[資料]

1. 調査団員氏名、所属
2. 調査日程
3. 相手国関係者リスト
4. CIDA調達機材リスト
5. 各種統計
6. 参考資料リスト

1. 調査団員氏名・所属

基本設計現地調査（B/D）

	氏　名	団内役職	所　属
1.	戸井田　宣雄	総　括	国際協力事業団　八王子国際研修センター所長
2.	黒川　清澄	計画管理	国際協力事業団無償資金協力調査部基本設計一課
3.	朝日　茂樹	技術参与	厚生省　国立国際医療センター国際医療協力局 派遣協力課
4.	馬場　保也	業務主任	㈱創造社
5.	都丸　健次	建築計画	㈱創造社
6.	堀米　康男	設備計画	㈱創造社
7.	村尾　耕一	機材計画	㈱第一医療コンサルタンツ
8.	金子　功	積　算	㈱創造社

・現地調査期間：平成7年5月26日～平成7年6月24日（30日間）

基本設計概要調査（O･B/D）

	氏　名	団内役職	所　属
1.	戸井田　宣雄	総　括	国際協力事業団　八王子国際研修センター所長
2.	石沢　祐子	計画管理	国際協力事業団無償資金協力調査部基本設計一課
3.	堀越　洋一	技術参与	厚生省　国立国際医療センター国際医療協力局 派遣協力課
4.	馬場　保也	業務主任	㈱創造社
5.	村尾　耕一	機材計画	㈱創造社　顧問

・現地調査期間：平成7年10月17日～平成7年10月28日（12日間）

2. 調査日程表

基本設計現地調査（B/D）

日付		作業内容
5/26(金)	移動	
27(土)	↓	
28(日)	ハラレ着	
29(月)		日本大使館表敬訪問、JOCV表敬訪問、大蔵省
30(火)		ハラレ中央病院視察・協議
31(水)		建設省訪問、カナダ国際開発庁(CIDA)訪問、大使館訪問 マロンデラ州病院訪問
6/1(木)		保健省訪問・協議
2(金)		マロンデラ州病院訪問
3(土)		ビンドゥラ州病院訪問
4(日)		資料整理
5(月)		保険省・協議・ミニッツ署名、世銀訪問 大使館訪問・青年海外協力隊事務所訪問
6(火)	移動	官チーム及びコンサルBチーム2名帰国
6(火) ↓ 22(木)	 移動	コンサルAチーム3名による継続調査 大使館報告及び帰国
24(土)	成田着	

基本設計概要説明書（D･B/D）

日付		作業内容
10/17(火)	移動	
18(水)	ハラレ着	到着時団内打ち合わせ
19(木)		日本大使館表敬訪問、JOCV表敬訪問、保険省訪問・協議
20(金)		ハラレ中央病院視察・協議、保険省・協議
21(土)		ムピロ中央病院視察・協議
22(日)		資料整理、団内打ち合わせ
23(月)		建設省訪問・協議、保険省・協議
24(火)		ハラレ中央病院訪問・協議
25(火)		保険省・ミニッツ署名、日本大使館報告、JOCV報告
26(木)	移動	官チーム・パリJICA事務所、コンサル帰国
28(金)		コンサル成田到着
29(土)		官チーム成田到着

3. 相手国関係者リスト

関係省庁名	関係者名	役　　職
保健省	Mrs. Serima	家族保健プロジェクトコーディネーター
	Mr. Rutsata	家族保健プロジェクト副コーディネーター
	Mr. Pfunye	副秘書官
	Mr. Taonana	事務官
	Mr. I. C. P. Murapa	P.E.O.職員
	Mr. M. Kateketa	事務次長
ハラレ中央病院	Dr. M. Y. Ali	病院長
	Mr. Chengeta	事務長
大蔵省	Mrs. A. Gunduza	副秘書官
	Miss. L. R. Kahari	事務官
建設省	Mrs. F. Teckie	主任技師
	Mr. T. Musuga	部長代理
	Mr. K. N. Kibria	建築課長

4. CIDA調達機材リスト

HARARE HOSPITAL PAEDIATRIC UNIT EQUIPMENT.

LOT 1.

ITEM 1 BLOOD WARMERS QTY 3

Type	-	Water bath type
Features	-	Temperature preset for both clear fluids and blood.
	-	Thermostat control to maintain safe temperature
	-	Temperature Gauge to indicate water temperature
Alarm	-	audible and visual for over heating
	-	Fail safe alarm
Construction	-	Unit must have mounting device to drip stand.
	-	Lid to keep heat in and minimise splashing
Unit capacity	-	1 - 2 litres of IV fluids or blood
	-	IV coil to heat fluid during administration to patient.
Electrical safety	-	switches sealed units
	-	visual on/off indicator

ITEM 2 Cold Light Source QTY 2

Type	-	Cold light supply
Features	-	Halogen high intensity light.
	-	Filter to remove heat from being radiated to patient.
	-	Variable intensity light - zero to maximum
	-	At least two bulbs in unit.
Construction	-	Fan (internal) to cool unit
	-	Light output fitting to connect to fiberoptic lead.
	-	Universal connector i.e. able to fit Olympus/Pentax equipment
Accessories	-	Spare fiberoptic cable.
	-	Spare bulbs
Spares	-	Manufacturer recommended spares

ITEM 3

Type	-	Robust design, suspendible from IV stand.
Capacity	-	Chamber - for up to 1 litre to 0.5litre size IV fluid bag
	-	The fluid bag to be compressed pneumatically or by spring
	-	pressure maximum 200 -300mm Hg.
	-	Pressure must be adjustable
Construction	-	non perishable, strong material to be used.
	-	non disposable.
Accessories	-	Extra sets of giving circuits

ITEM 4) Bronchoscope and Light Source QTY 1

Type	-	Flexible fiberoptic Paediatric size bronchoscope
Features	-	Eye piece, adjustable focus, non fogging lens
	-	Hard grip ergonomically designed.
	-	Up/down and sideways control
	-	Suction channel/biopsy port
	-	Airway port
Construction	-	High resolution fibres, wide angle lens.
	-	Coating to be made of robust resilient material.
Accessories	-	Insulated Biopsy forceps.
	-	Cleaning equipment
Container/case	-	strong durable to protect equipment.

ITEM 5 — Nerve Stimulator — QTY 4

Type	- Portable Battery operated square wave generator, for percutaneous and transcutaneous stimulation. (Battery to be rechargeable)

Features	- Variable output, zero to maximum
	Options must include
	  - single twitch at 1Hz
	  - single twitch at 2Hz
	  - Train of four (at 2Hz)
	  - Tetanus 50Hz
	  - Double burst stimulation
	- Indicator of battery state
	- current output on dial setting
	- patient contact indicator desirable.
	- Accelerometer option desirable.

Accessories	- Extra wires to connect to patient

ITEM 6 — Nebuliser — QTY 6

Type	- Electrically operated portable type with handle to carry.
Construction	- Small compressor to provide medical grade air. Sound proofing to be provided to ensure minimal sound pollution. - Chamber to be made of robust non-disposable plastic - Bacterial filter to ensure clean air for nebulising.
Features	- Output at appropriate pressure and flows for nebulization of drugs (flows 8-10 LPM). - On/off switch - visible light to indicate status - Output to connect direct to nebulizing chamber. - Nebulization by gas flow. - Outflow of nebulization chamber - nipple to connect to pipe/tube that goes to patient.
Accessories	- filters, nebulizing chambers.

ITEM 7	DEFIBRILLATOR	QTY 4
TYPE:	Portable, microprocessor controlled with single channel E.C.G. monitor.	
Functions:	Paediatric/child paddles with charge/discharge facility. - ECG picked from paddles - With storage facility for paddles - Charge time less than 10 seconds - must be able to synchronise defibrillator pulse to patient-generated R-wave.sync. indicator to appear on monitor. - Battery charging and low indicator. - Continuous charge during line operation. Output Power - 0 - 360/400 joules.	
Safety	- Hygienic, sealed surfaces for easy cleaning. All necessary safety alarms.	
Standards	- To comply with I.E.C. 601 type CF safety requirements.	
Accessories and Consummables	- I set spare paddles ECG Gel.	

ITEM 8) ANAESTHETIC VENTILATOR QTY 1

Type	- Time cycled Pressure Generator, - mounted on base or rear of Ventilator.
Features	- Rate, minimum 2 - 10 breaths/minute maximum 150 - 180
	- I/E ratio - variable and should be able to give inverse ratio.
	- Inflation Pressure - 0 - 70 -90cm H2O
	- C P A P - 0 - 15cm H2O
	- Manual ventilation option
	- Tidal volume - variable over wide range.
Modes of Operation	- Manual
Ventilation	- C P A P - I M V - S I M V if possible
Control/ Monitoring	- Airway pressure - gauge or screen
	- Volumetric measurement - expired tidal volume and/or minute volume
Safety	- Patient disconnection alarms
	- High Pressure alarm with blow-off
	- Gas supply failure
	- Power (electrical) failure
	- Low minute or tidal volume
	All alarms to be audible and visual, with provision for resetting.
Power Supply :	- Gas power - Air or oxygen at approx. 4 bar. via mini-schraeder probe.
	- 220V 50 Hz

- Battery - rechargeable.

Consummables - 1 Spare Transducer
2 Extra Patient circuits

ITEM 9a VITAL SIGNS/E C G MONITOR QTY 10

Type - Microprocessor controlled, multiparameter modular monitor for paediatric use.

Features - 5 - 6 separate modules simultaneously on module mounting rack.

E.C.G//
Respiration
- 3 lead selection for leads I, II, III.
- Filter to remove any interference
- Heart rate 0 - 300 b.p.m detected from QRS complex.

Alarms
- Asystole, low and high rates, both visual and audible.
- Respiration/Apnoea should be picked from ECG leads. Range 5 - 150 beats per minute

Temperature
- Two probe sites
- Automatic calibration
- Range 10 - 15 to 40 - 45 degree celsius

Non-Invasive Blood Pressure
- Oscillometric method of measurement
- Neonatal/infant use
- Range 20 - 300 mmHg

Invasive Pressure
- Automatic zero facility
- Pressure measurement in mmHg.
- easy to calibrate.

Saturation
- Non-invasive re-usable probes
- Range, SaO2 0 -100% 20 - 300 bp.m
- should be highly accurate and able to monitor neonates

Capnograph
- To be able to analyze CO2 and N2O (side stream sampling)
- Calibration, automatic checks.
- Manual calibration facility

Display
- Heart rate, numerical, and waveform
- Respiratory rate waveform
- Temperature
- Systolic, mean and diastolic pressure

- Pressure waveform and values.
- Plethysmograph and SaO2 value and pulse rate
- Capnograph with values, on capnogram.
- Freeze facility for display

Power Supply - 220 V, 50 Hz mains

ITEM 9a. Continue

Alarms
- ECG, - Asystole, low and rates
- Apnoea high and low
- NIBP, High and low on systolic, mean and diastolic pressure
- overpressure limit

IBP
- High and low pressure
- transducer fault
- high and low Sa O2 and heart rate, should be able to be set by user

Capnograph
- high and low for all measured parameters.
  All alarms to be both visual and audible

Accessories
- 2 x extra Electrodes/Patient leads for ECG
- 2 x extra cuffs for Neonatal and Paediatric use.
- 4 x Ear clips extra both for Neonatal/Paediatric use.
- 5 x finger clips extra
- Extra cells for capnograph

Standards - To comply with I E C 601 for type CF equipment

Facilities
- Equipment to have facility for connection to central monitoring station.
- Trend facility with variable time scales

ITEM 9b E C G MONITOR QTY 10

Type - Portable microprocessor controlled monitor

Features
- 3 lead selection ie, I, II, III
- Filter to remove interference.
- 1mV calibration.

Display - E C G waveform, heart rate and respiration

Alarms - Asystole, Low and High rates.
  alarms should be visible and audible.

ITEM 10	Central Station monitor for above E.C.G's equipment
Displays	- Should be able to display all parameters as selected by user. - Display from 6 or more monitors - Display alarm location and freeze - Trend facilities with variable time scales

ITEM 11	NON-INVASIVE BLOOD PRESSURE MACHINE QTY 5
Type	- Single Unit Stand Alone for measurement of Neonatal and Paediatric Blood Pressure.
Functions	- Automatic B P measurement. - Measure S B P, D B P, M A P, and Heart rate. - Memory, to recall past events onto screen and able to recall previous 10-20 readings.
Safety	- Visual and Audible alarms for all parameters. - Alarm to have reset facility.
Power Supply	- 220 V ac 50Hz, 13 Amp fused plug
Standards	- I.E.C. 601

ITEM 12	SYRINGE PUMP QTY 16
Type	- Easy to use syringe driver that can take 10 - 60ml syringes - Should take all types of syringes and any IV extension set. - Rate, 0,5 ml/hr to 100 ml/hr
Safety	- High pressure/occlusion alarm - Infusion end/syringe empty alarm
Power Supply	- 220 V 50Hz - 13 Amp plug fused. - Internal rechargeable battery
Standards	- IEC 601

ITEM 13	INFUSION PUMP	QTY 24
Type	- Mountable on infusion stand. Volumetric infusion pump	
Features	- Should use universal giving sets	
	- Indication of volume set/given, rate	
Safety	- Visual and audible alarms where possible	
	- High pressure/occlusion alarm	
	- Air in line	
	- any other safety feature that will make the pump safe to use	

ITEM 14	ICU Ventilator.	QTY 10
Type	- Paediatric/neonate Ventilator	
Power	- 220-240V AC 50 Hz	
Construction	- Robust, shock proof compact case Pedestal mounting - stainless steel mounted on rubber castors. Unit must be stable, unable to knock over easily.	
	- mounting for humidifier and blender must be on ventilator or stand pedestal	
	- Flexible - lockable side arm for holding patient circuits.	
Features	- Control modes - CPAP, and controlled ventilation as well as intermittent mandatory ventilation. IMMV	
I E	- Inspiratory time 0.1 - 2.5 - 3.0 sec Expiratory time 0.3 - 45 - 60 sec	
	- Inspiratory pressure :- 5 - 60 - 70 cm H20 Expiratory pressure :- 2 - 20cm H20 (should control CPAP and PEEP pressure)	
	- Airway pressure should be displayed on screen/manometer, measuring minimum, maximum and mean airway pressure.	
	- Blender :- 02 and air (0.21 - 1.0 %) accurate over working flow rate.	
	- No extra control for rate i.e should be set by inspiratory/expiratory time.	

