previous night
- Table 13. Bednet use during pregnancy, live births which occurred in 2004/5 (slept under net while pregnant), bivariate analysis, household survey
- Table 14. Bednet use, *by district launch status as at June 2005* and socioeconomic status, currently pregnant women reporting on use last night
- Table 14a. Exit Survey bednet use, *by district launch status as at June 2005* and socioeconomic status, RCH users reporting on use last night
- Table 15. Bednet use, children < 5 years (night preceding the survey) (reported by mother/guardian), Household survey
- Table 16. Bednet use, *by launch status as at June 2005* children under 5 reporting on use last night
- Table 17. Bednet use, all household members (night preceding the survey) (reported by household head)
- Table 18. Coverage with any net and ITN (treated < 12 months) among children under 5 and all household members, by district
- Table 19. Reported gestation at first RCH visit from three data sources, TNVS June 2005
- Table 19a. Reported gestation at first RCH visit from Exit and Facility surveys by individual facility launch status
- Table 20. RCH and IPT coverage during pregnancy (self-reported)
- Table 21. Insecticide bundling and treatment of nets, by age of net
- Table 22. Insecticide treatment of nets by household SES (n=5086)
- Table 23. Net treatment by whether net purchased using a voucher (voucher status reported by household head)
- Table 23a. Multivariate analysis of determinants of net treatment (n=5086)
- Table 24. Awareness of *Hati Punguzo*
- Table 25. Where first heard of *Hati Punguzo*, by launch status, household heads

- Table 26. Where first heard of *Hati Punguzo*, by launch status, currently pregnant women
- Table 27. Knowledge of HP eligibility, by launch status, household heads
- Table 28. Knowledge of HP eligibility, by launch status, currently pregnant women
- Table 29. Summary statistics from Household and Exit surveys of awareness and understanding of *Hati Punguzo*
- Table 30. Infrastructure availability (equipment, drugs) in RCH facilities\*
- Table A.1. Individual household socioeconomic characteristics and principal components weights, household survey
- Table A.2. Individual household socioeconomic characteristics and principal components weights, exit survey
- Table A.3. Characteristics of households in each socioeconomic quintile, household survey
- Table A.4. Characteristics of households in each socioeconomic quintile, exit survey

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We are grateful to the DMOs and Malaria Focal Persons in the districts who facilitated our work in the field, and to the survey teams who worked under very challenging conditions to implement the fieldwork. And finally, we are indebted to the respondents to the surveys who provided their time and shared their experiences.

## **1. Introduction**

The Ifakara Health Research and Development Centre and the London School of Hygiene and Tropical Medicine have been contracted to undertake the Monitoring and Evaluation of the Tanzania National Voucher Scheme (TNVS). This scheme delivers a voucher worth TSh2700 as part-payment for an insecticide-treated mosquito net to all women at their first antenatal care visit. The scheme began district-level activities in October 2004 on a phased roll-out basis, and will reach the whole country by March 2006. It is funded through a grant from the Global Fund for AIDS, TB and Malaria.

This report presents the findings of the 2005 household, facility and exit surveys. Preliminary findings have been presented to the ITN cell in the National Malaria Control Programme and to the TNVS partners. None of the findings presented here are different in substance from the preliminary results, however, there have been some minor changes and corrections (e.g. in confidence intervals) arising from subsequent data cleaning. For this reason, the results in this report supersede those in previous presentations and reports.

## **2. Methodology**

As part of the Monitoring and Evaluation of the Tanzania National Voucher Scheme, a national household and facility survey was undertaken during the period June – August 2005. The main aims of the surveys were:

### *Household survey:*

- To provide “baseline” estimates of ITN coverage in children < 5 years and pregnant women at the national and district levels
- To provide information about household awareness and knowledge about the operation of the voucher scheme
- To provide the basis for cross-sectional comparison of ITN coverage between districts in the “early”, “middle” and “late” phases of TNVS implementation and to provide the basis for district-specific comparisons with information to be collected in 2006 (changes over time).

### *Facility survey:*

- To provide information about the availability of equipment and supplies for antenatal services, services offered, supervision, and utilization
- To provide information about conduct and content of health education sessions, particularly as they pertain to malaria in pregnancy
- To provide information from women attending RCH services about their knowledge and use of the voucher scheme, ITN use in pregnancy and knowledge of malaria in pregnancy

## **2.1 Survey Modules**

Three survey instruments (household, facility and exit) were developed and pilot tested during the March 2005 Rapid Coverage Survey. The instruments were composed of the following modules:

### **(1) Household survey**

#### **Household module (HH) for a sample of 6300 households –**

- Identifiers

- All residents
- Household assets (markers of socioeconomic status)
- Education and occupation of the household head
- Location of the household using a GPS
- ITN coverage of all household members

**Women’s module (W) for all women aged 15-49 in a sample of 6300 households –**

- Current pregnancies
- Pregnancies in the previous 18 months
- Use of antenatal services during these pregnancies
- Use of voucher scheme during these pregnancies
- Coverage of ITNs and IPTp in pregnancy

**Children’s module (C) for all children aged 0-59 months in a sample of 6300 households**

- ITN use

***Hati Punguzo* IRK module for all infants aged < 1 year, to be administered in those districts which were distributing IRKs by 1 June 2005. (5 districts = Tanga, Dodoma Rural, Kilombero, Rufiji, Bagamoyo).**

- Receipt of IRK
- Use of IRK to treat net

**(2) Health Facility Survey**

**Health facility survey for the facility serving each cluster (210 facilities in total)**

- Equipment, supplies and provision of antenatal services
- Conduct and content of health education/promotion activities

**(3) Exit Survey**

**Exit survey for women who have used RCH services (7 women X 210 hh = 1470 women in total)**

- Exit interviews of RCH users on their pregnancy history, use of RCH services this pregnancy, voucher knowledge and use, ITN use, and knowledge of malaria in pregnancy

**2.2 Sampling process**

A random sample of 21 “M&E districts” has been drawn, stratified by phase of implementation (Table 2, and see Appendix 2).

Table 1. TNVS Monitoring and Evaluation – sampled M&E districts

TNVS launch phase	Launch date*	Region	District
1	4 Dec 2004	Tanga	Tanga
	25 Oct 2004	Dodoma	Dodoma Rural
	23 December 2004	Morogoro	Kilombero
	4 March 2005	Kilimanjaro	Same
	25 February 2005	Coast	Rufiji
	1 March 2005	Coast	Bagamoyo
	13 April 2005	Arusha	Karatu
2	8 July 2005	Tabora	Igunga
	18 July 2005	Mwanza	Magu
	14 April 2005	Lindi	Nachingwea
	31 May 2005	Mtwara	Tandahimba
	3 May 2005	Singida	Singida Urban
	14 June 2005	Tabora	Tabora Rural
	26 July 2005	Mara	Bunda
	11 November 2005	Mara	Simanjiro
3	26 Sept 2005	Kagera	Biharamulo
	7 October 2005	Shinyanga	Meatu
	6 October 2005	Kigoma	Kibondo
	9 December 2005	Iringa	Ludewa
	4 November 2005	Manyara	Mbulu
	29 December 2005	Rukwa	Sumbawanga rural

\*These were the scheduled launch dates at the time of sampling. Although the roll-out plan may have subsequently slipped, this grouping of districts will be retained for analysis by launch phase.

Ten clusters of 30 households (300 households in total) were selected in each district. Sampling was undertaken so that all households within the district had an equal chance of being included in the sample. Clusters (wards) were selected with probability proportionate to size of the ward. Within each chosen ward, one sub-village (kitongoji) was selected using simple random sampling. Within each selected kitongoji, 30 households were chosen using a modified EPI-type sampling procedure (see Appendix 2).

The facility module was administered to the health facility which serves the selected cluster, giving a total of 10 facilities per district.

At each facility the exit interview was administered to the first 7 women to leave the facility on the day of survey. The interviewer(s) waited by the exit of the facility and introduced him/her self to each woman as she left, asking for (approx) 5 minutes of her time and informed consent to proceed with the questionnaire.

### 2.3 Sample size

The sample size for the household survey was set to estimate two key indicators for each district. These two key indicators are:

1. Net use in the night before the survey in children under five years
2. Net use while *in utero* for children aged 0-11 months (reflects net use in pregnancy roughly one year prior to the survey).

Assuming an average household size of 5 people, 16% of the population below 5 years, 2.6% under 1 year, and a design effect of 2.0, Table 2 below gives the number of households to be visited in the survey area to estimate each indicator to within a given degree of precision.

Table 2. Sample size calculations for household survey

Indicator	Expected level to be estimated	Numbers of households required for estimating with given precision in percentage points (standard error)*		
		5	10	12.5
Net use in previous night in children < 5	0.50	250	63	40
Net use in utero for children aged 0-11 months	0.50	1538	385	246

\*Limits of 95% confidence interval will be plus or minus twice the standard error

With 300 households in total, therefore, we would expect to be able to estimate net use by under-fives plus-or-minus 10%; and for children aged 0-11 months plus-or-minus 25%.

The sample size for the Exit Survey at Health Facilities was estimated to detect one principal and more secondary outcomes:

1. An increase in the proportion of women first accessing antenatal services in the first trimester of pregnancy
2. An increase in the proportion of pregnant women who are protected by an insecticide treated bednet following inception of the voucher scheme

Assuming that two-thirds of pregnant women accessing antenatal services on the day of survey will have been exposed to the scheme, a sample of 170 respondents would give the study 90% confidence and 80% power to observe an increase in the proportion attending antenatal clinics in the first trimester from 5% to 20%.

This sample size is also sufficient to detect, with reasonable precision (90% confidence and 70% power), an increase in use of bednets by pregnant women from 40% to 60%, again assuming that two-thirds of the women accessing services on the day of interview have been exposed to the voucher scheme.

## 2.4 Logistics

The survey was carried out by 10 teams composed of 6 interviewers, a supervisor and a driver. The teams were combined into two groups of 5 teams, with each group

working in one district, completing 2 clusters per team. One group followed a “Northern Route” (12 districts) and one a “Southern Route” (9 districts). In each team two of the interviewers worked on the facility/exit surveys and four worked on the household survey.

Each interviewer carried a personal digital assistant (PDA) (a small, hand-held computer) for data collection and GPS for recording the location of each household and facility. Each supervisor carried one laptop computer so that data from each day could be downloaded from the PDAs and written to a CD.

## **2.5 Quality control**

Experienced interviewers were selected and trained for 3 weeks. Training included household selection, interview technique, and probing for dates using local event calendars. A detailed interviewers’ guide was prepared, piloted during the training sessions and carried in the field by all interviewers.

The supervisor repeated key aspects of 3-4 household interviews independently each day, through accompanied interview and re-interview. Twenty percent of all facilities received a visit from the team supervisor on the day of interview. During this visit the supervisor aimed to:

- Observe interaction between MCH staff and Facility interviewer with a view to maintaining professionally appropriate behaviour by the TNVS employee
- Check posters on display with those noted by interviewer on survey instrument
- Re-interview respondent for specified key section.
- Counter-check the figures extracted from the Ledger books
- Observe interaction between at least one Service User and Exit interviewer with a view to maintaining professionally appropriate behaviour by the TNVS employee
- Re-interview at least one respondent using specified key indicators.

At the end of each day supervisors synchronized the PDAs to their PC and ran two sets of checks using purpose-written MS Access programmes. The Quality Control check compared the original interview and re-interview and identified discrepancies. The Reporting programme produced a summary of the data collected for each cluster, including specific problems with, e.g. household numbers, GPS readings, etc.

When data entry errors were encountered, the supervisors were asked to produce a Data Error Form which were provided to the Data Manager for subsequent data cleaning.

## **2.6 Data processing**

All data were entered into handheld computers at the point of data collection. Data cleaning was undertaken by the Data Manager using information from the Data Error Forms, supervisor summary forms, daily Access-generated reports and standard range and consistency checks.

## **2.7 Ethical aspects and informed consent**

For all three surveys an information sheet about the study was drawn up in Swahili, explaining why it is being carried out, by whom, and what it involves. Respondents were asked if they have any questions and whether they agree to take part in the study. Written consent of all respondents was obtained before proceeding with interview.

For the household survey this consent was sought from the household heads (or appointed representative) and from each women interviewed aged 15-49. For the exit survey the information and consent process was carried out with each respondent individually away from the clinic site and respondents given a study number; no names or physical addresses were recorded. For the facility survey the district medical officer was contacted in the first instance and district level activities were described and consent sought to visit any of the RCH facilities within that District. At individual sampled facilities this process was then repeated with the Head of facility. Confidentiality of all study participants was assured. As a means of enhancing this for facility employees the names of facilities interviewed within any district were not recorded at any time and feedback is restricted to District level – never facility level – issues.

## **2.8 Timing**

Data collection took place between 3<sup>rd</sup> July and 26 August 2005. Preliminary data were provided by the Data Manager on 11 September 2005, which were used for initial programming. Final “clean” data were received on 7 October 2005. Preliminary results were presented to the TNVS partners at meetings at NMCP on 2 November 2005 and 22 November 2005

## **2.9 Data analysis**

Data were analyzed using Stata software according to an analytical plan. The “svy” commands were used to allow the confidence intervals of estimated parameters to be adjusted for the cluster structure of the survey.

An important element of the analysis was to identify pregnancies which were exposed to the voucher scheme. For the purposes of this analysis, the following definitions apply:

Current pregnancies: These were defined as being in “launched” districts if the official district launch date provided by MEDA was at least 30 days prior to the date of interview

Previous pregnancies: These were defined as being in “launched” districts if the date of birth of the child was at least 30 days after the official district launch date provided by MEDA.

Facility survey: Two definitions were used – individual facility launch was defined as one that had launched *Hati Punguzo* prior to the day of the survey. In some cases, to ensure compatibility with household survey results, facility data are presented by district launch status (i.e. launched if district launch date was at least 30 days prior to the date of the survey).

In order to examine the relationship between key coverage outcomes and socioeconomic status, an index of socioeconomic status was constructed using principal components analysis. The same approach was used for both household and exit survey data, though the coding of variables was slightly different. A single index was calculated over the full sample. The indicators included in the index were a mixture of household ownership of assets (radio, mobile phone, and bicycle), housing conditions (whether own or rent house, type of toilet, whether connected to electricity supply, and type of roof), and education of household head. The education of household head was divided into three categories (no education, 1-6 years, or more

than 6 years of education). All other variables were entered as binary (0-1) variables. The continuous variable produced by the principal components analysis was divided into 5 equal sized groups (quintiles). Results of the SES analysis are presented in Appendix 1.

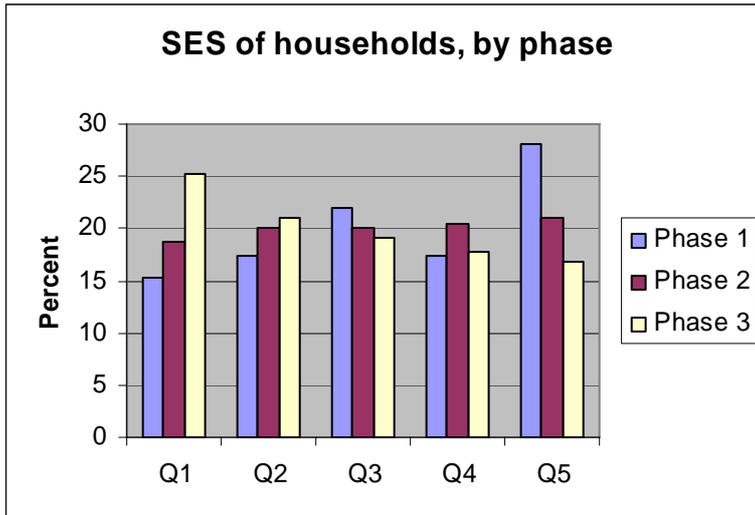
### 3. Results

#### 3.1 Characteristics of the sample

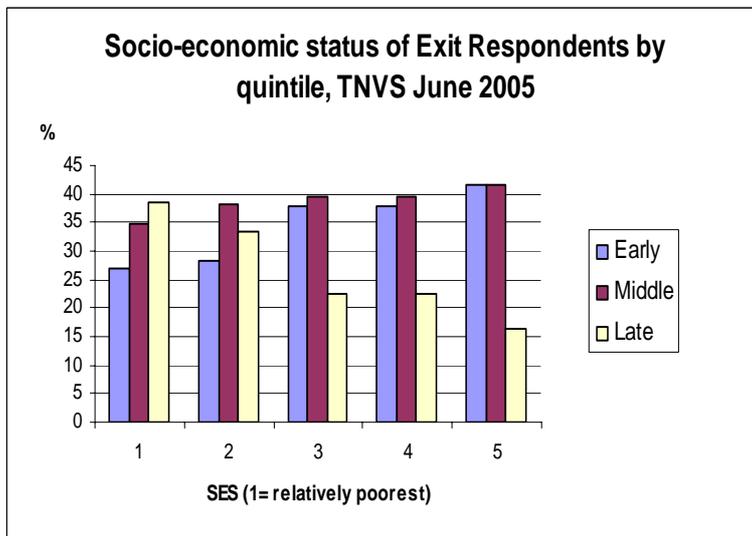
Table 3. Characteristics of sampled households/individuals (after cleaning), TNVS June 2005

	Household	Exit	Facility
Total number of households interviewed	6199		
By Phase: Early	2058	270	62
Middle	2078	328	62
Late	2063	250	66
Number of household refusals (%)	86 (1.4%)		
Number of clusters	210	154	190
Total individuals in households	31164		
Number of women 15-49	6287		
Number of children < 5	5567		
Number of children < 1	244		
Number of women interviewed	6287		
Number of women refusals (%)	46 (0.6%)		
Number of pregnant women interviewed		848	
Number of nets (household report)	5220		
Number of antenatal records reviewed			17351
Number of current pregnancies	779		
Number of live births in 2004/5	1870		

Figures 1 and 2 show the socioeconomic status of households and exit survey respondents, respectively, by phase. Although we have presented a number of indicators by phase, implying that differences can be attributed to differences in length of exposure to the scheme, it is extremely important to interpret these differences with caution. The main reason is that we do not have a full “baseline” in those districts which had launched prior to the survey (i.e. for all Phase 1 districts and about half the districts in Phase 2), and it is therefore difficult to know what values the main outcome indicators (e.g. ITN coverage) took prior to launch of *Hati Punguzo*. Because of the non-random roll-out of districts it is very likely that the early launch districts, which were closer to Dar es Salaam, had higher levels of ITN coverage to begin with, so that observed differences between phases at the time of the 2005 household survey cannot be attributed to the effects of *Hati Punguzo*. The hypothesis that the districts had different levels of net ownership to begin with cannot be examined directly with the data we have collected, however it is clear that the districts do differ systematically in terms of their socioeconomic status, which is shown below to be a key predictor of ITN ownership. In particular, respondents from the ‘Late’ implementation areas had a lower representation of the relatively richest socio-economic group compared to respondents from the ‘Early’ implementation areas.



**Figure 1**



**Figure 2**

A much cleaner measure of impact will be possible following the 2006 household, facility and exit surveys, after which it will be possible to make district-on-district and phase-on-phase comparisons of changes in coverage.

### **3.2 Coverage and use of vouchers**

Table 4 provides information about voucher coverage in launched districts from the household, exit and facility data. Voucher coverage, defined as the proportion of pregnant women attending RCH in launched districts who received a voucher, ranged from 40.7% (household, currently pregnant) to 48% (previous pregnancies). The estimate from the household survey for previous pregnancies may be higher than the others because the women had completed their pregnancy at the time of interview and had made the maximum number of RCH visits.

In the analysis of currently pregnant women in the household data, women in their third trimester were also more likely to have received a voucher. The Exit data indicate that gravidity and trimester of pregnancy and socio-economic status were strongly associated with receipt of a voucher in bivariate analysis.

