

No.

ケニア国保健医療協力
事後調査団報告書

昭和61年2月

国際協力事業団
医療協力部

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ケニア国保健医療協力
事後調査団報告書

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昭和61年2月

国際協力事業団
医療協力部

国際協力事業団	
受入 月日 '86. 5. 30	407
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序

開発途上諸国に対する我が国の保健医療協力プロジェクトの数は年々増加しており、プロジェクトの運営方法の改善を通じての協力効果のより一層の充実は以前にも増して期待されているところである。

当事業団は、かかる課題に対応するため、プロジェクト実施中は、計画打合せ巡回指導調査等を、また終了間際には、エバリュエーション調査を実施しているが、協力終了プロジェクトについても、その中から特定の案件を選択し、数年を経たのち、当該プロジェクト実施によって移転された技術の維持状況及び機材の管理状況等につき調査、分析する「事後調査」を行い、その結果を、今後の効果的なプロジェクト方式技術協力に反映させることとしている。

保健医療分野における事後調査は、すでにタイ、インドネシアに於いて実施され、あらためて技術移転の必要性のあるものについては専門家派遣と機材供与を組み合わせたアフターケア協力がなされ成果を挙げており、又その調査結果に基づく提言等は漸次新規プロジェクトに反映されつつある。

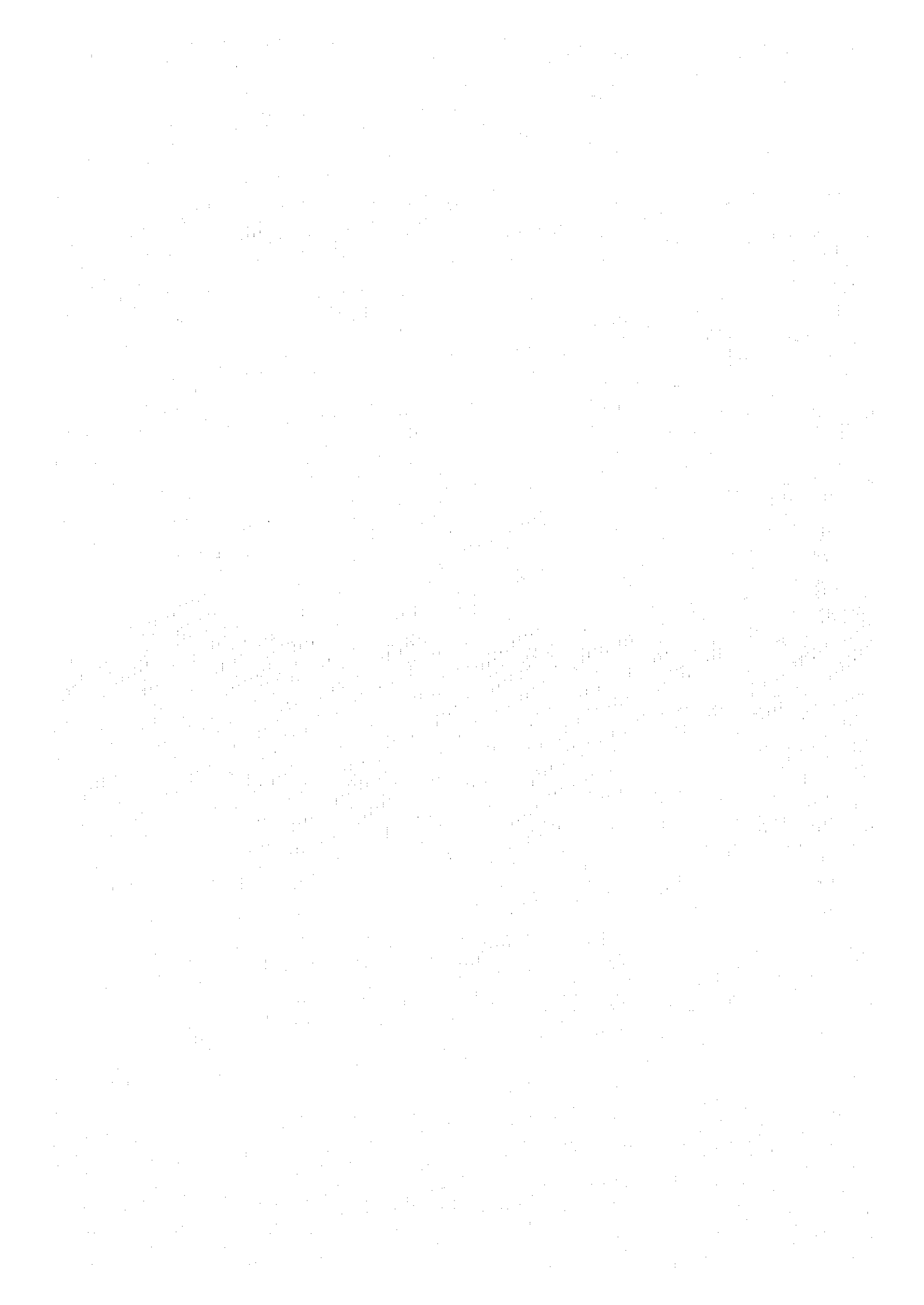
今次事後調査は上記の観点から過去に当事業団が実施したケアにおける病院のプロジェクトについて実施したものであり、本報告書はその結果のとりまとめである。