ITEM 14 Cont.

- Safety pressure relief value should be variable.

- to be adjusted by user.

Alarms

- Alarms should be fail safe i.e power failure, then alarms should still be activated (battery back up/Alarm should be activated when there is a disconnection).

- High pressure / low pressure

- Gas failure

- Apnoea delay - variable 2 - 80 - 70 sec

- Audible and visual

- Mute for 20-60 sec
  automatic resetting after 60 sec

Safety Features

- Automatic self testing on start up

- Menu test of microprocessor

- Fail safe settings

Accessories

- 02 Blender

- 02 - high pressure coded hose with chemetron fittings
- Air - high pressure coded hose with chemetron wall fittings.

- 02 Blender range 21 - 100% with high accuracy.

  Flow meter should be down stream from blender i.e controlling mixed gases not up stream controlling 02/Air independently.

- 5 extra patient circuits per machine.

ITEM 15 HUMIDIFIER QTY 14

Type	- electrically operated. - Heater control to set 20-40 c. There must be alarms for high and low temperature. Chamber for water should be provided (small volume for Neonates).. - Heating element for inspiratory limbs to prevent precipitation in the inspiratory limb. - Temperature sensor should be at patient end of circuit.
Accessories	- 2 extra temperature sensors.

ITEM 16. PULSE OXIMETER QTY 24

Type	- Portable.
Power	- 220 - 240V AC 50Hz also battery operated. Battery should operate for 6-12 hrs when fully charged.
Display	- Real time with graphic display of plethysmograph (not analogue scale). Tone must change with change in saturation.
Alarms	- Must be visual and audible. There must be high and low alarms for pulse and saturation. - Must be able to set default setting from menu with the monitor (also volume of alarms and pulse).
Accessories	- 5 finger probes and 5 ear clips per machine.

ITEM 17. OPERATING TABLE QTY 1

Type	- Standard theatre table, 3 section with padded washable antistatic mattress.
Functions	- Stainless steel base, hydraulic controlled with foot pump, 4 x manouverable durable strong castors. - Tiltable head and foot and sideways
Safety	- Lock facilities on castors - with side rails
Accessories	- Side bars with anaesthetic screen accessory clamps with circular clamps.

(ITEM 18) Anaesthetic machine (ICU) QTY 1

Type	- Upright on castors antistatic non knockable types. - drawers x 2 under work surface - 2 gas configuration 02/N2O selectatec mounting. - Cylinders. - 02 x 2 E size to be supplied - N2O x 2 E size to be supplied. Pin index mounting for all cylinders. - Pressure gauges in KPA, one for each cylinder
Construction	- Stainless steel with anti-glare finish on work surface. - Antistatic castors - Flowmeter colour coded, antistatic bobbins. - Work surface small
Features	- Pressure gauges KPA - Common gas out-let non swivel - Emergency 02 flush - next to common gas outlet. Shield/shrouded switch non lockable switch - Standard 02 failure alarm with N20 vent to atmosphere - High pressure relief valve on back bar (pressure + 0.3 Bar)
Capacity	- 02 100ml - 10 LPM - N20 200ml - 1.5 LPM
Accessories	- 2 Patient breathing system Mapelson E. - Vaporizer - 0-5% Halothane. A front control dial lockable to machine, user serviceable, screw up filler.

ITEM 18. (b) ANAESTHETIC MACHINE QTY 1

Type
- Upright - on castors (antistatic) lockable wheels
- Drawer x 2 for storage under work surface
- Low shelf placed just above wheels
- Top shelf for monitor - weight limit 25kg
- Side mounting support for monitor or ventilator
- Selectatec mounting - twin vaporises
- 4 gas configuration 02/N20/Air/Co2 pipe line Colour coded chemetron wall fittings cylinder - pin-index - cylinder to be supplied. (E size) (D size for Co2)
- Ventilator/infusion stand.

OXYCO.

Construction
- Stainless steel with anti-glare finish on work surface.
- Antistatic castors - lockable.
- Flowmeter antistatic bobbin, detachable panels for easy access for servicing.
- Stainless steel attachments for accessories
- Ventilator/infusion stand

Function
- Pressure gauges - KPA/Bar
- Flowmeter easily visible - standard colour coding (02 on left) standard protection for hypoxic mix due to cracked 02 tubes
- Mini schraeder probe out-let (4 bar) for driving auxiliary equipment
- Common gas outlet below work surface fixed non-swivel
- Emergency 02 flush - next to common gas out-let (160 LPM) - Non lockable
- Protected (shrouded push button)
- Standard 02 failure alarm audible only with low 02 pressure.

- N2O vented to atmosphere. Compressed air to be supplied to common gas outlet.

- High pressure relief valve at + 30 - 36 KPA (+ 360cm H2O) on back bar

Capacity :-

- O2	100ml	10LPM
N2O	200ml	12 LPM
CO2	50ml	500ml/min
Air	500ml	10 LPM

Safety :-

- Pressure relief valve (+ 1/3 atm) on back bar

- O2 failure alarm

- Antihypoxic mixture control alarm

Standards

- ISO 4135 and IEC 601

Accessories

- Patient breathing system (a) Mapelson Bx2 (b) Baines circuit x 2 (c) Miller maximum 10 circuits (a and b to be non - disposable type).

- Vaporizer - Halothane x 1.
front dial control 0 - 5%.
selectatec lockable mounting.

- Suction - Vacuum mounted on the machine 2 litre bottle, cut off to prevent contamination.

On/Off Control variable suction pressure.
Pressure gauge (PKa).
User and service manuals should be supplied .

ITEM 19 — OXYGEN ANALYZER — QTY 24

Type	- Machine mounted - digital display
Service	- Long life transducer fast response type - Alarms high and low, visual and audible
Range	- 0 - 100% Oxygen. Battery condition indicator calibration - Room at 21% with calibration knob operator's and service manuals must be supplied

ITEM 20. — RADIANT HEATER — QTY 5

Type	- Movable on castors adjustable height
Power	- 220 - 240V AC 50 Hz
Temperature Control	- Servo and manual temperature range - 30-40 C - Examination light should be fitted on the machine
Safety	- High and low temperature alarm must be visible and audible, over heat temperature alarm
Accessories	- Temperature probe sponge for fixing probe to patient - Element and tubing (fluorescent).

ITEM 21 — INFANT INCUBATOR QTY 10

Type	- Servo and manual controlled mobile incubator.
Functions	- Temperature control 32 - 40 `C. Heater output display. - skin temperature settings 34 - 40`C. - digital display for measured temperature. - with humidification facility.
Construction	- Manouverable on robust, large diameter castors. - Double walled clear perspex body. - Hinged portholes, 2 on either side and 1 at each end. - Cleanable sliding tray and mattress.
Power	- 220 - 240V AC 50Hz.
Alarms	- Overheat alarm - (visible and audible)

ITEM 22. BABY TRANSPORTER QTY 2

Type	- For transporting infants
Power	- Mains 220-240V 50Hz also battery operated
Functions	- Control temperature range 32`C - 37.9`C To be supplied with 02 cylinder. holder should be fixed on the machine. Reducing valve and flow controls. - Neonatal transport ventilator to be included.
Construction	- Clear perspex hinged lid, double walled. - Access ports at sides and ends
Alarm	- Overheat and low Oxygen. Alarm should be visible and audible.
Standard	- To comply with I E C 601-1

ITEM 23. ECG RECORDER QTY 4

Type	- Portable, bench type - Patient input - 12 lead
	- Calibration - 1 mV
	- Sensitivity - 5 - 10 and 20mm/MV
	- Recording - heated styles
	- Paper speed - 25mm/s - 50mm/s
Power	- 220 - 240V AC 50Hz also battery operated.
Accessories	- 3 extra patient cables
	- 3 sets chest electrodes
	- E C G jelly
	- Spare stylus
	- Dust proof cover
	- Battery
	- Recording paper

ITEM 24 Electric Suction Machine QTY 15

Type	-	Variable pressure suction units .
Purpose	-	For suction in both Paediatrics and Neonates
Power	-	220-240V AC 50HZ
Construction	-	Twin bottle, on castors, high pressure plastic jars up to 2 litres. Bottle top to be push type. Bottle to be mounted on the machine and not on the sides.
Safety	-	Bacterial filters to be fitted. A float to avoid back flow suction. Suction pressure to be displayed on the gauge graduated in mmHg
Accessories	-	1 x extra bottle per machine. 2 x extra bottle tops. pack of rubber seals if present on bottletop.

ITEM 24 † THEATRE OPERATING LIGHT QTY 1

Type	-	Portable on manouverable, solid stable castors
Construction	-	Durable,stable easy to replace bulbs and easy to remove glass.
Intensity	-	3 - 5 bulbs to give intensity of 45 000 - 70 000 lux (variable) focusable light
Safety	-	Cold light emission On/off switch with status indicator No interruption of other bulbs when one blows. Electric cabling to be above wheels. Cable hook on frame.
Power	-	220-240V AC 50HZ
Accessories	-	5 extra bulbs. 2 extra glass covers

ITEM 25 BABY RESUSCITAIRE QTY 3

Type	- Manouverable on large diameter castors.
Functions	- 02 and Air supply facility should be provided. - inlet pressure 3 - 4 bar - Oxygen cylinders - pin index type should have mounting facility for the cylinders (pin-indexed mount). - Pressure regulator to be provided - Suction control to be activated by Oxygen venturi. On/Off - variable pressure facility. - Oxygen / Air mixer upstream of rotameter. - Pressure gauge 0-60 cmH2O. - Blow off pressure facility set by user. - Rotameter 0-15 LPM. - Cold water humidifier.
Construction	- Durable cleanable material. - Work surface with head-down tilt. - Removable sides and head boards to protect baby. - two drawers for storage under work surface.

ITEM 26 AUTOCLAVE QTY 4

Use	- To sterilize instruments
Type	- Front loader/bench type
Power	- 220-240V AC 50HZ
Constructions	- Stainless steel, rubber door seals/insulated
Functions	- Pressure gauges, measured temperature display, - programme selection - Status of cycle display - Drying option
Safety features	- Pressure safety valve - Overheat warning and cut off
Additional	- Water drainage pipe where necessary. - extra trays

ITEM 27. PHOTOTHERAPY LAMP QTY 7

Type	- Mobile 4 castors (lockable) adjustable height
Light	- Blue Phototherapy light with two day light tubes for examination.
	- Clock for timing treatment. - Fan for cooling fluorescent tubes.
Power	- 220-240V AC 50 Hz
	- Spare tubes should be provided
	- There must be a switch to select examination lights or phototherapy light.

ITEM 28. GLUCOMETER QTY 8

Type	- Portable battery operated
	- Glucostic reagent strips
	- Gluco set kit to be included.
Display	- Digital microprocessor controlled
	- Clinilog self testing record book - calibration kit should be provided.

ITEM 29 CAPNOGRAPH QTY 2

Type	-	Self contained, free standing machine for Infra-red analysis of Carbondioxide and Nitrous Oxide.
features	-	Polarographic cell for measurement of oxygen
	-	Side arm/port for sampling
	-	aspiration- high and low flow rates for paediatric patients.
	-	Ranges- CO2 0 - 10% O2 0 - 100% N2O 0 - 100%
	-	Respiration Rate 0 - 120 -150 bpm
Calibration	-	Automatic checks built in during operation
	-	Warm-up calibration
	-	Manual calibration option.
Alarms	-	Low and high, for all measured parameters, default built in Apnoea delay- to be adjustable by user.
Display	-	Waveform carbondioxide capnogram, (sweep speed should be adjustable)
	-	Figures for CO2, display O2, N2O and Respiration Rate.

ITEM 30) ELECTRONIC BALANCE QTY 2

Type	-	High-performance top loading electronic reading balance with built-in microcomputer.
	-	Dual range ie grams and kilograms from 0.1 grams
	-	electric or battery operated.

LOT 2.