Table 4. Coverage of voucher, pregnant women from three data sources, TNVS June 2005

	Household Survey		Exit Survey	Facility Survey
	Current pregnancies	Pregnancies in 2004/5	Pregnant RCH users	Facility records
Total pregnancies	779	1870	848	
Pregnancies in launched districts	420	164	488	
Pregnancies in not-launched districts	359	1706	360	
Attended RCH – overall	377 (48.4)	1825 (97.6)		
Attended RCH – launched (%)	214 (51.0)	163 (99.4)		
	N=214 %(95%CI)	N=163 %(95%CI)	N=488 %(95%CI)	N=10230 %(95% CI)
Received voucher in Launched districts	40.7 (32.7-49.1)	48.5 (40.1-57.0)	42.0 (34.6-49.7)	46.7 (45.7-47.7)
By Phase (among launched)				
Early	48.4 (38.6-58.3)	n/a	55.1 (43.3-66.4) <sup>§</sup>	n/a
Middle	30.4 (18.9-45.1)	n/a	25.7 (18.2-34.8)	n/a
By SES				
Q1 (poorest)	24 (10.2-46.9)	33.3 (15.7-57.3)	27.1 (17.0-40.3)	n/a
Q2	40.6(23.5-60.4)	38.1 (24.0-54.6)	38.1 (28.1-49.3)	
Q3	30.6 (19.6-44.4)	57.1 (39.4-73.3)	45.6 (33.0-58.9)	
Q4	46.8 (32.5-61.6)	45.5 (31.3-60.3)	42.4 (28.9-57.1)	
Q5 (least poor)	52.8 (40.3-65.0)	64.1 (45.0-79.6)	51.2 (39.2-63.1)	
	p=.07	p=.09	p=0.04	
By rural/urban				
Rural	33.1 (23.7-44.1)	48.6 (38.6-58.8)	41.6 (32.1-51.8)	n/a
Semi-urban	54.4 (39.8-68.2)	37.9 (19.7-60.4)	36.8 (21.6-55.2)	
Poor	66.7 (45.0-83.0)	60 (35.6-80.3)	55.5 (33.5-75.5)	
	p=.003	p=.41	p=0.46	
By trimester				
First	41.7 (15.7-73.3)	n/a	31.2 (11.7-60.9)	n/a
Second	29.6 (19.4-42.9)		34.8 (26.0-44.7)	
Third	46.6 (36.6-56.9)		49.3 (41.0-57.8)	
	p=0.12		p=0.01	
By gravidity				
Primigravidae	n/a	n/a	50.0 (39.4-60.5)	n/a
Multigravidae			39.8 (32.1-48.1)	
			p=0.05	

§Pearson design based test for significance: p<0.05

In order to present data that are comparable across the three data sources Table 4a presents facility and exit data by whether districts had launched *Hati Punguzo* or not launched (where this is defined as having an official launch date for the district at

least 30 days before the date of the interview, in order to allow some time for implementation within the district). Obviously at this intermediate stage of roll-out this definition of district launch will include some facilities within launched districts that had not launched. Table 4a shows, for Exit and Facility surveys, the percent who received a voucher if attended a launched facility in a launched district. Note that the number of records reviewed for launched facilities, and number of Exit respondents from launched facilities, is fewer than the number of records reviewed and respondents interviewed in launched districts.

Table 4a. Coverage of voucher, pregnant women from Exit and Facility surveys by individual facility launch status, TNVS June 2005

	Exit Survey		Facility survey	
	RCH users reported receipt of a voucher		Facility records over a three month period of vouchers issued	
	N	% (95% ci)	N	% (95% ci)
Launched facility	330	54.8 (44.2-65.0)	6301	63.0 (61.7-64.1)

\*Launched facility is defined as one that had launched *Hati Punguzo* prior to the day of survey. Calculation for vouchers distributed / number of RCH attendees controls for individual facility launch date + 30 days.

In Table 5 a multivariate analysis is presented showing the odds of receipt of a voucher after combining all the determinants that appear to be influential in Table 4 into one model. From the Exit data, women in their third trimester had a higher odds of having received a voucher - after adjustment for other factors - than women in their first or second trimesters. This is likely to be explained by number of visits to the clinic – and thus exposure to the scheme – being greater as pregnancy progresses. In this model there were differences in likelihood of receiving a voucher by increasing socio-economic status, but the differences were not significant.

The Household model for currently pregnant women shows no relationship between voucher receipt and socioeconomic status ( $p=.07$ ) and urban/rural residence ( $p=.44$ ) after adjustment for other factors. Trimester remains significant, with women in their third trimester more likely to have received a voucher.

Table 5. Multivariate analysis of determinants of receipt of a voucher in Launched Districts. Adjusted analysis of odds of receiving a voucher, TNVS June 2005

Exit				HH – Currently pregnant*		
	N	Adj Odds Ratio (95% CI)	F (p-value)**	N** *	Adj Odds Ratio (95% CI)	F (p-value)
All women in launch districts	488			201		
Gravidity						
Primigravidae	384	1.0		n/a		
Multigravidae	104	0.6 (0.4-1.0)	2.7 (0.10)	n/a		
Gestation						
First trimester	16	1.0		11	1.0	
Second trimester	227	1.1 (0.3-3.6)		67	0.7 (0.1-4.6)	
Third trimester	245	2.1 (0.6-7.2)	8.7 (<0.01)	123	1.2 (0.3-7.7)	4.2 (0.04)
Residence						
Rural	312	1.0		135	1.0	
Semi-urban	122	0.7 (0.3-1.9)		46	2.3 (1.0-5.2)	
Urban	54	1.5 (0.5-3.8)	1.4 (0.2)	20	3.5 (1.1-11.3)	0.60 (0.44)
Socio-economics						
Q1 (poorest)	67	1.0		24	1.0	
Q2	119	1.5 (0.8-2.6)		31	2.4 (0.7-7.8)	
Q3	108	2.1 (1.1-3.8)		47	1.3 (0.4-3.3)	
Q4	77	2.0 (0.9-4.2)		47	3.2 (1.0-10.0)	
Q5 (least poor)	117	2.3 (1.1-4.9)	0.8 (0.4)	52	2.5 (0.7-8.3)	2.3 (0.07)

\* Analysis restricted to those currently pregnant who had already visited MCH prior to date of interview

\*\*Adjusted Wald test for significance of differences observed

\*\*\* N different from Table 5a because of missing values for SES and rural/urban.

Information about voucher use is shown in Table 6. Vouchers were used to purchase a net by between 62.1% (household survey, current pregnancies) and 78.3% (previous pregnancies) of women. The higher level of voucher use among previous pregnancies is again related to the fact that the pregnancy was completed at the time of interview and women therefore had potentially had a longer period of time in which to use their voucher. It thus represents the best estimate of the redemption rate of vouchers by the end of pregnancy, and is the figure which should be most directly comparable to the redemption rate calculated by the MEDA management information system. In the household data, none of the bivariate relationships examined (phase, socioeconomic status, rural/urban residence) showed any significant differences. However the Exit data indicated that more vouchers had been redeemed by women living in urban areas than in rural areas – but this may simply be an indicator of speed of access since women in rural areas may take longer to redeem their voucher than women in urban areas. Again, redemption by previous pregnancies offers the least biased estimate of redemption rates.

Table 6. Use of voucher, pregnant women from two data sources, TNVS June 2005

	Household survey		Household survey		Exit survey	
	Currently pregnant	p***	Previous pregnancies	p	Pregnant RCH users	p
Received voucher	N=87		N=115*/n=79		N=142**	
Used voucher to buy net	62.1 (49.4-73.3)		78.3 (67.2-86.4)		69.0 (60.7-76.4)	
By phase:						
Early	64.4 (48.7-77.5)	0.57			73.7 (63.9-82.0)	0.06
Middle	57.1 (36.1-75.9)				58.1 (42.1-72.9)	
Late	0				0	
By SES:						
Q1	50 (16.1-83.9)	0.65	66.7 (25.8-92.0)	0.10	68.7 (41.3-88.9)	0.11
Q2	53.9 (27.2-78.5)		84.2 (60.7-94.9)		66.6 (44.6-84.3)	
Q3	60.0 (34.0-81.3)		58.3 (38.0-76.2)		61.9 (45.6-76.4)	
Q4	54.6 (34.6-73.1)		85.7 (62.8-95.5)		66.6 (43.0-85.4)	
Q5	71.4 (51.7-85.4)		86.1 (63.6-95.6)		79.4 (63.5-90.7)	
By rural/urban						
Rural	55.3 (38.0-71.4)	0.39	75.3 (61.8-85.2)	0.44	60.4 (49.0-71.1)	0.01
Semi Urban	72.0 (50.4-86.7)		75.0 (33.9-94.6)		74.3 (57.8-86.9)	
Urban	71.4 (36.9-91.5)		90.9 (69.3-97.8)		90.0 (70.8-98.8)	

Source: 2005 TNVS Household and Exit surveys

\* Denominator for percentages is all women who received voucher, regardless of whether district had launched or not. In launched districts, 79 women received a voucher; an additional 36 women in non-launched districts reported receiving a voucher, giving a total of 115..

\*\*Exit calculations restricted to women who had received a voucher prior to day of interview

\*\*\* Pearson design based test for significance

There is considerable interest in the question of how much money women are paying out-of-pocket to top-up the voucher to buy a net. The average top-up amount paid when using the voucher, according to the different information sources, is shown in Table 7. The results are remarkably consistent across sources and indicate that the average amount paid is approximately TSh 1000. Disaggregating by size of net purchased, it can be seen that the top-up paid is associated with size of net purchased, with larger top-ups required to buy larger nets.

Table 7. Mean top-up paid by size of net bought, Exit and household surveys

	Exit		Household (currently pregnant)		Household (previous pregnancies)	
	(N=103) %	Mean top-up (95% CI)	(N=54) %	Mean top-up (95%CI)	(N=100) %	Mean top-up (95%CI)
All voucher nets	100	1019.4 (922.2-1116.5)	100	1094.4 (778.7-1410.2)	100	893.3 (751.1-1035.6)
3.5x6	11	750.2 (578.7-921.0)	11	708.3 (479.8-936.9)	16	639.3 (500.6-778.0)
4x6	31	823.6 (708.6-938.1)	44	895.8 (792.2-999.4)	36	732.0 (597.0-867.0)
6x6	30	1335.2 (1098.4-1572.5)	37	1515 (740.7-2289.3)	38	1090.4 (886.5-294.4)
Other size	28	1000.0 (860.6-1139.3)	7	762.5 (598.0-927.0)	11	1095.0 (454.9-735.1)

It appears that one effect of voucher use may be to increase the size of nets in households. We examined this using information from the household nets module, which provides information about the size of each net in the household and whether it was purchased using a voucher. Table 8 classifies the size of net by whether the net was purchased using a voucher. There is evidence that vouchers are being used to buy larger nets than the average nets in the household: the smallest nets (3.5X6) are a smaller proportion of all nets purchased with vouchers (12.7%) than of non-voucher nets in households (21.2%). In this case voucher status was reported by the household head. It should be noted, therefore, that there is likely to be some error in the reporting of this variable since the number of nets in households reported to have been purchased using a voucher (165) exceeds the number of nets reported by women to have been purchased with a voucher (144).

Table 8. Size of net purchased, by whether or not the net was purchased using a voucher (reported by household head)

	Used voucher	N	Did not use voucher	N
3.5X6	12.7 (7.5-20.7)	21	21.2 (19.0-23.5)	1045
4X6	38.8 (30.7-47.5)	64	40.8 (38.4-43.2)	2014
6X6	35.8 (28.2-44.1)	59	21.4 (19.4-23.6)	1056
Other size	12.7 (8.4-18.7)	21	16.7 (14.7-18.9)	824
All		165		4939

Source: 2005 TNVS Household Survey  
 Pearson design based test for significance p=0.008

In addition to the top-up amounts paid, in using their vouchers to purchase a net women face the time and travel costs of getting to the place where the net is sold. Table 9 summarises these costs of using the voucher. The mean travel time is about 40 minutes, and mean travel cost between TSh 67 and TSh 161.

Table 9. Cost of using voucher

	Household survey	
	Current pregnancies (n=54)	Previous pregnancies (n=90)
Travel time to purchase net (minutes)	41.0 (30.9-51.2)	39.7 (27.6-51.9)
Travel cost to purchase net (TSh)	66.7 (18.8-114.6)	160.9 (26.3-295.6)

Additional evidence that the TNVS is helping to get nets into households is provided by information about the age distribution of nets in launched vs. non-launched districts. Figure 3 shows a higher proportion of nets are less than 6 months old in launched than in non-launched districts, though this difference is not statistically significant ( $p=0.11$ ). Figure 4 shows the same information but by launch phase, indicating early launch districts have a higher proportion of newer nets than middle or late launch districts ( $p=0.05$ )

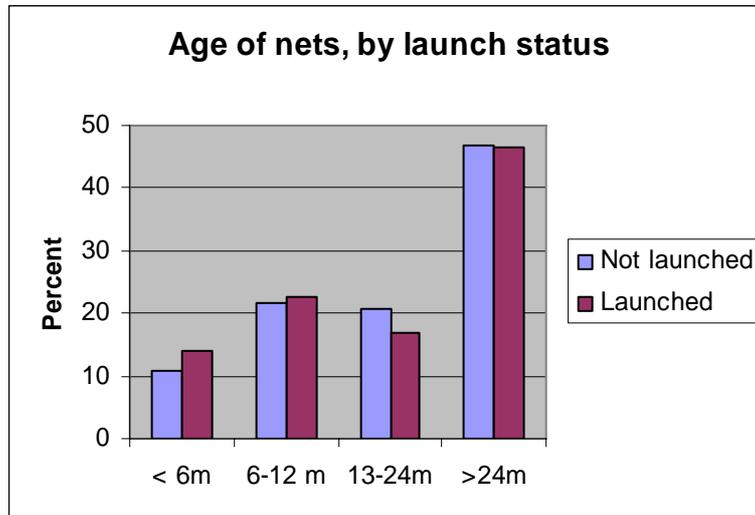
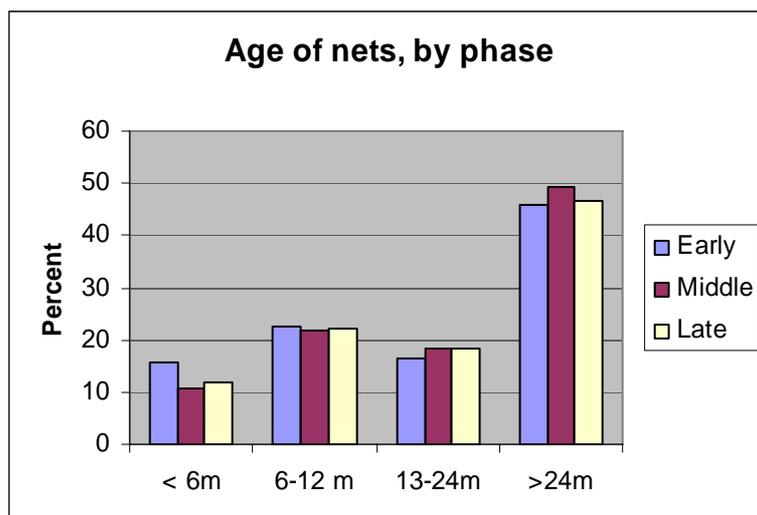


Figure 3



**Figure 4**

### 3.3 Coverage of ITNs: Target groups and all household members

Information about bednet use in pregnancy was gathered from both the exit and household surveys. For currently pregnant women in both surveys, the question pertained to use of a net the previous night. In the case of previous pregnancies, it was only possible to ask “*While you were pregnant, did you sleep under a mosquito net?*” so that the questions from the two different groups are not directly comparable and have therefore not been aggregated. Table 10 combines information about currently pregnant women from the household and exit surveys to show the range of estimates. For any net coverage, this is from 25.2 to 47.7%, and for a recently-treated net, from 10.7 to 30.9%.

Table 10. Summary of results on bednet use, pregnant women, household and exit surveys, TNVS June 2005

	Any net	Recently treated net (<12 months)
	% (95% CI)	% (95% CI)
Exit (n=848)	47.7 (43.4-52.0)	30.9 (26.8-35.2)
Household (currently pregnant) (n=779)	25.2 (21.3-29.5)	10.7 (8.5-13.4)

Table 11a shows data from the exit survey on determinants of bednet use among pregnant women. 47% of pregnant women from the exit survey reported using any type of bednet on the night preceding interview, and 31% using a recently treated net. In the bivariate analysis there were significant differences in use of bednets by socio-economic status, residence, gestation of pregnancy and whether living in a launched district.

Table 11a. Bednet use amongst pregnant women, bivariate analysis, Exit Survey, TNVS June 2005

	Slept under any bednet last night			Slept under a recently treated net last night (<12 mths)	
	N	%	p*	%	p*
All	848	47.7 (43.4-52.0)		30.9 (26.8-35.2)	
<b>Age</b>					
<20 years	154	48.0 (39.3-56.9)		30.5 (23.7-38.2)	
20-29 years	455	50.1 (44.5-55.6)		32.9 (27.8-38.5)	
30-39 years	205	43.9 (37.5-50.4)		27.3 (21.5-33.9)	
40+years	34	38.2 (23.9-54.8)	0.3	26.4 (14.4-43.3)	0.4
<b>Gravidity</b>					
Primigravidae	185	46.4 (39.2-53.8)		29.1 (23.2-35.9)	
Multigravidae	663	48.1 (43.4-52.8)	0.6	31.3 (26.9-36.1)	0.5
<b>District Launch</b>					
No	360	41.3 (32.1-51.8)		23.0 (17.7-29.3)	
Yes	488	52.4 (46.4-58.3)	0.01	36.6 (31.0-42.7)	<0.01
<b>Gestation</b>					
1 <sup>st</sup> trimester	22	27.2 (11.5-51.8)		9.0 (2.1-31.1)	
2 <sup>nd</sup> trimester	365	40.8 (35.1-46.7)		24.1 (19.3-29.6)	
3 <sup>rd</sup> trimester	461	54.2 (48.5-59.8)	<0.01	37.3 (31.7-43.2)	<0.01
<b>Residence</b>					
Rural	576	44.4 (39.0-49.9)		28.3 (23.6-33.4)	
Semi-urban	204	50.0 (40.2-59.7)		31.3 (21.8-42.7)	
Urban	68	69.1 (50.4-83.1)	0.03	51.4 (34.2-68.3)	0.04
<b>Socio-economics</b>					
Q1 (poorest)	157	31.8 (24.0-40.8)		17.8 (11.6-26.4)	
Q2	180	37.2 (29.5-45.6)		22.2 (16.1-29.8)	
Q3	170	42.3 (34.0-51.1)		28.2 (21.3-36.3)	
Q4	168	51.3 (44.7-59.8)		29.1 (22.3-37.0)	
Q5 (least poor)	173	73.9 (66.8-80.0)	<0.01	56.0(48.1-63.7)	<0.01

\* Pearson design based test for significance

Table 11b shows adjusted odds ratios from a multivariate analysis for exit survey data. All determinants that showed evidence of being associated with bednet use from Table 11a were entered together in a model to see what the most important factors were for this group of respondents. The differences by socio-economic status remained statistically significant after adjustment for other factors with the women in the least poor economic group being five times more likely to have used any bednet and four times more likely to have used a recently treated net on the night before interview than a woman in the lowest economic group. Independent of socio-economics, women resident in a *Hati Punguzo* launched district had higher odds of being bednet user that women resident in districts not yet launched. This increase was even more marked for treated nets with women living in launched districts being almost twice as likely to be treated net users as women in unlaunched districts after adjustment for other variables. The likelihood of being a net user increased with gestation: women in their third trimester of pregnancy had a seven-fold increased

odds of using a recently treated net compared to women in their first trimester of pregnancy.

Table 11b. Multivariate analysis of determinants of bednet use amongst pregnant respondents to Exit survey. Adjusted odds of receiving a voucher, TNVS June 2005

	N	Slept under any bednet last night		Slept under a recently treated net last night (<12months)	
		Adj Odds Ratio (95% CI)	F* (p-value)	Adj Odds Ratio (95% CI)	F* (p-value)
All	848				
District Launch					
No	360	1.0		1.0	
Yes	488	1.5 (1.0-2.3)	4.7 (0.03)	1.8 (1.2-2.9)	7.7 (<0.01)
Gestation					
1 <sup>st</sup> trimester	22	1.0		1.0	
2 <sup>nd</sup> trimester	365	1.9 (0.5-7.3)		3.5 (0.6-20.3)	
3 <sup>rd</sup> trimester	461	3.6 (1.0-13.8)	15.9 (<0.01)	7.4 (1.3-41.4)	14.9 (<0.01)
Residence					
Rural	576	1.0		1.0	
Semi-urban	204	1.2 (0.7-2.0)		1.1 (0.6-2.0)	
Urban	68	1.9 (0.9-4.0)	0.9 (0.32)	1.7 (0.8-3.5)	0.8 (0.36)
Socio-economics					
Q1 (poorest)	157	1.0		1.0	
Q2	180	1.2 (0.7-1.9)		1.2 (0.6-2.2)	
Q3	170	1.4 (0.8-2.3)		1.5 (0.9-2.6)	
Q4	168	2.4 (1.4-4.0)		1.9 (1.1-3.4)	
Q5 (least poor)	173	5.6 (3.3-9.4)	16.1 (<0.01)	4.2 (2.8-9.9)	12.7 (<0.01)

\*Adjusted Wald test for significance of differences observed

As noted above, estimates of bednet use among currently pregnant women are lower in the household than in the exit survey, with 25% of currently pregnant women reporting use of any net, and 11% reporting use of a recently-treated net. Table 12a also shows that women in launched districts are more likely to use a net (treated or not) than those in not-launched districts. There are very marked differences by socioeconomic group, but the largest differences are between quintile 4 and quintile 5. Pregnant women residing in urban areas are much more likely to use a net than those in rural areas.

