

3. 保健施設センサス国家セミナー（2005年12月）

National Seminar Zambia Health Facility Census 2005

Preliminary analysis and feedback
Dec 13th, 2005
Lusaka, Zambia

Objectives of the seminar

- Review preliminary results from the Zambia Health Facility Census 2005
- Suggest further analysis to be included in the analysis report

Topics

- Outline of ZHFC 2005
 - Target facilities
 - Data items
 - Data collection
 - Difference between ZHFC, SAM, SPA
- Preliminary results
- Discussion on data analysis options
- Proposed follow up activities

Objectives of ZHFC 2005

- Provide evidence for policy, planning and development of health services in Zambia
 - Determine conditions and coverage of physical infrastructure for health service delivery system
 - Determine the level of availability of medical equipment for the delivery of the Basic Health Care Package / ARV
 - Determine the availability of transportation and communication facilities for the basic health care package
 - Determine the conditions and availability of drug storage facilities

Outline of ZHFC 2005

- Data collection
 - January – April 2005
 - Data collection: DHMT
 - Supervision: PHO and MOH
- Provincial data feedback workshop
 - December 2005
 - Review of preliminary data and data checking and cleaning

Outline of ZHFC2005

- Target facilities
 - Based on the list of health facilities, 2002
 - Review by PHO and DHMT
 - Government and government affiliated mission and private facilities
 - Defense and Prison excluded for security reasons (GPS data)
 - Health post, health center, 1st level hospitals

Outline of ZHFC 2005

- Main data items
 - Geographical location
 - General information: type, ownership, catchment population
 - Physical Infrastructure
 - Utilities: Water, Electricity, Waste Management, Fire Fighting Equipment, Communication, Transportation
 - Medical Equipment
 - Human Resource: Headcounts of selected types
 - Health Services: Maternal Health, Child Health, FP, Malaria, STI, HIV/AIDS, TB, Water and Sanitation, Food and Hygiene, and Control of infectious diseases

ZHFC, SAM, SPA

- ZHFC:
 - Physical inspection of all health facilities
 - Focus on infrastructures and utilities
 - Additional information on human resources and services
- Service Availability Mapping (SAM) in Zambia
 - Key informant interview at district level
 - Rapid data collection
 - Use of PDA
 - Availability of services
- Service Provision Assessment (SPA/HIV)
 - Sampled survey of health facilities
 - Quality of HIV/AIDS services

Collaboration between ZHFC and SAM

- Adaptation of SAM health facility module to ZHFC
 - No duplication at health facility level data collection
 - ZHFC data can be used to verify SAM data

Preliminary results

- Type and ownership
- GPS
 - Distribution and physical accessibility
- Availability of utilities
- Health services
- Human resource

Caution

- Following slides are for illustration of possible analyses from the ZHFC data.
- The results are not final and should not be quoted. The database is being reviewed for the final corrections.
- The analyses in this presentation did not differentiate types of facilities or ownership.

General information

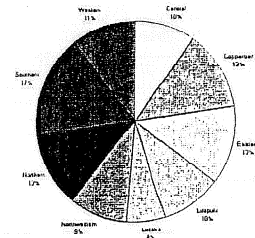
- Facility ID
- Ownership
- Facility Type
- Catchment population estimated by CSO and other sources

Type of Health Facilities in the database

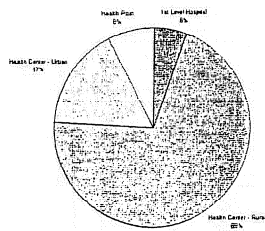
	Health Center - 1st Level		Health Center - Urban		Total (Percent)
	Hospital	Rural	Urban	Post	
Central	7	93	19	16	135
Copperbelt	9	55	109	11	184
Eastern	8	141	11	13	173
Luapula	5	120	3	6	134
Lusaka	3	38	33	13	87
Northwestern	9	110	7	4	130
Northern	6	141	13	13	173
Southern	17	160	29	25	231
Western	13	121	9	5	148
Zambia total	77	979	233	106	1395

Excludes hospitals at 2nd and tertiary levels
This table includes some prison and defense facilities without geographical coordinates

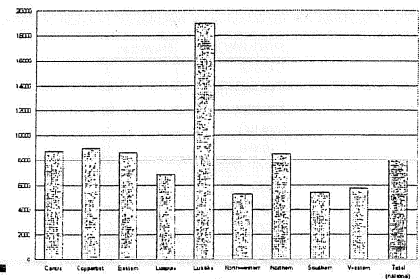
Share of facilities by Province



Share of facilities by type



Population per facility by province



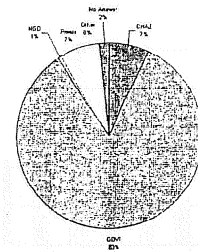
Projected Provincial Population for 2005 (CSO)