ITEM 1 SMALL DRESSING TROLLEY QTY 14

Construction - 2 tier stainless steel shelves
- antistatic manoeuvrable castors
- 3 way integral guard rail

Dimension - 46 x 46 x 86 cm

ITEM 2 LARGE DRESSING TROLLEY QTY 12

Construction - 2 tier stainless steel shelves
- antistatic manoeuvrable castors
- 3 way integral guard rail

Dimension - 76 x 46 x 86 cm

ITEM 3 MANUAL SUCTION PUMP QTY 7

Type - Portable foot operated

Construction	- Twin bottle mode
	- Rugged reliable and light weight
Function	- Paediatric/child use
Features	- Vacuum gauge in millimetres of mercury (mmHg)
capacity	- 600ml
Power	- 600mmHg
Safety	- Float to avoid over flow, bacterial filter for operator safety.

(ITEM 4) STEEL TROLLEY QTY 2

Type	- Curved to accommodate paediatric deceased
Construction	- On 4 castors solid stainless steel top

(ITEM 5) SMALL DISH STAND QTY 12

Type	- Double dish stand on castors
Construction	- Stainless steel
Accessories	- Stainless Steel Bowls to fit.

(ITEM 6) PLASTER APRON QTY 6

	- Thick and washable antistatic bib to hem 40" to 53" length.
Material	- PVA

(ITEM 7) EXAMINATION COUCH QTY 10

Type	- Two sectioned with washable table top (PVC top) - Tiltable back rest

(ITEM 8) FOOT STOOL QTY 3

Type	- one step

Construction	- on four antistatic stump feet
	- with antistatic non-slip cushions.

(ITEM 9) SPHYGMOMANOMETER QTY 20

Type	- Mercurial manometer - glass tube in metal case - wall mounted with a stainless steel basket to hold cuffs. - Coiled rubber tubing
Range	- 0 - 360mmHg
Accessories	- 2 x Cuffs and bladders paediatric/child size per machine.
	- 5 x Control valves per machine.
	- 5 x bulbs per machine.

ITEM 10. MOBILE Sphygmomanometer. QTY 10

Type	- On four Castors, Stable base to prevent machine from falling over.
	- mercurial, 300mmHg max.
	- Paediatric/ Child cuffs - Basket to hold cuffs and tubes.
Accessories	- 5 x control valve per machine.
	- 5 x bulbs per machine.

ITEM 11. DIAGNOSTIC SET QTY 26

Type.	- Wall mounted unit with own transformer 220-240 V 50 Hz. - Stainless steel standard handle with the following features:
	- otoscope with detachable ear pieces.
	- ophthalmoscope
	- nasal specula - coiled flex to allow stretch to about two metres.
	- 2 spare halogen bulbs
	- rechargeable batteries

ITEM 12. EXAMINATION Light QTY 10

Type
- portable
- mounted on 4 large robust castors

Power
- 220 - 240V AC 50Hz

Features
- on/off switch

ITEM 13. LARYNGOSCOPE QTY 24

Type
- fibre optic type, stainless steel handle, rechargeable batteries
- curved blades size 1, 2 and 3 (MacIntosh)
- straight paediatric size blades (0 and 1).

ITEM 14. OXYGEN THERAPY UNIT (chemetron) QTY 30

- Double adapter for Oxygen with rotameter on one arm and female outlet on the other.
- Flowmeter 15 l/m ball float
- Needle valve chromeplated/brass
- on/off knob back pressure compensated

ITEM 15. TENT 02 HEAD BOX QTY 10

- Small transparent dome for placing over babies head and connected to regulated 02 supply
- three different sizes.

ITEM 16. BABY WARMING PAD QTY 30

- Temperature range 20-40c
- Variable temperature control
- Power indicator

Power - 220-240V AC 50Hz

ITEM 17 DRIP STAND ON RAIL QTY 10

Type - double hook adjustable height

Construction - fixed stainless steel

ITEM 18 SMALL COTS QTY 20

- small type
- drop sides adjustable height water proof mattress (washable)
  Dimensions approximately 137 x 76 x 61 cm

ITEM 19 LARGE COTS QTY 10

- Safety drop - sides
- adjustable height
- dimensions 1, 752 (L) x 915 (W) x 1,38 (H) mm
- mattress foam rubber (thick)
- washable mattress

ITEM 20 BEDSIDE LOCKERS QTY 30

Type - Free standing on manoveuverable castors.

Features
- Pull-out table
- Single drawer
- Laminated chemical resistant table surface.

ITEM 21 LINEN SKIP (SINGLE) QTY 10

- on three swivel castors

- rust proof
- 600mm diameter x 720mm high

ITEM 22. LINEN TROLLEY QTY 10

Construction
- Stainless steel
- 4 shelves with doors
- on 4 castors

ITEM 23. COMMODE QTY 10

- on 4 manoeuvrable castors
- metal frame and wooden seat

ITEM 24. MOBILE DRIP STAND QTY 20

- on three swivel castor
- stainless steel adjustable height
- double hook

ITEM 25. WHEELCHAIR QTY 5

- foldable
- self propelling
- tubeless tyres
- fully swivelling front wheels and child proof brakes on each rear wheel

ITEM 26. STRETCHER QTY 10

- with washable mattress high quality resistant to wear and tear.
- Solid base.
- on manoeuvrable castors (lockable)
- two side support

ITEM 27. BATH SCALE QTY 10

- Graduated in kilogrammes

Range - 0 - 100kg

- calibration screw should be included

ITEM 28 BABY SCALE QTY 10

- Tray type must be rust resistant

Range - 0 - 20kg

ITEM 29. SURGICAL STOOL QTY 5

- Swivel and padded
- Without wheels
- Adjustable height

Material - Metal

ITEM 30 PORTABLE SCREEN QTY 10

- Four panel and two foldable wing
- Screen on both sides of the centre frame
- On castors

ITEM 31 MOVABLE BATH TUB QTY 5

- stand and drawers stainless steel
- Paint iron stand
- Clear acrylic white scratch resistant
- Pull out dressing tray with mattress
- On 4 manoeuvrable castors (lockable)

- Towel holder and soap

ITEM 32) MANUAL RESUSCITATION BAG QTY 15

Type
- Inflatable Paediatric Bag.

Features
- Secure one-way valve,
- Good quality rubber that can refill easily,
- 3 different sizes face masks to fit on valve connection,
- facility for Oxygen connection.

(ITEM 33) PLASTER SAW QTY 4

Type
- Electrically powered with bonded 13 Amp plug.

Features
- Oscillating cutting system
- On-Off switch
- different size blades
- T-shaped wrench

(ITEM 34) BED PAN QTY 30

Type
- Durable Metal type.

(ITEM 35) BABY POT QTY 10

Type
- Unisex, in light, attractive colours.

(ITEM 36) URINAL QTY 10

Type
- Durable, Sterilisable material.

(ITEM 37) BEDS ADULT QTY 10

Type
- Adult Bed on manouverable castors

Features
- Lockable wheels
- Thick foam mattress with washable casing of durable water proof material.

ITEM 38	KICKABOUT	QTY 5
Type	- Stainless steel, with bucket rail frame made of steel. - Encircling rubber bumper - mounted on swivel rubber castors.	
ITEM 39	UTILITY CART	QTY 2
Type	- High bed mounted on 4 to 6 manouverable castors.	
Construction	- Welded wire mesh, with top and middle meshes. Drop down side for easier loading and unloading. Net weight up to 80 kg.	
ITEM 40	PLASTER SHEARS	QTY 4
Type	- Stainless steel, 23cm long	
ITEM 41	PLASTER SPREADER	QTY 4
Type	- Three prongs, stainless steel, about 30cm long.	

LOT 3.

LOT 3

ITEM 1 HAEMATOLOGY AUTOMATIC CELL COUNTER QTY 1

Type:
- Bench top type, durable with easily cleanable surface.

Functions:
- Must produce the following parameters:-
- wbc, rbc, Hct, MCV, MCH, MCHC, RDW, PLT & MPV
- Differential wbc up to Lymphocytes, granulocytes, monocytes, eosinophils basophils.
- comment on results of analysis
- store results of up to 2 000 samples.
- analysis on 0.1 ml of whole blood
- must function at room temperature

Accessories
- Printer Unit - capable of utilizing locally manufactured paper (cards)
- must indicate abnormal results
- must indicate machine malfunction.
- Computer, linked to processor to show all distribution curves
- pneumatic supply system

ITEM 2 COAGULATION MACHINE QTY 1

Type
- Bench top with in-built video display Unit
- must not need reprogramming after power cuts.

Functions
- Must be capable of doing
  - PT, APTT, TT, Auti-thrombin, fibrinogen and factor assays.
- PT results must be expressed as INR
- The results should be displayed on the VDU and also printed on paper.
- Must be operable at normal summer temperature.

Accessories
- Must have spare sample trays, magnetic stirrer and other replaceable parts.

ITEM 3 CENTRIFUGE QTY 2

Type	- Benchtop, lid must automatically lock when in use, with easily removable bowl for cleaning.
Function	- Must process at least 16, 10ml samples at a time - Must have adaptors for different size buckets. - Must be resistant to power cuts.
Accessories/ spares	- Manufacturer's recommended spares, including rotors, cups/buckets, brushes, lid unlocking key, among others.

ITEM 4 WATERBATH QTY 1

Type	- Benchtop, 12 litre, 37'C.
Functions	- Must be capable of using tap water without affecting metal tank. - Stainless steel. With inbuilt thermostat and thermometer light indicating that the element is heating.
Accessories/ Spares	- Thermostat, fuses, heating element, on/off switch thermometer and other manufacturer's recommended spares.

ITEM 5 MICROSCOPE QTY 1

Type	- Binocular, light microscope (benchtop)
Functions	- For examination of transparent objects Must have x10, x40 and x 100 objectives. - adjustable condenser with phase contrast and dark field microscopy options.
Spares:	- 1 set of eye pieces - 1 set of objectives - 1 condenser and other manufacturer's recommended spares.

ITEM 6 SLIDE STAINER QTY 1

Type - Bench top, automatic.

Functions - Must convey, fix, stain and dry blood films made on standard glass slides.
Must be consistent throughout and must stain 1 slide per minute.

Spares - Cannula set with spare pump tubing.

ITEM 7 PH METER QTY 1

Type - Bench top, portable, digital display
Automatic calibration and temperature compensation.

Range - 0-14 pH with 0.01 pH resolution.
- Electrically operated with option for use of ordinary 9V batteries.

Spares - 2 spare electrodes
pH4 and pH 7 buffers, temperature measurement probe and other manufacturer's recommended spares.

ITEM 8 BLOOD GAS, ACID-BASE ANALYZER QTY 1

Type - Benchtop with ionised calcium and electrolyte Analysis. Print out results with all necessary details.

Functions: - Must perform a full analysis including:
  - Blood Gas Values: pH, pCO2, pO2, with temperature compensation.
  - Blood Oximetry values: tHb, O2Hb, COHb etc.

- Oxygen Status: tO2c, p50, stunt etc.

- Acid Base Status: HCO3, tCO2, ABE, SBE etc.

Accessories: - Na+ and K+ analyzer + Ca++ analyzer
- reagents

Spares: - All manufacturer's recommended spares.

ITEM 9 BIOCHEMISTRY ANALYZER QTY 1

Type - Benchtop with video display unit and keyboard for programming with on board diluter and automatic reagent cooling and curette replacement.

Function - Fully selective analyzer for routine and emergency biochemistry tests must determine at least Na+, K+,Cl--, Urea, Creatinine and glucose;

- liver function test profile, Protein and Albumin levels; cholesterol and triglycerides;
Bone profiles i.e. calcium magnesium and inorganic sulphates; amino acids.

- Must perform at least 500 tests per hour with immediate print out of results.

- start up time must be minimal i.e less that 5 minutes.

- must maintain memory of at leats 2 000 tests

- must function at room temperature.

Accessories - enough accessories to keep equipment running for a year.

ITEM 10 FLAME PHOTOMETER QTY 1

Type - Benchtop, Automatic ignition; digital read out.

Function - For direct Na+, Li+ and K+ determination.

- Must have a combined sample preparation unit i.e. diluter + nebulizer.

- Must utilize minimal amounts of test sample (i.e. from Neonates).

Accessories - Tubing, propane gas for one year.

ITEM 11 CENTRIFUGE QTY 1

Type - Benchtop with easily removable bowl for Disinfection or cleaning. Lid must automatically lock when rotor is spinning.

Function
- Must process at least 64 10ml. specimens at a time.
- Must have speed and time control facilities
- An effective breaking system.
- An indicator to show when lock is free.

Accessories - Buckets, cups, brushes.

ITEM 12 WATERBATH QTY 1

Type - Benchtop, 20 litre.

Functions
- Must be capable of using tap water without affecting metal tank.
- temperature range: 25 - 100'C
- easily removable thermostat
- thermometer and thermostat light indicators.

ITEM 13 WATER DE-IONISER QTY 1

Type - Wall type, rechargeable

Functions
- To produce 5 litres of de-ionised water per minute.
- to produce 600 litres of deionised water before need for a recharge.
- Must use readily available reagents e.g. NaOH.

Accessories: Spare tubing and tanks.

ITEM 14 BILIRUBINOMETER QTY 1

Type - Benchtop with digital display

Functions
- Must perform bichromatic analyses
- Read bilirubin levels in capillary tubes without needing further chemical reactions.
- Have minimal start-up time, and maintenance requirements.
- Store a calibration curve for at least 24 hours.

ITEM 15 MICROHEMATOCRIT CENTRIFUGE QTY 1

Type - Benchtop

Function
- Must spin at least 20 capillary tubes at a time.
- Must have speed and time control
- Must have an effective braking system

Accessories - Capillary tube holders.