Table 12a. Bednet use among **currently** pregnant women, bivariate analysis, household survey

	N	Any net		Recently-treated net (<12m)	
		% (95%CI)	P**	% (95%CI)	P**
All	779	25.2 (21.3 to 29.5)		10.7 (8.4 to 13.4)	
By launch*:			0.002		0.01
Launched	420	31.0 (24.9-37.7)		13.8 (10.5 to 18.0)	
Not launched	359	18.4 (14.0 to 23.7)		7.0 (4.4 to 10.8)	
By phase:			<0.001		0.001
Early	237	38.8 (30.5 to 47.9)		17.7 (12.9 to 23.9)	
Middle	295	22.7 (17.2 to 29.4)		8.8 (5.8 to 13.1)	
Late	247	15.0 (10.3 to 21.3)		6.1 (3.4 to 10.5)	
By SES:			<0.001		<0.001
Q1	117	12.8 (8.0 to 20.0)		6.0 (2.8 to 12.3)	
Q2	128	14.8 (9.5 to 22.5)		5.5 (2.6 to 11.2)	
Q3	169	22.5 (16.3 to 30.3)		6.5 (3.8 to 11.0)	
Q4	171	28.7 (21.5 to 37.1)		11.7 (7.5 to 17.8)	
Q5	172	40.7 (33.3 to 48.6)		21.5 (16.0 to 28.2)	
Ratio Q1:Q5		0.31		0.28	
By residence:					
Urban	47	63.8 (47.8-77.3)		31.9 (21.4-44.7)	
Semi-urban	175	32.0 (23.6-41.7)		12.6 (8.5-18.3)	
Rural	523	19.9 (15.8-24.8)	<.001	8.4 (5.9-11.9)	<0.001

Source: 2005 TNVS Household Survey

\*Launched = 1 if district launch date is at least one month before the date of interview

\*\* Pearson's design based chi-squared test

Table 12b shows results of multivariate analysis of determinants of bednet coverage among currently pregnant women. Adjusted odds ratios are very similar for the two models (any net, recently-treated net). Launch status (for any net), rural/urban residence, and socioeconomic status are significantly related to bednet use among pregnant women. For both indicators, the least poor socioeconomic group is over 3 times more likely to use a net than the poorest group. Unlike the exit survey results, in the household data gestation of pregnancy is not a good predictor of bednet use, while residence is more strongly correlated with use.

Table 12b. Multivariate analysis of determinants of bednet coverage, **currently** pregnant women, household survey. Adjusted odds of sleeping under a net the previous night

	N	Slept under any bednet last night		Slept under a recently treated net last night (<12mths)	
		Adj Odds Ratio (95% CI)	F* (p-value)	Adj Odds Ratio (95% CI)	F* (p-value)
All	723				
District Launch					
No	329	1.0		1.0	
Yes	394	1.9 (1.2-3.0)	6.81 (0.01)	1.8 (1.0-3.5)	3.64 (0.06)
Gestation					
1 <sup>st</sup> trimester	225	1.0		1.0	
2 <sup>nd</sup> trimester	255	1.0 (0.6-1.6)		1.2 (0.7-2.4)	
3 <sup>rd</sup> trimester	243	1.3 (0.8-2.0)	1.10 (0.30)	1.7 (1.0-3.0)	1.05 (0.30)
Residence					
Rural	505	1.0		1.0	
Semi-urban	172	1.7 (1.1-2.8)		1.3 (0.7-2.3)	
Urban	46	4.0 (1.9-8.4)	4.17 (0.04)	2.6 (1.3-5.2)	4.21 (0.04)
Socio-economics					
Q1 (poorest)	109	1.0		1.0	
Q2	118	1.2 (0.5-2.7)		1.0 (0.3-3.4)	
Q3	164	1.8 (0.9-3.6)		1.2 (0.4-3.2)	
Q4	164	2.5 (1.3-4.9)		2.1 (0.8-5.7)	
Q5 (least poor)	168	3.2 (1.7-6.1)	3.59 (0.01)	3.7 (1.4-9.7).	5.45 (0.01)

\*Adjusted Wald test for significance of differences observed

\*\*\* N different from Table 12a because of missing values for SES and rural/urban

Net coverage during previous pregnancies is higher than for current pregnancies (Table 13) – this may be due to both the length of exposure (completed pregnancies) as well as the different question (coverage at any point during pregnancy). Note that for this group because we were asking questions retrospectively we could only ask whether the net had ever been treated. Again, launch, SES and urban residence are all positively associated with net use.

Table 13. Bednet use **during pregnancy**, live births which occurred in 2004/5 (slept under net while pregnant), bivariate analysis, household survey

	N	Any net		Ever-treated net	
		% (95%CI)	P**	% (95%CI)	P**
All	1885** *	36.8 (32.4 to 41.4)		19.5 (16.7 to 22.8)	
By launch*:			<0.001		<0.001
Launched	164	54.9 (44.0 to 65.3)		37.2 (28.1-47.3)	
Not launched	1706	35.2 (30.7 to 39.9)		17.9 (15.1-21.1)	
By SES:			<0.001		<0.001
Q1	315	15.2 (10.7 to 21.2)		6.0 (3.6 to 9.9)	
Q2	357	22.4 (17.4 to 28.4)		9.2 (6.4 to 13.2)	
Q3	384	34.1 (28.0 to 40.8)		17.7 (13.8 to 22.4)	
Q4	376	42.3 (36.5 to 48.3)		21.0 (17.0 to 25.6)	
Q5	405	64.0 (57.2 to 70.2)		40.3 (34.0 to 46.9)	
Ratio Q1:Q4		0.24		0.15	
By residence:					
Urban	147	69.4 (57.3-79.3)		45.6 (35.3-56.3)	
Semi-urban	407	39.6(29.7-.50.4)		18.7 (13.2-25.8)	
Rural	1331	32.3 (27.5-37.6)	<0.001	16.9 (13.8-20.6)	<0.001

Source: 2005 TNVS Household Survey

\* Launched = 1 if district launch date at least one month before date of birth of child

\*\* Pearson's design based chi-squared test

\*\*\*Ns do not always add to total because of missing values

Tables 14 and 14a explore the question of whether the launch of HP has helped to get nets into poorer households. These tables look at the association between *Hati Punguzo* launch and the socioeconomic distribution of net ownership. While the estimates of coverage are different between the household and exit surveys (as discussed above) the results point in the same direction. That is, while the confidence intervals of coverage in the lowest quartile overlap in each group, it does appear from these numbers that in each socioeconomic quintile net use is higher in the launched areas than the not-launched ones, for both any net and recently treated net.

Table 14. Bednet use, *by district launch status as at June 2005* and socioeconomic status, **currently pregnant women** reporting on use last night

	Any net				Recently treated (<12 months)			
	HP Launched		HP not launched		HP Launched		HP not launched	
	% (95%CI)	N	% (95%CI)	N	% (95%CI)	N	% (95%CI)	N
Q1	17.0 (9.0-29.7)	53	9.4 (4.4-18.8)	64	7.5 (2.7-19.2)	53	4.7 (1.5-13.8)	64
Q2	14.9 (7.7-27.1)	67	14.8 (8.1-25.5)	61	6.0 (2.2-15.1)	67	4.9 (1.6-14.3)	61
Q3	28.3 (19.4-39.2)	92	15.6 (8.0-28.1)	77	8.7 (4.6-15.9)	92	3.9 (1.3-10.8)	77
Q4	33.7 (23.5-45.7)	92	22.8 (13.9-35.1)	79	16.3 (9.7-26.2)	92	6.3 (2.8-13.9)	79
Q5	49.5 (39.8-59.3)	103	27.5 (18.1-39.6)	69	25.2 (18.3-33.8)	103	15.9 (8.7-27.4)	69
All	31.2 (25.2-37.9)	407	18.3 (13.9-23.6)	350	14.0 (10.7-18.1)	407	7.1 (4.5-11.1)	350

Source: 2005 TNVS Household Survey

Table 14a. Exit Survey bednet use, *by district launch status as at June 2005 and socioeconomic status, RCH users reporting on use last night*

	Any net				Recently treated (<12 months)			
	HP Launched		HP not launched		HP Launched		HP not launched	
	% (95%CI)	N	% (95%CI)	N	% (95%CI)	N	% (95%CI)	N
Q1	39.5 (27.6-52.7)	81	23.6 (14.6-35.9)	76	23.4 (11.4-35.6)	81	11.8 (4.8-26.0)	76
Q2	35.0 (24.9-46.6)	97	39.7 (28.3-52.4)	83	28.8 (19.2-40.8)	97	14.4 (8.2-24.2)	83
Q3	47.4 (36.7-58.3)	116	31.4 (19.4-46.7)	54	33.6 (24.5-44.3)	116	16.6 (8.6-29.7)	54
Q4	58.9 (45.4-71.1)	73	47.3 (38.3-56.5)	95	35.6 (24.5-48.4)	73	24.2 (16.4-34.1)	95
Q5	76.0 (67.9-82.6)	121	69.2 (53.5-81.4)	52	55.3 (45.6-64.7)	121	57.6 (43.5-70.6)	52
All	52.4 (46.4-58.4)	488	41.3 (35.3-47.6)	360	36.6 (31.0-42.7)	488	23.0 (17.6-29.4)	360

Source: 2005 TNVS Exit survey

Table 15 presents information about net coverage among children under five. This question relates to use of a net the night prior to the survey, and is reported by the mother or guardian of the child. Overall, 27.5% of children slept under any net, and 9.2% under a recently-treated net. Coverage is significantly higher in areas where HP has been launched, and is increasing in length of exposure to HP (by phase). The socioeconomic gradients in net use are pronounced, with children in less poor quintiles more likely to use any net and a treated net. Coverage in urban areas is more than 3 times higher than in rural areas for any net, and over 5 times higher for recently-treated nets.

Table 15. Bednet use, children < 5 years (night preceding the survey) (reported by mother/guardian), Household survey

	Any net			Recently-treated net (<12m)		
	% (95%CI)	N	P**	% (95%CI)	N	P**
All	27.5 (24.0 to 31.4)	5567		9.2 (7.5 to 11.2)	5567	
By launch*:			<0.001			<0.001
Launched	34.4 (28.6 to 40.8)	2650		12.8 (10.0 to 16.2)	2650	
Not launched	21.3 (17.2 to 26.0)	2917		5.9 (4.2 to 8.2)	2917	
By phase:			<0.001			<0.001
Early	39.2 (31.2 to 47.8)	1545		14.7 (11.1 to 19.2)	1545	
Middle	31.4 (25.3 to 38.3)	1797		11.4 (8.1 to 15.6)	1797	
Late	16.3 (12.4 to 21.0)	2225		3.6 (2.3 to 5.4)	2225	
By SES:			<0.001			<0.001
Q1	9.9 (7.2 to 13.5)	949		2.1 (1.1 to 4.2)	949	
Q2	17.0 (13.2 to 21.6)	1035		3.8 (2.4 to 6.0)	1035	
Q3	21.7 (17.5 to 26.5)	1155		5.0 (3.6 to 6.9)	1155	
Q4	30.7 (26.3 to 35.6)	1097		9.2 (6.9 to 12.2)	1097	
Q5	53.3 (46.9 to 59.6)	1205		23.4 (19.3 to 28.1)	1205	
Ratio Q1:Q5	0.19			0.09		
By residence:						
Urban	68.8 (55.2-79.9)	430		35.4 (27.5-44.1)	430	
Semi-urban	34.1 (25.8-43.4)	1197		9.8 (6.6-14.2)	1197	
Rural	21.0 (17.6-24.9)	3940	<.001	6.1 (4.7-8.0)	3940	<.001

Source: 2005 TNVS Household Survey

\* Launched = 1 if district launch date at least one month before the date of interview

\*\* Pearson's design based chi-squared test

As in Table 14, the information in Table 16 examines whether poorer children are more likely to use nets in launched areas than in not-launched ones. Again, although the overlapping confidence intervals preclude definitive assessment, it appears that HP launch may be associated with higher coverage among poorer children.

Table 16. Bednet use, *by launch status as at June 2005 children under 5* reporting on use last night

	Any net				Effectively treated (<12 months)			
	HP Launched		HP not launched		HP Launched		HP not launched	
	% (95%CI)	N	% (95%CI)	N	% (95%CI)	N	% (95%CI)	N
Q1	13.5 (8.8-20.1)	356	7.8 (4.9-12.1)	593	3.7 (1.6-8.1)	356	1.2 (0.3-4.1)	593
Q2	21.8 (15.5-29.8)	481	12.8 (8.9-18.1)	554	6.0 (3.4-10.3)	481	1.8 (0.8-4.2)	554
Q3	25.4 (18.9-33.1)	552	18.2 (13.1-24.8)	603	6.7 (4.5-9.8)	552	3.5 (1.9-6.3)	603
Q4	33.9 (27.1-41.3)	502	28.1 (22.3-34.7)	595	10.6 (7.3-15.0)	502	8.1 (5.1-12.5)	595
Q5	62.8 (54.4-70.5)	683	40.8 (32.8-49.4)	522	29.6 (24.1-35.7)	683	15.3 (10.7-21.5)	522
All	34.7 (28.8-41.0)	2574	21.2 (17.1-25.9)	2867	13.0 (10.2-16.4)	2574	5.8 (4.1-8.1)	2867

Source: 2005 TNVS Household Survey

Household heads were asked to indicate which household members had slept under each net in their household the previous night, giving an indication of bednet coverage among the general population. These results are shown in Table 17.

Table 17. Bednet use, all household members (night preceding the survey) (reported by household head)

	Any net			Recently-treated net (<12m)		
	% (95%CI)	N	P*	% (95%CI)	n	P*
All	23.4 (20.2 to 26.9)	31164		8.2 (6.7 to 10.0)	31164	
By launch**:		<0.001				<0.001
Launched	30.1 (25.0-35.7)	16304		11.4 (8.9-14.4)	16304	
Not launched	16.0 (12.9-19.6)	14860		4.6 (3.4-6.2)	14860	
By phase:			<0.001			<0.001
Early	33.9 (27.2 to 41.3)	9461		12.6 (9.5 to 16.6)	9461	
Middle	26.2 (20.9 to 32.4)	10508		9.6 (7.0 to 13.1)	10508	
Late	11.8 (9.1 to 15.1)	11195		3.0 (2.0 to 4.5)	11195	
By SES:			<0.001			<0.001
Q1	7.1 (5.2 to 9.7)	5411		1.3 (0.8 to 2.2)	5411	
Q2	12.6 (10.2 to 15.6)	5838		2.9 (2.0 to 4.3)	5838	
Q3	19.3 (16.2 to 23.1)	6076		4.9 (3.8 to 6.4)	6076	
Q4	24.3 (21.1 to 27.9)	5937		7.5 (5.9 to 9.4)	5937	
Q5	47.6 (42.0 to 53.3)	7093		21.1 (17.4 to 25.3)	7093	
Ratio Q1:Q5	0.15			0.06		
By residence:			<.001			<.001
Urban	59.2 (48.9-68.8)	2997		28.9 (22.1-36.7)	2997	
Semi-urban	29.3 (22.9-36.8)	6590		9.1 (6.7-12.3)	6590	
Rural	16.1 (13.3-19.4)	20,344		4.6 (3.6-5.9)	20,344	

Source: 2005 TNVS Household Survey

\* Pearson's design based chi-squared test

District-level differences in bednet coverage are explored in Table 18, which presents data by district for both children under five (reported by their mother/guardian) and all household members (reported by the household head). Coverage of children under 5 with any net is over 50% in four districts (Tanga, Kilombero, Bagamoyo and Tabora). Nine districts have any-net coverage between 20 and 50%. Coverage is below 20% in eight districts (Dodoma Rural, Igunga, Karatu, Kibondo, Ludewa, Mbulu, Simanjiro and Sumbawanga). A very similar pattern is observed for coverage of all household members with any net. The ratio of treated to untreated net coverage for under-fives within a district ranges from 0.10 (i.e. 10% of nets are recently treated) to 0.53 (i.e. 53% of nets are recently-treated).

Table 18. Coverage with any net and ITN (treated < 12 months) among children under 5 and all household members, by district

	Children < 5 years			All household members		
	N	Any net	Recently treated (<12 months)	N	Any net	Recently treated (<12 months)
Tanga	197	82.2 (72.1-89.2)	38.6 (28.1-50.3)	1536	66.3 (56.8-74.8)	31.6 (22.1-42.9)
Dodoma R	282	12.8 (5.4-27.1)	2.5 (1.3-4.6)	1254	7.8 (3.1-18.5)	1.7 (1.0-2.9)
Kilombero	182	74.2 (67.5-79.9)	23.1 (15.4-33.1)	1292	65.6 (57.1-73.3)	21.5 (16.0-28.3)
Rufiji	194	34.0 (20.5-50.8)	14.4 (8.0-24.7)	1255	20.6 (12.3-32.3)	7.8 (4.5-13.3)
Bagamoyo	168	59.5 (44.5-73.0)	25 (15.7-37.4)	1103	40.6 (27.6-55.1)	14.1 (8.9-21.8)
Bunda	347	37.2 (25.1-51.2)	11.8 (5.5-23.6)	1852	30.2 (19.8-43.2)	9.0 (4.8-16.4)
Igunga	337	11.0 (5.4-21.0)	1.2 (0.3-4.3)	1984	8.2 (3.3-19.2)	1.8 (0.5-5.8)
Karatu	332	13.3 (6.1-26.5)	3.9 (1.6-9.4)	1691	9.5 (4.3-19.4)	2.4 (1.0-5.8)
Kibondo	286	9.4 (4.6-18.3)	3.1 (0.7-13.4)	1467	7.4 (3.6-14.4)	1.6 (0.4-7.3)
Ludewa	234	8.5 (3.8-17.9)	4.3 (1.0-17.1)	1399	6.7 (2.7-16)	3.1 (0.7-13)
Magu	345	37.7 (24.9-52.4)	15.1 (8.8-24.7)	1813	27.5 (18.9-38.2)	9.8 (6.4-14.7)
Mbulu	323	4.6 (1.4-14.0)	1.5 (0.3-7.0)	1824	3.8 (1.3-10.9)	1.2 (0.3-5.0)
Meatu	413	27.9 (19.4-38.3)	3.9 (1.7-8.8)	2088	19.6 (15.5-24.5)	4.5 (2.6-7.7)
Nachingwea	149	25.5 (16.4-37.5)	4.0 (1.7-9.2)	1010	25.5 (18.2-34.7)	8.0 (4.9-12.9)
Same	190	33.2 (13.7-60.8)	10 (4.6-20.5)	1330	28.3 (13.4-50.1)	8.6 (4.2-16.7)
Simanjiro	310	18.4 (8.4-35.6)	5.8 (2.4-13.3)	1412	15.7 (6.9-32.0)	5.9 (2.5-13.4)
Singida	270	23.7 (11.5-42.6)	12.6 (5.9-25.0)	1427	23.0 (11.2-41.4)	11.6 (5.4-23.2)
Sumbawanga	312	10.3 (3.8-24.7)	1.0 (0.2-3.8)	1422	6.1 (2.4-14.7)	0.7 (0.2-2.5)
Tabora	205	61.0 (40.6-78.1)	29.8 (17.7-45.5)	1392	54.8 (37.4-71.1)	25.9 (15.9-39.2)
Tandahimba	144	29.2 (20.4-39.9)	4.2 (2.0-8.6)	1030	17.9 (12.9-24.1)	2.2 (1.2-4.1)
Biharamulo	347	27.7 (18.0-40.0)	5.2 (2.6-10.1)	1583	20.7 (13.1-31.1)	4.0 (1.7-8.9)
All	5567	27.5 (24.0-31.4)	9.2 (7.5-11.2)	31,164	23.4 (20.2-26.9)	8.2 (6.7-10.0)

Source: 2005 TNVS Household Survey;

Note: Net coverage among under-fives reported by mother or carer, household coverage reported by household head or representative

### **3.4 Antenatal care coverage, timing of first use and use of IPT (from household, exit, facility)**

Because antenatal care coverage is already very high in Tanzania (and found to be >95% in the household survey for previous pregnancies), we would not expect *Hati Punguzo* to have any measurable effect on uptake of antenatal care. However, the presence of a voucher scheme at RCH facilities could be expected to encourage women to attend earlier in their pregnancy. Table 19 compares data on timing of first RCH visit across three data sources (household, exit and facility). The most directly comparable sources are the household and exit surveys, which both asked about the weeks of gestation at the time of the first RCH visit. The mean gestation overall was 19.6 weeks in the household survey and 20.3 weeks in the exit survey. Comparing by launch status in the household data, it can be seen that women in launched areas attended approximately 1-1.4 weeks earlier than those in non-launched areas, and these differences were statistically significant. The comparison by phase shows a similar pattern, though the differences are non-monotonic in the household group and not quite significant in the exit survey group.

