

Lindi & Mtwara Health Facility Survey

2004

REPORT

		Page
Overview, Objectives & Methods		2
Results		4
1	Facilities visited	4
Section A: SERVICE PROVISION		
2	Treatment	5
3	Vaccinations	5
4	IPTp	8
5	Outreach services	8
6	Supervision	9
7	Views of facility staff on how supervision & services might be improved	9
8	Referrals	11
9	Data completeness	12
Section B: AVAILABILITY OF VACCINES, DRUGS AND EQUIPMENT		
9	Vaccines and vaccination equipment	13
10	Drugs	15
11	Equipment and materials	18
12	Diagnostic equipment	21
13	Mosquito nets and insecticide re-treatment kits	22
Section C: HUMAN RESOURCES		
14	Staffing levels and availability	23
15	Training	25
16	Staff turnover	26
17	Attitudes to SP	30
Appendix: The survey questionnaire		32

Overview, Objectives & Methods

INTRODUCTION

A health facility survey was conducted by the Ifakara Health Research and Development Centre (IHRDC) in five districts of Lindi and Mtwara Regions during September and October 2004. This document presents the objectives and methods of the survey as well as a summary of its results.

PURPOSE OF SURVEY

To generate information regarding the structure and function of health services in Lindi Rural, Ruangwa and Nachingwea districts of Lindi Region, and Newala and Tandahimba districts of Mtwara Region, in southern Tanzania. The survey was undertaken primarily to facilitate the development and implementation of a new approach to malaria and anaemia control in infants (the IPTi strategy).

OBJECTIVES

1. To document the availability of vaccines, drugs, supplies and services essential for child health in public and NGO health facilities.
2. To collect data on the availability and accessibility of child health care through government and NGO health providers.
3. To collect data on utilization of each facility during the last year by under-fives, for both malaria cases and EPI vaccines.
4. To gather ideas from health facility staff on how key areas might be improved including: supervision, health education and promotion, and any refusals to accept SP in adults and children.
5. To generate baseline information to facilitate calculation of the cost to the government of delivering IPTi.

METHODS

The survey method included interviewing health workers, checking the availability and functioning of equipment, drugs supplies and collecting Health Management Information System (HMIS) data from MTUHA books number 2 and 6, and vaccination tally sheets. All 134 health facilities in the five districts were visited, including hospitals, health centres and dispensaries owned by the Government of Tanzania, NGOs and privately.

The Survey Instruments

The survey was conducted using the adapted WHO health facility survey tool, but without the case management observation and exit interviews, modifying the costing component and adding a module on attitudes towards the use of sulphadoxine-pyrimethamine (SP) use. The tool (see appendix) consisted of the following four sections:

1. Component A - health services module.
2. Component B – about health workers attitude towards SP.
3. Component C - equipment and supplies.
4. Component D - health facility records.

Interviewer Training and Quality Control

Twenty candidate interviewers were trained, including sixteen from the project districts and four experienced interviewers who were familiar with the project area and had been involved in an earlier household survey. The sixteen best performing trainees were then selected and organized into groups of two, thus forming eight working teams. The remaining four were left as reserves in case a replacement was needed. In addition, two trainees were identified as supervisors who assisted the survey co-ordinator in day to day activities.

The training was carried out over a period of five days and included lectures on interview technique, discussion of the tools, group work, role-plays and practical fieldwork. The initial two days were spent in formal classes, followed by two days in the field in order to pilot test the survey instruments. The fifth day was spent back in the classroom to discuss and correct any problems identified during pilot testing and incorporating these changes into the questionnaire.

Copies of a letter of introduction from each Council Health Management Team (CHMT), signed by the District Medical Officer (DMO) and the District Executive Director (DED), were made available to each team. The letter was presented on arrival at each facility before initiation of the interviews. To help assure the quality of data, at least one interview was accompanied by a supervisor each day. Key aspects arising from this were discussed with both the interviewer and the rest of the trainees. All forms completed during the day were reviewed during the evening and feedback given to the interview teams.

Data Processing and Analysis

Questionnaires were sorted and the data entered twice into computers, using a specialised Data Management System (DMSys - SigmaSoft International) designed for clinical trials. Data were analysed according to a pre-defined analytical plan using Stata 8.2 software (Stata Corp LP,

College Station, Texas, USA). Preliminary analyses checked logical consistencies and data completeness. Throughout this report the capital letter N is used to denote the denominator and lower case letter n the number of observations.

RESULTS

1. FACILITIES VISITED

Ownership

District	N	Government	NGO/Mission	Private
		% (n)	% (n)	% (n)
Lindi Rural	40	90 (36)	10 (4)	0 (0)
Nachingwea	26	92 (24)	8 (2)	0 (0)
Newala	26	96 (25)	0 (0)	4 (1)
Ruangwa	18	83 (15)	17 (3)	0 (0)
Tandahimba	24	96 (23)	4 (1)	0 (0)
All districts	134	92 (123)	7 (10)	1(1)

Type

District	N	Hospital	Health Centres	Dispensary
		N	n	N
Lindi Rural	40	1	6	33
Nachingwea	26	3	1	22
Newala	26	1	2	23
Ruangwa	18	1	2	15
Tandahimba	24	1	3	20
All districts	134	7	14	113

Section A: SERVICE PROVISION

Treatment

Proportion of facilities offering child treatment services each day the facility is open

Indicator A81

District	N	% (n)
Lindi Rural	40	93 (37)
Nachingwea	26	92 (24)
Newala	26	96 (25)
Ruangwa	18	89 (16)
Tandahimba	24	96 (23)
All districts	134	93 (125)