Facility by ownership

Province	CHAZ	GOVT	NGO	Private	Other	No Answer	Total
Central	9	108	1	9		2	129
Copperbelt	11	126		38		3	178
Eastern	13	155	1			1	170
Luapula	9	113	3	4	1	4	134
Lusaka	3	76	2	2	1		84
North Western	19	109				1	128
Northern	13	146	1	10			170
Southern	21	196	2	9	1		229
Western	10	127	4			4	145
Total	107	1154	14	71	3	13	1362

- 1) Excludes Defense and Prison facilities
- 2) Data being edited

Facility by ownership



- 1) Excludes Defense and Prison facilities
- 2) Data being edited

Facility by type and ownership

Ownership	1st Level Hospital	HC - Rural	HC - Urban	Health Post	Total
GOVT	43	855	172	85	1155
GHAZ	28	72	6	1	107
NGO	1	11		2	14
Private	4	24	34	9	71
Other	1		2	3	6
No Answer		7	5	3	15
Total	76	970	219	102	1367

- 1) Excludes Defense and Prison facilities
- 2) Data being edited

Geographical information

- GPS (Longitude and Latitude)

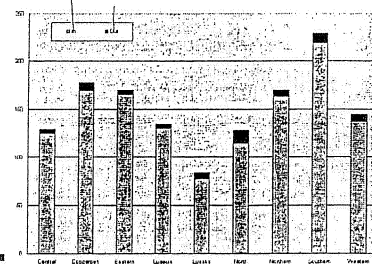
Global Positioning System

- 3.5% of facilities (48 facilities) were misplaced outside of Zambia

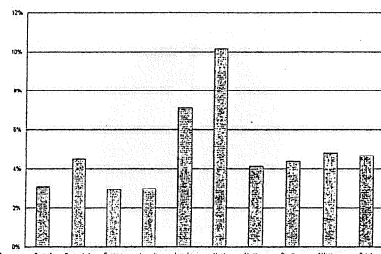
PROVINCE	Number
Central	3
Copperbelt	5
Eastern	5
Lusaka	3
Lusaka	3
North Western	11
Northern	7
Southern	7
Western	4
Total	48

- 1) Excludes Defense and Prison facilities
- 2) Data being edited

Misplaced facilities: out of province



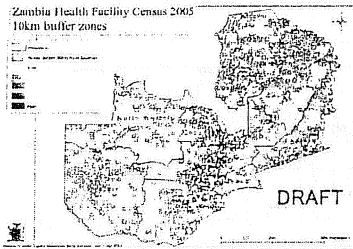
Percentage of misplaced facilities by province: out of province



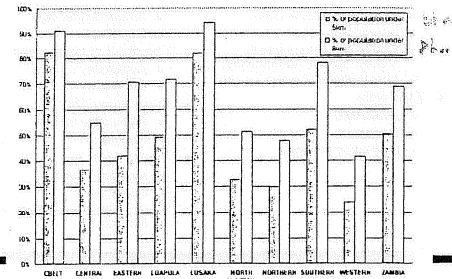
Health facility map



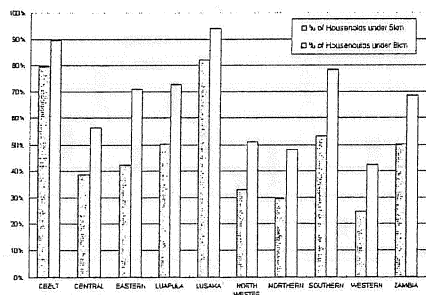
Physical access to health facilities



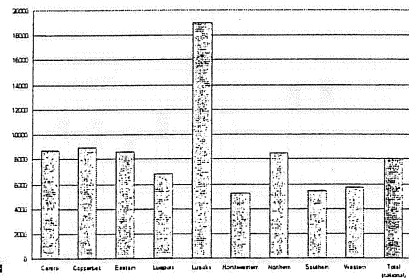
Percent of population under 5 and 8 km from any health facilities



Percent of households under 5 and 8 km from health facilities



Population per facility by province



Projected Provincial Population for 2005 (CSO)

Future analysis plan

- Service specific accessibility
- Estimation of access distances to specific services
- Identification of areas with difficulty in reach target population
- Distribution of health workers