Health facilities record information in a slightly different format, indicating the number of women whose first visit is at less-than 20 weeks gestation compared with those at more-than 20 weeks. The facility-based information in Table 19 shows that a greater proportion of women attend at less than 20 weeks in the launched districts, compared with the not-launched ones (42.7% vs 36.5%) Taken together, the three data sources provide consistent evidence of an association between timing of RCH attendance and the presence of *Hati Punguzo*.

Table 19. Reported gestation at first RCH visit from three data sources, TNVS June 2005

	Household (Current pregnancies)			Exit			Facility*		N	P**
	Mean (95%CI)	N	P	Mean (95% CI)	N	P***	% attending <20 weeks	% attending >20 weeks		
All	19.6 (19.0-20.3)	376		20.3 (19.7-20.5)	846 <sup>§</sup>		40.1 (39.4-40.9)	59.8 (59.0-60.5)		
By district launch:										
Launched	19.1 (18.1-20.0)	214		20.1 (19.2-20.9)	360		42.7 (41.7-43.6)	57.2 (56.3-58.2)	10230	
Not launched	20.4 (19.4-21.4)	162	.009	20.7 (19.9-21.5)	486	0.2	36.5 (35.4-37.6)	63.4 (62.3-64.5)	7121	<0.01
By phase:										
Early	18.1 (16.8-19.4)	122		19.5 (18.9-20.1)	270					
Middle	20.7 (19.6-21.7)	135		20.8 (19.6-22.0)	326					
Late	20.1 (19.0-21.1)	119	.05	20.5 (19.6-21.5)	250	0.07				

\* Note: facility data extracted retrospectively for three months from facility ledgers which record first visit gestation  $\leq$  20 weeks.

\*\*P-value for  $\chi^2$  test for significance

\*\*\* P-value for Adjusted Wald test for significance

<sup>§</sup> Gestation at first visit not known for two respondents

As for Table 4a, the data presented in Table 19 are by district launch status. Table 19a shows the mean gestation for Exit and percent  $\leq$  20 weeks for Facility surveys by individual facility launch status. Results follow the same pattern as in Table 19, showing earlier first presentation, but with greater magnitude.

Table 19a. Reported gestation at first RCH visit from Exit and Facility surveys by individual facility launch status

	Exit			Facility*		N	p
	Mean (95% CI)	N	p	% attending <20 weeks	% attending >20 weeks		
By launch:		846					
Launched	19.8 (18.7-21.0)	330		45.6 (44.3-46.8)	54.4 (53.1-55.6)	6301	
Not launched	20.6 (20.0-21.2)	516	0.2	37.1 (36.2-38.0)	62.9 (61.9-63.7)	11050	<0.001

\*Launched facility is defined as one that had launched *Hati Punguzo* prior to the day of survey. Calculation for vouchers distributed / number of RCH attendees controls for individual facility launch date + 30 days

Information about RCH use and IPT use in pregnancy is shown in Table 20. About 50% of currently pregnant women in the household survey had visited RCH prior to interview (this is consistent with the average gestation in the sample of about 20 weeks, so that many women were still fairly early in their pregnancy). Among the

completed previous pregnancies, 97.6% of women had attended RCH at least once during their pregnancy. Among those who had visited RCH, 66.1% of currently pregnant women, 71.9% of previously pregnant women and 72% of RCH users had received at least one dose of IPT. The mean number of doses received during pregnancy for previous (completed) pregnancies was 1.7.

Table 20. RCH and IPT coverage during pregnancy (self-reported)

	Household Survey		Exit Survey
	Current pregnancies (n=779)	Previous pregnancies (n=1885)	RCH users (n=848)
Attended RCH at least once	48.4 (44.5-52.3)	97.6 (96.7-98.3)	n/a
Received at least one dose of IPT (of those who visited RCH)	66.1 (60.3-71.4)	71.9 (69.0-74.7)	72.0 (23.4-32.8)
Mean doses of IPT			
All		1.7 (1.7-1.8)	n/a
Launched		1.8 (1.7-2.0)	
Not launched		1.7 (1.6-1.8)	
P		0.18	

Source: 2005 TNVS Household and Exit Survey

### 3.5 Insecticide treatment

Since 2003, all nets sold by Tanzanian manufacturers are supposed to be packaged with insecticide, according to an agreement negotiated with the SMARNET project. Table 21 shows information about bundling and treatment status as reported by the household head and disaggregated by the reported age of net. While more recently-purchased nets are more likely to be bundled with insecticide, it is still the case that less than two-thirds are reported as being bundled. Age of net is associated with both whether a net has ever been treated ( $p < .001$ ) and whether it has been recently treated ( $< 12$  months) ( $p < .001$ ).

Table 21. Insecticide bundling and treatment of nets, by age of net

	All (n=5220)	< 6 m (n=676)	6-12 m (n=1160)	13-24m (n=949)	>24 m (n=2435)
Packaged with insecticide	31.3 (29.1-33.5)	61.7 (56.1-67.0)	42.6 (38.2-47.1)	32.6 (28.9-36.5)	16.9 (14.8-19.2)
Ever treated	48.0 (45.1-50.9)	52.8 (47.2-58.4)	59.0 (54.5-63.3)	49.5 (45.0-54.0)	40.8 (37.3-44.4)
Treated <12 m	29.7 (26.9-32.7)	47.6 (42.2-53.1)	49.1 (37.4-46.5)	26.6 (22.5-31)	20.2 (17.4-23.4)

Source: 2005 TNVS Household survey

Socioeconomic status is significantly associated with whether a net is ever treated or recently-treated (Table 22), as is whether or not the net was purchased using a voucher (Table 23).

Table 22. Insecticide treatment of nets by household SES (n=5086)

	Ever treated	Treated <12 m
Q1 (poorest)	33.7 (26.8-41.5)	16.6 (11.8-22.8)
Q2	38.0 (32.3-44.1)	19.8 (15.3-25.2)
Q3	41.3 (36.8-46.0)	21.5 (17.9-25.6)
Q4	46.6 (42.2-51.2)	26.5 (22.5-30.9)
Q5 (least poor)	55.0 (50.7-59.2)	38.2 (34.0-42.6)
All	47.8 (44.9-50.7)	29.7 (26.8-32.7)
P	<0.001	<0.001

Table 23. Net treatment by whether net purchased using a voucher (voucher status reported by household head)

Ever treated?	Bought with voucher (n=4939)	Not bought with voucher (n=165)	All (n=5104)
Ever treated	69.7 (60.9-77.3)	47.6 (44.7-50.6)	48.4 (45.5-51.2)
Treated <12 m	53.9 (45.0-62.7)	29.1 (26.2-32.2)	29.9 (27.1-33.0)

P<.001 for comparisons of voucher vs. non-voucher

Source: 2005 TNVS Household Survey

Results of multivariate analysis of determinants of net treatment are presented in Table 23a. The likelihood of been ever-treated and recently treated both decrease with the age of the net, with older nets less likely to be treated than nets < 6months old. Urban residence is positively related to net treatment, as is socioeconomic status, with the least poor group more than twice as likely to have treated (ever and recently) their net than the most poor. Although nets purchased with with a voucher are more likely to have been ever-treated, the relationship with recent treatment is not statistically significant.

Table 23a. Multivariate analysis of determinants of net treatment (n=5086)

	Ever-treated		Recently-treated (<12 months)	
	Adj Odds Ratio (95%CI)	F (p-value)*	Adj Odds Ratio	F(p-value)*
Age of net				
< 6 months	1.0		1.0	
6-12 months	1.3 (1.0-1.7)		0.8 (0.6-1.1)	
13-24 months	0.9 (0.7-1.2)		0.4 (0.3-0.6)	
>24 months	0.7 (0.5-0.9)	21.9 (<0.001)	0.3 (0.2-0.4)	53.3 (<0.001)
Residence				
Rural	1.0		1.0	
Semi-urban	1.1 (0.8-1.3)		1.0 (0.8-1.4)	
Urban	1.4 (1.1-1.9)	4.6 (0.03)	1.8 (1.4-2.4)	12.3 (<0.001)
SES				
Q1	1.0		1.0	
Q2	1.2 (0.8-1.8)		1.2 (0.8-1.9)	
Q3	1.4 (0.9-2.0)		1.3 (0.8-2.0)	
Q4	1.7 (1.2-2.5)		1.7 (1.1-2.5)	
Q5	2.1 (1.4-3.1)	6.7 (<0.001)	2.4 (1.6-3.7)	10.2 (<0.001)
Used voucher to purchase	1.1 (1.0-1.1)	3.8 (0.05)	1.0 (0.9-1.0)	0.7 (0.41)

\* Adjusted Wald test for significance of differences observed

### 3.6 Information and awareness

Questions about awareness and knowledge of *Hati Punguzo* were asked of the head of household (or representative) in the Household module, of women aged 15-49 years in the mothers' module, and of RCH users in the exit survey. Table 24 shows the proportion of respondents who were aware of *Hati Punguzo*. Overall awareness was highest among RCH users (but still less than 50%, though this includes those in non-launched districts), and lowest among household heads. Levels of awareness were significantly higher among those in launched compared with non-launched districts. Socioeconomic status, and rural/urban residence were also significantly associated with awareness, across the three different samples.

Table 24. Awareness of *Hati Punguzo*

	Household Survey		Household Survey		Exit Survey	
	Household heads (n=6198)		Currently pregnant women (n= 777)		RCH users (n=848)	
	% (CI)	P	% (CI)	P	% (CI)	P*
All	40.6 (37.6-43.6)		44.0 (39.5-48.6)		45.7 (41.8-49.6)	
By launch status:						
Launched	51.7 (48.3-55.2)		60.1 (54.0-65.8)		71.1 (64.9-76.5)	
Not launched	25.7 (22.7-29.0)	<0.001	25.4 (21.0-30.2)	<0.001	11.3 (8.5-15.0)	<0.001
By SES:						
Q1	17.2 (14.2)		27.4 (19.6-36.7)		29.9 (23.2-37.6)	
Q2	31.2 (27.6-35.0)		32.8 (24.5-42.3)		40.0 (33.3-47.0)	
Q3	39.1 (35.3-43.1)		45.0 (36.9-53.3)		56.4 (48.3-64.2)	
Q4	49.5 (45.3-53.7)		49.1 (40.9-57.4)		47.5 (39.3-56.4)	
Q5	63.8 (59.8-67.7)	<0.001	57.6 (49.9-64.9)	<0.001	63.5 (55.1-71.2)	<0.001
By residence:						
Urban	47.5 (38.7-56.4)		66.0 (52.5-77.3)		77.9 (56.4-90.5)	
Semi-urban	42.4 (36.1-48.9)		45.7 (37.1-54.5)		47.0 (35.0-59.3)	
Rural	38.8 (35.3-42.5)	<0.001	41.6 (36.2-47.2)		41.1 (35.8-47.3)	0.0009
				0.02		
By RCH attendance	n/a				n/a	
Attended MCH			52.9 (46.8-59.0)			
Not yet attended			35.7 (30.5-41.2)	<0.001		

Responded “Yes” to question *Have you heard of Hati Punguzo, the discount voucher programme to buy a mosquito net at a cheaper price?*

\*P-value for Pearson design based F statistic for significance of differences

Household heads were most likely to have heard of HP from radio, in both launched and non-launched districts (Table 25). The next most important source of information was the MCH. The MCH was a more important source of information for launched than for non-launched districts.

Table 25. Where first heard of *Hati Punguzo*, by launch status, household heads

	All (n=2518)	Launched (n=1832)	Not launched (n=686)
MCH	27.9 (25.0-30.9)	31.7 (28.3-35.3)	17.6 (13.8-22.3)
Shop	0.43 (0.25-0.77)	0.44 (0.22-0.85)	0.44 (0.14-1.3)
Family member	4.0 (3.2-4.9)	4.4 (3.5-5.5)	2.8 (1.7-4.4)
Neighbour	6.2 (5.3-7.4)	6.7 (5.5-8.0)	5.1 (3.6-7.2)
Radio	50.1 (46.5-53.7)	43.9 (39.9-48.0)	66.6 (61.3-71.6)
Performance	9.3 (7.4-11.7)	10.9 (8.40-13.9)	5.1 (3.2-7.9)
Other	0.91 (0.62-1.34)	0.93 (0.59-1.45)	0.87 (0.41-1.85)
Village government	0.75 (0.48-1.19)	0.60 (0.32-1.11)	1.2 (0.6-2.3)
Don't know	0.44 (0.24-0.78)	0.49 (0.26-0.93)	0.29 (0.07-1.16)
Total	100	100	100

Source: 2005 TNVS Household Survey

The information sources reported by pregnant women were slightly different, with MCH the most common source and radio the second most common source overall (Table 26); among women in non-launched districts, radio was the most important source stated.

Table 26. Where first heard of *Hati Punguzo*, by launch status, currently pregnant women

	All (n=182)*	Launched (n=136)	Not launched (n=46)
MCH	50.6 (43.0-58.1)	57.4 (48.6-65.7)	30.4 (18.5-45.8)
Family member	2.2 (0.8-5.7)	1.5 (0.37-5.7)	4.3 (1.2-15.0)
Neighbour	8.8 (5.3-14.3)	9.6 (5.4-16.5)	6.5 (2.2-18.1)
Radio	31.3 (24.7-38.8)	25.0 (18.2-33.3)	50.0 (35.2-64.8)
Performance	6.0 (3.2-11.2)	5.9 (2.7-12.2)	6.5 (2.0-19.0)
Other	0.55 (0.08-3.9)	0.74 (0.10-5.1)	0
Don't know	0.55 (0.07-3.9)	0	2.2 (0.29-14.4)
Total	100	100	100

Source: 2005 TNVS Household Survey

\*The number responding to these questions is smaller than the total number of currently pregnant women because if a woman responded to the household module she was not asked to respond to the same questions in the women's module.

Among those who have heard of *Hati Punguzo*, correct knowledge of eligibility was about 30% though if "pregnant woman and child" is included as a correct response (which, strictly speaking it is if the insecticide retreatment kit is considered part of the programme), then this rises to almost 70% of those who are aware of *Hati Punguzo* (Table 27). A significant proportion responded "Don't know" (25%), and this rose to 41% in the non-launched districts.

Table 27. Knowledge of HP eligibility, by launch status, household heads

	All (n=2514)	Launched (n=1831)	Not launched (n=683)
Pregnant women	30.1 (26.9-33.5)	36.4 (32.6-40.3)	13.3 (10.7-16.5)
Child < 1	2.3 (1.8-2.9)	2.1 (1.6-2.9)	2.6 (1.7-4.1)
Pregnant woman and child	38.9 (36.0-41.8)	39.7 (36.1-43.3)	36.8 (32.5-41.2)
Other	3.5 (2.8-4.5)	2.6 (1.9-3.5)	6.1 (4.4-8.5)
Don't know	25.2 (22.8-27.8)	19.3 (17.1-21.6)	41.1 (36.5-46.0)
Total	100	100	100

P<.001 (comparison of launched vs. not launched)

Levels of knowledge of eligibility among currently pregnant women were similar to those of household heads, with 38% responding that it is pregnant women, and 74% responding pregnant women or pregnant woman and child (Table 28). In launched districts only 10% of women said they did not know who was eligible to receive a voucher.

Table 28. Knowledge of HP eligibility, by launch status, currently pregnant women

	All (n=353)	Launched (n=257)	Not launched (n=96)
Pregnant women	38.0 (31.9-44.4)	45.9 (38.6-53.5)	16.7 (10.5-25.5)
Child < 1	1.1 (0.42-3.0)	1.6 (0.58-4.1)	0
Pregnant woman and child	36.8 (30.7-43.4)	39.7 (32.4-47.4)	29.2 (19.4-41.4)
Other	2.8 (1.5-5.5)	2.3 (1.1-5.1)	4.2 (1.3-12.5)
Don't know	21.3 (16.1-27.5)	10.5 (7.1-15.2)	50.0 (37.8-62.2)
Total	100	100	100

P<.001 (comparison of launched vs. not launched)

Table 29 summarises the information from the household and exit surveys about awareness (“have you heard of Hati Punguzo?”), and knowledge (“who is eligible”) and value (“what is the value” (exit survey only)). Results of exit and household survey are very similar for both awareness and knowledge of eligibility. Even in launched districts, only 19% of pregnant women leaving a RCH were aware of the value of the voucher.

Table 29. Summary statistics from Household and Exit surveys of awareness and understanding of *Hati Punguzo*

	Household Survey Currently pregnant		Exit survey RCH users	
	National	Launched	National	Launched
	% (CI)		% (CI)	
Heard	44.0 (39.5-48.6)	60.1 (54.0-65.8)	45.7 (41.8-49.6)	71.1 (64.9-76.5)
Eligibility	38.0 (31.9-44.4)	45.9 (38.6-53.5)	34.3 (30.7-38.3)	55.7 (49.6-61.7)
Value	n/a	n/a	11.0 (8.3-14.5)	18.6 (13.9-24.4)

### 3.7 Infrastructure availability (equipment, drugs) in RCH facilities

Table 30 presents availability of basic stock items in the RCH facilities surveyed, together with voucher and insecticide re-treatment kit availability and number of *Hati Punguzo* trained staff. The table is divided into four columns: (1) all facilities together, (2) all facilities surveyed in districts that had launched, (3) all facilities surveyed in districts that had not yet launched, (4) all facilities that had actually launched *Hati Punguzo* within the launched districts.

There are very few differences in availability of items by definition of clinic. The only variable that shows a difference is availability of electricity – more clinics in launched districts had electricity than clinics in not-launched districts. Overall, in facilities that had launched *Hati Punguzo* 69% had vouchers in stock on the day of survey. Only 36% of Early launch districts had insecticide retreatment kits in stock. On average, in launched clinics, there were 2.1 *Hati Punguzo* trained members of staff.