Vaccinations

BCG vaccine

Indicators A75

District	N	BCG ¹			
		1 day a week % (n)	2 days a week % (n)	3 days a week % (n)	5 days a week % (n)
Lindi Rural	26	38 (10)	54 (14)	4 (1)	4 (1)
Nachingwea	11	73 (8)	18 (2)	9 (1)	0 (0)
Newala	18	44 (8)	39 (7)	6 (1)	11 (2)
Ruangwa	12	58 (7)	42 (5)	0 (0)	0 (0)
Tandahimba	20	35 (7)	45 (9)	20 (4)	0 (0)
All districts	87	46 (40)	4 (37)	8 (7)	4 (3)

¹ No health facility reported to offer vaccine services in four days

OPV vaccine **Indicators A76**

District	N	OPV			
		1 day a week % (n)	2 days a week % (n)	3 days a week % (n)	5 days a week % (n)
Lindi Rural	26	31 (8)	46 (12)	4 (1)	19 (5)
Nachingwea	12	42 (5)	8 (1)	17 (2)	33 (4)
Newala	18	0 (0)	0 (0)	11 (2)	89 (16)
Ruangwa	12	33 (4)	25 (3)	0 (0)	42 (5)
Tandahimba	20	5 (1)	15 (3)	20 (4)	60 (12)
All districts	88	20 (18)	22 (19)	10 (9)	48 (42)

 DPT-HB **Indicators A77**

District	N	DPT-HB			
		1 day a week % (n)	2 days a week % (n)	3 days a week % (n)	5 days a week % (n)
Lindi Rural	26	31 (8)	42 (11)	4 (1)	23 (6)
Nachingwea	12	42 (5)	8 (1)	17 (2)	33 (4)
Newala	18	0 (0)	0 (0)	11 (2)	89 (16)
Ruangwa	12	33 (4)	25 (3)	0 (0)	42 (5)
Tandahimba	20	5 (1)	20 (4)	20 (4)	55 (11)
All districts	88	20 (18)	22 (19)	10 (9)	48 (42)

 Measles **Indicators A78**

District	N	MEASLES			
		1 day a week % (n)	2 days a week % (n)	3 days a week % (n)	5 days a week % (n)
Lindi Rural	26	38 (10)	54 (14)	4 (1)	4 (1)
Nachingwea	11	73 (8)	18 (2)	9 (1)	0 (0)
Newala	18	50 (9)	33 (6)	6 (1)	11 (2)
Ruangwa	12	67 (8)	33 (4)	0 (0)	0 (0)
Tandahimba	20	30 (6)	45 (9)	20 (4)	5 (1)
All districts	87	47 (41)	40 (35)	8 (7)	5 (4)

Tetanus Toxoid (TT) **Indicators A79**

District	N	TT			
		1 day a week % (n)	2 days a week % (n)	3 days a week % (n)	5 days a week % (n)
Lindi Rural	26	31 (8)	46 (12)	4 (1)	19 (5)
Nachingwea	12	33 (4)	17 (2)	8 (1)	42 (5)
Newala	18	6 (1)	0 (0)	11 (2)	83 (15)
Ruangwa	12	33 (4)	25 (3)	0 (0)	42 (5)
Tandahimba	20	5 (1)	15 (3)	20 (4)	60 (12)
All districts	88	20 (18)	23 (20)	9 (8)	48 (42)

Reported obstacles to offering EPI services

Indicators A80

District	N	Vaccine Shortages % (n)	No working fridge % (n)	People living in farms % (n)	Lack of transport for outreach % (n)	Parents objection to vaccination % (n)	Equipment/ electricity/ gas shortage % (n)	Unskilled /insufficient staff % (n)	Too many doses per vaccine vial % (n)	Fear of wild animals % (n)	Lack of transport/ access % (n)	Traditional beliefs % (n)	Vaccine expiry % (n)
Lindi Rural	40	18 (7)	23 (9)	25 (10)	13 (5)	15 (6)	0 (0)	8 (3)	0 (0)	10 (4)	3 (1)	3 (1)	0 (0)
Nachingwea	26	35 (9)	27 (7)	4 (1)	12 (3)	4 (1)	12 (3)	12 (3)	4 (1)	0 (0)	0 (0)	0 (0)	0 (0)
Newala	26	42 (11)	0 (0)	4 (1)	8 (2)	4 (1)	4 (1)	0 (0)	12 (3)	0 (0)	0 (0)	0 (0)	0 (0)
Ruangwa	18	11 (2)	17 (3)	6 (1)	6 (1)	0 (0)	17 (3)	0 (0)	6 (1)	6 (1)	11 (2)	6 (1)	0 (0)
Tandahimba	24	50 (12)	33 (8)	4 (1)	13 (3)	16 (3)	8 (2)	4 (1)	0 (0)	0 (0)	0 (0)	4 (1)	4 (1)
All districts	134	31 (41)	20 (27)	10 (14)	10 (14)	8 (11)	7 (9)	5 (7)	4 (5)	4 (5)	2 (3)	2 (3)	1 (1)

IPTp

Proportion of facilities providing IPTp services in August 2004 (ie in month prior to start of survey)

Indicators A84

District	N	% (n)
Lindi Rural	40	90 (36)
Nachingwea	26	88 (23)
Newala	26	85 (22)
Ruangwa	18	67 (12)
Tandahimba	24	100 (24)
All districts	134	87 (117)

Outreach services

Number of outreach visits and village health days in the last 6 month

District	Number of health facilities	Outreach visits		Total number of village health days
		Total number of visits	Average number of visits /month/HF	
Lindi Rural	40	516	2.2	15
Nachingwea	26	139	0.9	0
Newala	26	447	2.9	22
Ruangwa	18	115	1.1	0
Tandahimba	24	128	0.9	18
All districts	134	1345	1.7	55