ITEM 16 REFRIGERATOR QTY 1

Type - Single (multiplane) glass door, 20 cubic feet.

Functions
- Safe storage of blood and some reagents.
- Must have audible and visual alarm in case of power failure and unsafe temperature conditions;
- digital temperature display;
- interior lights, a "door ajar" warning light;
- Temperature recorder and recorder charts.
- Alarm must have long life batteries.

Accessories: Charts for temp records.

ITEM 17 HIV, HEPATITIS TESTING EQUIPMENT QTY 1

Type	-	ELISA - (Enzyme linked immunoabsorbent Assay)
Functions	-	Automatic microplate washer for ELISA tests.
	-	Automatic microplate Reader for ELISA tests.

CONDITIONS:-

1. Price of equipment should be C.I.F. Harare, Government

5. 各種統計

1) アフリカ大陸とジンバブエ

2) ジンバブエ地形図

3) 当該国の社会・経済事情

4) ジンバブエ国行政区分（州）
ハラレ中央病院医療対象地域図・州別人口予測

5) 全国医療機関分布図

6) 保健省・受診料規定

7) 州・地域別人口分布状況統計（1992年）

8) 州別・医療機関別分布統計

9) 全医療分野における登録科別医療従事者

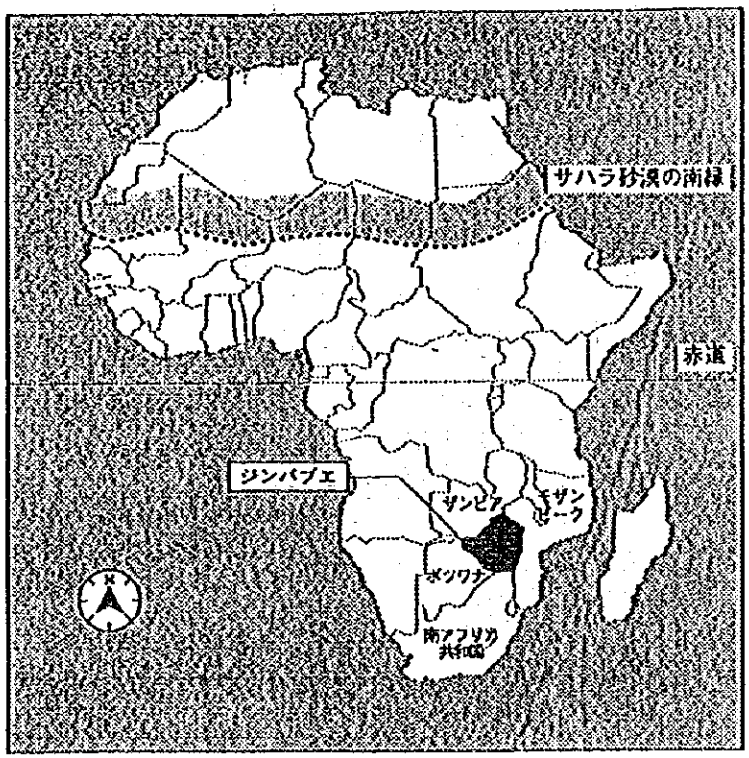
10) 州別医療機関保有病床数及び患者当たりの病床数

11) 乳幼児死亡率及び小児死亡率の傾向

12) 1995年度（5月～10月）医療従事者養成講座概要

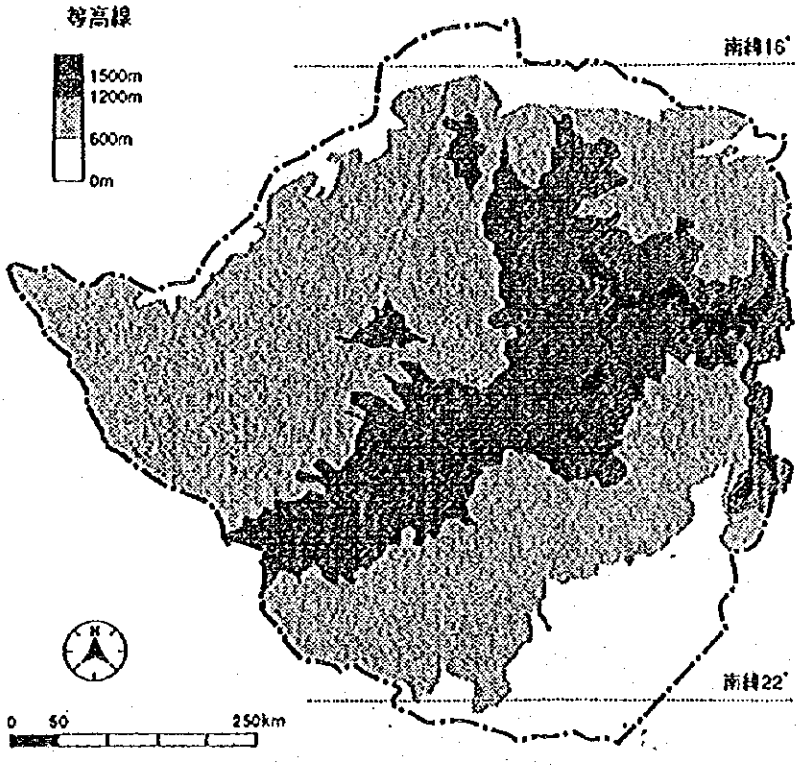
13) 施設維持管理費（日本の援助施設・CIDA援助施設）

1) アフリカ大陸とジンバブエ



1) アフリカ大陸とジンバブエ

2) ジンバブエ地形図



2) ジンバブエ地形図

3) 当該国の社会・経済事情

国名	ジンバブエ共和国
	Republic of Zimbabwe

1995.11　1/2

一般指標					
政体	共和制（複数政党制）	*1	首都	ハラレ	*1
元首	Executive President Robert G. MUGABE	*1	主要都市名	ﾌﾞﾗﾜﾖ、ｸﾞｳｪﾙ、ﾑﾀﾚ	*1
独立年月日	1980年04月18日	*1	経済活動可人口	4,000 千人　(1992年)	*5
人種(部族)構成	ｼｮﾅ族、ﾝﾃﾞﾍﾞﾚ族、白人	*1	義務教育年数	8 年間 (1994年)	*6
		*1	初等教育就学率	－ %	*5
言語・公用語	英語、ｼｮﾅ語、ﾝﾃﾞﾍﾞﾚ語	*1	初等教育終了率	94.0 %　(1990年)	*5
宗教	ｼﾝｸﾚﾃｨｯｸ(ｷﾘｽﾄ教+地域信仰)50%	*1	識字率	69.0 %　(1992年)	*5
国連加盟	1980年08月	*2	人口密度	28.3836 人/Km² (1994年)	*4
世銀・IMF加盟	1980年09月	*3	人口増加率	1.2 %　(1994年)	*4
			平均寿命	平均42.82　男 41.2　女44.49	*4
			5歳児未満死亡率	85 /1000　(1992年)	*5
面積	390.58 千Km²	*4	ｶﾛﾘｰ供給量	2,260.0 cal/日/人　(1990年)	*5
人口	10,975.078 千人　(1994年)	*4			

経済指標					
通貨単位	ジンバブエ　ドル	*1	貿易量	(1992年)	*10
為替ﾚｰﾄ(1US$)	1US$= 8.8028　(09月)	*6	輸出	1,235.0 百万ﾄﾞﾙ	*10
会計年度	7月～　6月	*1	輸入	2,306.0 百万ﾄﾞﾙ	*10
国家予算	(1991年)	*7	輸入ｶﾊﾞｰ率	1.8 % (1992年)	*11
歳入	1,902.2 百万ﾄﾞﾙ	*7	主要輸出品目	農産物、工業製品、金、ﾌｪﾛｸﾛｰﾑ	*1
歳出	2,164.00 百万ﾄﾞﾙ	*7	主要輸入品目	機械、輸送機器、化学製品、燃料	*1
国際収支	-105.2 百万ﾄﾞﾙ (1991年)	*7	日本への輸出	121.0 百万ﾄﾞﾙ　(1992年)	*12
ODA受取額	735.00 百万ﾄﾞﾙ (1992年)	*8	日本からの輸入	85.0 百万ﾄﾞﾙ　(1992年)	*12
国内総生産(GDP)	5,635.00 百万ﾄﾞﾙ (1993年)	*9			
一人当たりGNP	520.0 ﾄﾞﾙ　(1993年)	*9	外貨準備総額	708.2 百万ﾄﾞﾙ　(1995年)	*6
GDP産業別構成	農業　22.0 %　(1992年)	*10	対外債務残高	4,007.0 百万ﾄﾞﾙ　(1992年)	*11
	鉱工業　35.0 %　(1992年)		対外債務返済率	31.9 %　(1992年)	*11
	ｻｰﾋﾞｽ業　43.0 %　(1992年)		ｲﾝﾌﾚ率	34.6 %　(1992年)	*8
産業別雇用	農業　71.0 %　(1992年)	*5			
	鉱工業　8.0 %　(1992年)				
	ｻｰﾋﾞｽ業　21.0 %　(1992年)		国家開発計画	第２次国家開発５ヵ年計画 １９９０年～１９９５年	*13
経済成長率	-7.9 %　(1992年)	*8			

*16

気象(1968 年～ 1983 年平均)　場所：Ｈａｒａｒｅ　(標高　1473 m)													
月	1	2	3	4	5	6	7	8	9	10	11	12	平均/計
最高気温	26.0	26.0	26.0	26.0	23.0	21.0	21.0	23.0	26.0	28.0	27.0	26.0	24.9 ℃
最低気温	16.0	16.0	14.0	13.0	9.0	7.0	7.0	8.0	12.0	14.0	16.0	16.0	12.3 ℃
平均気温	20.4	20.0	19.6	18.1	15.5	13.1	13.1	15.2	18.6	20.6	20.7	20.3	17.9 ℃
降水量	196.0	178.0	117.0	28.0	13.0	3.0	0.0	3.0	5.0	28.0	97.0	163.0	831.0 mm
雨期/乾期	雨	雨	雨			乾	乾	乾	乾			雨	

*1 The World Factbook(C.I.A)(1993)
*2 Unite Nations Information Center(FAX)(1994)
*3 Development Assistance Annual Report(1995)
*4 The World Fact Book(1995)
*5 Human Development Repon(1994)
*6 International Financial Statistics(1995)
*7 International Financial Statistics Yearbook(1994)
*8 World Development Report(1994)
*9 World Tables(1995)
*10 World Tables(1994)
*11 World Debt Tables 1993-1994.(1993)
*12 世界の国一覧(外務省外務報道官編集)(1993)
*13 最新世界各国要覧(1995)
*16 World Weather Guide(1990)

国名	ジンバブエ共和国
	Republic of Zimbabwe

*14

我が国におけるＯＤＡの実績 （資金協力は約束額ベース、単位：億円）

項目＼年度	1989	1990	1991	1992
無償資金協力	2,043.64	2,382.47	2,515.30	2,699.97
技術協力	2,146.74	1,989.63	2,050.70	2,194.95
有償資金協力	5,161.42	5,676.39	7,364.47	5,852.05
総　額	9,351.80	10,048.49	11,930.47	10,746.97

*3

当該国に対する我が国ＯＤＡの実績 （支出純額、単位：百万ﾄﾞﾙ）

項目＼歴年	1993	1990	1991	1992
無償資金協力	6.81	2.40	3.77	4.24
技術協力	16.11	15.55	27.25	38.04
有償資金協力	5.28	7.83	11.98	7.57
総　額	28.20	25.78	43.00	49.85

*14

ＯＥＣＤ諸国の経済協力実績 （支出純額、単位：百万ﾄﾞﾙ）

	贈　与 (1)		有償資金協力 (2)	政府開発援助 (ODA) (1)+(2)=(3)	その他政府資金及び民間資金 (4)	経済協力総額 (3)+(4)
		技術協力				
二国間援助	422.20	168.70	113.10	535.30	13.60	548.90
(主要供与国)						
1. アメリカ	51.10	40.00	40.00	91.10	0.00	91.10
2. イギリス	77.70	15.90	-2.10	75.60	4.70	80.30
3. ｽｳｪｰﾃﾞﾝ	64.60	51.60	0.00	64.60	0.00	64.60
4. ドイツ	31.40	22.70	27.20	58.60	-2.50	56.10
多国間援助	104.40	22.60	158.20	262.60	244.80	507.40
(主要援助機関)						
1. INF	0.00	0.00	0.00	0.00	0.00	0.00
2. IDA	0.00	0.00	0.00	0.00	0.00	0.00
その他	0.00	0.00	-2.20	-2.20	0.00	-2.20
合　計	526.60	191.30	269.10	795.70	258.40	1,054.10