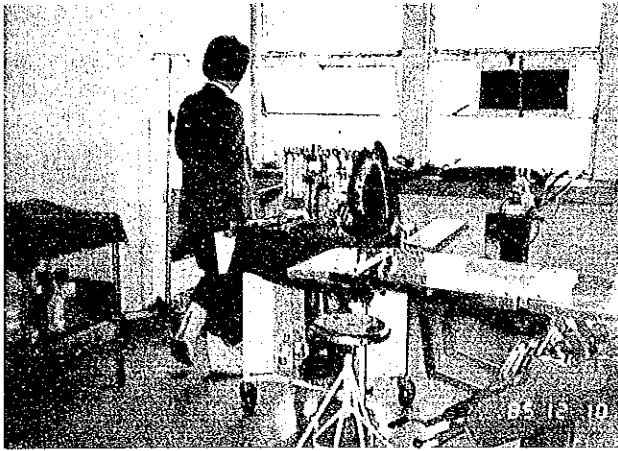
最後に、調査団員各位並びに調査団派遣にご協力をいただいた関係各機関に厚くお礼申し上げる次第である。

昭和61年2月

国際協力事業団

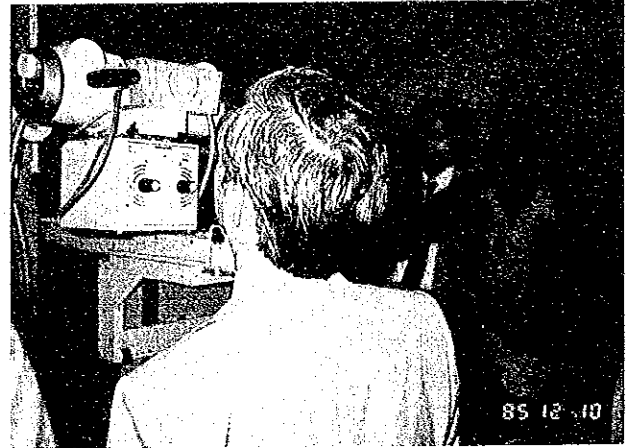
理事 末 永 昌 介



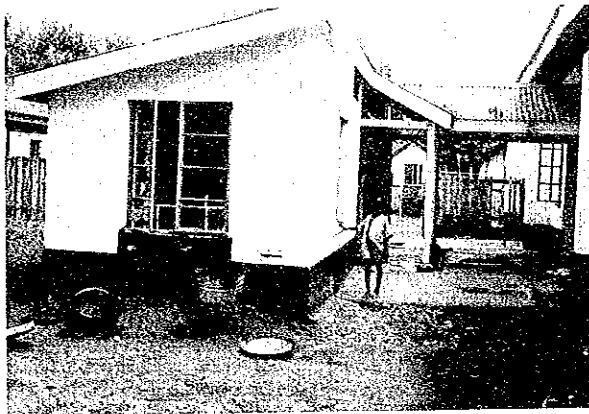


手術場