Supervision

Proportion of health facilities that received supervisory visit(s) during the previous 6 month

Indicator A95, 96

District	N	Visits in the previous 6 month			At least one supervisory visit involving case management observation % (n)
		At least one visit % (n)	Total number of visits N	Did supervisors sign MTUHA book % (n)	
Lindi Rural	40	93 (37)	94	85 (34)	15 (6)
Nachingwea	26	96 (25)	96	85 (22)	15 (4)
Newala	26	88 (23)	52	73 (19)	30 (8)
Ruangwa	18	72 (13)	25	61 (11)	11 (2)
Tandahimba	24	58 (14)	31	29 (7)	13 (3)
All districts	134	84 (112)	298	69 (93)	17 (23)

The five things facility staff most liked about supervision

Indicator A99

District	N	Explanations on how to do things % (n)	Reminders- reports, responsibilities % (n)	Gentle/kind supervisors % (n)	Moral support % (n)	Solution to problems % (n)
Lindi Rural	40	58 (23)	28 (11)	13 (5)	13 (5)	8 (3)
Nachingwea	26	46 (12)	12 (3)	8 (2)	23 (5)	15 (4)
Newala	26	38 (10)	12 (3)	12 (3)	12 (3)	12 (3)
Ruangwa	18	28 (5)	22 (4)	17 (3)	0 (0)	33 (6)
Tandahimba	24	42 (10)	17 (4)	8 (2)	8 (2)	0 (0)
All districts	134	45 (60)	19 (25)	11 (15)	12 (16)	12 (16)

The five things facility staff most disliked about supervision

Indicator A100

District	N	Unfriendly/ abusive supervisors % (n)	Supervisors not punctual, spend little time at facility % (n)	Not interested in problems or activities at the HF % (n)	Low frequency of visits, supervision at wrong time of day % (n)	Lack of supplies % (n)
Lindi Rural	40	30 (12)	18 (7)	12 (5)	8 (3)	3 (1)
Nachingwea	26	12 (3)	12(3)	12 (3)	8 (2)	4 (1)
Newala	26	19 (5)	0 (0)	0 (0)	4 (1)	4 (1)
Ruangwa	18	22 (4)	11(2)	6 (1)	6 (1)	0 (0)
Tandahimba	24	13 (3)	4 (1)	0 (0)	4 (1)	4 (1)
All districts	134	20 (27)	8 (13)	8 (9)	6 (8)	3 (1)

Views of facility staff on how services might be improved

Indicator A93 b

District	N	Increase number of employees %(n)	Increase availability of drugs %(n)	More training for employees %(n)	Salary increase %(n)	Maintenance of buildings %(n)	Provide more working equipments %(n)
Lindi Rural	40	63 (25)	35 (14)	53 (21)	13 (5)	55 (22)	70 (28)
Nachingwea	26	81 (21)	31 (8)	35 (9)	12 (3)	42 (11)	62 (16)
Newala	26	85 (22)	12 (3)	31 (8)	19 (5)	35 (9)	85 (22)
Ruangwa	18	50 (50)	33 (6)	33 (6)	17 (3)	39 (7)	83 (15)
Tandahimba	24	88 (21)	21 (5)	33 (8)	13 (3)	25 (6)	71 (17)
All districts	134	73 (98)	27 (36)	39 (52)	14 (19)	41 (55)	73 (98)

Referrals

Proportion of in-charge has wanted to refer a sick child but was unable

District	N	% (n)
Lindi Rural	40	35 (14)
Nachingwea	26	27 (7)
Newala	26	23 (6)
Ruangwa	18	17 (3)
Tandahimba	24	17 (3)
All districts	134	25 (34)

Proportion of Facilities with Transport for Referred Patients

Indicators D36-37

District	N	Transport available % (n)	Type of transport available		
			N	Ambulance % (n)	Bicycle % (n)
Lindi Rural	40	20 (8)	8	50 (4)	50 (4)
Nachingwea	26	31 (8)	7	43 (3)	57 (4)
Newala	26	4 (1)	Did not mention type		
Ruangwa	18	11 (2)	2	0 (0)	100 (2)
Tandahimba	24	8 (2)	2	100 (2)	0 (0)
All districts	134	16 (21)	19	47 (9)	57 (10)

Data completeness

Proportion of facilities with HMIS data available from MTUHA books for each month in 2003

District	N	Malaria in children under 5 years % (n)	OPD in children under 5 years % (n)	Antenatal Clinic Attendances % (n)	Intermittent Preventive Treatment in Pregnancy (IPTp) % (n)
Lindi Rural	40	82 (33)	78 (31)	90 (36)	32 (13)
Nachingwea	26	85 (22)	73 (19)	81 (21)	46 (12)
Newala	26	81 (21)	76 (20)	88 (23)	35 (9)
Ruangwa	18	61 (11)	67 (12)	67 (12)	39 (9)
Tandahimba	24	79 (19)	67 (16)	88 (21)	54 (13)
All districts	134	79 (106)	73 (98)	84 (113)	40 (54)

Section B: AVAILABILITY OF VACCINES, DRUGS AND EQUIPMENT

Vaccines and vaccination equipment

Availability of Vaccines and Essential Vaccine Equipment

Indicator D1b, D5b

District	Facilities providing vaccination services		Facilities with all essential vaccines ²	
	N	% (n)	N	% (n)
Lindi Rural	40	88 (35)	35	78 (27)
Nachingwea	26	85 (22)	22	68 (15)
Newala	26	96 (25)	25	96 (24)
Ruangwa	18	78 (14)	14	79 (11)
Tandahimba	24	92 (22)	22	64 (14)
All districts	134	88 (118)	118	77 (91)