Physical infrastructure

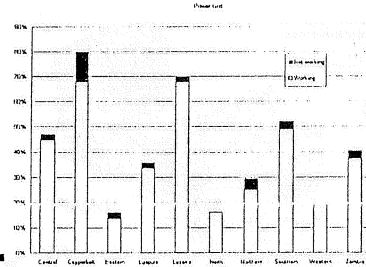
- Building:
 - Size
 - Materials
 - Number of floors
 - Year of construction
 - Years of rehabilitation
 - Fire alarm
 - Roof materials
 - Conditions
- Rooms:
 - Rooms sizes
 - Conditions of walls, windows, doors, ceiling, floor, toilet
 - Sketch of building
 - Photographs

Utilities

- Water
 - Access to potable water
 - Sources
 - Conditions (Regularity of supply, quality, and quantity)
 - Maintenance of water sources
- Electricity
 - Availability
 - Sources
 - Regularity of supply
- Waste management
 - Availability by type
 - Condition
- Fire fighting equipment
 - Availability by type
 - Condition
- Communication
 - Availability by type
 - Condition
- Transportation
 - Availability by type
 - Condition
 - Registration numbers, data of purchase

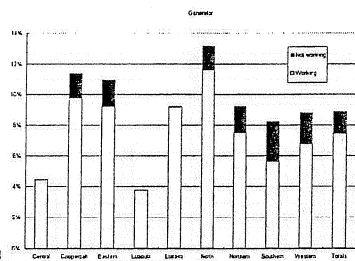
Utilities: Electricity (Power grid)

Percentage of facilities with working or non-working power grid connection



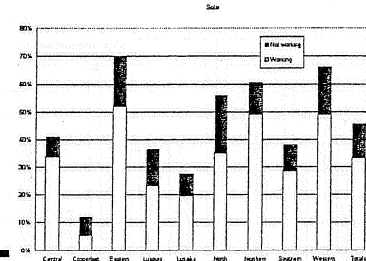
Utilities: Electricity (Generator)

Percentage of facilities with working or non-working generator



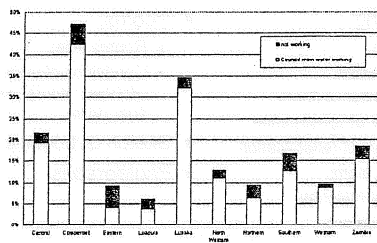
Utilities: Electricity (Solar)

Percentage of facilities with working or non-working solar



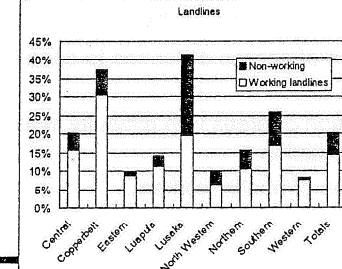
Utilities: Water infrastructure

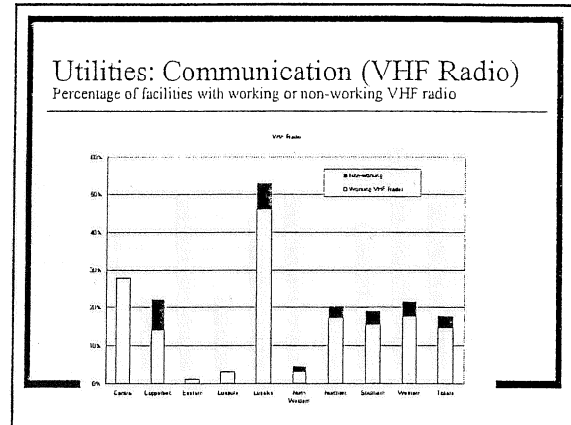
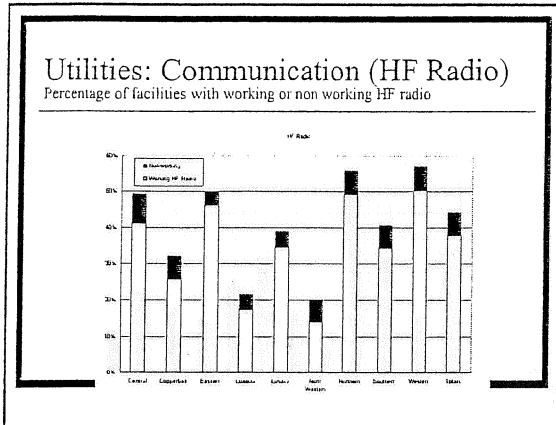
Percentage of facilities with working Council Mains water and not working