《エンプ病院》

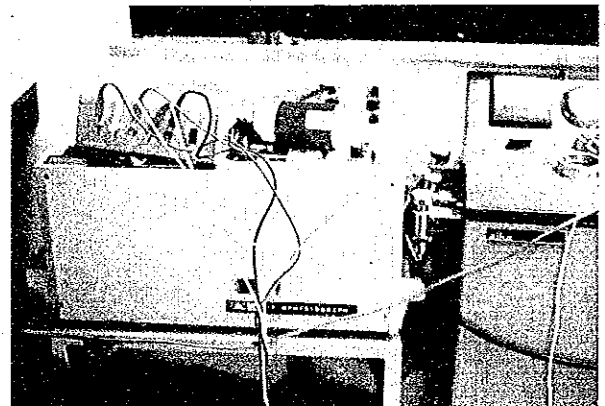


作動中の X 線撮影器



《ケニアック病院》

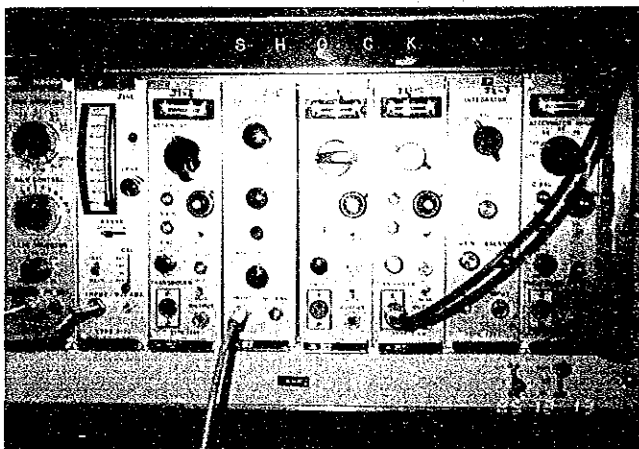
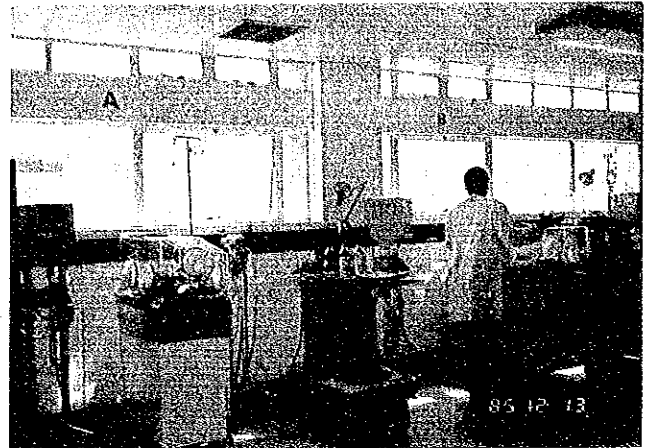
三栄測器製 Biophysigraph
111-A
(041302)
パーツ欠損のため放置
されていた。