*15

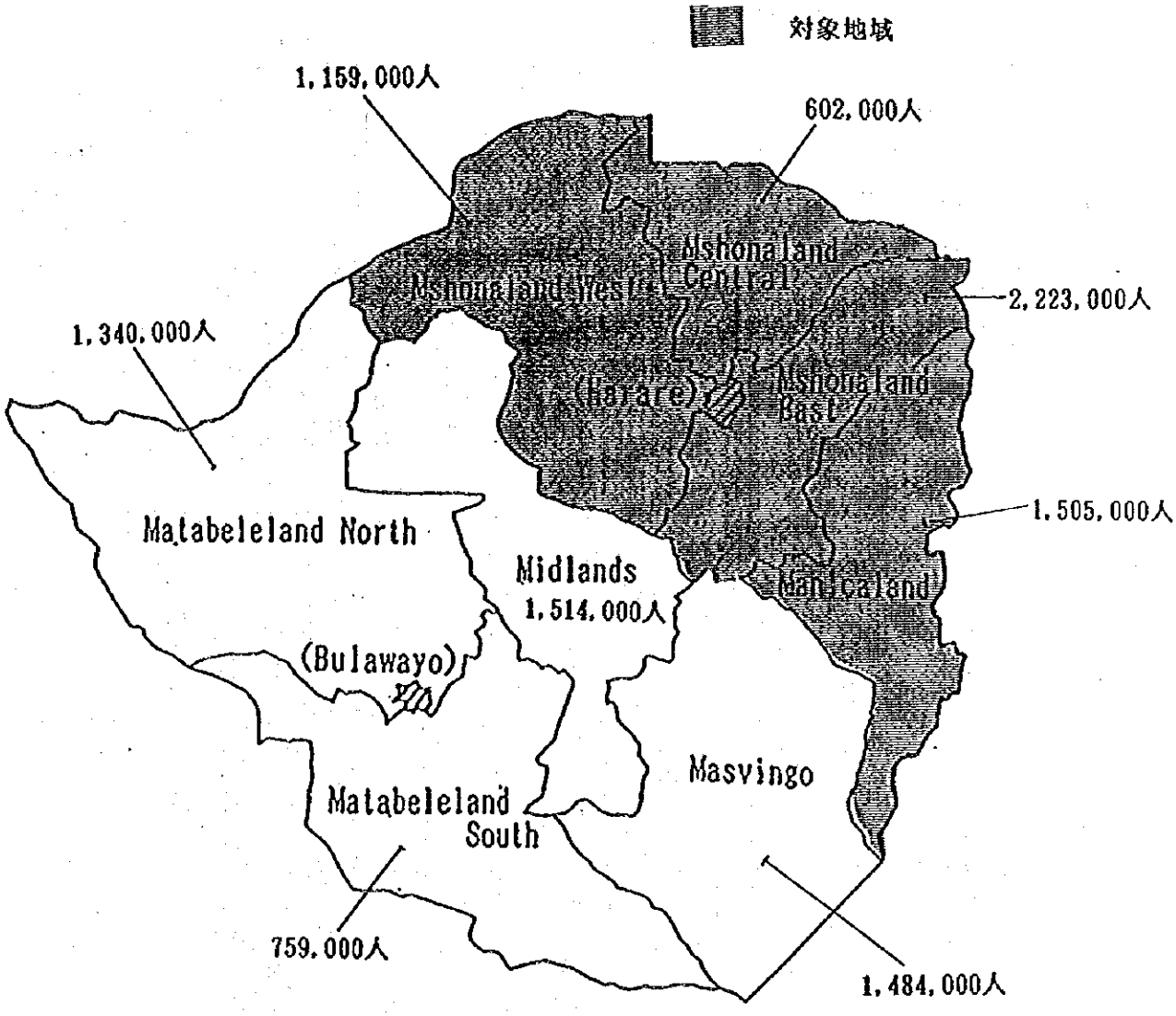
援助受入窓口機関	
技術	関係省庁・機関→大蔵・経済計画・開発庁
無償	関係省庁・機関→大蔵・経済計画・開発庁
協力隊	関係省庁・機関→大蔵・経済計画・開発庁

*14 Geographical Distribution of Financial Flows of Developing Countris(1994)
*15 国別協力情報(JICA)

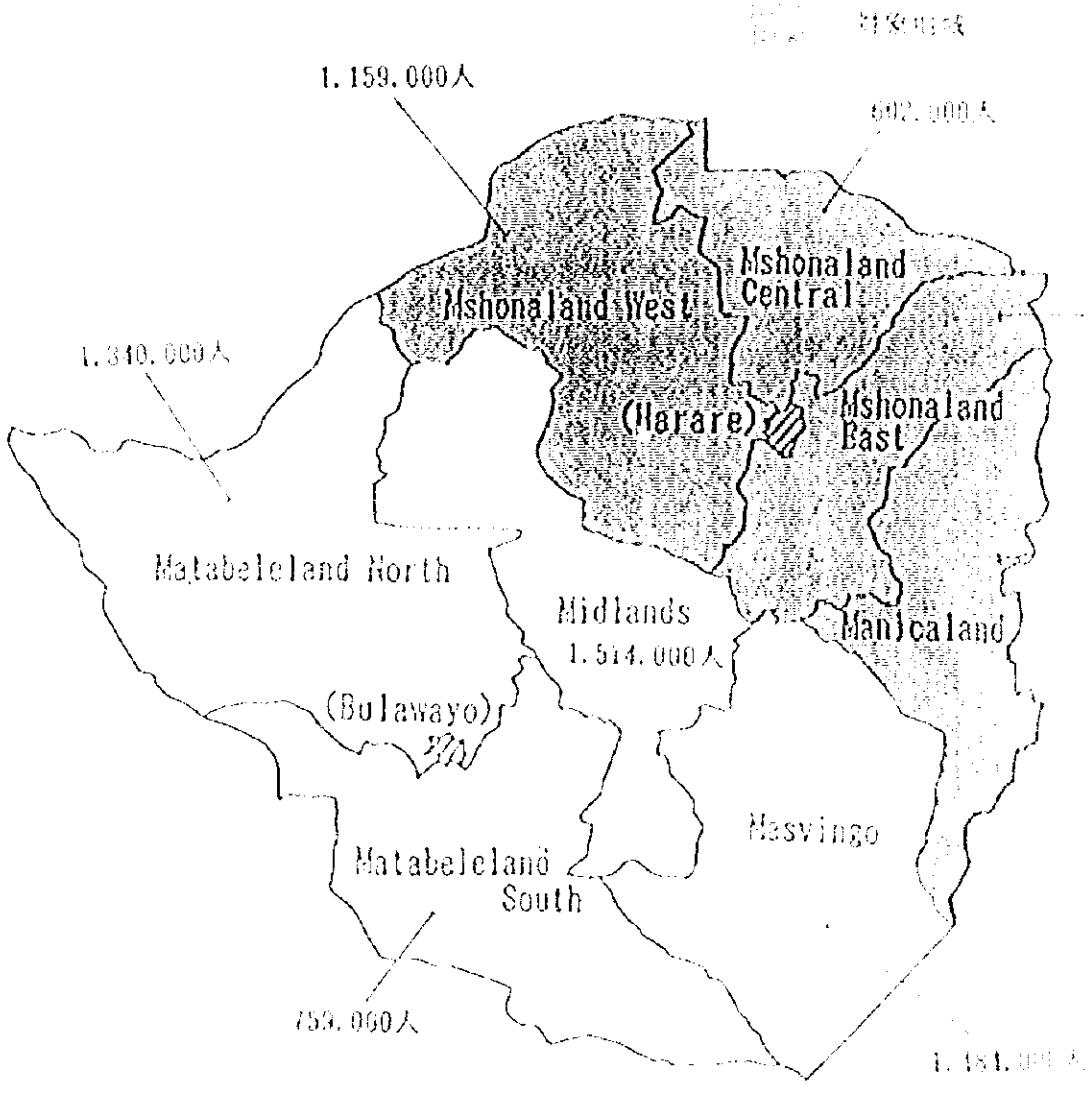
4) ジンバブエ国行政区分（州）

ハラレ中央病院医療対象地域図・州別人口予測

（出典：第2次国家開発5ヶ年計画）

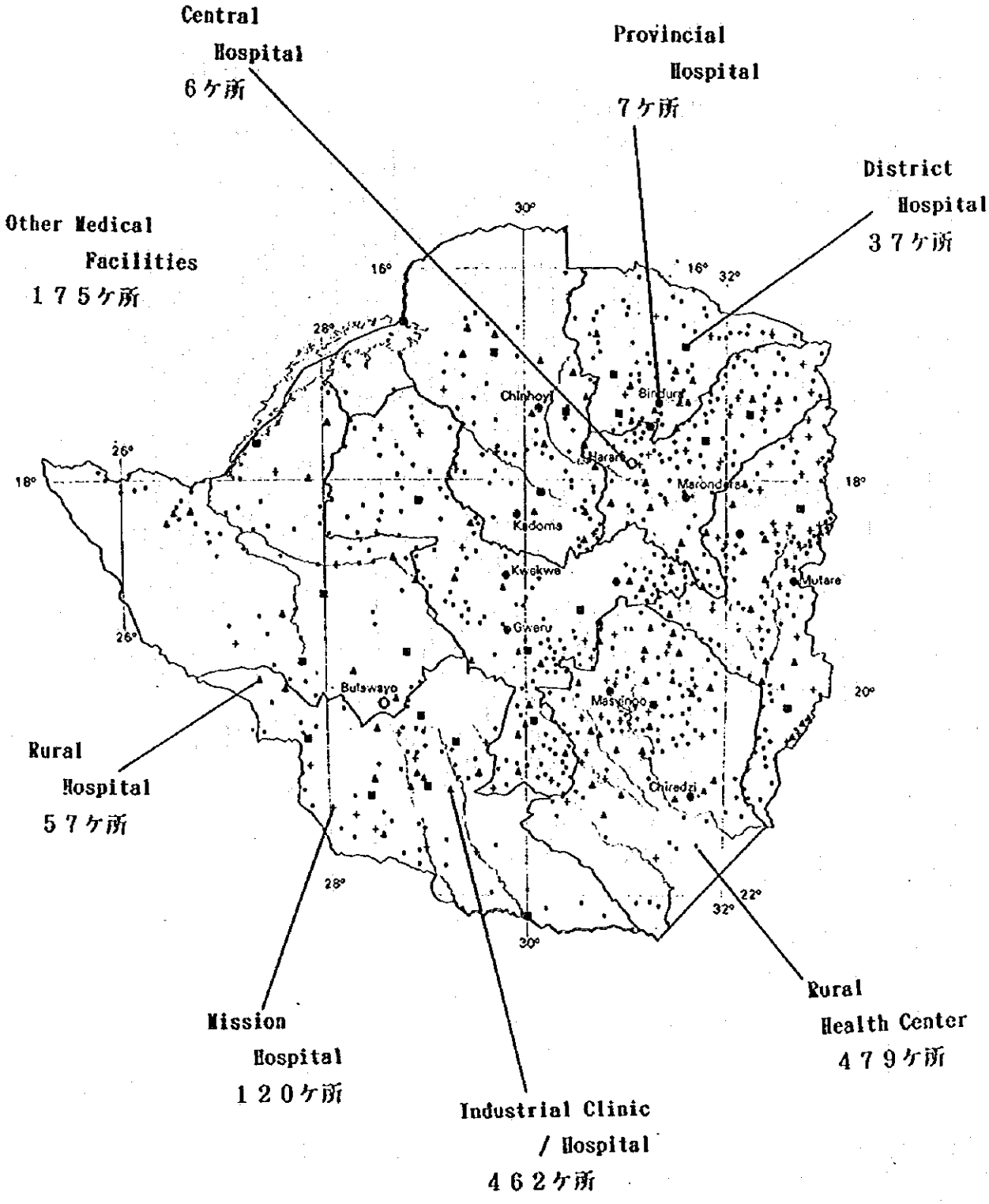


4) ジンバブエ国行政区分（州）



5) 全国医療機関分布図

(出典：School Atlas for Zimbabwe)



6) 保健省・受診料規定

MINISTRY OF HEALTH AND CHILD WELFARE

HOSPITAL FEE STRUCTURE

AND

GUIDELINES FOR COLLECTION OF FEES

FOR

GOVERNMENT, MISSION

AND

LOCAL AUTHORITY HEALTH FACILITIES

(Effective 13th January 1994)

保健省児童福祉課

治療を受ける全ての患者に対する一般規定書

1. パラレニャトゥア中央病院での医療費は；

1-1 同病院に出頭する全ての患者の医療費は自費で支払うか社会開発基金又は医療援助機関を通して支払うものとする。

2. 都市自治体所属の医療機関での医療費は；

都市部の自治体所属の医療機関に出頭する全ての患者の医療費は自費で支払うか社会開発基金又は医療援助機関を通して支払うものとする。

3. 他の医療機関（政府機関、ミッション医療機関、郡村落医院）での医療費は；

上記以外の政府医療機関、郡村落医院、ミッション系機関での患者は下記条件の元に治療を受けるものとする。

3-1 月収Z$400以下の患者の医療費は無料とする。

3-2 月収Z$401以上の患者は現金払いかその地域の医療援助機関を通して支払うものとする。

4. 非回送患者の医療費は；

医療職員が判断する救急患者以外の患者の場合、病院のレベルに係わらず又本人の収入の如何に係わらず医療費の支払いは行うものとする。

5. 医療費免除資格者とは；

5-1 月収Z$400以下の患者は医療費免除となる。但し、その支払いについては、パラレニャトゥア中央病院及び都市部自治体医療機関への支払いは社会開発基金又は医療援助機関から支払われる。又他の全ての政府医療機関への支払いは直接政府支払となる。