Utilities: Communication (landlines)

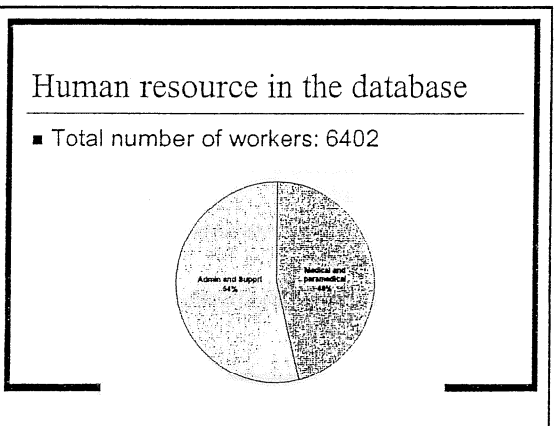
Percentage of facilities with working or non-working landlines



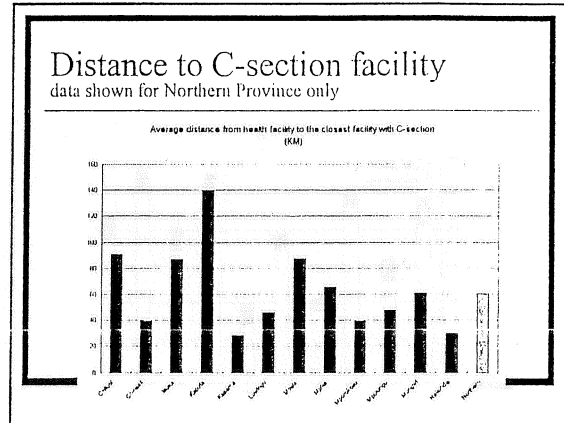
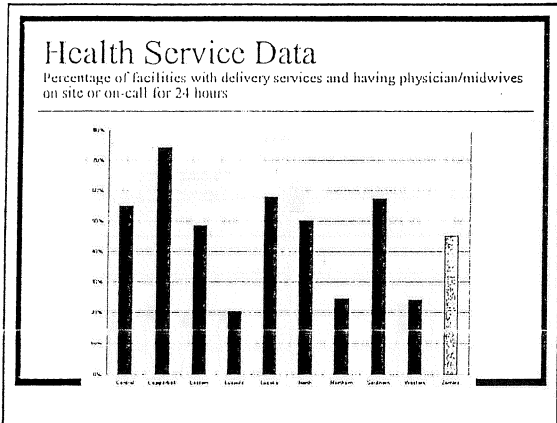


- ### Medical Equipment
- Basic medical equipment in general
 - Availability and conditions
 - Selected medical equipment
 - Description of equipment, model, maker, country of origin, age, functional status

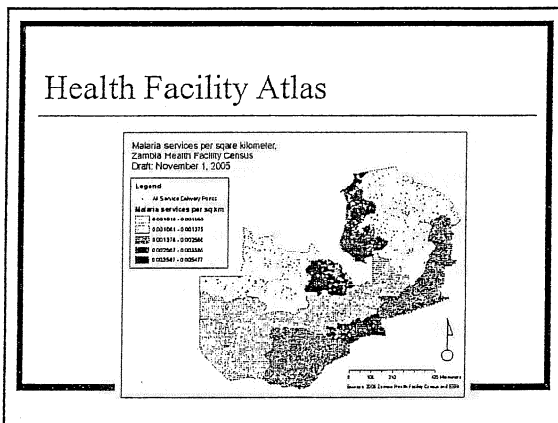
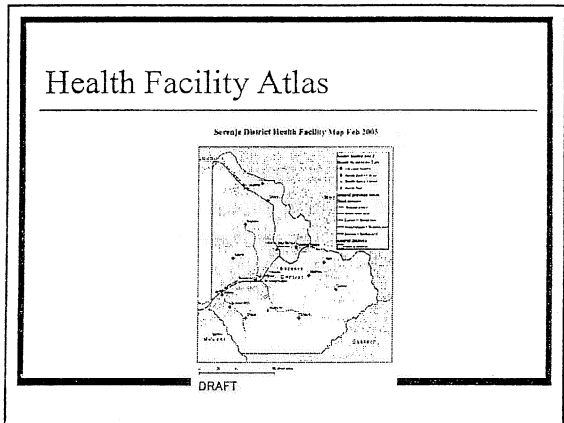
- ### Human Resources
- Registered number of posts by cadre and by sex
 - Numbers of a roster to be present on the day of assessment, by cadre, and by sex
 - Headcounts on the day of assessment, by cadre, and by sex