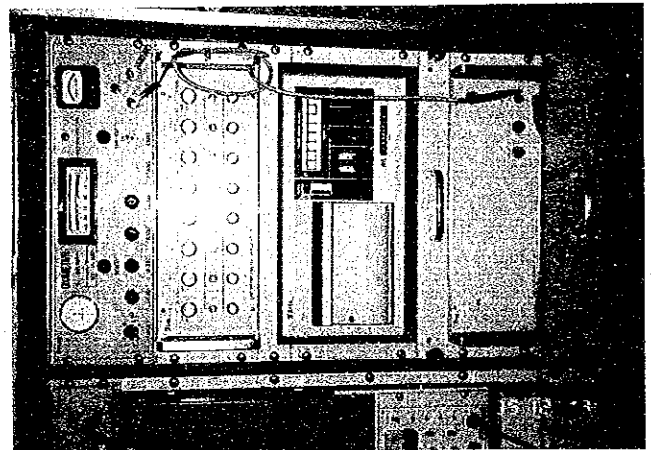


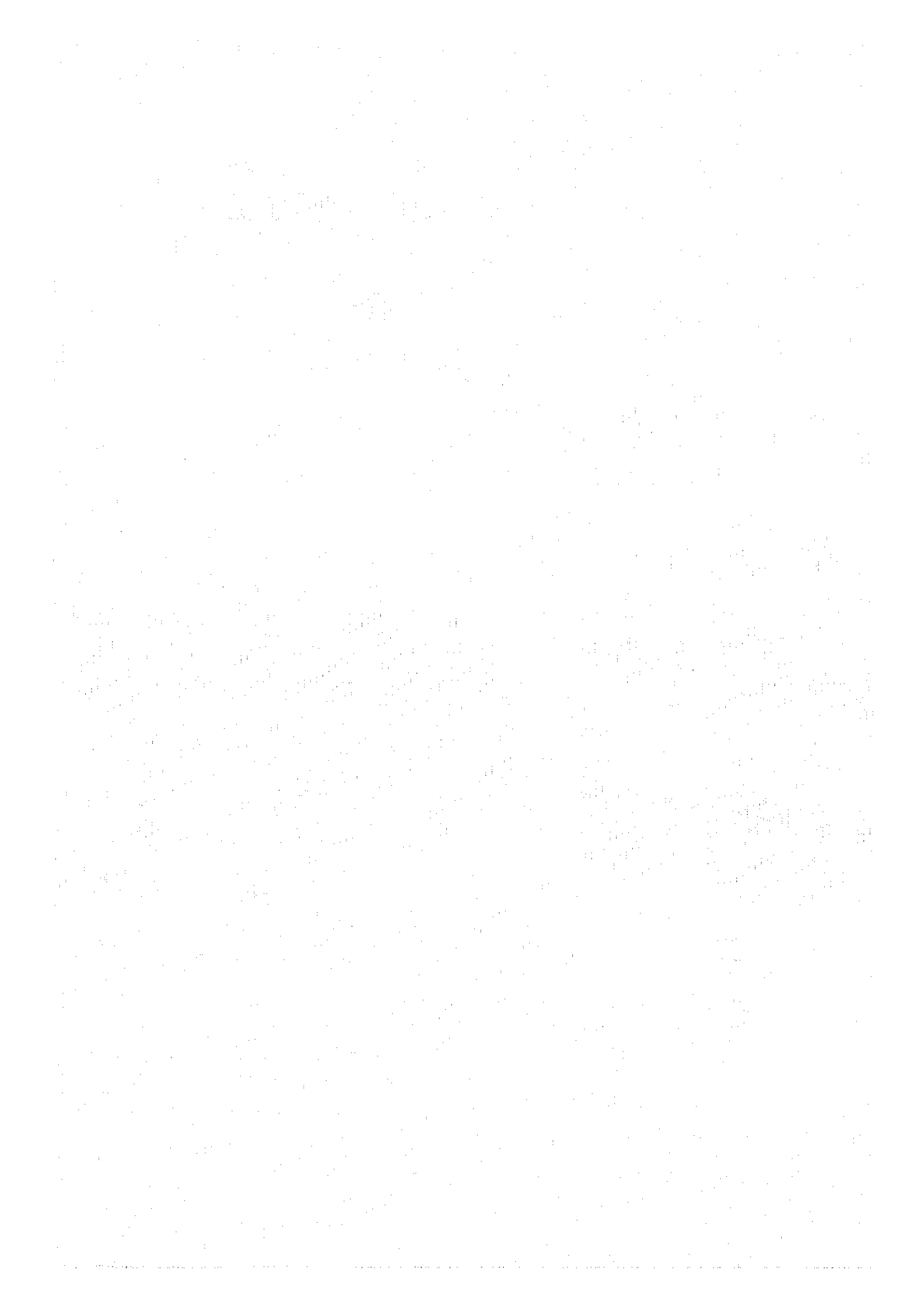
英国が建設した広々としたICUの中で日本から供与した三菱測器製ECCモニターは7台のみが作動していた。他は故障、パーツ不足で使用されずにいた。