Refrigeration Facilities and Vaccine Vial Monitors (VVM)

Indicator D8, D12

District	Health facilities offering vaccination services	Refrigerator available	Refrigerator able to freeze on day of survey	VVM condition	
				Number of facilities with VVM	VVM not changed colour
	N	% (n)	% (n)	N	% (n)
Lindi Rural	35	89 (31)	57 (20)	23	91 (21)
Nachingwea	22	100 (22)	41 (9)	13	69 (9)
Newala	25	100 (25)	72 (18)	19	95 (18)
Ruangwa	14	100 (14)	57 (8)	11	91 (10)
Tandahimba	22	100 (22)	41 (9)	10	90 (9)
All districts	118	97 (115)	54 (64)	76	88 (67)

² Essential vaccines are BCG, DPT-HB, OPV, Measles and TT (tetanus toxoid)

Availability of Essential Equipment to Provide Vaccines i.e. (Refrigerator or (vaccine carrier and ice blocks)) and Disposable Syringe

Indicator D8b

District	All facilities	Providing vaccine services
	N	% (n)
Lindi Rural	35	77 (27)
Nachingwea	22	86 (19)
Newala	25	96 (24)
Ruangwa	14	100 (14)
Tandahimba	22	77 (17)
All districts	118	86 (101)

Refrigerator Energy Sources

Indicator D13

District	Number of health facilities with a refrigerator	Gas	Electricity	Kerosene	Solar energy
	N	% (n)	% (n)	% (n)	% (n)
Lindi Rural	31	58 (18)	6 (2)	3 (1)	32 (10)
Nachingwea	22	59 (13)	18 (4)	9 (2)	14 (3)
Newala	25	88 (22)	4 (1)	4 (1)	4 (1)
Ruangwa	14	64 (9)	14 (2)	0 (0)	21 (3)
Tandahimba	22	77 (17)	14 (3)	0 (0)	9 (2)
All districts	114	69 (79)	11 (12)	4 (4)	17 (19)

Drugs

Essential Drugs

Indicators D14, 15, 18, 35, 22, 23, 24

District	All facilities N	ORS ³ % (n)	SP % (n)	Co-trimoxazole % (n)	Vitamin A % (n)	Ferrous Sulphate % (n)	Paracetamol % (n)	Mebendazole % (n)
Lindi Rural	40	95 (38)	100 (40)	58 (23)	92 (37)	92 (37)	48 (19)	78 (31)
Nachingwea	26	96 (25)	100 (26)	77 (20)	88 (23)	92 (24)	81 (21)	88 (23)
Newala	26	92 (24)	92 (24)	92 (24)	92 (24)	69 (18)	96 (25)	100 (26)
Ruangwa	18	89 (16)	61 (11)	78 (14)	94 (17)	94 (17)	89 (16)	78 (14)
Tandahimba	24	92 (22)	96 (23)	71 (17)	92 (22)	71 (17)	58 (14)	96 (23)
All districts	134	93 (125)	93 (124)	73 (98)	92 (123)	84 (113)	71 (95)	87 (117)

Essential Drug (ED) Availability by District, Level and Ownership

Indicators D26b

District	N	Have all EDs % (n)	Health facility level			Health facility ownership		
			Hospital n/N	Health centre n/N	Dispensary n/N (%)	Government n/N (%)	Missionary/NGO n/N	Private n/N
Lindi Rural	40	30 (12)	1/1	3/6	8/33 (24%)	10/63 (16%)	2/4	NA
Nachingwea	26	58 (15)	1/3	1/1	13/22 (59%)	14/24 (58%)	1/2	NA
Newala	26	54 (14)	1/1	2/2	11/23 (48%)	14/25 (56%)	NA ⁴	0/1
Ruangwa	18	50 (9)	1/1	2/2	6/15 (40%)	9/15 (60%)	0/3	NA
Tandahimba	24	29 (7)	1/1	½	5/20 (25%)	6/23 (26%)	1/1	NA
All districts	134	42 (57)	5/7	9/14	43/113 (38%)	53/123 (43%)	4/8	0/1

³ ORS: Oral Rehydration Solution

⁴ NA – Not Applicable

Antimalarials⁵
Indicators D15, 16, 17

District	N	SP % (n)	Amodiaquine % (n)	Quinine % (n)
Lindi Rural	40	100 (40)	95 (38)	88 (35)
Nachingwea	26	100 (26)	92 (24)	88 (23)
Newala	26	92 (24)	92 (24)	88 (23)
Ruangwa	18	61 (11)	94 (17)	78 (14)
Tandahimba	24	96 (23)	79 (19)	83 (20)
All districts	134	93 (124)	91 (122)	86 (115)

Parenteral medication

Indicators D27-34

District	N	Quinine % (n)	Benzylpenicillin % (n)	PPF % (n)	Ampicillin % (n)	Gentamicin % (n)	Chloramphenicol % (n)
Lindi Rural	40	88 (35)	80 (32)	70 (28)	3 (1)	5 (2)	48 (19)
Nachingwea	26	88 (23)	85 (22)	88 (23)	0 (0)	15 (4)	58 (15)
Newala	26	88 (23)	88 (23)	92 (24)	0 (0)	12 (3)	54 (14)
Ruangwa	18	78 (14)	94 (17)	94 (17)	6 (1)	11 (2)	39 (7)
Tandahimba	24	83 (20)	79 (19)	67 (16)	0 (0)	8 (2)	58 (14)
All districts	134	86 (115)	84 (113)	81(108)	1 (2)	10 (13)	51 (69)