5-2 医療費免除資格取得の申請には下記書類の提出が必要である；

① 支払い明細書に月収がZ$400以下であることを記載すること

② 社会福祉局において月収証明書を受理しZ$400以下であることを証明すること

③ 雇用主の住所、IDナンバー、電話番号を記載したものに患者本人の月収を記載しZ$400以下であることを証明する

④ 村落の医療機関へ行く場合のみ、地域の村長からのレターを提出する

6. 医療援助対象については；

6-1 現在所属する機関の医療援助会員であることを証明し、所定の申請手続きをする。

6-2 患者はまず初期医療センターなり一般開業医に行かなければならない。

6-3 下位医療機関からの回送でない場合、まず初期医療機関に行くように指示される。

7. 月収Z$401以上の患者については；

このレベルの患者は、規定通りの料金を支払うこととなる。

8. 治療費及び薬代金については；

8-1 中央及び県病院における治療費及び薬代金はN.A.M.A.S規定に基づき請求される。

8-2 他の医療機関(都市部自治体所属機関含む) における治療費は一律定額とする。
又歯科治療費は別勘定となる。薬は可能な限り無料支給される。

8-3

9. 産科医療については；

前述1項～8項の内容は産科医療にも適用されます。追加事項として下記項目も適用されます。

9-1 都市部自治体所属医療機関では、産前医療行為及び出産行為も含めた医療費を料金規定に基づき支払います。

9-2 産科料金には産前治療費及び分娩費で構成されていて、初日に支払う。また産後治療費は別勘定で出産後に支払う。

9-3 下位医療機関より回送されて来た患者については出産後の産後治療費の追加請求はありません。但し、産後患者が産後病棟に滞在したい場合は、その分追加請求されます。

9-4 回送患者でない場合は患者の月収如何にかかわらず産前治療費及び産前病棟費用共請求されます。

10. 入院患者については；

前記1項～8項の条件が適用されます。

11. 病院間移管については；

11-1 病院職員の判断から別病院へ移管された場合の初診料は無料となります。

11-2 移管された病院での入院費は直ちに手続きをします。また診断のみの一時移管の場合は一切の費用の負担が必要となります。

12. 重要事項

12-1 小児患者とは、12才以下の者を言う。

12-2 初診から一週間以内に来院する場合は無料とする。一週間を過ぎてからの再診は、初診と同額だけ支払う。

12-3 診療の遅れや支障を来さないために、患者は来院した時には5-1項に記載の所定の用紙に記載提出すること。

12-4 患者が受診したい科目のある一番近い病院が回送病院であって、しかもその病院へ来院した場合は初診料を支払うことになります。各々の機関で患者に対する処方は異なります。

12-5 外国人の場合は現地人の支払う料金の2倍を支払うことになります。支払いは現地通貨のみ適用されます。

12-6 医療援助対象患者の場合は、病院が医療援助規定に基づき直接医療援助機関に請求することも出来ますし、患者が直接キャッシュで支払う場合はその限りではない。

12-7 業務の遅延や支障を防ぐ意味で支払いをする患者(Z$401以上の患者) はあらかじめ支払い金額を用意しておくこと。

13. 無料医療行為

＊種痘(収入に拘らず) 、＊結核、らい病、精神病等の治療行為は無料とする。

14. 医療保健制度

近年の医療費の高騰から医療費援助対象者以外の人は出来るだけ医療保健に加入して欲しい。

15. 個人の患者については

回送病院に来院した全ての個人の患者は、いかなる医療行為に対してもN.A.M.A.S.に基づく医療費を支払うこととなります。

16. 非回送患者については、

回送病院に来院した非回送患者はいかなる医療行為に対してもすべて支払うことになります。

17. 救急医療行為については；

17-1 医療職員の判断で病院から病院へと救急搬送された患者は医療費は無料です。

17-2 自宅から救急搬送を依頼した場合は、搬送料を規定に従い支払うこととなる。

18. 避妊薬（用具）については；

前記規定1項～8項に適合する医療費免除者には避妊薬(用具) は無料供与する。

19. 慢性疾患に対する処方せんについては；

特別慢性疾患に対する薬剤費は最高月額Z$50で支給するものとする。

特別慢性疾患とは、

糖尿病、高血圧症、リウマチ系心臓疾患を指す。

20. 翻訳説明書について；

本規定書の翻訳本については、保健省小児福祉課に問い合わせてください。

資料-1　公立病院・保健所外来初診料　　(単位Z$大人料金、子供半額)

国立・市立病院	初診料	所　轄	病　院　名	初診料
パラレニャトゥア中央病院	42.00	政府直轄	県立病院	26.00
ハラレ中央病院	34.00	政府直轄	ゼネラル病院	20.00
ムピロ中央病院	34.00	政府直轄	郡立病院	17.00
ブラワヨ合同病院	34.00	地方自治	クリニック	16.00
ハラレ市立病院	20.00	村落自治	クリニック	9.00
ブラワヨ市立病院	20.00	村落自治	保健所	6.50

資料-2　公立病院・保健所産前看護料金　　(単位Z$)

所　轄	病　院　名	産前看護料金
政府直結	中央病院	185.00
地方自治	ハラレ市立病院	120.00
地方自治	ブラワヨ市立病院	120.00
地方自治	チチュンガ町立カウンセル	120.00
政府直轄	県立病院	80.00
政府直轄	郡立病院	60.00
地方自治	村落病院	10.00

資料-3　公立病院・保健所入院病棟使用料金　　(単位Z$大人料金、子供半額)

病院種訳		料　金	病院種訳		料　金
中央病院一般病床	(ジ国人)	80	県立病院一般病床	(ジ国人)	65
	(外国人)	160		(外国人)	130
個　室	(ジ国人)	160	個　室	(ジ国人)	130
	(外国人)	200		(外国人)	180
ゼネラル病院一般	(ジ国人)	60	郡立病院一般病床	(ジ国人)	50
	(外国人)	115		(外国人)	100
個　室	(ジ国人)	115	村落病院一般病床	(ジ国人)	10
	(外国人)	160			

7) 州・地域別人口分布状況統計（1992年）

POPULATION DISTRIBUTION BY PROVINCE
1992

PROVINCE 州・地域名	UNDER 1 1才以下	1－4 YEARS 1~4才児	5 YEARS AND OVER 5才以上児	NUMBER OF WOMEN 15~49才女性	TOTAL POPULATION 合計人口
* MANICALAND マニカランド	56894	224501	1256281	337163	1537676
* MASH CENTRAL マショナランド中央	29447	106150	721721	191848	857318
* MASH EAST マショナランド東	32067	121452	879817	230731	1033336
* MASH WEST マショナランド西	41326	154136	921466	154136	1116928
MASVINGO マスビンゴ	37557	148934	1035354	279043	1221845
MATEBELELAND NORTH マテベレランド北	23014	85843	532100	136788	640957
MATEBELELAND SOUTH マテベレランド南	19946	77164	494637	127017	591747
MIDLANDS ミッドランド	48182	186217	1067815	265185	1302214
BULAWAYO CITY ブラワヨ市	22354	69545	529037	159813	620936
* CHITUNGWIZA CITY チトゥンウィザ市	12331	39187	222517	68235	274035
* HARARE CITY ハラレ市	48191	154211	1002373	299989	1204775
TOTAL 合 計	371309	1367340	8663118	2269948	10401767
PERCENTAGES (%)	3.7	14.1	82.3	21.8	100

注：上記表中，小児人口は１９９２年国勢調査結果をプリリミナリー報告書より採用

NOTE: THE THREE AGE GROUPS ARE ESTIMATES BASED ON THE 1992 CENSUS RESULTS FROM THE PRELIMINARY REPORT.

* 表中＊印の州・地域は当該ハラレ中央病院診療対象地域で，診療対象人口はジ国全体人口の57.9% にあたる約600 万人強となる。

出典：保健省児童福祉局年次報告書(1992)

8) 州別・医療機関別分布統計

DISTRIBUTION HEALTH FACILITIES BY PROVINCE AND TYPE.

出典：保健省児童福祉局年次報告書(1992)

PROVINCE	CENTRAL HOSP	PROVI-NCIAL HOSP	MATER-NITY HOSP	DISTR-ICT HOSP	RURAL HOSP	MISS-ION HOSP CLINICS	GOV'T CLINICS	COUNCIL CLINICS	SPECI-HOSP/ CLINICS	MUNIC-IPALITY CLINICS	OTHER (x)	TOTAL
	中央病院	県立病院	産科病院	郡立病院	村立病院	ミッション病院	公立診療所	ｶｳﾝｾﾙ診療所	特別病院／診療所	自治体診療所	その他医療機関	合　計
マニカランド	–	1	1	4	9	29	81	103	–	7	44	279
マショナランド中央	–	1	–	4	3	5	36	35	–	2	11	97
マショナランド東	3	1	1	5	10	17	43	76	4	50	4	214
マショナランド西	–	1	1	5	8	8	37	56	–	9	28	153
マスビンゴ	–	1	1	3	10	20	55	57	1	2	8	158
マテベレランド北	3		1	5	6	7	33	27	5	18	16	121
マテベレランド南	–	1	–	5	6	12	38	33	–	2	19	116
ミッドランド	–	1	1	6	5	22	54	65	–	12	45	211
合　計	6	7	6	37	57	120	377	452	10	102	175	1349

上記表中，その他医療機関には①産業病院・診療所，②個人病院・診療所，③鉱業病院・診療所等含む

9) 全医療分野における登録科別医療従事者

VARIOUS CATEGORIES OF REGISTERED HEALTH MANPOWER FOR ALL SECTORS
1992

出典：保健省年次報告書（1992）

科　目 PROFESSIONAL GROUP	MAIN REGISTER 正登録者	PROVISIONAL REGISTER 登録補者	TOTAL 合　計
Medical Practitioners	1135	399	1534
Dental Practitioners	90	42	132
Pharmaceutical Chemist	376	37	413
Opticians	20	13	33
Dispensing Opticians	13	4	17
Psychologist	63	0	63
Speech Therapist	9	8	17
Radiographers	114	36	150
Occupational Therapist	21	15	36
Prostetists and Orthotists	17	8	25
Medical Lab. Technologist (Gen)	275	4	279
Environmental Health Officers	165	2	167
Cyto. Technologist	16	0	16
Meat Inspectors	35	2	37
Dental Technicians	19	3	22
Dental Hygienist	9	3	12
Electro Enlephalographic Technicians	5	0	5
General Nurses	6192	145	6337
Midwives	2760	65	2825
Physiotherapist	90	28	118
Psychiatric Nurses	414	5	419
Chiropodists	12	0	12

PROFESSIONAL GROUP 科　目	MAIN REGISTER 正登録者	PROVISIONAL REGISTER 登録補者	TOTAL 合　計
State Certified Nurses	8029	194	8223
Environmental Health Technicians	976	0	976
State Certified Marternity Nurses	4131	42	4173
Paediatric Nurses	5	3	8
Dieticians	12	2	14
State Certified Traumatology Nurses	285	0	285
Pharmacy Technicians	189	3	192
Clinical Assistants	22	2	24
Rehabilitation Technicians	181	0	181
X-Ray Operators	35	1	36
Medical Scientists	10	4	14
Dental Therapist	56	0	56
House Officers	165	0	165
Vocational Trainees	24	0	24
Operating Theatre Technicians	2	0	2
Medical Lab. Technologist (Ltd)	29	11	40
Clinical Social Workers	5	5	10
Prosthetists and Orthotists Assistants	11	0	11
State Certified Blood Transfusion Technicians	21	0	21
Phsychologist Trainees	9	0	9
State Certified Lab. Tech.	190	1	191
T O T A L	26047	1086	27133

10)州別医療機関保有病床数及び患者当たりの病床数

NUMBER OF PEOPLE PER HOSPITAL BED (Excluding Maternity Beds)

出典：保健省年次報告書(1992)

PROVINCE 州 名	Total Number of Health Facility Bed Compliment 州別医療機関配備病床数	Number of People per Bed 病床数／患者
マニカランド	2070	743
マショナランド中央	866	990
マショナランド東	1207	856
マショナランド西	1297	861
マスビンゴ	2145	569
マテベレランド北	869	737
マテベレランド南	1242	476
ミッドランド	2216	587
合 計	11912	886

Source: Health Facility Form

出典：保健省・医療施設便覧

出典：保健省年次報告書(1992)

SECTION I

INTRODUCTION:

This section summarizes the trends in morbidity and mortality in the MCH group in the last ten years i.e since independence.

TRENDS IN INFANT AND CHILD MORTALITY

1. LEVELS AND TRENDS IN INFANT AND CHILD MORTALITY

It would seem that the levels of infant and child mortality have declined since the 1970's and that the decline has been more accelerated since independence (1980). However, the levels are still relatively high in comparison to the other regions of the world. Table I below shows a comparison of infant mortality rates in various regions of the world and how Zimbabwe compares.

Table I. Infant mortality rates per 1000 live births for Africa and other regions of the world.

Area	Rate 1985-1990 (1)
Eastern Africa	116
Middle Africa	107
Northern Africa	86
Southern Africa	77
Western Africa	112
Total Africa	106
Zimbabwe (1983-1988) (2)	53
Botswana (1983-1988) (3)	37
Kenya (1984-1989) (4)	60
World	71
More developed regions	15
Less developed regions	9

Sources

(1) UN-ECA:- Impact of MCH/FP Programmes on fertility, Infant and Childhood mortality and maternal health
(2) Zimbabwe Demographic and Health Survey, 1988
(3) Botswana Family Health Survey II, 1988
(4) Kenya Demographic and Health Survey, 1989

Though the infant mortality rates in Zimbabwe compare favourably with those in the rest of Africa and the less developed regions, they are still three to four times higher than those in the more developed regions.