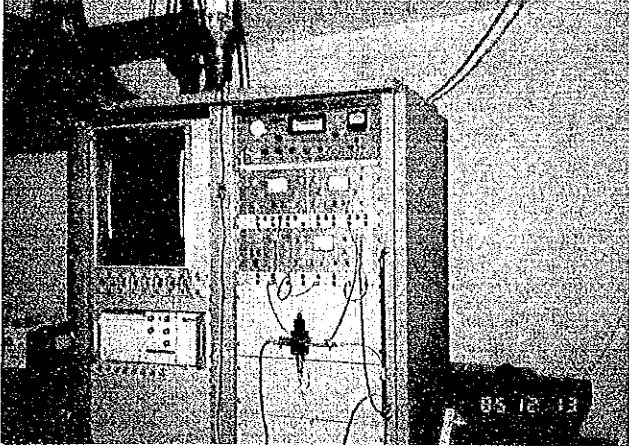
英国製の建築は広々としている。内部の医療器材は日本製だが殆んど故障していた。



故障中のICU Shock Monitor

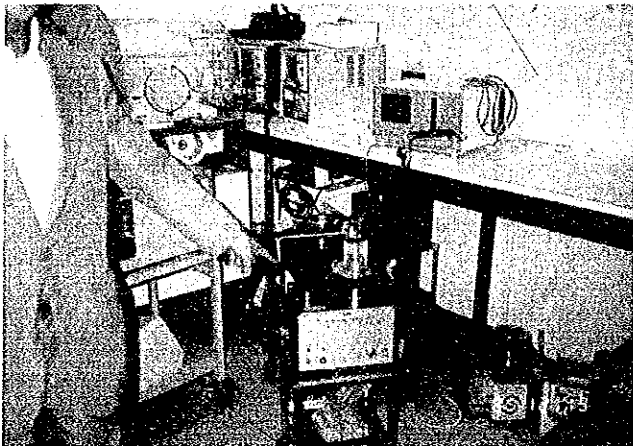
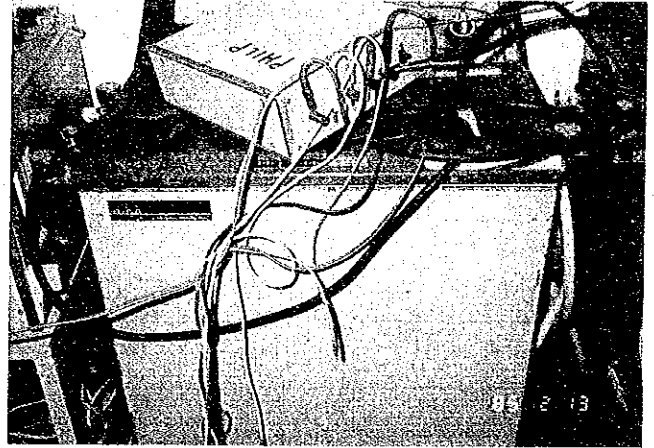






故障中の ICU Shock Monitor

ICUのAika製レスピ
レーター全部故障



ICUのネブライザー
この種の物が全部故障

使用中の循研製
人工心肺



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1. 調査団の構成

団長（総括）

曲直部 壽 夫
 国立循環器病センター総長

団 員

原 耕 平
 長崎大学医学部教授

大 西 健 二
 大阪府立病院医長

井 原 勝 彦
 国立呉病院医長

中 尾 信 一
 厚生省大臣官房国際課係長

船 坂 浩 司
 国際協力事業団医療協力課

2. 調査日程

月 日	曜日	内 容
12. 5	木	21:30 KL868 Lv. 成田 `アンカレッジ経由
6	金	06:10 Ar. アムステルダム SONESTA HOTEL 泊
7	土	11:05 KL565 Lv. アムステルダム 21:15 Ar. ナイロビ 中野一等書記官, 高橋所長, 下村所員, 谷中KEMRI調整員, 木村KEMRI専門家 HOTEL INTER-CONTINENTAL 泊

月 日	曜日	内 容
8	日	08:30 木村, 野田専門家と打合せ
9	月	09:00 JICAナイロビ事務所打合せ 高橋所長, 下村所員
		11:00 日本大使館村上大使表敬 鈴木公使, 中野一等書記官, 高橋所長, 下村所員
		12:30 JICA主催昼食会(赤坂) 中野一等書記官, 高橋所長, 下村所員
		15:00 保健省表敬 Dr. OTETE, Director, Health Service Dept., 下村所員
		19:30 夕食会(大使公邸) 村上大使, 戸出医務官, 中野一等書記官, DR. 蛭見(ILRAD), 木村専門家, 高橋所長
10	火	10:30 ジョモ・ケニアツタ農工大視察
		11:00 EMBU病院 中野一等書記官, 高橋所長, 下村所員
		19:30 調査団主催夕食会(Mt. KENYA SAFARI CLUB)
11	水	11:00 NAKURU病院 鈴木公使, 下村所員
12	木	独立記念日
13	金	09:00 KENYATTA病院 下村所員
		14:00 ケニア中央医学研究所(KEMRI) Prof. MUGAMBI, Director KEMRI, Mr. NGUMO, 古瀬専門家, 木村専門家, 宇賀専門家, 高丸専門家, 谷中調整員, 下村所員
		16:30 保健省 Dr. OTETE, 下村所員
		17:30 JICAナイロビ事務所 高橋所長, 下村所員
14	土	00:30 曲直部団長帰国 BA054 ロンドン経由