 One or more antibiotics for Gram positive infections⁶

District	Health facility level					
	Hospital		Health centre		Dispensary	
	N	Availability % (n)	N	Availability % (n)	N	Availability % (n)
Lindi Rural	1	100 (1)	6	83 (5)	33	85 (28)
Nachingwea	3	100 (3)	1	100 (1)	22	86 (19)
Newala	1	0 (1)	2	100 (2)	23	96 (22)
Ruangwa	1	100 (1)	2	100 (2)	15	93 (14)
Tandahimba	1	100 (1)	3	100 (3)	20	80 (16)
All districts	7	86 (6)	14	93 (13)	113	88 (99)

⁵ SP was the first-line drug for malaria in 2004, amodiaquine second-line and quinine third-line.

⁶ Benzylpenicillin, x-penicillin or PPF.

One or more antibiotics for Gram negative infections⁷

District	Health facility level					
	Hospital		Health centre		Dispensary	
	N	Availability % (n)	N	Availability % (n)	N	Availability % (n)
Lindi Rural	1	100 (1)	6	33 (2)	33	52 (17)
Nachingwea	3	100 (3)	1	0 (0)	22	73 (16)
Newala	1	100 (1)	20	50 (1)	23	61 (14)
Ruangwa	1	100 (1)	2	50 (1)	15	47 (7)
Tandahimba	1	100 (1)	3	67 (2)	20	55 (11)
All districts	7	100 (7)	14	43 (6)	113	58 (65)

Availability of injectable drugs for pre-referral treatment,⁸ by health facility level

District	Health facility level					
	Hospital		Health centre		Dispensary	
	N	Availability % (n)	N	Availability % (n)	N	Availability % (n)
Lindi Rural	1	100 (1)	6	33 (2)	33	45 (15)
Nachingwea	3	100 (3)	1	0 (0)	22	68 (15)
Newala	1	0 (0)	2	50 (1)	23	57 (13)
Ruangwa	1	100 (1)	2	50 (1)	15	47 (7)
Tandahimba	1	100 (1)	3	67 (2)	20	45 (9)
All districts	7	86 (6)	14	43 (6)	113	52 (59)

⁷ Gentamicin, ampicillin or chloramphenicol.

⁸ Quinine plus drugs with activity against Gram positive bacteria plus drugs with activity against Gram negative bacteria.

Equipment and Materials

Electricity for lighting **Indicators D38-39**

District	N	Availability % (n)	Sources of energy available ⁹		
			TANESCO ¹⁰ n	Solar n	Generator N
Lindi Rural	40	5 (2)	1	0	1
Nachingwea	26	31 (8)	5	0	2
Newala	26	12 (3)	3	0	0
Ruangwa	18	17 (3)	2	1	0
Tandahimba	24	17 (4)	3	1	0
All districts	134	15 (20)	14	2	3

Coverage with mobile phone networks or radio calls **Indicators D40-41**

District	N	Mobile phones	Radio calls
		% (n)	% (n)
Lindi Rural	40	18 (7)	13 (5)
Nachingwea	26	35 (9)	19 (5)
Newala	26	61 (16)	0 (0)
Ruangwa	18	11 (2)	0 (0)
Tandahimba	24	50 (12)	4 (1)
All districts	134	34 (8)	8 (11)

Weighing scales for adults, infants/newborn or for under fives **Indicators D44-46**

District	N	Adults	Infants/ newborn	Under fives
		% (n)	% (n)	% (n)
Lindi Rural	40	68 (27)	78 (31)	95 (38)
Nachingwea	26	81 (21)	62 (16)	96 (25)
Newala	26	81 (21)	81 (21)	88 (23)
Ruangwa	18	61 (11)	67 (12)	89 (16)
Tandahimba	24	88 (21)	71 (17)	92 (22)
All districts	134	75 (101)	72 (97)	93 (124)

⁹ Source not mentioned at one Nachingwea health facility.

¹⁰ Tanzania Electric Supply Company Ltd.

Cups and spoons

Indicators D48

District	N	% (n)
Lindi Rural	40	38 (15)
Nachingwea	26	31 (8)
Newala	26	23 (6)
Ruangwa	18	44 (8)
Tandahimba	24	58 (14)
All districts	134	38 (51)

Availability of water

Indicators D

District	N	Water source nearby % (n)	Number of facilities with water source ¹¹			Water available on day of survey n
			Well n	Water Pipe n	Rain water n	
Lindi Rural	40	20 (8)	3	4	1	6
Nachingwea	26	23 (6)	2	3	1	4
Newala	26	54 (14)	6	4	4	8
Ruangwa	18	22 (4)	0	3	0	2
Tandahimba	24	63 (15)	1	2	11	10
All districts	134	35 (47)	12	16	17	30

 Child health and pregnant mother cards on the day of the survey **Indicators D53, 56**

District	N	Child health card % (n)	Pregnant mother card (ANC) % (n)
Lindi Rural	40	100 (40)	98 (39)
Nachingwea	26	100 (26)	100 (26)
Newala	26	81 (21)	88 (23)
Ruangwa	18	89 (16)	94 (17)
Tandahimba	24	75 (18)	92 (22)
All districts	134	90 (121)	95 (127)

¹¹ Two facilities; one in Ruangwa and the other in Tandahimba did not mention their water source