Table 30. Infrastructure availability (equipment, drugs) in RCH facilities\*

	All	Launched District	Not Launched District	Launched clinic
Overall N of clinics	190	106	84	77
	%	%	%	%
<i>Basic stock</i>				
Antenatal Cards	84.2 (78.5-88.6)	84.9 (77.0-90.4)	83.3 (74.1-89.6)	85.7 (76.7-91.6)
Child vaccination cards	84.7 (79.7-88.6)	91.5 (84.3-95.5)	76.1 (8.1-82.7)	90.0 (82.1-95.5)
Functional fridge	92.6 (88.0-95.5)	91.5 (84.6-95.4)	94.0 (86.3-97.5)	92.2 (84.2-96.3)
Disposable syringes	97.8 (94.4-99.2)	98.1 (92.6-99.5)	97.6 (90.7-99.4)	98.7 (91.1-99.1)
Electricity	43.1 (37.0-49.5)	56.6 (47.9-64.9)	26.1 (18.1-36.2)*	59.7 (48.9-69.7)
SP	84.7 (79.4-88.8)	85.8 (78.8-90.7)	83.3 (74.3-89.6)	85.7 (77.5-91.2)
Vitamin A	88.9 (83.8-92.5)	90.5 (83.9-94.6)	86.9 (78.0-92.5)	88.3 (79.9-93.4)
TT Vaccine	87.3 (81.8-91.3)	85.8 (77.9-91.3)	89.2 (80.9-94.2)	85.7 (75.9-91.9)
<i>Vouchers</i>				
Vouchers in stock		58.4 (50.7-65.8)	n/a	68.8 (58.2-77.7)
IRKits* (Ph1)		n/a	n/a	36.3 (25.8-48.4)
Trained personnel		n/a	n/a	162/77 clinics (2.1 per clinic)

\*Stock only reflects availability on day of survey

## 4. Discussion and conclusions

### 4.1 Main findings

The three surveys provide a rich picture of the operation of *Hati Punguzo* during its first 9 months. Importantly, the estimates of key indicators are very consistent across the different data sources, giving confidence in their validity. The most important findings can be summarised as follows:

- Household survey estimates of bednet coverage of currently pregnant women (slept under a net the previous night) are 25% for any net and 11% for a recently-treated net. For previous pregnancies (slept under a net at any time during the pregnancy) these were 37% for any net and 20% for an ever-treated net. Regardless of the indicator/population group, these levels are still far below the Abuja targets of 60% coverage of ITNs among vulnerable groups. However, coverage is higher in areas where *Hati Punguzo* has launched. Socioeconomic status is an important correlate of net use by pregnant women, children under 5 and all household members. Socioeconomic status is also strongly associated with net treatment, with greater inequalities in treated net use than in use of any net.
- The household, exit and facility surveys all indicate that *Hati Punguzo* is associated with earlier uptake of antenatal services during pregnancy: mean gestation is earlier among those exposed to the *Hati Punguzo* scheme. This is very good news, as earlier use of antenatal care increases the exposure of women to interventions to protect against malaria (IPT and bednets) and potentially to other services with health benefits to pregnant women, such as VCT and ARVs.
- There is very strong evidence that not all eligible women are receiving a voucher. The reasons for this are not clear: it does not seem to be the case that richer women are more likely to receive a voucher than poorer ones (socioeconomic status is of borderline statistical significance in household data, but the coefficients in multivariate analysis do not indicate a clear trend); nor is voucher receipt associated with urban residence. The only factor consistently associated with voucher receipt in both exit and household surveys is trimester of pregnancy. This latter finding is curious, because the household survey analysis is restricted to those who have visited RCH at least once during their pregnancy where women should theoretically have been offered a voucher.
- There is some suggestion in the data that women are using the voucher scheme to purchase larger nets (which also has the benefit of potentially protecting more household members).

### 4.2 Study limitations

The main limitations on the interpretation of the current round of data relate to the fact that it represents the state of ITN coverage at a single point in time, and that we do not have a true baseline for those districts which had launched prior to the survey. To some extent this lack of baseline has been addressed through questions about ITN use during pregnancies which led to a live birth prior to *Hati Punguzo* launch. There are some problems of comparability, however, which arise from the difference in the coverage questions asked (for current pregnancies, the questions related to net use the

night prior to the survey; for previous pregnancies it was use of nets at any time during pregnancy, and it was not possible to distinguish “ever treated” from “recently treated”). This means that the trends we observe in net and ITN coverage by whether the district has launched, and the phase of launch, may arise from differences in starting conditions, or in factors associated with net ownership (e.g. socioeconomic status). There is strong evidence that SES differs significantly across the phases, with earlier launch areas richer than later launch areas. Nonetheless, the multivariate analysis indicates an independent effect of scheme launch on coverage, even when controlling for socioeconomic status. The surveys planned for 2006 will tell more because they will allow for comparisons between districts and phases over time. Even then, however, it will be important to be cognisant of contextual factors (other than *Hati Punguzo*) that will influence ITN coverage

### **4.3 Comparing different data sources**

An important strength of this M&E is that it collects multiple sources of data, which gives the possibility of comparing across data sources and providing greater confidence that any observations are “real”. However, the data come from slightly different population groups, and come with different potential biases which need to be borne in mind when comparing results across data sources.

The data from the *household survey* are representative of the population. But pregnancy is a relatively rare event, so there were only 779 current pregnancies in total, only about half had attended RCH, and even fewer (214) were in districts that had launched *Hati Punguzo*.

One limitation of using *health facility data* is that service users may be different from non-users (e.g. better off, less likely to be socially marginalised), although the fact that more than 95% of women attend RCH at least once during their pregnancy makes this issue unlikely to be a major source of bias. A number of issues may bias the exit survey results upwards compared to the population-based estimate derived from the household survey. First, those who attend RCH are more likely to have received a voucher; second, those who are able to attend RCH may have also greater access to shops and markets; third, there may be greater pressure to respond with the “right answer” where the interview takes place at a health facility and fourth the mean gestation of respondents was higher for Exit respondents than for Household respondents (Exit: 26.9 weeks (26.1-27.6), Household: 20.3 weeks (19.6-21.0))

### **4.4 Conclusions**

The results presented in this report have focused on the indicators contained in our original Monitoring and Evaluation proposal, and on areas which the ITN cell and TNVS contractors have requested additional analysis. The questionnaires are attached to this document and it will be possible to provide additional analysis of other issues which are identified as being of specific concern for implementation.

## **Appendix 1: Results of socioeconomic status index analysis**

In both the exit and household surveys socioeconomic status was measured as an index made up of education of household head, housing conditions, asset ownership, and whether the house was rented or not. Weights for the variables were derived using principal components analysis, and the index was generated from the first principal component, which summarises the largest amount of information common to the variables.

For the household survey, the housing conditions included were toilet, roof, and whether the house was connected to electricity; the assets were radio, bicycle, mobile phone; and education of household head was classified as none, 1-6 years (incomplete primary), or 7+ years (complete primary +). The first principal component explained 29.1% of the variation, which is similar to the results from other studies in Tanzania. Table A.1 shows the characteristics of all sampled households and the principal components weight.

For the exit survey, the housing conditions included were toilet, roof, connection to electricity and cement flooring; the assets were radio, bicycle, mobile phone; and education of the respondent was classified as none, 1-6 years (incomplete primary), or 7+ years (complete primary +). The first principal component explained 34.6% of the variation. Table A.2 shows the results for the exit survey.

Principal components analysis generates a continuous variable. Households are then divided into 5 equal sized groups (quintiles) according to the value of their score, ranging from the poorest (quintile 1) to the least poor (quintile 5). Table A.3 and Table A.4 show the socioeconomic characteristics of the households in each of the quintiles for household and exit respectively.

Table A.1 Individual household socioeconomic characteristics and principal components weights, household survey

	Percent of households with item	Principal components weight
Education of household head		0.33
None	29.6	
1-6 years	18.2	
7+ years	52.2	
Rent house	8.4	0.24
Toilet	11.1	0.37
None	85.6	
Pit latrine	3.3	
Flush		
Have radio	59.7	0.34
Have mobile phone	8.3	0.43
Have bicycle	47.3	0.21
Have electricity	6.6	0.43
Type of roof		0.39
Thatch/grass	54.4	
Iron sheets/tile/other	45.6	

Source: 2005 TNVS Household Survey

Table A.2 Individual household socioeconomic characteristics and principal components weights, exit survey

	Percent of households with item	Principal components weight
Education of respondent		0.31
None	26.4	
Incomplete Primary	14.2	
Complete primary +	59.3	
Toilet		0.34
Flush	5.0	
Pit latrine	90.2	
None	4.7	
Have radio	71.2	0.22
Have mobile phone	10.9	
Iron/tile roof	42.4	0.40
Have electricity	6.8	0.41
Have bicycle	61.2	0.10
Cement floor	19.8	0.47

Table A.3 Characteristics of households in each socioeconomic quintile, household survey

	Q1 (n=1190)	Q2	Q3	Q4	Q5
Education of hh head:					
None	72.1	48.9	13.4	12.0	4.0
1-6	18.9	18.7	33.4	12.9	7.6
7+	9.0	32.3	53.2	75.1	88.4
Rent house	0.3	2.6	5.2	9.7	26.6
Toilet					
None	41.3	9.6	4.0	1.2	0.5
Pit latrine	58.7	90.3	97.8	98.5	85.3
Flush	0	0.9	0.2	0.4	14.3
Radio	11.6	50.0	53.4	86.2	95.2
Mobile	0	0.2	0.5	1.1	36.5
Bicycle	22.2	30.8	37.5	69.0	75.0
Electricity	0	0	0	0.6	29.4
Roof:					
Thatch/grass	95.4	83.2	51.3	43.2	4.1
Iron/tiles/other	4.6	16.9	48.7	56.8	95.9

Table A.4 Characteristics of households in each socioeconomic quintile, exit survey

Exit Survey (N=848)					
	Q1 (n=157)	Q2 (n=180)	Q3 (n=170)	Q4 (n=168)	Q5 (n=173)
Education of respondent					
None	81.5	33.3	2.3	14.2	4.6
Incomplete	14.0	27.7	0.5	19.6	8.6
Primary	4.4	38.3	96.4	61.9	70.5
Complete primary +	0	0.5	0.5	4.1	16.1
Toilet					
Flush	0.0	0.0	0.0	1.1	23.7
Pit latrine	78.3	97.2	100	98.2	76.3
None	21.6	2.7	0.0	0.6	0.0
Have radio	32.4	53.3	88.2	89.8	90.1
Have mobile phone	0.0	2.2	0.0	2.9	48.5
Iron/tile roof	2.5	8.8	13.5	89.2	96.5
Have electricity	0.0	0.0	0.0	0.0	33.5
Have bicycle	26.7	66.1	65.8	79.1	65.3
Cement floor	0.0	0.0	0.0	10.1	87.2

## **Appendix 2: Sampling procedures**

1. A random sample of 21 districts was drawn, stratified according to official *Hati Punguzo* launch date.
2. In each district, 10 wards (“clusters”) were selected with probability proportionate to size, using 2002 national census data. The same data were used to select one kitongoji by simple random sampling. A substitute kitongoji was selected at the same time in case access to the first one was restricted for any reason (e.g. it contained a prison).
3. On arrival at the kitongoji the survey team went to the “centre” of the kitongoji and threw a pen to choose a random direction. They walked in the direction indicated until they reached the edge of the kitongoji, mapping all the households and numbering them. One of these was randomly selected to be the first household. The pen was spun again and households along the line of the direction indicated by the pen were selected until a total of 30 households were identified. In case of repeated absence or refusal to participate there was no substitution, and all non-participating households were verified by the supervisor.

### Appendix 3: Questionnaires

**TNVS HOUSEHOLD SURVEY JUNE 2005**  
**Savei ya kaya kwa chandarua na HATI PUNGUZO 2005**

#### Module 1. Household questionnaire

H1	Wilaya <i>District:</i>	_  district
H3	Kata <i>Ward</i>	_ _ _ _ _ _ _ _ _ _ _ _ _ _  ward
H5	Kitongoji <i>Sub village</i>	_ _ _ _ _ _ _ _ _ _ _ _ _ _  kitongoji
H6	Namba ya Cluster <i>Cluster no</i>	_ _  cluster
H7	Namba ya Kaya <i>Household no</i>	_ _  hhno
H8	Mhojaji <i>Interviewer initials</i>	_ _  int
H9	Tarehe ya leo (tarehe/mwezi/mwaka) <i>Date (dd/mm/yyyy)</i>	_ _ / _ _ / _ _ _ _  date
H10	Jina la mkuu wa kaya <i>Name of household head</i>	_ _ _ _ _ _ _ _ _ _ _ _ _ _  hhname

H11	<b>Umesomea mwaliko wa ushiriki</b> 1= ndiyo 2= hapana  <b><i>Have you read him/her the consent form?</i></b> 1= yes 2=no	_  readconsent
H12	Je, mhojiwa amekubali? 1= ndiyo 2= hapana <b>KAMA HAPANA UHOJAJI UISHIE HAPA</b> <i>Does the respondent agree?</i> 1=Yes 2=No <b>IF NO END INTERVIEW HERE</b>	_  respagree
H13	Mhojiwa ni nani? 1=Mkuu wa kaya 2= Mwakilishi wa mkuu wa kaya <i>Who is the respondent?</i> 1=Household head 2=Representative	_  whoresp






**Occupation codes:**

- 1=Kilimo, misitu, uvuvi
- 2=Madini
- 3=Kazi ya kutwa isiyo shamba
- 4=Mtaalamu/karani
- 5=Huduma (ufundi, ususi, ushonaji)
- 6=Muuuzaji (mboga, bidhaa)
- 7=Biashara
- 8=Mfanyakazi wa ndani
- 9=Mwanafunzi
- 10=Sijaajiriwa

- 1=Farming, fishing, forestry
- 2=Mining
- 3=Non-agricultural day-labour
- 4=Professional/clerical
- 5=Service (e.g. repair, hairdressing, tailoring)
- 6=Selling (e.g. vegetables, products)
- 7=Business
- 8=Domestic worker
- 9=Student
- 10=Not employed

Taarifa kuhusu kaya  
About the household

H15	Je, nyumba hii mmepanga? 1= ndiyo 2= hapana 3=Ingine (eleza) <i>Do you rent this house?</i> 1 = yes 2=no 3=Other (specify)	<input type="checkbox"/> rent otrent
H16	Kaya hii ina choo cha aina gani? 1 = Choo cha maji 2 = Choo cha shimo 3 = Hakuna choo/kichakani/shambani  <i>What kind of toilet facilities does your household have?</i> 1 = Flush toilet 2 = Pit toilet/latrine 3 = No facility/bush/field	<input type="checkbox"/> toilet ottoilet
	Je katika kaya hii, kuna mtu yeyote anamiliki: <i>In this household is there anyone who owns:</i>	
H17	Redio 1 = ndiyo 2 = hapana  <i>Radio</i> 1= yes 2= no	<input type="checkbox"/> radio
H18	Baisikeli 1 = ndiyo 2 = hapana  <i>Bicycle</i> 1= yes 2= no	<input type="checkbox"/> bike
H19	Simu ya mkononi 1 = ndiyo 2 = hapana  Mobile phone 1=yes 2=no	<input type="checkbox"/>

H20	Je, katika kaya hii mnao kuku na bata wangapi? (Jaza 999 kama hajui)  <i>In this house are there ducks or chickens? How many? (write the number; 999 if respondent does not know)</i>	<input type="text"/>
H21	Je, katika kaya hii mnao wanyama kama kondoo, mbuzi au ng'ombe wangapi? (Jaza 999 kama hajui )	<input type="text"/>

	<i>Do you have animals in this household like goat, sheep or cattle-how many? (write the number; 999= she / he do not know.</i>	
H22	Je nyumba hii imeunganishwa kwenye umeme? 1 = ndiyo 2 = hapana  <i>Is the house connected to electricity</i> 1= yes 2= no	<input type="checkbox"/> electric
H23	Je paa la nyumba ni la: 1 = Bati/Vigae 2 = Nyasi/Makuti 3 = Nyingine, eleza  <i>What is the main material of the roof:</i> 1= Iron sheets or tiles 2= Thatch/grass or leaves 3= Other (explain)	<input type="checkbox"/> roof otroof
H25	Je umewahi kusikia juu ya mpango wa hati punguzo ya kununulia chandarua kwa bei nafuu? 1 = Ndiyo 2 = Hapana <b>(NENDA H28)</b>  <i>Have you heard of Hati Punguzo, the discount voucher programme to buy a mosquito net at a cheaper price?</i> 1=Yes 2=No <b>(SKIP TO H28)</b>	<input type="checkbox"/> heardvouch
H26	Ulisikia wapi kuhusu hiyo hati punguzo kwa mara ya kwanza? 1 = MCH na kitua cha afya 2 = Dukani 3 = Mwanafamilia 4 = Jirani 5 = Redio 6 = Kupitia kampeni ya utangazaji/uhamasishaji 7 = Nyingine 8 = Serikali ya kijiji 9 = Sijui <i>If yes, where did you first hear about the discount voucher?</i> 1 = MCH or health facility 2 = Shop 3 = Family member 4 = Neighbour 5 = Radio 6= Performance by theatre group or roadshow 7 = Others 8 = Village government 9= I don't know	<input type="checkbox"/> heardwhere otheardwhere
H27	Ni nani mlengwa kupewa hati punguzo? 1 = Mwanamke mja mzito 2 = mtoto chini ya umri wa mwaka mmoja 3 = Mwanamke mjamzito au mtoto mdogo	<input type="checkbox"/> eligible oteligible

	<p>4 = ingine (eleza)</p> <p><i>Who is eligible to receive a voucher?</i></p> <p>1= Pregnant women</p> <p>2= Child &lt; 1</p> <p>3= Pregnant woman and child</p> <p>4=Other (specify)</p>	<p>_____</p> <p>_____</p> <p>_____</p>
H28	<p>Je, katika kaya hii, mnavyo vyandarua vingapi?</p> <p><b>KAMA "0" NENDA M1</b></p> <p><i>How many mosquito nets does your household have?</i></p> <p><b>If "0" SKIP TO M1</b></p>	<p>____ ____ </p> <p>numnets</p>

		Chandarua # 1 Net # 1	Chandarua # 2 Net # 2	Chandarua # 3 Net # 3
H29	<p><b>Je, chandarua hiki kilikaguliwa?</b></p> <p>1 = Ndiyo</p> <p>2 = Hapana</p> <p><b>Is the net observed?</b></p> <p>1 =Yes</p> <p>2 = No</p>	<p>____ ____ </p> <p>seennet1</p>	<p>____ ____ </p> <p>seennet2</p>	<p>____ ____ </p> <p>seennet3</p>
H30	<p>Kaya yako ilipata chandarua hiki miezi mingapi iliyopita?</p> <p><b>Kama ni zaidi ya miezi 36 andika 96, kama haijulikani andika 99</b></p> <p><i>How long ago did your household obtain the mosquito net? (Months ago)</i></p> <p><b>If more than 3 years, indicate 96</b></p> <p><b>Don't know write 99</b></p>	<p>____ ____ </p> <p>whenbought1</p>	<p>____ ____ </p> <p>whenbought2</p>	<p>____ ____ </p> <p>whenbought3</p>
H31	<p>Chandarua hiki kilinunuliwa kwa kutumia hati punguzo?</p> <p>1 = ndiyo</p> <p>2 = hapana</p> <p>9= sijui</p> <p><i>Was the net purchased using a voucher/Hati Punguzo?</i></p> <p>1=Yes</p> <p>2=No</p> <p>9=Don't know</p>	<p>____ ____ </p> <p>usedvouch1</p>	<p>____ ____ </p> <p>usedvouch2</p>	<p>____ ____ </p> <p>usedvouch3</p>
H32	<p>Ulinunua/pata wapi chandarua hiki?</p> <p>1 = Dukani</p> <p>2 = Machinga</p> <p>3 = Kituo cha afya</p> <p>4 = Mradi wa serikali/NGO</p> <p>5 = Inginge</p> <p>6 = Sokoni (gulioni)</p> <p>7 = Zawadi</p> <p>9 = Haijulikani</p>	<p>____ ____ </p> <p>wherebought1 otwherebought1</p>	<p>____ ____ </p> <p>wherebought2 otwherebought2</p>	<p>____ ____ </p> <p>wherebought3 otwherebought3</p>

	<p><i>From what kind of source did your household obtain the mosquito net?</i></p> <p>1=Shop 2= Hawker (mobile) 3= Health facility 4= Government or NGO project 5= Other 6= Shifting market (gulio) 7= Gift 9= Don't know</p>			
H33	<p>Chandarua hiki kina kubwa gani? 1=3.5X6 2=4X6 3=6X6 4=Ingine (eleza)</p> <p><i>What size is the net?</i> 1=3.5X6 2=4X6 3=6X6 4=Other</p>	<input type="checkbox"/> size1 otsize1	<input type="checkbox"/> size2 otsize2	<input type="checkbox"/> size3 otsize3
H34	<p>Chandarua hiki kilinunuliwa shilingi ngapi? (<b>andika "0" kama ni zawadi</b>) <b>(Andika "9999" kama hajui)</b></p> <p><i>What price was paid for this net?</i> <b>(write "0" if gift)</b> <b>(write "9999" if don't know)</b></p>	TSh. _____ Paidnet1	TSh. _____ Paidnet2	TSh. _____ Paidnet3
H36	<p>Je chandarua kilinunuliwa kikiwa kimefungwa pamoja na dawa ya chandarua? 1 = Ndiyo 2 = Hapana 9 = Sijui</p> <p><i>Did the net come packaged with a sachet of insecticide?</i> 1=Yes 2=No 9=Don't know</p>	<input type="checkbox"/> withngao1	<input type="checkbox"/> Withngao2	<input type="checkbox"/> withngao3
H37	<p>Je chandarua hiki kilishawahi kuchovywa kwenye dawa ya chandarua? 1 = Ndiyo 2 = Hapana (<b>NENDA H39</b>) 3 = Hakuna uhakika (<b>NENDA H39</b>)</p> <p><i>Has this net ever been treated?</i></p>	<input type="checkbox"/> evertreat1	<input type="checkbox"/> evertreat2	<input type="checkbox"/> evertreat3