Table II shows that though infant and child mortality have declined significantly since the 1970's, the decline has been more for childhood mortality (1-4 years) than for infant mortality.

Table II Trend in Infant and Child Mortality, Zimbabwe (2)

	1973-1977	1978-1982	1983-1988
Infant mortality rate	53,6	63,2	52,7
Childhood mortality rate	40,9	42,4	23,6
Under five mortality rate	92,5	103,4	75,0

Though the trends in the three periods is not regular, the table shows that there has been a decline in the mortality levels. The table also shows that the decline in under-five mortality has been largely due to decline in mortality among children 12-59 months.

FACTORS AFFECTING INFANT AND CHILD MORTALITY.

There are many factors that are related to infant and child mortality. For example, geographic area of residence of the parents is important, as well as the education level of the mother, as shown in Tables III & IV

Table III Infant and Child Mortality by areas of residence (1978-1988) (2)

	Infant mortality rate (0-11 months)	Childhood mortality rate (1-4 yrs)	Under five mortality rate (0-4 years)
Residence			
Urban	37,8	17,5	54,6
Rural	64,5	36,3	98,5

Table IV Infant and Child Mortality by educational level of the mother (1978-1988) (2)

Education			
No education	77,0	51,6	124,6
Some primary	55,0	28,8	82,2
Secondary or higher	39,9	7,9	47,5

A child living in the rural areas was about twice as likely to die compared to a child who lived in the urban areas. A possible explanation for this phenomenon could be that access to health services is more difficult in the rural areas. In reality this is known to be true. Health facilities are farther apart, transport is more difficult, doctors are fewer, etc in the rural areas. Another possible explanation could be that the more educated mothers (whose children are more likely to survive as shown in Table IV) are more likely to be found in the urban areas, hence the lower mortality of children in the urban areas. Much more emphasis needs to be put into improving health in the rural areas, if the policy of "Equity in Health" is to be meaningful.

Table V shows that a child is more likely to die if the interval to preceding child's birth is too close.

Table V Infant and childhood mortality by interval since the previous birth (1978-1988) (2)

	< 2 years	2-3 years	4 or more years
Infant mortality rate	78,9	47,9	42,8
Childhood mortality rate	52,7	23,4	25,X1
Under-five mortality rate	127,4	70,2	66,8

A child born less than two years since the previous birth is about twice likely to die compared to a child born four or more years since the previous birth. The relationship is stronger for infants (less than 1 year) than for children (1-4 years).

The mother's age at birth as well as the birth order of the child are also important determinants for child survival, as shown in Tables VI & VII.

Table VI Infant and childhood mortality by mother's age. (1978-1988) (2)

	Infant mortality rate	Childhood mortality rate	Under five mortality rate
Mother's age at birth			
under 20 years	78,4	36,3	111,9
20-29	47,8	31,2	77,5
30-39	62,0	26,9	87,2
40-49	67,1	37,1	101,7

Table VII Infant and Child Mortality by birth order of the child (1978-1988) (2)

Birth order			
first	63,5	31,3	92,9
2-3	53,2	31,0	82,5
4-6	48,7	28,6	75,9
7+	75,4	36,5	109,2

SPECIFIC CAUSES OF INFANT AND CHILD MORTALITY

The three biggest causes of mortality in children are: malnutrition, diarrhoea and respiratory tract infections as shown in Table VIII. This situation has remained so since independence.

Table VIII Main causes of child mortality 1985 and 1988 (3)

Rank	1985	1988
1	Resp. Tract infection	Malnutrition
2	Diarrhoea	Resp. tract infection
3	Malnutrition	Diarrhoea
4	Measles	Malaria
5	Meningitis	Measles

It is apparent that there has not been much change in the main causes of child mortality since 1985. For example, measles is still among the top five causes of infant and child mortality.

As has already been said in the previous discussion, though still relatively high, there has been an accelerated decline in infant and particularly child mortality in the 1980's. This of course is not conclusive evidence that it is due to MCH programmes. But certainly it could be argued that the MCH programmes set up since independence had some role to play in this reduction.

The EPI programme has particularly been impressive in improving immunization coverage as shown in Table IX.

Table IX TREND IN IMMUNIZATION COVERAGE 1982-1988

	1982	1984	1988	1988 (N.B)
Fully Immunized	25%	42%	67%	80%
BCG	59%	87%	89%	97%
Measles	51%	53%	75%	83%
DPT3	32%	66%	79%	84%
Polio3	31%	61%	78%	83%

N.B.:
It will be noted that there are two figures for 1988 for all vaccines. The lower figure represents those children who were correctly immunized taking into account the age/interval for the particular vaccine. For DPT3/Polio3 this means that the lower figure represents those children given all three doses with the minimum interval of at least 4 weeks between doses. The higher figure represents all children who received DPT3/Polio3 and had a card to prove it. For measles the lower figure represents those children who were given measles above the age of 9 months. The higher figure represents all those children who were given measles vaccine and had a card to prove it.

Sources:

1. PHC Review Report, 1984
2. Report on PHC/MCH/EPI Surveys, 1988

There is evidence that the numbers of cases and deaths from the EPI diseases is going down, as shown in Table X.

Table X TREND IN EPI DISEASES, 1978-1988

	MEASLES		NNT		POLIO		DIPHTHERIA		WHOOP/COUGH	
	CASES	DEATHS	CASES	DEATHS	CASES	DEATHS	CASES	DEATHS	CASES	DEATHS
1978	—	—	180	103	6	1	32	8	—	—
1979	—	—	161	82	24	1	7	4	—	—
1980	3650	522	134	54	32	2	8	6	6290	16
1981	4995	—	118	52	28	-	7	3	2629	-
1982	4 941	46	428	33	9	-	9	2	2594	3
1983	36253	530	85	48	3	2	25	-	1511	-
1984	21662	463	74	42	4	1	27	-	1320	-
1985	17508	100	154	16	69	-	4	-	2065	1
1986	20388	91	358	17	92	2	12	1	1961	-
1987	9028	17	11	7	-	-	-	-	1480	-
1988	22829	22	21	17	4	-	-	-	839	-
1989	19679	16	58	33	-	-	-	-	728	-

It can be seen that there has been a big drop in the measles and neonatal tetanus deaths, for example. For measles, even though the number of cases does not seem to have dropped that much, the number of deaths has dropped dramatically i.e the case fatality rate has dropped. Diphtheria has always been low, but no cases or deaths have been reported from this disease since 1987. Whooping cough has also declined in the number of cases, with no deaths recorded since 1987. The number of cases of polio has also declined significantly, since the polio outbreak of 1985/86. EPI can therefore be seen to have contributed to an improvement in mortality and morbidity in children.

Conclusion on Trends in Infant and Child Mortality

1. There has been a significant decline in infant and child mortality, which has been more pronounced for child mortality (1-4 years) than for infant mortality (under one year).

It is therefore suggested that the next plan period should concentrate more on improving infant mortality. As will be shown in the next section, it is likely that infant mortality has not declined significantly because of failure to improve neonatal mortality (which is part of perinatal mortality).

2. The gap between urban and rural areas in infant and child mortality still exists, with children in the rural areas have about twice the chances to die compared to urban children.

The emphasis on improving health conditions in the rural areas needs to continue. Much more needs to be done to lower the rural/urban differential.

3. Socio-economic conditions (such as the mother's level of education) have a significant bearing on the child survival. General improvement in socio-economic conditions will also improve infant and child mortality and morbidity. Policies that lead to improvement in the general socio-economy of the country need to be encouraged. This obviously cannot be done by the health sector, but the health sectory needs to play an advocacy role, particularly as the policies affect the poor and children.

4. The immunization programme seems to be now showing signs of having an impact on mortality in children. It needs to be sustained and strengthened.

HEALTH EDUCATION PROGRESS REPORT: SUMMARY MAY - OCTOBER 1995

Policy Direction

The five year IEC/Health Education Strategy will be the basis for implementing health programmes in the country. Launching and operationalizing the strategy will be conducted in January 1995. Participation of all sectors, NGOs and private sector will be solicited. Increase in financial, material and manpower resources should be explored in implementing the strategy.

HEALTH EDUCATION POLICY

o Finalized awaiting launch and usage.

M/E SYSTEM

The ME System document has been revised and is now in use. Orientation on the system is an ongoing exercise.

School Health Policy

A policy to direct the School Health activities is needed and already three meetings with Ministry of Education and Health were held.

Research

All provinces are now undertaking FGD's and Rapid Assessments and most of the interventions undertaken are all now research based. The need to formalize research with other departments is needed. Provinces should be encouraged to send their research projects reports to national level for circulation.

Print and Electronic Material Production

o Material Production has improved tremendously. However the need to move away from posters and print media should be looked into. Program analysis and audience segmentation is needed to encourage usage of other media channels.

Training of Health Workers in IEC is still an ongoing exercise

Some of the provinces have managed to train most of their Districts in IEC. This is an ongoing exercise.

Campaign/Programme Planning

This area needs strengthening and there is need to conduct formative researchand health education officers should be given this input.

Purchase of Equipment

An inventory of equipement was conducted and discussions to order equipment for most district is in the process with the FHP" Coordinator.

Staff development

HEOs are not accessing funds under Norad for staff development courses. Capacity building and graduate training is crucial. Funds under this project for staff development should be looked into. HEOs feel that they are not supported.

Manpower Shortage

No head-way the department is very much under staffed.

RECOMMENDATIONS FROM THE LAST REVIEW MISSION

ACTION FOR FOLLOW UP	ACTION
1. Organizational frame-work in relation to the Five Year Strategy.	- Discussion on the strategy are underway. - NGOs and Private Sector should be part of the strategy.
2. Quality care programmes for health workers.	- A protocol of quality care strategy is in the process of being developed. - Two meetings held so far - Seminar to draw strategy has been planned for the 16 - 17th November Patient Education Study disseminated to hospital executives.
3. Complaints about equipment for non FHP" districts being disadvantaged	- An inventory of equipment undertaken, discussions with Ms E Serima are in progress.
4. Inclusion of H/Education and IEC in the MCHFP Evaluation.	Indicators for H/Education submitted to the MCH/FP department.
5. Too much focus on posters	Multi media approach is now being taken seriously. To strengthen this component formative research for program analysis and audience segmentation is needed.
Five Year IEC strategy implementation.	Strategy finalized with the PS awaiting final copy from AED, US.

HEALTH EDUCATION PROGRESS REPORT - MAY TO OCTOBER 1995

GUIDELINES AND POLICY DIRECTION

OBJECTIVE	ACTIVITY	TIME FRAME IN QUARTERS	ACHIEVEMENT/ OUTCOME	BUDGET/ SOURCE	CONSTRAINTS	COMMENTS
Revise and finalize the ME system.	M/E System finalized	July 1995	o Manual developed and IEC material record form developed. o Material Production is now research based. o Change in the quality of material production.	G.T.Z	Multi-media strategy should be strengthened.	All Provinces should be oriented on the use of ME System documentcopy. Provinces are already in the process of training people.
School Health Policy and manual development.	(a) Two meetings held on Development of the School Health. (b) Pretesting of the manual with Ministry of Education is still on going.	On going activity. Ongoing	3 meetings with Ministry of Education and Health were held - - Two Pretests of the document completed.	$79 000	No policy exists in Zimbabwe on School Health Manual is long over due.	
To finalize the Health Education Policy document.	Policy finalized with the P/S and the Minister of Health.	Sept'95	Policy finalized, awaiting launching.			Will be launched in January 1995 together with the five year IEC strategy.

To finalize the five year IEC Strategy.	IEC Document edited	June - Oct'95	o Document edited and finalized with the P/S of Health. o Revision done with AED. o Awaiting final copy. o Launching to be conducted in January and to operationalize the implementation Plan			5 Year IEC Plan to be developed after launch. Assistance from GTZ to operationalize strategic plan will be solicited
Health Education Manual	Develop the manual	Manual in print	Manual with Government Printers.	GOZ Z$30,000	Productions at Government Printers take a long time.	Manual is delayed at Government Printers
RESEARCH						
Conduct research on the empowerment of women in sexual issues.	Rapid Assessment about cultural issues affecting women in sexual matters (Mash West)	May 1995	Programme developed in the Mash West Province. All health education interventions are now research based.	G.T.Z supported		Successful project. Truck drivers are being utilized to disseminate AIDS information and are distributing condoms.