“Yellow cards” (for pharmacovigilance) **Indicators D54**

District	N	Yellow cards % (n)
Lindi Rural	40	3 (1)
Nachingwea	26	8 (2)
Newala	26	4 (1)
Ruangwa	18	6 (1)
Tandahimba	24	0 (0)
All districts	134	4 (5)

Drug registers

Indicators D57

District	N	Drug registers % (n)
Lindi Rural	40	90 (36)
Nachingwea	26	96 (25)
Newala	26	100 (26)
Ruangwa	18	83 (15)
Tandahimba	24	96 (23)
All districts	134	93 (93)

Malaria diagnosis
Indicators D59-67

District	N	Lancets % (n)	Microscope			Sharp object disposal container % (n)	Blood slides % (n)	Giemsa stain % (n)	Field stain % (n)	Oil for immersion lens % (n)	Have all equipment required for blood slide % (n)
			Available % (n)	Functioning % (n)	Used in week preceding survey % (n)						
Lindi Rural	40	8 (3)	15 (6)	10 (4)	100 (4/4)	80 (32)	10 (4)	5 (2)	10 (4)	10 (4)	8 (3)
Nachingwea	26	27 (7)	31 (8)	23 (6)	83 (5/6)	92 (24)	27 (7)	8 (2)	23 (6)	5 (19)	19 (5)
Newala	26	19 (5)	23 (6)	15 (4)	100 (4/4)	81 (21)	15 (4)	0 (0)	8 (2)	15 (4)	8 (2)
Ruangwa	18	6 (1)	22 (4)	17 (3)	67 (2/3)	72 (13)	17 (3)	0 (0)	11 (2)	11 (2)	1 (6)
Tandahimba	24	17 (4)	21 (8)	17 (4)	100 (4/4)	83 (20)	17 (4)	8 (2)	17 (4)	17 (4)	17 (4)
All districts	134	20 (15)	22 (29)	16 (21)	90 (19/21)	82 (110)	16 (22)	4 (6)	13 (18)	14 (19)	11 (15)

Instrumentation to check haemoglobin

Indicators D68, 69, 70

District	Instruments to Measure Haemoglobin			
	N	Available % (n)	Functioning % (n)	Used in a week preceding survey % (n)
Lindi Rural	40	13 (5)	10 (4)	100 (4/4)
Nachingwea	26	23 (6)	15 (4)	100 (4/4)
Newala	26	15 (4)	15 (4)	100 (4/4)
Ruangwa	18	6 (1)	6 (1)	100 (1/1)
Tandahimba	24	17 (4)	13 (3)	100 (3/3)
All districts	134	15 (20)	12 (16)	100 (16/16)

Mosquito nets and insecticide re-treatment kits

Indicators D71-72

District	N	Mosquito nets	Insecticides re-treatment kits
		% (n)	% (n)
Lindi Rural	40	3 (1)	3 (1)
Nachingwea	26	12 (3)	8 (2)
Newala	26	0 (0)	0 (0)
Ruangwa	18	11 (2)	0 (0)
Tandahimba	24	0 (0)	0 (0)
All districts	134	4 (6)	2 (3)

SECTION C: HUMAN RESOURCES

Staffing levels and availability

Staff employed and available in facility on the day of the survey

Indicators A92

District	Total number of employees N	Total number of employees by cadre				Available on the day of the survey % (n)
		Prescribers ¹² % (n)	Nurses ¹³ % (n)	Medical Attendant % (n)	Others ¹⁴ % (n)	
Lindi Rural	187	13 (24)	26 (48)	43 (80)	19 (35)	66 (124)
Nachingwea	140	16 (22)	28 (39)	33 (46)	24 (33)	51 (71)
Newala	103	13 (13)	29 (30)	43 (44)	16 (16)	57 (59)
Ruangwa	114	17 (19)	38 (43)	34 (39)	11 (13)	39 (44)
Tandahimba	85	13 (11)	29 (25)	42 (36)	15 (13)	61 (52)
All districts	629	14 (89)	29 (185)	39 (245)	17 (110)	56 (350)

Reasons given for absence of health workers from facility on the day of survey

District	Meetings/ seminars (n)	Long term training (n)	On a different shift (n)	Outreach (n)	Sick (n)	On leave (n)	Other official travel (n)	Other place (n)	Total (n)
Lindi Rural	6	3	18	0	8	15	8	5	63
Nachingwea	6	13	13	3	3	13	17	1	69
Newala	9	3	11	0	2	8	8	2	43
Ruangwa	20	6	9	0	2	10	13	6	66
Tandahimba	4	5	7	0	2	6	7	2	33
All districts	45	30	58	3	17	52	53	16	274 ¹⁵

¹² Medical Officers, Assistant Medical Officer, Clinical Officer and/or Assistant Clinical Officer

¹³ Nursing Officer, Nurse Midwife & Nurse PHN 'B' and MCHA

¹⁴ Lab assistant, Lab attendant, Health Officers, Health Assistants and Volunteers

¹⁵ Reason for absence was not given for 5 health workers (1 in Newala and 4 in Ruangwa district)