	<p>1=Yes 2=No (<b>SKIP TO H39</b>) 3=Not sure (<b>SKIP TO H39</b>)</p>											
H38	<p>Je kwa mara ya mwisho chandarua hiki kilichovywa lini kwenye dawa ya chandarua? (mwezi/mwaka) (<b>Kama hujui, andika 1 July 2009</b>)</p> <p><i>When was the last time the net was treated? (month/year) (If don't know, write 1 July 2009)</i></p>	<table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table> <p>lasttreat1</p>					<table border="1"> <tr><td> </td><td> </td></tr> </table> <p>lasttreat2</p>			<table border="1"> <tr><td> </td><td> </td></tr> </table> <p>lasttreat3</p>		
H39	<p>Je kuna mtu yeyote alilala kwenye chandarua hiki usiku uliopita? 1 = Ndiyo 2 = Hapana (<b>NENDA H41</b>) 3 = Hakuna uhakika (<b>NENDA H41</b>)</p> <p><i>Did anyone sleep under the mosquito net last night? 1 = Yes 2 = No (<b>SKIP TO H41</b>) 3 = Not sure (<b>SKIP TO H41</b>)</i></p>	<p>sleeplstnt1</p>	<p>sleeplstnt2</p>	<p>sleeplstnt3</p>								
H40	<p>Ni nani alilala chini ya chandarua hiki usiku uliopita (<b>andika namba ya mtu huyo kutoka kwenye orodha ya mwanakaya H14</b>)</p> <p><i>Who slept under this mosquito net last night (record the line number of the individual(s) from the household roster H14)</i></p>	<p>Jina _____</p> <p>Jina _____</p> <p>Jina _____</p> <p>Jina _____</p> <p>Jina _____</p>	<p>Name _____</p> <p>Name _____</p> <p>Name _____</p> <p>Name _____</p> <p>Name _____</p>	<p>Name _____</p> <p>Name _____</p> <p>Name _____</p> <p>Name _____</p> <p>Name _____</p> <p>Name _____</p>								
H41	<p><b>Chunguza na andika hali ya chandarua. Andika idadi ya matundu, usijumuishe matundu ambayo yameshazibwa Kama ina matundu zaidi ya 10 ya ukubwa wowote, andika "96"</b></p> <p>Idadi ya matundu ukubwa</p>	<p>_____</p>	<p>_____</p>	<p>_____</p>								

	wa kichwa	n1head	n2head	n3head
H42	Ukubwa wa mkono	<input type="text"/> n1hand	<input type="text"/> n2hand	<input type="text"/> n3hand
H43	Ukubwa wa kidole	<input type="text"/>	<input type="text"/>	<input type="text"/>
H44	Chandarua kimechakaa sana na matundu hayahesabiki? 1 = ndiyo 2 = hapana	<input type="text"/> n1finger  <input type="text"/> n1torn	<input type="text"/> n2finger  <input type="text"/> n2torn	<input type="text"/> n3finger  <input type="text"/> n3torn
<p><b>Observe and record the condition of the net. Record the number of holes. Do not include repaired holes. If more than 10 holes of a given size, write "96"</b></p> <p>Number of holes head size Hand size Finger size</p> <p>Net too torn to count holes 1=Yes 2=No</p>				

H46	<p>Hawa ndio hawa kulal la kwenye chandarua usiku wa kuamkia leo? <b>(andika namba ya mstari) Usijaze kama kila mtu kwenye kaya alilala chini ya chandarua.</b></p> <p><i>Are these the people who did not sleep under a net last night? (record the line numbers)</i></p> <p><b>If everybody in the household slept under a net leave blank</b></p>	<p>nosleep1 nosleep2 nosleep3 nosleep4 nosleep5 nosleep6 nosleep7 nosleep8</p>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
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## Module 2: Wanawake wenye umri kati ya miaka 15 – 49

Module 2: Women aged 15-49 years

M1	Jina la mama <i>Name of the mother</i>	mothername
M2	ID ya mama (Wilaya/cluster/kaya/mtu)  <i>ID of the mother (District/cluster/household/person)</i>	_ / _ _ / _ _ / _ _  motherid

M3	Je inawezekana kumhoji mwanamke? 1=Ndio ( <b>NENDA M5</b> ) 2=Hapana  <i>Is it possible to interview the woman?</i> 1 = yes ( <b>SKIP TO M5</b> ) 2 = No	_  intwom1
M4	Kwanini haiwezekani kumhoji mwanamke? 1=Amesafini mbali 2=Mgonjwa 3=Nyingine  <i>Why is it not possible to interview?</i> 1=Travelled away 2 = Sick 3 = Other	_  whynot1 otwhynot1

M5	Umemsomea mwaliko wa ushiriki 1 = ndiyo 2 = hapana  <i>Have you read her the consent form?</i> 1= yes 2=no	_  readconsent
M6	Je, huyu mama amekubali? 1 = ndiyo 2 = hapana <b>KAMA HAPANA, UHOJAJI UISHIE HAPA</b>  <i>Does the mother agree?</i> 1=yes 2=no <b>IF NO, END INTERVIEW HERE</b>	_  motheragree

**Mhojaji: Kama mwanamke mwenye sifa za kuhojiwa amejibu Module 1, nenda M10**

**Interviewer: If the eligible woman was the respondent to Module 1, skip to M10**

M7	Je umewahi kusikia juu ya mpango wa hati punguzo ya kununulia chandarua kwa bei nafuu? 1 = ndiyo 2 = hapana ( <b>NENDA M10</b> )  <i>Have you heard about the discount voucher</i>	_  heardvouch
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	<p><i>programme for buying a net at a cheaper price?</i>  1=Yes  2=No (<b>SKIP TO M10</b>)</p>	
M8	<p>Kwa mara ya kwanza, ulisikia wapi kuhusu hiyo hati punguzo?  1 = MCH au kituo cha afya  2 = Dukani  3 = Mwanafamilia  4 = Jirani  5 = Redio  6 = Kupitia kampeni ya utangazaji/uhamasishaji  7 = Nyigine, (taja)  8 = Serikali ya kijiji  9 = Sijui</p> <p><i>If yes, where did you first hear about the discount voucher?</i>  1 = MCH or health facility  2 = Shop  3 = Family member  4 = Neighbour  5 = Radio  6= Performance by theatre group or roadshow  7 = Others  8 = Village government  9= I don't know</p>	<input type="checkbox"/> heardwhere othereadwhere
M9	<p>Ni nani mlengwa kupewa hati punguzo?  1 = Mwanamke mja mzito  2 = Mtoto chini ya umri wa mwaka mmoja  3 = Mwanamke mjamzito na mtoto mdogo  4 = Ingine (eleza)</p> <p><i>Who is eligible to receive a voucher?</i>  1=Pregnant women  2= Child &lt; 1  3=Pregnant woman and child  4=Other (specify)</p>	<input type="checkbox"/> eligible oteligible

Sasa ningependa kukuuliza maswali kuhusu afya yako.

*Now I would like to ask you some questions about your health right now.*

M10	<p>Je ulishawahi kuwa mjamzito? (hata kama ujauzito huo haukupelekea mtoto kuzaliwa)  1 = ndiyo  2 = hapana</p> <p><i>Have you ever been pregnant? (even if this did not lead to a live birth)</i>  1 = Yes  2 = No</p>	<input type="checkbox"/> everpg
M11	<p>Je, wewe ni mjamzito kwa sasa?  1 = ndiyo  2 = hapana (<b>NENDA M42</b>)</p> <p><i>Are you currently pregnant?</i></p>	<input type="checkbox"/> currentpg

	1=Yes 2=No ( <b>SKIP TO M42</b> )		
M12	Je, ujauzito huu una umri wa wiki ngapi?  <i>What gestation are you now? (record no. weeks)</i>	<input type="text"/> gestation	
M13	Je tayari umeshaudhuria kliniki kwa ajili ya ujauzito huu? 1 = ndiyo 2 = hapana ( <b>NENDA M39</b> )  <i>Have you already attended the MCH this pregnancy? 1 = Yes 2 = No (<b>SKIP TO M39</b>)</i>	<input type="text"/> attndmch	
M14	Naomba kuona kadi yako ya kliniki? Ulihudhuria lini kwa mara ya kwanza? (mwezi/mwaka)  <i>May I see your MCH card? When did your first visit take place? (month/year)</i> <b>Interviewer: record from card if available</b>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> firstvisit	
M15	1= Tarehe imeandikwa kutoka kwenye kadi 2=Mwanamke amesema tarehe  <i>1=Date recorded from card 2=Date reported by woman</i>	<input type="text"/> visitverif	
M16	Ulikuwa na ujauzito wa wiki ngapi ulipohudhuria kliniki kwa mara ya kwanza?  <i>How old was your pregnancy at the first visit? (record no.weeks)</i> <b>Interviewer: record from card if available</b>	<input type="text"/> <input type="text"/> <input type="text"/> gestfirstvis	
M17	1=Muda wa ujauzito umeandikwa kutoka kwenye kadi 2= Mwanamke amesema muda wa ujauziti  <i>1=Gestation recorded from card 2=Gestation reported by woman</i>	<input type="text"/> gestverif	
M18	Je, ulipokwenda kliniki, ulipewa dawa ya kuinga malaria? 1=Ndiyo 2=Hapana (NENDA M21) <i>When you went to the clinic were you given the medicine to prevent malaria? 1= Yes 2= No (Go to M21).</i>		
M19	Dawa gani ulipewa kuinga malaria? <b>(usidadisi)</b> 1=SP / Fansidar 2=dawa nyingine 9=hajui <i>Which medicine were you have given to prevent malaria? (do not prompt) 1 = SP /fansidar 2= Other medicine 9= do not know</i>		
M21	Je, pale kliniki, uliulizwa kama ungependa kupata dawa ya SP, kuinga malaria?		

	<p>1=Ndiyo 2=Hapana</p> <p><i>At the clinic, were you asked if you would like to get SP medicine to prevent Malaria?</i> 1=Yes 2=No</p>	
M22	<p>Kwa nini hujatumia dawa hii? 1=Siipendi 2=Inaweza kutoa mamba 3=Inaleta matatizo 4=Mume wangu hatakubali 5=Nyingine</p> <p><i>Why did you not use this medicine</i> 1= I don't like 2= It can abort the pregnancy 3= it causes other problems 4= My husband will not agree 5= Other</p>	
M23	<p>Mfanyakazi wa kliniki alikupa hati punguzo kwa ajili ya kununulia chandarua? <b>(Mhojaji : onyesha Hati Punguzo)</b> 1 = ndiyo 2 = hapana <b>(NENDA M39)</b></p> <p><i>Did an MCH worker give you a discount voucher for buying a mosquito net?</i> <b>(Interviewer: show copy of Hati Punguzo)</b> 1=Yes 2=No <b>(SKIP TO M39)</b></p>	<input type="checkbox"/> recdvouch
M24	<p>Ulitoa fedha ili kupata hati hiyo? 1 = ndiyo 2 = hapana <b>(NENDA M26)</b></p> <p><i>Did you have to pay money to somebody at the MCH clinic to get the voucher?</i> 1=Yes 2=No <b>(SKIP TO M26)</b></p>	<input type="checkbox"/> paidvouch
M25	<p>Ulilipia shilingi ngapi? <i>How much did you have to pay? (TSh)</i></p>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> paidhowmuch
M26	<p>Hati ilitumika kununulia chandarua? 1 = ndiyo <b>(NENDA M29)</b> 2 = hapana</p> <p><i>Was the voucher used to buy a net?</i> 1=Yes <b>(SKIP TO M29)</b> 2=No</p>	<input type="checkbox"/> usevouch
M27	<p>Ni kwa nini chandarua hakikununuliwa kwa kutumia hati? 1 = Nilimpa mtu mwingine 2 = Tayari nina chandarua 3 = Nilikuwa sina fedha za kununulia chandarua 4 = Niliipoteza 5 = Nilinunua bidhaa nyingine 6 = Niliizuza kwa mtu mwingine 7 = Kunakouzwa vyandarua ni mbali sana 8 = Sijui ni wapi pa kununulia vyandarua 9 = Hakuna duka linalouza chandarua hapa</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  Whynotuse Otwhynotuse

	<p>karibú 10 = Chandarua ni aghali sana 11 = Inginge (eleza)</p> <p><i>Why wasn't the voucher used to buy a net?</i> 1 = I gave the voucher to somebody else 2 = I already had a net 3 = I had no money to buy a net 4 = I lost the voucher 5 = I bought another commodity 6 = I sold the voucher to somebody else 7 = The place to buy a net is too far 8 = I don't know where to buy a net 9=No shop nearby selling nets 10 = Nets too expensive 11 = Other (specify).</p>	
M28	<p>Hati punguzo bado ipo? 1 = ndiyo (<b>NENDA M39</b>) 2 = hapana (<b>NENDA M39</b>)</p> <p><i>Do you still have the voucher?</i> 1=Yes (<b>SKIP TO M39</b>) 2=No (<b>SKIP TO M39</b>)</p>	<p>    stillhave</p>
M29	<p>Nani alikwenda kununua chandarua? 1=Mimi 2=Mume wangu 3=Ndugu 4=Rafiki 5=Mwingine</p> <p><i>Who went to buy the net?</i> 1=Self 2=Husband 3=Relative 4=Friend 5=Other</p>	
M30	<p>Lini ulinunua chandarua ? Kama hajui, andika 1 July 2009</p> <p><i>When was the net bought?</i> <i>If not known, write 1 July 2009</i></p>	<p>   /   /    whenbuy</p>
M31	<p>Chandarua hiki kilinunuliwa wapi? 1= Dukani 2=Machinga 3=Kituo cha afya 4=Mradi wa serikali/NGO 5=Sokoni (gulioni) 6=Inginge, eleza 9=Haijulikani</p> <p><i>Where was the net bought?</i> 1=Shop 2=Machinga 3=Health facility 4=Government or NGO project 5=Market 6=Other (specify) 9=Don't know</p>	<p>    wherebuy otwherebuy</p>
M32	<p>Ilichukua muda gani hadi kufika mahali kiliponunuliwa chandarua (katika dakika)</p>	<p>    timebuy</p>

	<p><i>How long did it take you (or the person who bought the net) to get to the place where you bought the net? (minutes) WRITE 999 IF DON'T KNOW</i></p>	
M33	<p>Kiasi gani cha fedha kama gharama ya usafiri kililipwa? (Tsh) <b>(mhojaji: kama hakulipa chochote andika 0)</b></p> <p><i>How much was paid as transport costs? (TSh)</i> <b>(Interviewer: If paid nothing write 0; write 9999 if don't know)</b></p>	<p>_ _ _ _ _  transbuy</p>
M34	<p>Chandarua kina ukubwa gani? 1=3.5X6 2=4X6 3=6x6 4=Ingine (eleza)</p> <p><i>What size is the net?</i> 1=3.5X6 2=4X6 3=6X6 4 = Other</p>	<p>Sizenet Otsizenet</p>
M35	<p>Chandarua hiki kilinunuliwa shilingi ngapi? (baada ya kutumia hati punguzo)?</p> <p><i>How much was paid to buy the net (after using discount voucher)?</i></p>	<p>_ _ _ _ _  costnet</p>
M36	<p>Kulikuwa na kikwazo chochote kewnye kutumia hati punguzo kununulia chandarua? 1 = ndiyo, eleza 2 = hapana</p> <p><i>Did you have any other difficulties in using the voucher scheme to buy a net?</i> 1=Yes (specify) 2=No</p>	<p>_ _  probbuy whatprobbuy</p> <p>_____</p> <p>_____</p> <p>_____</p>
M37	<p>Bado unacho chandarua hicho? 1 = ndiyo <b>(NENDA M39)</b> 2 = hapana</p> <p><i>Do you still have the net that you bought with the voucher?</i> 1=yes <b>(SKIP TO M39)</b> 2=No</p>	<p>_ _  stillhave</p>
M38	<p>Kama hapana chandarua hicho kiko wapi? 1 = Kilibiwa 2 = Kiliungua 3 = Nilikipoteza 4 = Nilikiuza 5 = Nilimpa mtu mwingine 6 = Nilimpatia aliyetoa fedha 7 = Nyingine, eleza</p> <p><i>If not, what happened to it?</i> 1=Stolen 2=Burnt 3=I lost 4=Isold</p>	<p>_ _  wherenet otwherenet</p>

	<p>5=I gave it to another person 6=I sold it to another person 7 = Other (explain)</p>	
M39	<p>Je, ulilala ndani ya chandarua usiku wa kuamkia leo? 1 = ndiyo 2 = hapana (<b>NENDA M42</b>)</p> <p><i>Did you sleep under a mosquito net last night?</i> 1=yes 2=No (<b>SKIP TO M42</b>)</p>	<p><input type="checkbox"/> sleptlast</p>
M40	<p>Je, chandarua hicho kimewahi kuchovywa kwenye dawa ya chandarua? 1 = ndiyo 2 = hapana (<b>NENDA M42</b>)</p> <p><i>Have you ever treated this net with insecticide?</i> 1 = Yes 2 = No (<b>SKIP TO M42</b>)</p>	<p><input type="checkbox"/> evertreat</p>
M41	<p>Chandarua hicho kiliwekwa dawa kwa mara ya mwisho lini? (mwezi/mwaka) (<b>Kama hajui, andika 1 July 2009</b>)</p> <p><i>When was the last time you treated the net with insecticide (month/year)? (If don't know write 1 July 2009)</i></p>	<p><input type="text"/>/ <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/> lasttreat</p>

Sasa ningependa kukuuliza baadhi ya maswali kuhusu ujauzito kwa kipindi cha miaka 2 iliyopita, i.e 2004 mpaka 2005 (**au angalia tukio muhimu lililotokea wakati huo**).

Now I would like to ask you some questions about other pregnancies during the past 1 year, i.e. in 2004 and 2005 (**Or check for well-known local event**).

M42	<p>Umewahi kujifungua mtoto hai kwa kipindi cha miaka 2 iliyopita kati ya mwaka 2004 na 2005? 1 = ndiyo 2 = hapana (<b>NENDA C1</b>)</p> <p><i>Did you give birth to a live child in the past year (in 2004 or 2005)?</i> 1=Yes 2=No (<b>SKIP TO C1</b>)</p>	<p><input type="checkbox"/> livebirth</p>
M43	<p>Umejifungua watoto hai wangapi ndani ya mwaka 2004 na 2005?</p> <p><i>How many children did you give birth to in 2004 and 2005?</i></p>	<p><input type="text"/> numbirths</p>
M44	<p>Ulijifungua mtoto na kwa bahati mbaya akafariki ndani ya mwaka 2004 na 2005? 1 = ndiyo 2 = hapana</p> <p><i>Did you give birth to a child that cried or showed signs of life but unfortunately died later?</i> 1=yes</p>	<p><input type="checkbox"/> childdied</p>

	2=no	
M45	<p>Kwa hiyo kwa kipindi hicho umejifungua watoto hai?</p> <p><i>What is the total number of live children that you gave birth to during the past year?</i></p>	<input type="text"/> totlivebirth

M46 Ningependa kuandika majina ya watoto wote uliojifungua tangu 2003 au 2004 mpaka sasa, hata kama alifariki/walifariki. **(Anza na mtoto aliye mdogo zaidi. Kwa mapacha, andika jina la kila mmoja kwenye mstari wake. Kama kuna mtoto ambaye hajapewa jina, andika 'not given' kama jina la huyo mtoto).**

*M46 I would like to write down all the names of the children that you gave birth to in 2004 and 2005, even if they died. (Start with the youngest one. For twins, write every child in a separate line. If there was a child was not given a name, write "not given" in the name of the child).*

Namba Number	Jina la mtoto (Anza na mdogo zaidi)  Name of the child (start with the youngest)	Amezaliwa mapacha? 1=Peke yake 2=Mapacha  Born twins? 1 = Lone 2 = Twins	Jinsia 1=M 2=K Sex 1=M 2=F	Amezaliwa lini? (Siku/mwezi/mwaka)  When was s/he born? (day/month/year)	Je, bado yuko hai? 1 = ndiyo 2 = hapana  Is s/he still alive? 1=Yes 2 = No	Kama yuko hai, umriwake ni miezi mingapi?  If s/he is still alive, how old is s/he in months	Kama alifariki, ni lini alifariki?  If the child died, when did s/he die??	Je, umezaa watoto wengine kati ya 2004 au 2005? 1=Ndiyo 2=Hapana Have you had any other children in the 2003 and 2004? 1=Yes 2=No
_ num1	Name1	_ twins1	_ sex1	_ _ / _ _ / _ _ _ _  dob1	_  alive1	_ _  age1	_ _ / _ _ / _ _ _ _  whendied1	_  otherchild1
_ num2	Name2	_ twins2	_ sex2	_ _ / _ _ / _ _ _ _  dob2	_  alive2	_ _  age2	_ _ / _ _ / _ _ _ _  whendied2	_  otherchild2
_ num3	Name3	_ twins3	_ sex3	_ _ / _ _ / _ _ _ _  dob3	_  alive3	_ _  age3	_ _ / _ _ / _ _ _ _  whendied3	_  otherchild3

Sasa ningependa kukuuliza maswali juu ya ujauzito wa kila mtoto aliyezaliwa mwaka 2003 na 2004.