- ### Health Services
- Antenatal care
 - Delivery care
 - Family Planning
 - Child health
 - Malaria
 - STI
 - HIV/AIDS
 - TB
 - Medical waste management
 - Water and sanitation
 - Food and hygiene
 - Control of infectious diseases



- ### Proposed follow up activities
- Provincial feedback workshops (Dec 2005)
 - Correction of data errors (Jan 2006) ✓
 - Revision of database (Feb-March 2006) ✓
 - Health Facility Atlas
 - Health Facility Maps (A0 or A1 size maps)
 - User interface for Health Facility Database ✓
 - ZHFC report ✓
 - Establishing linkage with Routine data collection systems ✓
 - Capital Investment Planning Exercise ✓



- ### Issues
- Inclusion of private for-profit facilities
 - Inclusion of defense and prison facilities without GPS data
 - Maintenance of the Database
 - Linkage with HMIS
 - Classification of health facilities

HEALTH FACILITY CENSUS

Introduction to be Presented at the
Preliminary Analysis and Feedback
Workshop

13th December 2005



Republic of Zambia
Ministry of Health

By:- Mr. Rutendo Chitembere



Overall Objectives:

To conduct a health facility census that will provide evidence for policy, planning and development of health services in Zambia

Background

- Why is HFC needed now in Zambia?

- Promotion of the Basic Health Care Package (BHCP)
- Health Investment Plans (2005)
- Next National Health Strategic Plan (2006-2011)

Specific Objectives:

- Determine conditions of physical infrastructure of health facilities
- Determine the level of availability of medical equipment for the delivery of the Basic Health Care Package
- Determine the availability of utilities, transportation and communication facilities for the basic health care package
- Determine the availability of health workers in support of the Basic Health Care Package
- Determine the availability of services within the framework of Basic Health Care Package

Census Areas of Focus:

Physical investigation of all facilities in the country to generate data on:

- Location
- Infrastructure
- Utilities
- Services
- Equipment
- Human Resource

Expected Outputs:

- Medical Equipment Database
- Physical Infrastructure Database
- Health Facility Atlas
- Service availability situation analysis
- Inventory of Communication and Transportation Facilities

Use of Census Data:

- Data collection and database construction
- > Analysis of data, in conjunction with the available data (e.g. Population Census, Demographic and Health Survey)
- > Prioritization of needs and cost estimation
- > Development of capital investment plans (e.g. Infrastructure Investment Plan, Medical Equipment Investment Plan, National Health Strategic Plan)

Process:

Phase 1

- Development of data collection tools
- Sensitization workshops
- Training of data collectors and supervisors
- Field work (Data collection, data entry, data cleaning)

Phase 2.

- Database construction and atlas development
- Data analysis
- Feedback at the national and provincial level
- Data use
- Routine update of data (e.g. through Health Facility Inventory)

Next Steps:

- Data Cleaning of the data @ hand
- Collection of data from all level 2 & 3 health facilities, Data Entry, & Data Analysis
- Development of Atlas
- Dissemination of the Final Report

END OF PRESENTATION

**THANK YOU FOR YOUR
ATTENTION!**

Main data items

(1) Geographical information

Item	Variables
Geographical location (GPS)	<ul style="list-style-type: none">• Longitude• Latitude

(2) General

Item	Variables
General	<ul style="list-style-type: none">• Facility ID Code• Ownership• Facility Type• Catchment population estimated by statistical office and facility

(3) Physical infrastructure

Item	Variables
Buildings	<ul style="list-style-type: none">• Access road• Size (Area in m²)• Building materials• Number of floors• Year of construction• Years of rehabilitation• Fire alarm• Roof materials• Conditions of buildings
Rooms	<ul style="list-style-type: none">• Room size• Conditions of walls, windows, doors, ceiling, floor• Electrical fittings• Sanitary fittings
Sketch	<ul style="list-style-type: none">• Sketch of buildings• Photographs

(4) Utilities

Item	Variables
Water	<ul style="list-style-type: none">• Access to potable water• Sources

	<ul style="list-style-type: none"> • Condition (Regularity of supply, quality and quantity) • Maintenance of water sources
Electricity	<ul style="list-style-type: none"> • Availability • Sources • Regularity of supply
Waste management	<ul style="list-style-type: none"> • Availability by type • Condition
Fire fighting equipment	<ul style="list-style-type: none"> • Availability by type • Condition
Communication	<ul style="list-style-type: none"> • Availability by type • Condition
Transportation	<ul style="list-style-type: none"> • Availability by type • Condition • Registration numbers, date of purchase for vehicles and motor cycles