Staffing levels and availability at Dispensaries

District	N	Prescribers			Medical Attendant			Nurses			Other			Total		
		Exp ^{d16} N	Employed n (%)	Present n (% ¹⁷)	Exp ^d n	Employed n (%)	Present n (%)	Exp ^d n	Employed n (%)	Present % (n)	Exp ^d n	Employed N	Present n (%)	Exp ^d n	Employed % (n)	Present % (n)
Lindi Rural	33	66	15 (23)	12 (80)	33	50 (152)	36 (72)	66	29 (44)	17 (59)	0	29	22 (76)	165	123 (75)	87 (71)
Nachingwea	22	44	17 (39)	7 (41)	22	26 (118)	18 (69)	44	20 (45)	8 (40)	0	22	13 (59)	110	85 (77)	46 (60)
Newala	23	46	10 (22)	6 (60)	23	24 (104)	18 (75)	46	20 (43)	10 (50)	0	10	7 (70)	115	64 (56)	41 (64)
Ruangwa	15	30	13 (43)	3 (23)	15	21 (140)	14 (67)	30	17 (57)	7 (41)	0	11	5 (45)	75	62 (83)	29 (47)
Tandahimba	20	40	9 (23)	7 (78)	20	20 (100)	15 (75)	40	13 (33)	6 (46)	0	11	6 (56)	100	53 (53)	34 (64)
All districts	113	226	64 (28)	35 (55)	113	141 (125)	101 (72)	226	99 (44)	48 (48)	0	83	53 (64)	565	387 (68)	237 (74)

Staffing levels and availability at Health Centres

District	N	Prescribers			Medical Attendant			Nurses			Other			Total		
		Exp ^d N	Employed n (%)	Present n (%)	Exp ^d n	Employed n (%)	Present n (%)	Exp ^d n	Employed n (%)	Present % (n)	Exp ^d n	Employed N	Present n (%)	Exp ^d n	Employed % (n)	Present % (n)
Lindi Rural	6	24	7 (29)	5 (71)	24	21 (87)	11 (52)	66	12 (18)	5 (42)	60	4 (7)	4 (100)	174	25 (44)	25 (57)
Nachingwea	1	4	2 (50)	1 (50)	4	1 (25)	1 (100)	11	4 (36)	1 (25)	10	3 (30)	1 (33)	23	43 (10)	4 (40)
Newala	2	8	2 (25)	2 (100)	8	12 (150)	6 (50)	22	5 (23)	2 (40)	20	3 (15)	3 (100)	58	38 (22)	13 (34)
Ruangwa	2	8	6 (75)	0 (0)	8	13 (163)	2 (15)	22	11 (50)	0 (0)	20	2 (10)	0 (0)	58	55 (32)	5 (17)
Tandahimba	3	12	1 (8)	1 (100)	12	13 (108)	5 (38)	33	9 (27)	1 (11)	30	2 (7)	1 (50)	87	29 (25)	11 (44)
All districts	14	56	18 (32)	9 (50)	56	60 (107)	25 (42)	154	41 (27)	9 (22)	140	14 (10)	9 (64)	400	33 (133)	58 (44)

¹⁶ Exp^d: Number expected according to Ministry of Health guidelines (Staffing levels for health facilities/institutions, MOH/CSD: April 1999.)

¹⁷ % of those employed

Training

What training has been done in the districts during 2003

District	No training (n)	Low birth weight	HIV/AIDS, PMTCT, VCT	STI Syndromic management	Life saving skills	Mental health	Family planning	TB/Leprosy	National Health Insurance	Iodine deficiency	Fridge Management
Lindi Rural	0	1	4	14	8	2	11	6	3	0	8
Nachingwea	2	1	1	8	3	0	2	2	0	0	0
Ruangwa	0	5	3	7	13	0	4	5	2	0	2
Tandahimba	0	0	1	3	2	1	1	1	2	0	0
Newala	1	0	13	6	2	0	0	1	2	0	2
All districts	3	7	22	38	28	3	18	15	9	0	12

Staff Turnover

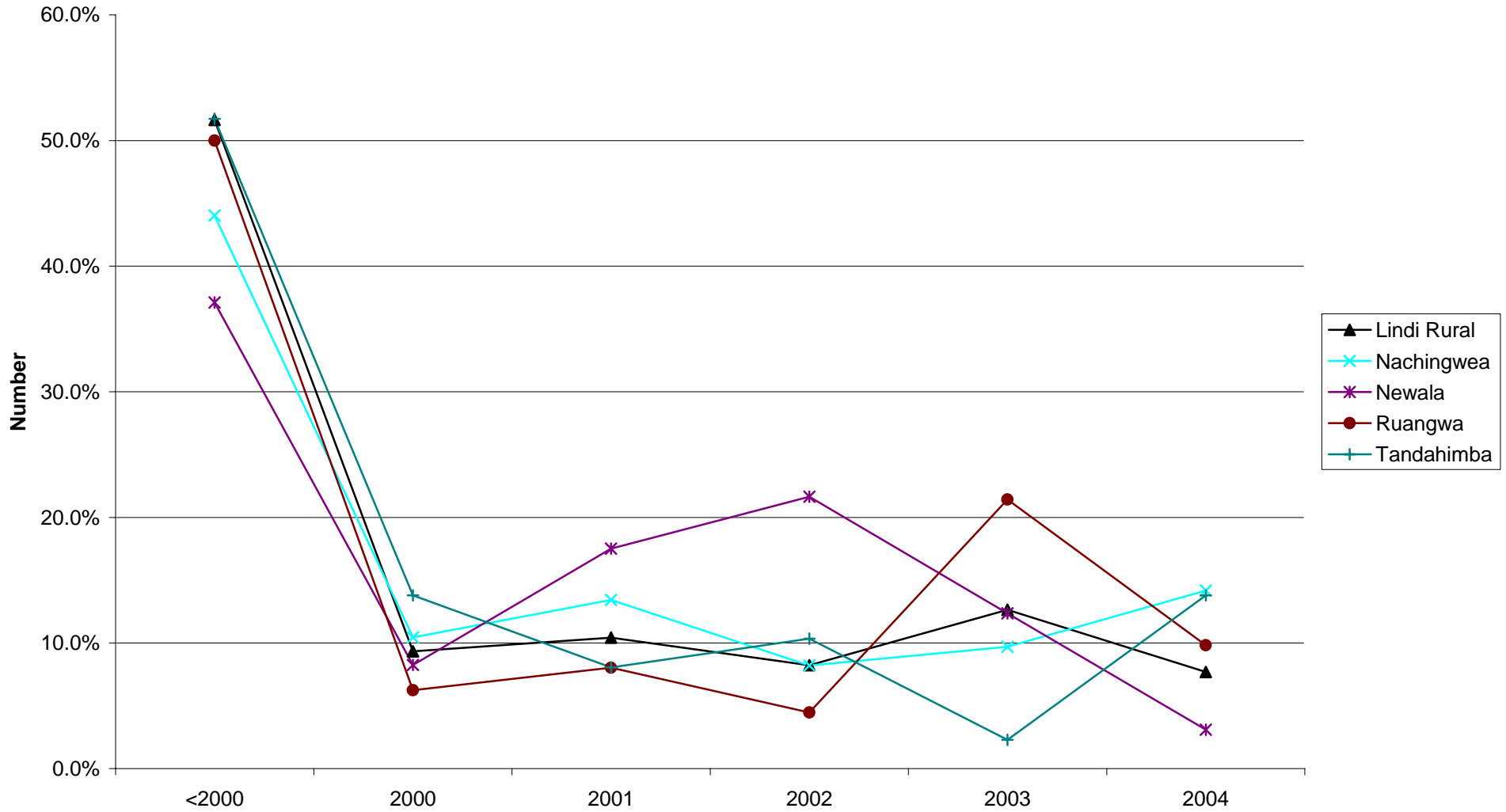
Prescribers turn-over: Year started work at the current Health Facility