Now I would like to ask you some questions about your pregnancy with each child born in 2004 and 2005.

		Jina (1) Name (1)  _____	Jina (2) Name (2)  _____	Jina (3) Name (3)  _____
		Namba ya mtoto ( <b>kutoka M46</b> )  <i>Child number (from M46)</i> <input type="text"/> <input type="text"/> Name1 Num1	Namba ya mtoto ( <b>kutoka M46</b> )  <i>Child number (from M46)</i> <input type="text"/> name2 num2	Namba ya mtoto ( <b>kutoka M46</b> )  <i>Child number (from M46)</i> <input type="text"/> name3 num3
M47	Ulipokuwa na ujauzito wa JINA, ulilala ndani ya chandarua? 1 = ndiyo 2 = hapana ( <b>NENDA M49</b> )  <i>While you were pregnant with NAME, did you sleep under a mosquito net?</i> 1=Yes 2=No ( <b>SKIP TO M49</b> )	<input type="text"/> sleppg1	<input type="text"/> sleppg2	<input type="text"/> sleppg3
M48	Je chandarua hicho kiliwahi kuchovywa kwenye dawa ya chandarua? 1 = ndiyo 2 = hapana  <i>Had you ever treated this net with insecticide?</i> 1=yes 2=no	<input type="text"/> evertreat1	<input type="text"/> evertreat2	<input type="text"/> evertreat3
M49	Ulipokuwa na ujauzito wa JINA, ulihudhuria kliniki?  1 = ndiyo 2 = hapana ( <b>NENDA M75</b> )  <i>While you were pregnant with NAME, did you attend an antenatal care clinic?</i> 1=Yes 2=No ( <b>SKIP TO M75</b> )	<input type="text"/> attndmch1	<input type="text"/> attndmch2	<input type="text"/> attndmch3
M50	Ulikuwa na ujauzito wa wiki ngapi ulipohudhuria kliniki kwa mara ya kwanza?  <i>How old was your pregnancy at the first visit?</i> (weeks) <b>Interviewer: record from MCH</b>	<input type="text"/> <input type="text"/> gestfirstvis1	<input type="text"/> <input type="text"/> gestfirstvis2	<input type="text"/> <input type="text"/> gestfirstvis3

	<b>card if available</b>			
M51	<p>1=Muda wa ujauzito umeandikwa kutoka kwenye kadi 2= Mwanamke amesema muda wa ujauziti</p> <p><i>1=Gestation recorded from card 2=Gestation reported by mother</i></p>	<input type="checkbox"/> gestverif1	<input type="checkbox"/> gestverif2	<input type="checkbox"/> gestverif3
M52	<p>Je, ulipokwenda kliniki, ulipewa dawa ya kuinga malaria? 1=Ndiyo 2=Hapana (NENDA M55)</p> <p><i>When you went to the clinic were you given the medicine to prevent malaria? 1= Yes 2= No (GO TO M55)</i></p>			
M53	<p>Dawa gani ulipewa kuinga malaria? (<b>usidadi</b>) 1=SP / Fansidar 2=dawa nyingine 9=hajui <i>Which medicine were you have given to prevent malaria? (do not prompt) 1 = SP /fansidar 2= Other medicine 9= do not know</i></p>			
M54	<p>Je, wakati ulipokuwa mjamzito, ulimeza dozi ngapi za dawa hiyo? (99=hajui) (<b>NENDA M57</b>)</p> <p><i>When you were pregnant, how many doses did you take of that medicine?)( 99 = do not know) (GO TO M57)</i></p>			
M55	<p>Je, pale kliniki, uliulizwa kama ungependa kupata dawa ya SP, kuinga malaria? 1=Ndiyo 2=Hapana</p> <p><i>At the clinic, were you asked if you would like to get SP medicine to prevent Malaria? 1=Yes 2=No</i></p>			
M56	<p>Kwa nini hujatumia dawa hii? 1=Siipendi 2=Inaweza kutoa mimba 3=Inaleta matatizo 4=Mume wangu hatakubali 5=Nyingine(eleza)</p> <p><i>Why did you not use this medicine 1= I don't like 2= It can abort the pregnancy 3= it causes other problems 4= My husband will not agree 5=</i></p>			

	<i>Other (specify)</i>			
M57	<p>Je mfanyakazi wa kliniki alikupa hati kama hii kwa ajili ya kununulia chandarua? <b>(Mhojaji : onyesha Hati Punguzo)</b> 1 = ndiyo 2 = hapana <b>(NENDA M75)</b></p> <p><i>Did an MCH worker give you a discount voucher for buying a mosquito net?</i> <b>(Interviewer: show copy of Hati Punguzo)</b> 1 = Yes 2 = No <b>(SKIP TO M75)</b></p>	<input type="checkbox"/> recdvouch1	<input type="checkbox"/> recdvouch2	<input type="checkbox"/> recdvouch3
M58	<p>Ulitoa fedha kwa mtu yeyote kwenye kliniki ili kupata hati hiyo? 1 = ndiyo 2 = hapana <b>(NENDA M60)</b></p> <p><i>Did you have to pay money to somebody at the MCH clinic to get the voucher?</i> 1=Yes 2=No <b>(SKIP TO M60)</b></p>	<input type="checkbox"/> paidvouch1	<input type="checkbox"/> paidvouch2	<input type="checkbox"/> paidvouch3
M59	<p>Ulilipia shilingi Tshs ngapi? <i>How much did you have to pay?</i></p>	<input type="text"/> paidhowmuch 1	<input type="text"/> paidhowmuc h2	<input type="text"/> paidhowmuc h3
M60	<p>Hati punguzo ilitumika kununulia chandarua? 1 = ndiyo <b>(NENDA M63)</b> 2 = hapana</p> <p><i>Was the voucher used to buy a net?</i> 1=Yes <b>(SKIP TO M63)</b> 2=No</p>	<input type="checkbox"/> usevouch1	<input type="checkbox"/> usevouch2	<input type="checkbox"/> usevouch3
M61	<p>Ni kwa nini chandarua hakikununuliwa kwa kutumia hati? 1 = Nilimpa mtu mwingine 2 = Tayari nina chandarua 3 = Nilikuwa sina fedha za kununulia chandarua 4 = Niliipoteza 5 = Nilinunua bidhaa nyingine 6 = Niliiuza kwa mtu mwingine 7 = Kunakouzwa vyandarua ni mbali sana 8 = Sijui ni wapi pa kununulia vyandarua 9 = Hakuna duka linalouza chandarua hapa karibu 10 = Chandarua ni aghali sana 11 = Ingingine (eleza)</p> <p><i>Why wasn't the voucher used to buy a net?</i> 1 = I gave the voucher to somebody else 2 = I already had a net 3 = I had no money to buy a net</p>	<input type="checkbox"/> whynotuse1 otwhynot1	<input type="checkbox"/> whynotuse2 otwhynot2	<input type="checkbox"/> whynotuse3 otwhynot3

	<p>4 = I lost the voucher  5 = I bought another commodity  6 = I sold the voucher to somebody else  7 = The place to buy a net is too far  8 = I don't know where to buy a net  9 = No shop nearby selling nets  10 = Nets too expensive  11 = Other (specify)</p>			
M62	<p>Je bado hati punguzo ipo?  1 = ndiyo (<b>NENDA M75</b>)  2 = hapana (<b>NENDA M75</b>)</p> <p><i>Do you still have the voucher?</i>  1=Yes (<b>SKIP TO M75</b>)  2=No (<b>SKIP TO M75</b>)</p>	<input type="checkbox"/> havevouch1	<input type="checkbox"/> havevouch2	<input type="checkbox"/> havevouch3
M63	<p>Nani aliyekwenda kununua chandarua hicho?  1=Mimi  2=Mume wangu  3=Ndugu  4=Rafiki  5=Mwingine</p> <p><i>Who went to buy the net?</i>  1=Self  2=Husband  3=Relative  4=Friend  5=Other</p>			
M64	<p>Chandarua kilinunuliwa ukiwa mjamzito au baada ya kujifungua?  1 = nilipokuwa mjamzito  2 = baada ya kujifungua</p> <p><i>When in the course of your pregnancy was the voucher used to buy the net?</i>  1 = While pregnant  2 = after delivery</p>	<input type="checkbox"/> whenbuy1	<input type="checkbox"/> whenbuy2	<input type="checkbox"/> whenbuy3
M65	<p>Lini ulinunua chandarua?  (mwezi/mwaka)  <b>Kama hajui, andika 1 July 2009</b></p> <p><i>When was the net bought?  (Month/Year)</i>  <b>If not known, write 1 July 2009</b></p>	<input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> / <input type="text"/> / <input type="text"/> datebuy1	<input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> / <input type="text"/> / <input type="text"/> datebuy2	<input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> / <input type="text"/> / <input type="text"/> datebuy3
M66	<p>Chandarua hiki kilinunuliwa wapi?  1= Dukani  2=Machinga  3=Kituo cha afya  4=Mradi wa serikali/NGO  5=Sokoni (gulioni)  6=Injine, eleza  9=Haijulikani</p> <p><i>Where was the net bought?</i>  1=Shop  2=Machinga  3=Health facility</p>	<input type="checkbox"/> wherebuy1 otwherebuy1	<input type="checkbox"/> wherebuy2 otwherebuy2	<input type="checkbox"/> wherebuy3 otwherebuy3

	<p>4=Government or NGO project 5=Market 6=Other (specify) 9=Don't know</p>			
M67	<p>Ilichukua muda gani hadi kufika mahali chandarua kiliponunuliwa (jaza dakika) (andika 9999 kama hujui)</p> <p><i>How long did it take you (or the person who bought the net) to get to the place where you bought the net? (in minutes)</i></p> <p><b>Write 999 if don't know</b></p>	<p> _ _ _  timebuy1</p>	<p> _ _ _  timebuy2</p>	<p> _ _ _  timebuy3</p>
M68	<p>Kiasi cha shilingi ngapi kilipwa kama gharama ya usafiri? (<b>mhojaji: kama hakulipa chochote andika 0; andika 9999 kama hujui</b>)</p> <p><i>How much was paid as transport costs? (Interviewer: if paid nothing, write 0; Write 9999 if don't know)</i></p>	<p> _ _ _ _  transbuy1</p>	<p> _ _ _ _  transbuy2</p>	<p> _ _ _ _  transbuy3</p>
M69	<p>Ulinunua chandarua ukubwa gani? 1=3.5X6 2=4X6 3=6X6 4=Ingine, eleza</p> <p><i>What size of net was bought? 1=3.5X6 2=4X6 3=6X6 4=Other</i></p>	<p> _  sizenet1 otsize1</p>	<p> _  sizenet2 otsize2</p>	<p> _  sizenet3 otsize3</p>
M70	<p>Ulilipa kiasi cha shilingi ngapi (baada ya kutumia hati punguzo) kununulia chandarua hiki?</p> <p><i>How much did you pay to buy the net (after using the discount voucher)?</i></p>	<p> _ _ _ _  costnet1</p>	<p> _ _ _ _  costnet2</p>	<p> _ _ _ _  costnet3</p>
M71	<p>Je kulikuwa na kikwazo chochote wakati wa kutumia hati punguzo? 1 = ndiyo (eleza) 2 = hapana</p> <p><i>Did you have any other difficulties using the voucher scheme to buy a net? 1 = Yes (specify) 2 = No</i></p>	<p> _   _  Probbuy1 Whatprob1 _____ _____ _____</p>	<p> _  probbuy2 whatprob2 _____ _____ _____</p>	<p> _  probbuy3 whatprob3 _____ _____ _____</p>
M72	<p>Bado unacho chandarua hicho ulichonunua kwa kutumia hati punguzo? 1 = ndiyo (<b>NENDA M74</b>) 2 = hapana</p> <p><i>Do you still have the net that you bought with the voucher? 1=yes (<b>SKIP TO M74</b>)</i></p>	<p> _  havenet1</p>	<p> _  havenet2</p>	<p> _  havenet3</p>

	2=no			
M73	<p>Chandarua hicho kiko wapi sasa?</p> <p>1 = Kilibiwa  2 = Kiliungua  3 = Nilikipoteza  4 = Nilikiuza  5 = Nilimpa mtu mwingine  6 = Nilimpatia aliyetoa fedha  7 = Nyingine, eleza</p> <p><b>(NENDA M75)</b></p> <p><i>If not: what happened to it?</i>  1 =Stolen  2 =Burnt  3 =I lost  4 =I sold  5 =I have given to another person  6=I sold it to another person  7 =Other (explain)</p> <p><b>(SKIP TO M75)</b></p>	<input type="checkbox"/> wherenet1 otwherenet1	<input type="checkbox"/> wherenet2 otwherenet2	<input type="checkbox"/> wherenet3 otwherenet3
M74	<p>Ni nani analala kwenye hicho chandarua kwa sasa?</p> <p><b>(angalia mstari wa namba kwenye orotha ya wanakaya H14)</b>  <i>Who sleeps under the net now?</i>  <b>(refer to line numbers from household roster H14)</b></p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> whosleeps11 whosleeps12 whosleeps13 whosleeps14	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> whosleeps2 1 whosleeps2 2 whosleeps2 3 whosleeps2 4	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> whosleeps3 1 whosleeps3 2 whosleeps3 3 whosleeps3 4

**KIPENGELE KUHUSU PAKETI YA DAWA YA HATI PUNGUZO**

## Hati Punguzo Insecticide Retreatment Kit Module

Sasa ningependa kukuuliza maswali kadhaa kuhusu watoto wako wenye umri wa chini ya mwaka mmoja au watoto wengine wenye umri chini ya mwaka mmoja ambao unawalea.

Now I would like to ask you some questions about your infants under 1 year or any children under 1 for whom you are the guardian.

K1	Jina la mhojiwa <i>Name of respondent</i>	
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		Jina (1) <i>Name (1)</i> Utambulisho wa mtoto <i>Id of child</i>	Jina (2) <i>Name (2)</i> Utambulisho wa mtoto <i>Id of child</i>
K2	Je, Umeshampeleka (JINA) kliniki ya mama na mtoto kwa ajili ya chanjo? 1= Ndiyo 2= Hapana <i>Have you taken NAME to the MCH for vaccination?</i> 1=Yes 2=No		
K3	Naweza kuona kadi ya kliniki ya mtoto? Mhojaji aandike kama 1= Ameiona kadi 2= Hajaiona kadi <i>May I see the child health card?</i> <i>Interviewer record:</i> 1=Card seen 2=Card not seen		
K4	Je, ulipata paketi ya dawa ya Hati Punguzo? 1= Ndiyo 2= Hapana <i>Did you receive a Hati Punguzo insecticide retreatment kit?</i> 1=Yes 2=No	<input type="checkbox"/>	<input type="checkbox"/>
K5	(Mhojaji): Paketi ya dawa ya Hati Punguzo imejazwa katika kadi?		

	1= Ndiyo 2= Hapana <i>(Interviewer): is the IRK recorded on the card?</i> 1=Yes 2=No		
K6	Ni mara ngapi umepata paketi ya dawa hiyo? <i>How many times did you receive a kit?</i>	<input type="checkbox"/>	<input type="checkbox"/>
K7	Je, umeshaitumia dawa ya Hati Punguzo kukichovya chandarua? 1= Ndiyo 2= Hapana <i>Have you used a Hati Punguzo IRK to treat a net?</i> 1=Yes 2=No		

**Moduli 4: Watoto wenye unri chini ya umri wa miaka 5**  
**Module 4: Children under 5 years of age:**

**Mhojaji: Hakikisha kuwa mhojiwa ni mama/mlezi wa mtoto chini ya miaka 5. Kama bado hujamwomba kuhojiwa, omba ridhaa ya kumuhoji**

**Interviewer: Ensure that the respondent is a mother/carer of a child under 5 years. If they have not yet given consent to be interviewed, ask for their consent.**

Ningependa kukuuliza baadhi ya maswali kuhusu watoto wako wenye umri chini ya miaka 5 au mtoto yeyote ambaye unamlea

*I would like to ask you some questions about your children under 5 years or any children for whom you are the guardian*

C1	Jina la mhojiwa <i>Name of respondent</i>	nameresp
C3	<b>Umemsomea mwaliko wa ushiriki</b> 1= ndiyo 2= hapana  <b>Have you read him/her the consent form?</b> 1= yes 2=no	<input type="checkbox"/> readconsent
C4	Je, mhojiwa amekubali? 1= ndiyo 2= hapana <b>KAMA HAPANA UHOJAJI UISHIE HAPA</b> <i>Does the respondent agree?</i> 1=Yes 2=No <b>IF NO END INTERVIEW HERE</b>	<input type="checkbox"/> respagree

C5		JINA (1) <i>NAME (1)</i>  Name1	JINA (2) <i>NAME (2)</i>  Name2	JINA (3) <i>NAME (3)</i>  Name3	JINA (4) <i>NAME (4)</i>  Name4
C7	JINA ana umri wa miaka mingapi? Kama ana umri chini ya mwaka mmoja, andika "0".  <i>How old is NAME? (years)</i> <i>If aged less than one year, write "0"</i>	<input type="checkbox"/> age1	<input type="checkbox"/> age2	<input type="checkbox"/> age3	<input type="checkbox"/> age4
C8	JINA alilala ndani ya chandarua usiku uliopita? 1 = ndiyo 2 = hapana (MWISHO)  <i>Did NAME sleep under a mosquito net last night?</i> 1 = yes 2 = no (END)	<input type="checkbox"/> sleepnet1	<input type="checkbox"/> sleepnet2	<input type="checkbox"/> sleepnet3	<input type="checkbox"/> sleepnet4
C9	Chandarua alicholala ... usiku uliopita kilishawahi kuchovya kwenye dawa? 1 = ndiyo 2 = hapana (MWISHO)	<input type="checkbox"/> evertreat1	<input type="checkbox"/> evertreat2	<input type="checkbox"/> evertreat3	<input type="checkbox"/> evertreat4

	<p><i>Has the net NAME slept under ever been treated?</i>  1=Yes  2=No (END)</p>				
C10	<p>Ni lini kwa mara ya mwisho chandarua alicholala ndani yake kiliwekwa dawa?(mwezi/mwaka).  <b>(Kama hajui, andika 1 July 2009)</b></p> <p><i>When was the last time the net they slept under was treated?</i>  (Month/year) <b>Kama hajui, andika 1 July 2009)</b></p>	_ _ _ /   _ _ _ _ _  lasttreat1	_ _ _ /   _ _ _ _ _  lasttreat2	_ _ _ /   _ _ _ _ _  lasttreat3	_ _ _ /   _ _ _ _ _  lasttreat4

Asante sana kwa kujibu maswali haya.