Patient Education Study	o To disseminate research findings to hospital executive. o To form a task force on Patient Education	On going	o Two meetings held. o Needs assessment of Patient education materials in progress. o Hospitals have assigned Health Education Coordinators. o An allocation of about $15 000 was given to central hospitals for Health Ed. activities. o Radio Programmes and Spots Developed.		No trained IEC/ persons in Hospitals.	Patient Education strategy to be developed. 2nd meeting is to be held from the 15 - 17th November to develop the strategy.
T.B Study in Midlands	T.B Study conducted		Data Analysis in progress.	-	-	-
Training Health Care Providers in Research Manicaland	Nurses, EHO, ETs Trained in Health System research.					
Conduct rapid assessments in: Dysentery, weaning practices (Mat North) Immunization for Apostolic Faith (Manicaland) Skin Disease (Mash East)	Rapid assessments and media brief conducted to facilitate the development of IEC interventions and materials development.	On going	IEC/interventions are now research based. Materials production is of high quality and target specific.	-	Sharing of research findings still a problem.	-

Conduct focus group discussions.	o F.G Discussions conduct on Eye Care, Water and Sanitation in Mash East. o Media Brief conducted for the Rehabilitation Unit. o FGDs in EPI Manicaland conducted	July - Oct	Church groups attempting to send children for immunization. Materials developed for the programme.	FHP	Apostolic Sector still resistant to EPI messages at times. - Apostolic sector still hostile and ignorant.	Strategy for Church Groups to be developed.
SPECIFIC PROJECTS AND PROGRAMMES						
Develop materials on malaria.	- Video on malaria almost complete. - leaflets on malaria developed at HQ, Mash Central, Mash East and Mat North. - Posters in Malaria, Shona and English developed. - Newspaper articles developed and publicized. - 4 Malaria Bill Boards in Mash East developed.	On going	- Malaria guide for visitors developed. - Malaria video in Midlands almost complete. Film is of good quality.	Disease Control vote and propaganda vote.	Lack of an IEC Officer for disease control.	A defined IEC Programme is needed.

To develop IEC interventions on TB	- Leaflets on TB developed. - TB Study conducted in (Midlands) - TB Exhibition at the Harare Agricultural Show conducted. Radio and TV Spots developed.	August 1995	-	$60 000 Propaganda Vote	As above	
Training of Traditional Healers Mat South and Mash West. Traditional Healers Project (Mat South) Truck Drivers and Commercial Sex workers project.	- Project wounded up - Evaluation Report completed. - Commercial sex worker Project is still ongoing.	August 1995 July 1995 ongoing	Traditional Healers acting as resource persons. 60 T.H.trained and were provided with kits. T.H referring patients to hospitals and clinics. T.H distributing condoms.	W K Kellogg Foundation U.S.55 000		
Design campaigns in Rushinga and Mash East.	To develop an ARI/IEC Programme. To develop leaflets for the campaign	Ongoing	o Proposals submitted. o Specific programmes developed.	G.T.Z supported.		

Infant Feeding Project (Mashonaland East)	To design an intervention project in Infant Feedings and Weaning Practices.		o Project launched to councillors and chiefs and influencials. o Leaflets o Posters developed and evaluation is in process.	FHP GTZ	Lack of Printing facilities in Mash East delayed the production of materials.	
To launch the IEC Nutrition Project in Chivi.	o IEC Materials developed. o Meeting with teachers conducted.	August 1995	550 Community leaders and teachers trainers	August 1995	-	
To exhibit at the Agricultural Show	o All Provinces developed for the show. o Provincial and National exhibits developed.	Ongoing	Communities participating effectively in health projects.	Propaganda Vote	-	Very good project. Traditional Healers now referring their clients to hospital.
To develop IEC materials in MCH/FP and PHC.	Print Materials Eye Care Materials developed STD, Malaria, Water and Sanitation, Infant and Nutrition materials.	Ongoing	Availability of MCH/FP materials in the Mash East province very high.	FHP	Need to design focused IEC campaigns.	
To conduct two bi-annual meetings half yearly.	2 meetings conducted	Ongoing	Improved collaboration between ZNFPC and MOHCW.			

Material distribution	To launch the materials distribution record form.	Ongoing	All Provinces are now launching the new forms.			
Training of Health Workers in IEC.	All Provinces undertook IEC training.		o IEC Core Group activities improved. o Improved - Planning of IEC interventions. o Improved material production.	FHP		
Staff development and post graduate courses.	Two HEOs went to Baltimore a four week course in the U.S 1 HEO went to Bangladesh Two will go to Botswana, 1 HEO to Kenya in November 1995	Sept'95 June'95 November'95	Programme Planning. IEC Strategic Marketing improved.	UNFPA GTZ UNICEF	Staff development funds from FHP not forthcoming.	This area needs strengthening. Funds for post graduate courses under FHP should be explored.

To secure and purchase equipment. Training of School Health Masters	- 3 computers purchased. - OHPs sent to all provinces. - Screens - Generators - Duplicating machines - Inventory conducted. 40 teachers in Mash West Manicaland and Mash East.	Ongoing activity An ongoing activity	Provincial equipment improving.	GTZ FHP GOZ	Districts still complaining about shortage of equipment.	Discussions on further purchases are in progress.
Specific Projects Mat North (Nutrition)		On going	Programme analysis and audience segmentation conducted.	GTZ FHP GOZ	-	-
Mat South to develop a programme for Truck Drivers.	o Research conducted o Project almost complete.		-	-	-	
Nutrition campaign in Mashonaland East	Project completed	August 1995	A lot of participation from leaders	-	-	-

13) 施設維持管理費（日本の援助施設・CIDA援助施設）

日本援助施設　維持管理費

本施設の維持管理に必要な経費は、概算で以下の通りである。
但し、表示の金額は、1995年価格である。

(1) 電　気

a.

負荷名称	容　量	力率	需要率	日使用時間	年使用日数
照明器具	66,900 w	0.9	0.8	8h	365 day
エアコン	37,440 w	0.8	0.8	8h	120
電気ストーブ	56,250 w	1.0	1.0	8h	90
電気レンジ	20,250 w	1.0	0.4	4h	365
ホットプレート	6,750 w	1.0	0.4	4h	365
換気扇	7,780 w	0.8	0.8	8h	365
コンセント	29,550 w	1.0	0.4	4h	365
給湯機	90,000 w	1.0	1.0	4h	365
電子レンジ	6,750 w	1.0	0.4	4h	365

1日使用量　1,399 kwh
年間使用量　383,453 kwh

b. 電気料金

① 基本料金

契約電力の増加　202.5×z$ 7.3/M/kw ＝ z$1,478.25／月
z$ 1,478.25/M×12 ＝ z$17,739.00／年

② 使用料金

1,399 kwh×z$ 0.665/kwh ＝ z$930.34／日
383,453 kwh×z$ 0.665/kwh ＝ z$254,996.25／年
小　計　z$272,735　／年

(2) 発電機(停電頻度　1回／月と想定　容量　75kva)

① 油代　消耗品　(フィルター) 交換費　z$900.00
小　計　z$900　／年

(3) 空調機(フィルター交換、ガス注入1回／年と想定)

① サービス(フィルター交換、部品交換)

z$455×16台 ＝ z$7,280　／年

② ガス注入　　z$45×16 ＝　　z$720 ／年

小計　　z$8,000 ／年

(4) 照明器具(取替頻度　1回／年　人件費含と想定)

① FL40W：　　Z$18×1,510本×1回／年 ＝　　z$27,180 ／年

② FL20W：　　Z$11×420本×1回／年 ＝　　z$4,620 ／年

③ 白熱灯：　　Z$2×45本×1回／年 ＝　　z$90 ／年

小計　　z$31,890 ／年

(5) 水道料金

① 使用水量　1日平均使用水量……250　l／人

1日平均使用時間……8　時間

職員数	180／3＝60名	15,000 l	
入院患者	100名	25,000 l	
付添・外来	150名	37,500 l	
	計	77,500 l	＝ 77.5kl／日

② 水道料金　使用量15kl以内……z$0,665／kl

使用量15kl以上……z$1,440／kl

77.5kl／日×30×12 ＝　　27,900kl／年

小計　　z$1,440／kl×27,900kl／年 ＝　　z$40,176 ／年

(6) 電話料金

① 市内電話　　z$0.125／3min×900／mon×12 ＝　　z$1,350 ／年

② 市外電話　　z$2.340／3min×300／mon×12 ＝　　z$8,424 ／年

小計　　z$9,774 ／年

(7) 医療ガス

ガスシリンダー費用は含まず、ガス入れ替えのみ

① 酸素ガス　　z$45×40本／6日×365日 ＝　　z$109,500 ／年

② 笑気ガス　　z$648×4本／6日×365日 ＝　　z$157,680 ／年

小計　　z$267,180 ／年

(8) 建物修理(硝子取替、ペンキ補修、屋根補修、タイル補修等)

小計　職人手間(材料費含) z$50／人・日×90人工 ＝　　z$4,500 ／年

(9) ガソリン、オイル(車両)

① ガソリン	1,200 l ／台・月×z$1.70×12	=	z$24,480	／年
② オイル	z$24,480×20%	=	z$4,896	／年
	小計		z$29,376	／年

(10) 機材修理(修理、部品交換　等)

小計	職人手間(部品代無) z$80／人・日×150人工	=	z$12,000	／年

(11) 事務用品・雑貨(文具・記録紙・事務機用消耗費　等)

		小計	z$36,000	／年

(12) 医療機材維持管理

医療機械維持管理費は、一般的に機材費に対して、サービス代(30%)スペアパーツ代(20%)消耗品代(50%)の割合である。本計画機材費1.5億円として以下の費用を見込む。

初年度	(消耗品のみ)	z$1,363,640	／年
2年度	(スペアパーツを除く)	z$2,272,728	／年
3年度以後		z$3,272,728	／年

CIDA援助施設維持管理費

本施設に先行して完成するCIDAの施設の維持管理に必要な経費は、概算で以下の通りである。
但し、詳細が不明のため推定による概算金額である。

(1) 電　気

a.

負荷名称	容　量	力率	需要率	日使用時間	年使用日数
照明器具	59,300 w	0.9	0.8	8h	365 day
エアコン	15,500 w	0.8	0.8	8h	120
電気ストーブ	49,800 w	1.0	1.0	8h	90
ホットプレート	3,250 w	1.0	0.4	4h	365
換気扇	6,960 w	0.8	0.8	8h	365
コンセント	26,200 w	1.0	0.4	4h	365
給湯機	60,000 w	1.0	1.0	4h	365

1日使用量　1,142 kwh
年間使用量　287,857 kwh

b. 電気料金

① 基本料金

契約電力の増加	179.5×z$7.3／M／kw	＝	z$1,310.35／年
	z$1,310.25／M×12	＝	z$15,724.00／年

② 使用料金

1,142kwh×z$0.665／kwh	＝	z$759.43／年
287,857kwh×z$0.665／kwh	＝	z$191,424.90／年
小計		z$207,148.90／年

(2) 発電機(停電頻度　1回／月と想定　容量　75kva)

① 油代　消耗品　(フィルター) 交換費		z$900.00
小計		z$900　／年

(3) 空調機(フィルター交換、ガス注入1回／年と想定)

① サービス(フィルター交換、部品交換)			
	z$455×4台	＝	z$1,820　／年
② ガス注入	z$45×4	＝	z$220　／年
	小計		z$2,040　／年

(4) 照明器具(取替頻度　1回／年　人件費含と想定)

① FL40W	Z$18×1.330本×1回／年	＝	z$23,940　／年

② FL20W：	Z$11×370本×1回／年	＝	z$4,070 ／年
③ 白熱灯：	Z$2×40本×1回／年	＝	z$80 ／年
	小計		z$28,090 ／年

(5) 水道料金

① 使用水量　1日平均使用水量……250　l／人

1日平均使用時間……8　時間

職員数	150／3＝50名	12,500 l
入院患者	20名	5,000 l
付添・外来	50名	12,500 l
計		30,000 l＝30.0kl／日

② 水道料金　使用量15kl以内……z$0,665／kl

使用量15kl以上……z$1,440／kl

	30.0kl／日×30×12	＝	10,800kl／年
小計	z$1,440／kl×10,800kl／年	＝	z$15,552 ／年

(6) 電話料金

① 市内電話	z$0.125／3min×1,800／mon×12	＝	z$2,700 ／年
② 市外電話	z$2.340／3min×600／mon×12	＝	z$16,848 ／年
	小計		z$19,548 ／年

(7) 医療ガス

ガスシリンダー費用は含まず、ガス入れ替えのみ

① 酸素ガス	z$45×35本／6日×365日	＝	z$95,810 ／年
② 笑気ガス	z$648×3本／6日×365日	＝	z$118,260 ／年
	小計		z$214,070 ／年

(8) 建物修理(硝子取替、ペンキ補修、屋根補修、タイル補修等)

小計　職人手間(材料費含) z$50／人・日×95人工 ＝ z$4,750 ／年

(9) ガソリン、オイル(車両)

① ガソリン	1,200 l／台・月×z$1.70×12	＝	z$24,480 ／年
② オイル	z$24,480×20%	＝	z$4,896 ／年
	小計		z$29,376 ／年

(10) 機材修理(修理、部品交換　等)

小計　職人手間(部品代無) z$80／人・日×110人工 ＝ z$8,800 ／年

(11) 事務用品・雑貨(文具・記録紙・事務機用消耗費　等)

小計　　z$32,000　／年

(12) 医療機材維持管理費

医療機材維持管理費は、一般的に機材費に対して、サービス代(30% スペアパーツ代(20% 消耗品代(50% の割合である。CIDA援助機材量は、現地調査時の聞き取りによると、500万z$であった。したがって250万z$に対して以下の費用を見込む。

初年度(消耗品のみ)	z$2,500,000
2年度	z$5,000,000
3年度以後	z$6,000,000

6. 参考資料リスト

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7) Trader's Guide to Sals Tax
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ハラレ中央病院運営マニュアル

10) Harare Central Hospital Bed Usage Statistics by Wards Grouped in Specialities.
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