District	N	<2000	2000 N	2001 N	2002 N	2003 N	2004 N
Lindi Rural	182	94	17	19	15	23	14
Nachingwea	134	59	14	18	11	13	19
Newala	97	36	8	17	21	12	3
Ruangwa	112	56	7	9	5	24	11
Tandahimba	87	45	12	7	9	2	12

EPI service provider turnover: Year started work at the current Health Facility

District	N	Before 2000 % (n)	2000 % (n)	2001 % (n)	2002 % (n)	2003 % (n)	2004 % (n)
Lindi Rural	125	52 (65)	10 (13)	10 (13)	10 (12)	14 (17)	4 (5)
Nachingwea	73	44 (32)	11(8)	15 (11)	8 (6)	8 (6)	14 (10)
Newala	58	40 (23)	10 (6)	19 (11)	17 (10)	12 (7)	2 (1)
Ruangwa	58	50 (29)	3 (2)	9 (5)	5 (3)	24 (14)	9 (5)
Tandahimba	52	44 (23)	17 (9)	12 (6)	15 (8)	4 (2)	8 (4)

Prescribers: Year Started Work in Current Facility



EPI Service Providers: Year Started in Current Health Facility



Attitudes to SP

Who was asked these questions?

District	Cadre of Health worker who was interviewed		
	N	Head of facility % (n)	Other staff % (n)
Lindi Rural	83	41 (34)	59 (49)
Nachingwea	46	30 (14)	70 (32)
Newala	40	45 (18)	55 (22)
Ruangwa	35	20 (7)	80 (28)
Tandahimba	43	33 (14)	67 (29)
All districts	247	35 (87)	65 (160)

Frequency of health users reluctant to use SP for malaria treatment

Indicator A108/ 109

District	N ¹⁸	Many % (n)	Some % (n)	Few % (n)	None % (n)
Lindi Rural	80	4 (3)	10 (8)	25 (20)	61 (49)
Nachingwea	45	4 (2)	7 (3)	27 (12)	62 (28)
Newala	40	0 (0)	13 (5)	18 (7)	70 (28)
Ruangwa	35	3 (1)	0 (0)	29 (10)	69 (24)
Tandahimba	43	0 (0)	7 (3)	21 (9)	72 (31)
All districts	243	2 (6)	8 (19)	24 (58)	66 (160)

Reasons for negative perceptions of SP

District	N	Reported reasons for patients not liking SP		
		Adverse reaction % (n)	Safety % (n)	Ineffective % (n)
Lindi Rural	80	23 (18)	9 (7)	6 (5)
Nachingwea	46	26 (12)	9 (4)	2 (1)
Newala	40	23 (9)	5 (2)	0 (0)
Ruangwa	35	14 (5)	14 (5)	3 (1)
Tandahimba	44	14 (6)	5 (2)	5 (2)
All districts	245	20 (50)	8 (20)	4 (9)

¹⁸ Number of health workers interviewed for whom a response is available

Interviewees' Experience, Attitude and Practice relating to use of SP

District	Experienced pregnant women not willing to take SP		Interviewee ready to treat relative with SP		Interviewee ready to take SP while pregnant <i>(Herself or his spouse)</i>		Reported SP as treatment last time their own child was sick	
	N	% (n)	N	% (n)	N	% (n)	N	% (n)
Lindi Rural	80	24 (19)	79	94 (74)	80	95 (76)	64	67 (43)
Nachingwea	44	32 (14)	46	98 (45)	46	98 (45)	33	64 (21)
Newala	39	8 (3)	39	95 (37)	39	95 (37)	27	67 (18)
Ruangwa	34	21 (7)	35	97 (34)	35	100 (35)	27	85 (23)
Tandahimba	41	20 (8)	43	95 (41)	42	95 (40)	32	84 (27)
All districts	238	21 (51)	242	95 (231)	242	96 (233)	183	72 (132)