*Thank you very much for answering these questions.*

Mhojaji: andika namba za usawa wa bahari wa kaya kwa kutumia GPS  
Interviewer: Record the digital position of the household using the GPS

H24	GPS (Kama hujui ujaza 99.9, 99.9, 9999) (If no reading available, fill 99.9, 99.9, 9999)	Latitude  _ _ _  .  _ _ _ _ _ _ _  Longitude  _ _ _ _  .  _ _ _ _ _ _ _
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## TNVS FACILITY SURVEY 2005

### SECTION 1: IDENTIFIERS

	Variable Code		Variable Code
Date  _ _ / _ _ / _ _ _ _		GPS Longitude  _ _ _ : _ _ _ _	
District  _ _ _		GPS Latitude  _ _ _ : _ _ _ _	
Cluster  _ _		GPS Altitude  _ _ _ _ _	
Kitongoji  _ _ _		Interviewer ID  _ _	
Facility Type  _  (1)Dispensary (2)Health Centre (3)Hospital		Facility Ownership  _  (1)Government (2)Mission (3)NGO	

## **SECTION 2. EQUIPMENT, DRUGS AND VACCINES**

Walk around the RCH with a member of staff and personally check the availability of the following:

### **Section 2.1 Equipment**

Q2.1	Does the facility have the following equipment and materials on the day of survey?	(1)Yes (2)No	Variable Code
a.	Accessible and working adult scale?		
b.	Accessible and working baby scale?		
c.	Working watch or timing device?		
d.	Supplies to mix ORS, cups and spoons		
e.	Source of clean running water (eg bucket+plug)		
g.	Child vaccination cards		
h.	Antenatal cards		
i.	Bed for examining pregnant women		
j.	Fetalscope		
k.	Haemoglobin colour scale/Tallquist		
l.	Clinisticks for testing sugar		
m.	Stethoscope		
n.	Blood pressure machine		
o.	Albusticks		
p.	Single use needles and syringes for vaccinations		
q.	Functional sterilizer, cooker or stove		
r.	Functional fridge		
s.	Cold packs and cold boxes		
t.	TNVS vouchers		If no skip to 2.1u
t.1	If TNVS vouchers are present: How many vouchers are there today?		
u.	Hati Punguzo IRKits		
v.	Height stick		
w.	Working electricity supply		
x.	The last time you needed emergency transport for a patient what transport did you use? (1)Ambulance (2)other official vehicle (3)Public transport (4)Patient's own vehicle (5)Bicycle (6)None was available		

## Section 2.2: Current availability of drugs

Check the drug stocks. Answer the following questions based on what you see.

Q2.2	Does the facility have the following drugs available on the day of visit?	(1)Yes (2)No	Variable Code
a.	Sulphadoxine Pyrimethamine for IPT		
b.	Vitamin A		
c.	Ferrous/Folate		
d.	Paracetamol		
e.	Aspirin		
f.	Mebendazol		

## Section 2.3: Current availability of vaccines

Check the vaccine stocks. Answer the following questions based on what you see.

Q2.3	Does the facility have the following vaccines in stock?	(1)Yes (2)No	Variable Code
g.	BCG vaccine		
h.	OPV vaccine		
i.	DPT vaccine		
j.	Measles vaccine		
k.	TT vaccine		
l.	Were <i>any</i> (polio) vaccines indicated as unusable by the Visual Vaccine Monitor?		

## **SECTION 3 FACILITY SERVICES**

Discuss with the head of facility to determine which services are routinely offered and the health workers who usually have responsibility for specific tasks.

### Section 3.1 Services available

Q3.1			Variable Code
a.	How many days per week is the facility open?		
b.	What services are routinely offered at this facility? (1)Yes (2)No Antenatal registration and counselling	(1)Yes (2)No	
c.	Vaccination		
d.	VCT for pregnant women		

e.	Family planning		
f.	Child health		
g.	How many days per week are antenatal health services provided? (write number of days)		
h.	How many days per week are health education services provided? (write number of days)		
i.	What is the status of the facility for the Hati Punguzo scheme? (1)Not yet started (2)Trained but not distributing yet (3)Trained and distributing		If (1) skip to k.
j.	If Trained and distributing Hati Punguzo: What was the date when the first voucher was issued in this clinic? (dd/mm): write 99 if don't know dd)	_ _ / _ _	
k.	Does this clinic offer outreach antenatal services? (1)Yes (2)No		If (2) skip to Sect. 3.2
l.	If yes: How many times in the last four months did you provide the outreach service? (write number)		
m.	During the last outreach service did you offer the following services? (1)Yes (2)No		
n.	Distribute IPT		
o.	Distribute Hati Punguzo		
p.	About how many pregnant women were seen at the last outreach service? (write number)		
q.	Would you say the majority had heard of Hati Punguzo or they had not heard before you went there? (1)Heard about it (2)Not heard about it (3)Don't know		

### Section 3.2 Characteristics of health workers by responsibility

Ask the in-charge to tell you the following about the staff at the RCH. Emphasise that you want to know who NORMALLY provides each service – even if it is not in their job description. Repeat that the information given is anonymous.

Q3.2		Clinical officer	Nurse	MCH Aide	Medical Attendant	Recorder	VHW	Other (sp.)	Total
a.	No. in facility								
b.	No. providing antenatal care								
c.	No. doing health education								
d.	No. providing VCT services								
e.	No. doing registrations								
f.	No. providing f/p services								
g.	No. providing child services								
h.	No. trained in Hati Punguzo								
i.	How many are								

	working today?								
j.	How many are away on training?								

### Section 3.3 Supervision

Ask the In-Charge about supervision visits received over the last four months, plus details about the last visit.

For questions h-n: while actual number of minutes may not be remembered encourage respondent to think about less or more than 5 minutes, less or more than 10 minutes, and relative time spent on each activity. If an activity is not part of the service at that clinic write 99 in the minutes column.

Q 3.3			Variable Code
a.	Where you present at the last supervision visit? (1)Yes (2)No		
b.	How many times during the last four months did the facility receive a supervisory visit? (write number)		If 0 skip to Sect 4.
	Now please think about the last supervision visit. Which supervisors came on the last visit?	(1)Yes (2)No	
c.	DMO		
d.	Other Medical doctor		
e.	MCH co-ordinator		
f.	Vaccine official		
g.	Mfamasia		
h.	Other (specify) _____		
	During the last supervision visit did your supervisors spend time with any service providers to discuss:	(1)Yes (2)No	Minutes
i.	Family planning services		
j.	Vaccinations		
k.	Health education		
l.	Physical examination of antenatal women		
m.	Physical examination of children		
n.	VCT		
o.	Hati Punguzo		

## **SECTION 4 FACILITY RECORDS MODULE**

### **Section 4.1 Ledger (Book 4)**

*Ask the health worker responsible for records to help you identify records for all visits and drug deliveries to the health facility. Use these records to answer the questions below. If not enough information is available to answer a question, mark NI ( not enough information).*

Q4.1			Variable Code
a.	During the last four months: how many times did the facility take delivery of sulphadoxine pyrimethamine for IPTp?		
f.	During the last four months: how many times did the facility take delivery of iron/folate?		
k.	During the last four months: how many times did the facility take delivery of TNVS vouchers?		If 0 skip to Q4.2
l.	Total quantity issued in March		
m.	Total quantity issued in February		
n.	Total quantity issued in January		
o.	Total quantity issued in December		

### **Section 4.2 MTUHA (Book 6)**

		<20 weeks	>20 weeks	Variable Code
Q4.2	In June:			
a.	What is the total number of visits to the health facility for antenatal services?			
b.	How many of these antenatal attendees received a voucher?			
c.	How many of these antenatal attendees received IPTp1?			
d.	How many of these antenatal attendees received IPTp2?			
e.	How many of these antenatal attendees received iron?			
	In May:			
f.	What is the total number of visits to the health facility for antenatal services?			
g.	How many of these antenatal attendees received a voucher?			
h.	How many of these antenatal attendees received IPTp1?			
i.	How many of these antenatal attendees received IPTp2?			
j.	How many of these antenatal attendees received iron?			
	In April:			
k.	What is the total number of visits to the health facility for antenatal services?			
l.	How many of these antenatal attendees received a voucher?			
m.	How many of these antenatal attendees received IPTp1?			

n.	How many of these antenatal attendees received IPTp2?			
o.	How many of these antenatal attendees received iron?			
	In March:			
p.	What is the total number of visits to the health facility for antenatal services?			
q.	How many of these antenatal attendees received a voucher?			
r.	How many of these antenatal attendees received IPTp1?			
s.	How many of these antenatal attendees received IPTp2?			
t.	How many of these antenatal attendees received iron?			

## **SECTION 5. HEALTH EDUCATION/PROMOTION**

### **Section 5.1 Observation of health promotion materials on display**

		(1)Yes (2)No	Variable Code
Q5.1	On the day of survey were there posters displayed which addressed the following:		
a.	Hati Punguzo		
b.	Ngao		
c.	IPT – SP		
d.	STI		
e.	Nutrition		
f.	HIV		
g.	Family Planning		
h.	Childhood illnesses (measles, polio, neonatal tetanus)		

### **Section 5.2: Observation of key messages delivered during health education sessions with pregnant women**

*Ask for permission to observe a health education session – either group or individual. If possible select to observe a group session. For each topic below write down whether it was discussed.*

Q5.2			Variable Code
a.	What type of health education session was observed? (1)Group (2)Individual (3)Did not observe		If (1) go to b. If (2) go to c. If (3) go to e.
b.	Were the attendees of the group session (1)Pregnant women only (2)Mothers of children <5yrs only (3)Mixed		Now go to f.
c.	In the individual session observed: What number visit to the MCH was it for the pregnant woman?		
d.	In the individual session observed: Was it the woman's first pregnancy?		Now go to f.
e.	Why did you not observe a health education session? (Specify) _____		Now go to 5.3
	<i>Where the following topics discussed in the health education session:</i>	(1)Yes (2)No	
f.	Aims and Importance of Attendance at RCH		

	(eg services available, timing of visits)		
g.	Individual birth plan (eg where to deliver, emergencies, finances, transport)		
h.	Breastfeeding		
i.	Nutrition (eg importance in pregnancy, what foods to eat)		
j.	Malaria (eg causes, consequences, treatment, ITNs and IPT)		
k.	HIV (eg risk factors, consequences, VCT, ARV)		
l.	Anaemia (causes, consequences, detection, treatment)		
m.	Was a specific mention made of Hati Punguzo?		
n.	Was there an explanation of who Hati Punguzo was meant for and who could get one?		
o.	Was there an explanation of the value of Hati Punguzo?		
p.	Were the pregnant women told which shops they could use Hati Punguzo to buy a bednet in their area?		

### Section 6 Observation of actual delivery of interventions

Q5.3	At which point were the following given to the pregnant woman? (1)Registration (2)Counselling (3)Health education (4)Other (5)Not		Variable Code
a.	IPT		
a.1	If IPT was 'Other' specify: -----		
b.	Hati Punguzo		
b.1	If Hati Punguzo was 'Other' specify: -----		
c.	What was the total number of visits to the health facility for antenatal services by the end of the day of survey?	<20 wks    >20 wks	

## TNVS EXIT SURVEY 2005

### SECTION 1: IDENTIFIERS

	Variable Code		Variable Code
Date  _ _ / _ _ / _ _ _ _		District  _ _ _	
Ward/Cluster  _ _ _		Kitongoji  _ _ _	
Facility Code  _ _ _		Facility Type  _	
Interviewer ID  _ _		Respondent ID  _ _ _	

### SECTION 2: SOCIO ECONOMIC BACKGROUND OF RESPONDENT

*Explain to the respondent that the first questions are about her background.*

Q2			Variable Code
a.	What is your birth date? (dd/mm/yyyy) (if don't know 01/07/2099)	_ _ _ / _ _ / _ _	
b.	What is your age now? (write years)		
c.	How many years at school have you completed? (write number of years)		
d.	Have you ever been married? (1)Yes, currently married (2)Yes but not anymore (3)Living with partner but not married (4)Never		
e.	Which Region do you currently live in? (1)this Region (2)other Region		
f.	Which District do you live in? (1)this District (2)other District		
g.	Does the household you live in have a cement floor? (1)Yes (2)No		
h.	Does the household you live in have a tin/tiled roof? (1)Yes (2)No		
i.	Does your household have an electricity supply? (1)Yes (2)No		
j.	Is there a landline telephone in your household? (1)Yes (2)No		
k.	What kind of toilet facilities does your household have? (1)Flush (2)Pit/latrine (3)No facility/bush/field (4)Other		
	How many people live in your household? (including yourself)		
l.		Adults > 18 years	
m.		Children 5-17 years	
n.		Children <5 years	

	Does anyone living in your household own a: (1)Yes (2)No		
o.	Radio		
p.	Television		
q.	Bicycle		
r.	Pikipiki		
s.	Car/truck		
t.	Mobile phone		
u.	Bednet		
v.	How many bednets are there altogether? (write number)		

### SECTION 3.1: PREGNANCY HISTORY

*Explain to respondent that you would now like to ask some questions about her pregnancy.*

Q3.1			Variable Code
a.	What is your current gestation? (in weeks)		
b.	Which number pregnancy is this? (write number)		
c.	In total how many live births have you had? (write number)		If 0 skip to Sect. 3.2
d.	What was the birth date of your last born child? dd/mm/yyyy (if don't know: 01/07/2009)	_ _ / _ _ / _ _ _ _	
e.	<i>If ever been pregnant before:</i> Which week of pregnancy did you first visit the MCH for your last pregnancy? (enter how many weeks gestation)		

### SECTION 3.2 THIS PREGNANCY

*Ask to see clinic card to verify information*

Q3.2			Variable Code
a.	How many times have you attended the MCH for antenatal services so far this pregnancy (including today)?		
b.	What was your gestation at the first visit? (write number of weeks)		
c.	(If > 1 visit): What was your gestation at the second visit?		
d.	(If > 2 visits): What was your gestation at the third visit?		
e.	(If > 3 visits): What was your gestation at the fourth visit?		
f.	Have you ever been given iron prophylaxis from the MCH? (1)Yes (2)No		
f1.	At which visit were you given iron prophylaxis?		

	(1)1 <sup>st</sup> (2)2 <sup>nd</sup> (3)3 <sup>rd</sup> (4)4 <sup>th</sup>		
g.	Have you ever been given IPTp1 (first dose) from the MCH? (1)Yes (2)No		
g1.	At which visit were you given IPTp1 (first dose)? (1)1 <sup>st</sup> (2)2 <sup>nd</sup> (3)3 <sup>rd</sup> (4)4 <sup>th</sup>		
h.	Have you ever been given IPTp2 (second dose) from the MCH? (1)Yes (2)No		
h1.	At which visit were you given IPTp2 (second dose)? (1)1 <sup>st</sup> (2)2 <sup>nd</sup> (3)3 <sup>rd</sup> (4)4 <sup>th</sup>		
i.	Have you ever been given ARV? (1)Yes (2)No		
j.	Have you ever been given TT vaccine from the MCH? (1)Yes (2)No		
k.	Have you ever been given a voucher from the MCH? (1) Yes (2)No		
k1.	At which visit were you given a voucher? (1)1 <sup>st</sup> (2)2 <sup>nd</sup> (3)3 <sup>rd</sup> (4)4 <sup>th</sup>		
l.	After how many weeks should you visit the clinic again? (1)1-2 (2)3-4 (3)5-6 (4)7-8 (5)9-10 (6)10+ (7)don't know		
m.	Overall do you feel fit and healthy throughout this pregnancy? (1)Yes, very (2)OK (3)Not very (4)Not at all		
n.	Did you have the chance to ask the MCH staff any questions about your pregnancy or delivery today? (1)Yes (2)No (3)No questions to ask		If 3 skip to q.
o.	What was the most important question to you? *Codes at bottom of section		
p.	Did you receive enough information about this question from the clinic staff? (1)Yes (2)No		
q.	If not first visit to this clinic: Do you think the clinic is busier or quieter than the last time you attended? (1)Busier (2)Quieter (3)Same (4)Don't know		

*Codes for Q3.2 0*

(1)Concerning delivery; (2)Concerning preparations (3)Immediately after delivery (4)Caring for the baby (5)Purpose of the measurements (6)Request for a test (7)Breastfeeding issues (8)Experiencing abnormal discharge (9)Weight issues (10)Tiredness (11)Oedema (12)Stomach disturbances (heartburn, movement, pain) (13)Appetite (14)Heart palpitations (15)IPT (16)Hati Punguzo (17)Other

**SECTION 4: VOUCHER KNOWLEDGE, USE AND ITN OWNERSHIP**

*Remind the respondent that all the information she provides is very valuable to try to improve services and that her name or address is not written anywhere so whatever she tells us she can never be identified. Ask her to answer as honestly as she can.*

**Section 4.1 ITN use**

Q4.1			Variable Code
a.	Have you ever slept under a bednet during this pregnancy? (1)Yes (2)No		If no skip to g.
b.	Was it a treated net? (1)Yes (2)No (3)Don't know		
c.	This pregnancy, during which month of gestation did you first sleep under a bednet? (write month 1-9)		
d.	Did you sleep under a bednet last night? (1)Yes untreated (2)No		If no skip to g.
e.	Did you ever treat this net with insecticide?		If no skip

	(1)Yes (2)No		to g.
f.	When was the last time this net was treated with insecticide? (write day/month/year)		
g.	Who else normally shares your bed? (1)Child<5yrs (2)Child>5yrs (3)Husband (4)No-one (5)Other		

#### Section 4.2 Hati Punguzo

Q4.2			Variable Code
a.	Have you heard of the Hati Punguzo? The discount voucher programme to buy a bednet at a cheaper price? (1)Yes (2)No		If no skip to sec 5
b.	Did you ever hear about it at the MCH? (1)Yes (2)No		
c.	Can you tell me what the value of the voucher is? (enter the amount in numbers or enter 0 if doesn't know)		
d.	Can you mention all the places a voucher can be obtained from?		
e.		MCH (1)Yes (2)No	
f.		Other 1 (specify)   _   _   _   _   _   _   _   _   _   _   _   _   _   _   (1)Yes (2)No	
g.		Other 2 (specify)   _   _   _   _   _   _   _   _   _   _   _   _   _   _   (1)Yes (2)No	
h.	Who can get the Hati Punguzo voucher? (1)Pregnant women (2)Child<1yr (3)Pregnant woman and infant (4)Other (specify) _____		
i.	Have you ever been given Hati Punguzo voucher from the MCH? (show a voucher) (1)Yes (2)No		If yes skip to k
j.	If No: Did you want to be given a voucher? (1)Yes (2)No		Now skip to sect 5
k.	If did receive a voucher from MCH: On which visit this pregnancy did you receive the voucher? (1)First (2)Second (3)Third (4)Fourth (5)Fifth		
l.	Did you pay anyone some money to get it? (1)Yes (2)No		If no skip to n
m.	If yes: How much money did you pay for the voucher? (Tsh)		
n.	Was the voucher used yet to buy a bednet? (1)Yes (2)No	usedhp	If no skip to t.
o.	What size net was bought with the voucher? (1) 3.5X6 (2) 4X6 (3) 6X6 (4)Other		
p.	What was the amount of money that had to be added to the Hati Punguzo to buy the net? (write the amount in numbers)		
q.	When was the net bought using the Hati Punguzo voucher? (day/mth/yr (DK: 01/07/2009)		
r.	Who now uses the bednet bought with the voucher? (1)Myself (2)My husband (3)My child (4)Another relative living with me (5)Adult outside my house (6)Child outside my house		
s.	How easy was it to use would you say: (1)Very easy (2)OK (3)Not so easy (4)Very difficult <i>If not yet used:</i>		Now skip to sect 5
t.	Do you still have the voucher? (1)Yes (2)No <i>If no:</i>		If yes skip to w.
u.	What happened to it?		

	(1)Stolen (2)Burnt (3)Lost it (4)Sold it (5)Gave it away (6)Other		
v.	<i>If Other explain</i> _____ _____		Now skip to sect 5
w.	<i>If yes, still has the voucher:</i> Do you plan to use the voucher to buy a net for someone? (1)Yes for myself (2)Yes for my family (3)Yes for someone else (4)No		If Yes (1-3) skip to section 5
x.	If doesn't plan to use: Why don't you plan to use the voucher? (1)Already have a net (2)Don't like bednets (3)No money (4)Other (specify) _____		

### SECTION 5. KEY MALARIA IN PREGNANCY KNOWLEDGE INDICATORS

Ask the respondent the following questions. Do not prompt her with the coded answers – rather wait to see what responses she gives.

			Variable Code
Q5.1	What causes malaria? (1)Mosquitoes alone (2)Mosquitoes and other (3)Other		
Q5.2	What are some of the problems that can happen if a pregnant women gets malaria?	(1)Yes (2)No	
a.	Miscarriage		
b.	Prematurity		
c.	Low birth weight		
d.	Still birth		
e.	Pregnancy anaemia		
Q5.3	Have you heard of the method called IPT which is using SP during pregnancy to protect yourself and your baby from malaria? (1)Yes (2)No		
a.	At the MCH how many times do they advise you to take the tablets during your pregnancy? (1)Once (2)Twice (3)Three times (4)More than 3 (5)Don't know		
b.	Have you heard of insecticide treated bednets for preventing malaria? (1)Yes (2)No		
c.	After how many months is it advised to put the insecticide on the bednet again? ( <i>write number of months</i> )		

*Thank the respondent for taking the time to take part in the survey.*