(5) Medical equipment

Item	Variables
Basic medical equipment in general	<ul style="list-style-type: none"> • Availability and conditions
Selected medical equipment	<ul style="list-style-type: none"> • Description of equipment, models, maker, county of origin, age, functional status, availability of manual, ID code

(6) Human resource

Item	Variables
Human resource	<ul style="list-style-type: none"> • Registered numbers of posts by cadre and by sex • Numbers on a roster to be present on the day of assessment, by cadre and by sex • Headcounts on the day of assessment, by cadre and by sex

(7) Health services

Item	Variables
Antenatal care	<ul style="list-style-type: none"> • Frequency of ANC services • Availability of specific tests 1) Haemoglobin, 2) Syphilis test, 3) Urine protein test, 4) Urine sugar test

	<ul style="list-style-type: none"> • Availability of specific services • FP consultation • Outreach program
Delivery care	<ul style="list-style-type: none"> • Availability of skilled health workers • Availability of specific care services (EOC)
Family Planning	<ul style="list-style-type: none"> • Frequency of services • Availability by type of FP • Counselling • Outreach program
Child health	<ul style="list-style-type: none"> • Frequency • Availability of specific services
Malaria	<ul style="list-style-type: none"> • Laboratory functions • Availability of treatment by types • Availability of specific Malaria related services
STI	<ul style="list-style-type: none"> • Frequency • Availability of specific STI related services
HIV/AIDS	<ul style="list-style-type: none"> • Availability of HIV test by types • Availability of counselling • Availability of specific HIV related services • Availability of specific diagnostic services related to ART
TB	<ul style="list-style-type: none"> • Availability of specific TB related services
Medical waste management	<ul style="list-style-type: none"> • Types of injection needles and syringes used by facilities • Methods of disposal
Water and sanitation	<ul style="list-style-type: none"> • Availability of water and sanitation related community services
Food and hygiene	<ul style="list-style-type: none"> • Availability of food and hygiene related services
Control of infectious diseases	<ul style="list-style-type: none"> • Availability of control programs

Health Facility Targeted Data Collection Methods - Summary

Data collection initiatives	Target health facilities		Data collection methods		Inputs					Process				Outputs		Other
	All facilities	Sample of facilities	methods mainly used	Availability of health workers	Training of health workers	Type of services offered	Physical assets	drugs/supplies	other	Quality of services (interview)	Quality of services (observation)	other process indicators	Number of patients	Number of illnesses	other	
SAM	Yes ¹	-	First phase: District key informant interview Second phase: Facility visits	Yes	Yes	Yes	Yes	Yes	Yes (Donor assistance)	no	no	no	Yes (ART only)	no	no	Yes
MCH/RH SPA	-	Yes	Interview, observation, exit interview, document review	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	no	no	Yes
HIV/AIDS SPA	-	Yes	Interview, observation, document review	Yes	Yes	Yes	Yes	Yes	Yes	Yes	no	Yes	Yes	Yes	Yes (lab numbers)	Yes
HCF	Yes	-	Interview, physical inspection of physical assets	Yes (head counts only)	no	Yes	Yes	Yes (selected supplies)	Yes (Equipment and its condition)	no	no	no	no	no	no	Yes
RHS based	Yes	Possible	Interview, self-reporting, document review	Yes	Yes	Yes	Yes	Yes (LIMS)	Possible	Possible	Possible	Possible	Yes	Yes	Possible	Possible

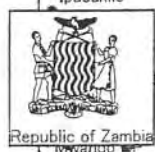
Notes on SAM:

All facilities within selected districts are visited. This has been done for validation purposes in the past, although the idea is that SAM will become a facility tool in all districts. During the first phase, data are collected through KI of district managers. Facilities are visited during the second phase as verification exercise.

Notes on FASQ:

FASQ is designed as a facility census, but has been used on a sample in some applications e.g., Lab testing capacity, Community involvement in facility management and quality, feedback mechanisms, referral system Avg no. for selected service types only Additional indicators of "service readiness" suggested by stakeholders during interactive design process FASQ allows for additional modules to assess process, and various applications have done this, but adding these eliminates the "quick and simple" aspect in the original design

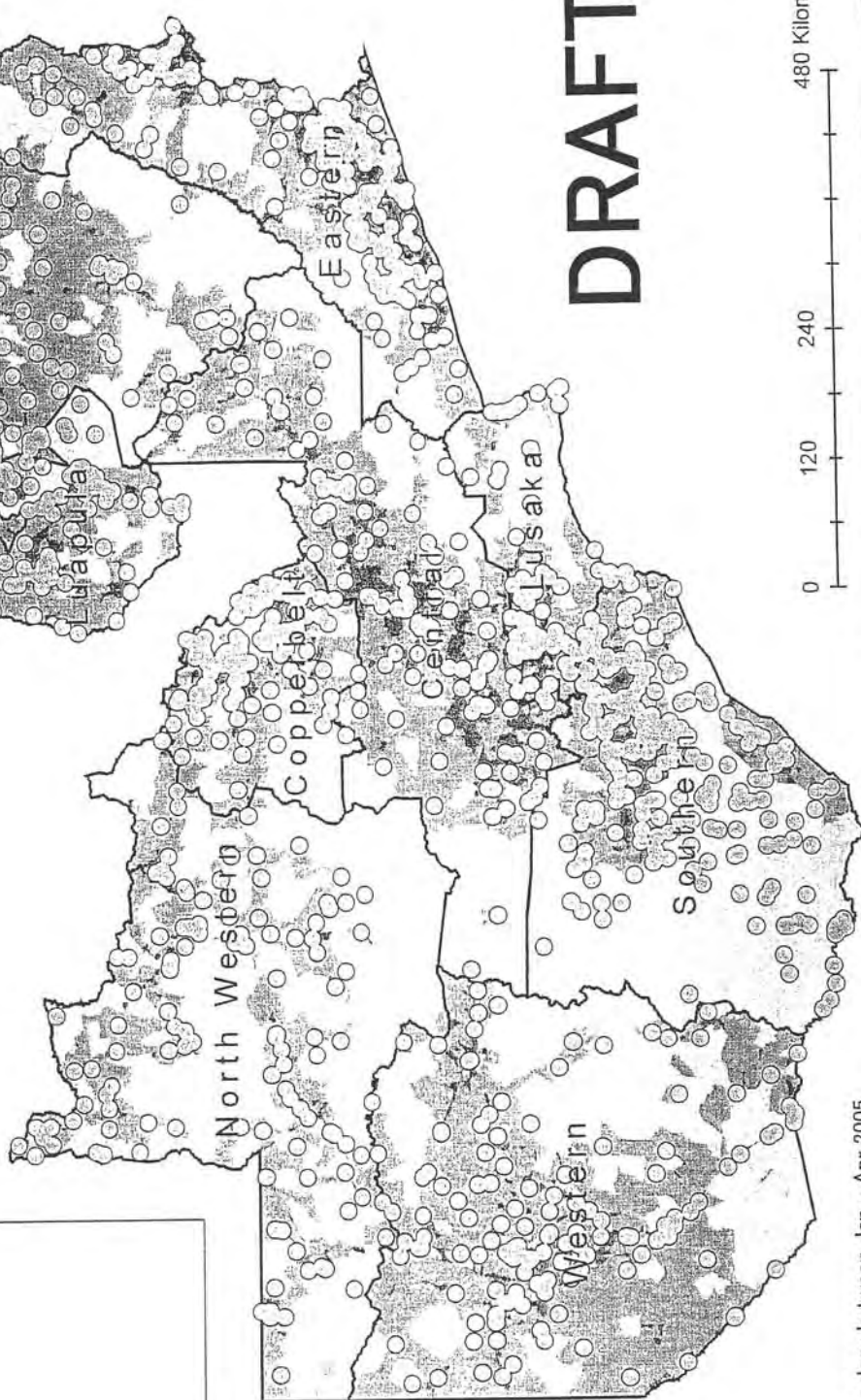
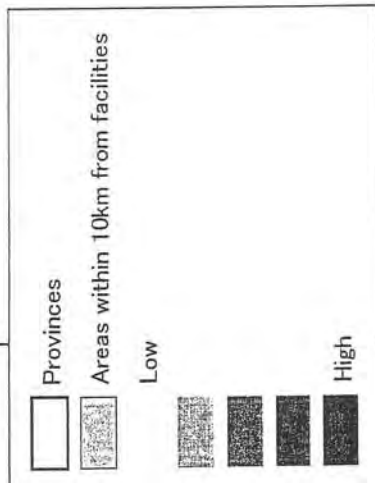
Eastern Province Zambia Health Facility Census 2005



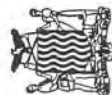
Data collection done between Jan - Apr 2005

Data being edited and locations are not final. Defense and Prison facilities and certain private facilities are not shown.

Zambia Health Facility Census 2005 10km buffer zones



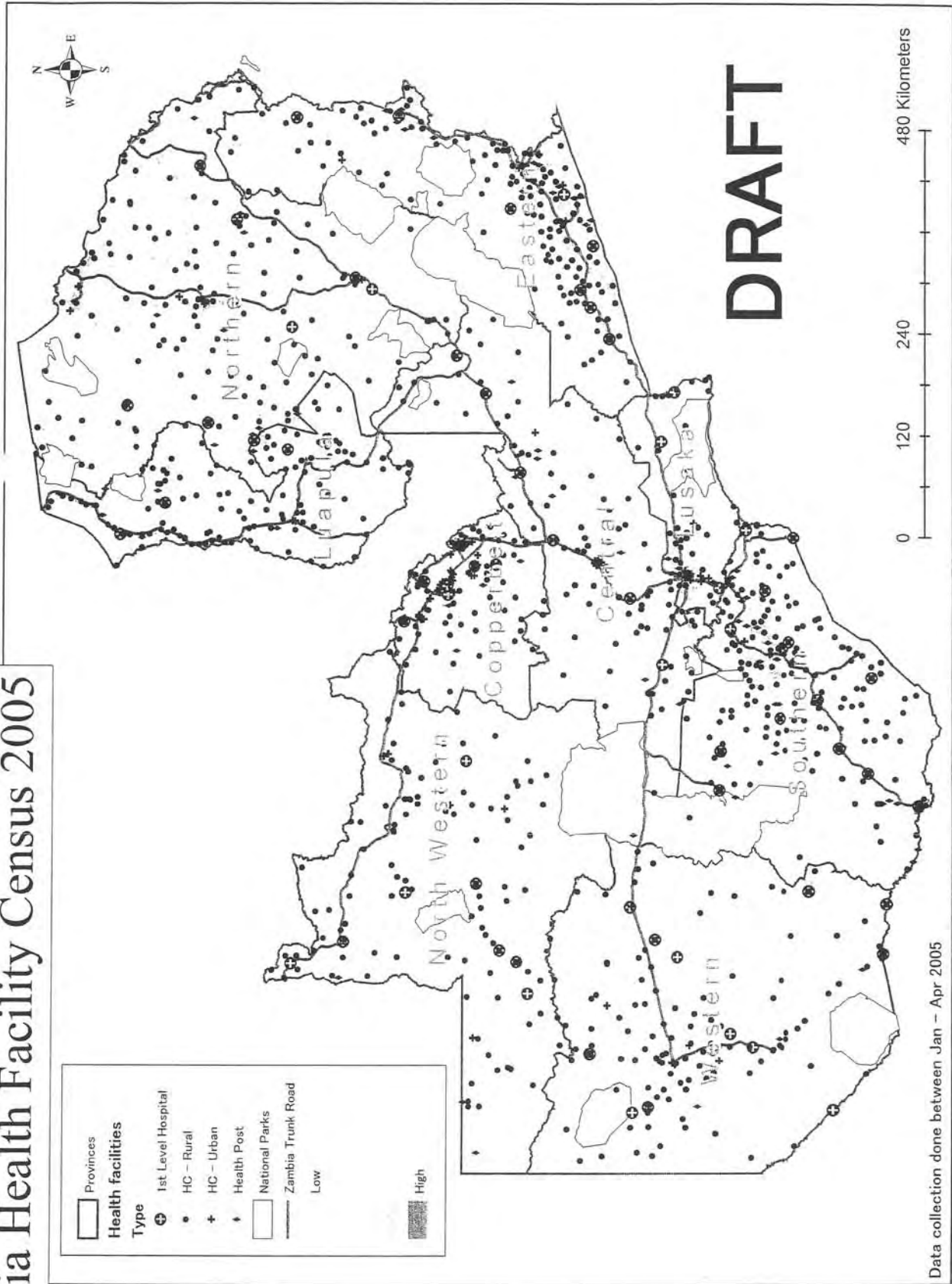
DRAFT



Republic of Zambia
Data collection done between Jan - Apr 2005

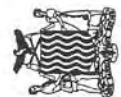
Data being edited and locations are not final. Defense and Prison facilities and certain private facilities are not shown.

Zambia Health Facility Census 2005



DRAFT

Data collection done between Jan - Apr 2005



Republic of Zambia

Data being edited and locations are not final. Defense and Prison facilities and certain private facilities are not shown.