月 日	曜日	内 容
15	日	01:35 KL566 Lv. ナイロビ 08:05 Ar. アムステルダム 11:00 BA407 Lv. " 11:00 Ar. ロンドン POST HOUSE HOTEL泊
16	月	12:10 BA005 Lv. ロンドン アンカレッジ経由
17	火	14:45 Ar. 成田

関係者一覧

△日本大使館

村山和夫 在ケニア日本国大使館特命全権大使
鈴木忠公 公使
戸出二郎 参事官兼医務官
中野修 一等書記官

△ILRAD

蛭見 ILRAD国際動物疾病調査研究所 (International Laboratory for Research on Animal Diseases)

△KEMRI

古瀬浩介 ケニア中央医学研究所 細菌学専門家
木村英作 " 寄生虫学専門家
宇賀昭二 " 寄生虫学専門家
高丸宏 " ウィルス学専門家
谷中改 " 業務調整員

△JICAナイロビ事務所

高橋昭所 長
下村則夫 所 員

△Embu病院

Mr. Peter Nbururi Hospital Secretary
Mr. K.W. Muturi Radiographer IC
Mrs. G.W. Njerv Nursing Officer IC
Mr. A.F. Miriti Ministry of Health Headquarters
Mr. G.W.S. Odongo Ministry of Health Embu
Mr. Fredrick S.N. Kiula Plaster Technician

△ Nakuru 病院

Dr. A Obwanaa

Provincial Medical Office Rift Valley

Dr. L.K. Kiptui

Medical Sup.

△ Kenyatta 病院

Dr. H.O. Aceso

Chairman, KNH Heart Unit

Dr. A.K.I. Kisia

Chief Specialist Anaesthetist I/C

Dr. P.A. Odjambo

Thoracic & Cardiovascular Surgeon, KNH &
Senior Lecturer, Univ. of Nairobi, Dept. of
Surgery

Mrs. M.M. Mati

Matron incharge KNH.

Dr. W. Lore

Senior Lecturer, Univ. of Nairobi
Dept. of Medicine & Consultant Cardiologist,
KNH.

Mr. J. Bodo

Ag Director, KNH

3. 調査団派遣の経緯

国際協力事業団が現在、保健医療協力分野で実施しているプロジェクトは30数プロジェクトを数えるが、この事業が真に相手国側のニーズに合致したものであるかどうかを種々の観点から協力の成果、現実の問題点等を調査するために協力が終了したプロジェクトを横断的に再評価する目的で3年前から「事後調査」という名の調査が実施されることとなり、既にタイ国、インドネシア国で実施されたプロジェクトに対し、事後調査団を派遣した。その調査結果に基づいてアフターケア協力調査団を派遣し協力終了したプロジェクト現場で、現在最も必要とし入手が困難な機材を供与することにより、多少なりとも活動の活性が計られることを目的として、それなりの効果を上げている。

昭和60年度は、ケニア国が本事業の対象国とされ同国に於て過去協力したケニアツタ病院、エンブ病院及びナクル病院の3病院がその調査対象プロジェクトとされたものである。

エンブ病院については、昭和42年から48年の間、大阪大学医学部の協力を得た。ケニアツタ病院については、昭和45年から53年まで同じく大阪大学医学部の協力を得た。又、ナクル病院については昭和41年から50年までの間、長崎大学医学部の協力を得てプロジェクト協力が実施されてきた。(別紙概要参照)

今般、曲直部壽夫国立循環器病センター総長を団長とする調査団を昭和60年12月5日から12月17日までの間、ケニア国に派遣したものである。

総 括 曲直部 壽 夫

今回の調査の対象となったケニア国のエンブ病院、ナクル病院、ケニアツタ病院については夫々、井原、原、大西団員が主として調査し、その報告書は別紙に纏めた通りである。

また、ケニア側保健省DirectorであるMr.Oteteとの面談内容については別紙の最終頁に要約した。

以下、総括の要点のみを記す。

1. 3病院のうち、機材供与を2病院とするならばエンブ病院とケニアツタ病院を対象としてナクル病院は割愛する。
2. ナクル病院は、既に、ケニア政府より日本製の超音波診断機器があてがわれているが、専門家がおらないので使用されていない。従って、ケニア側よりの専門家を受入れて日本で研修を計ることが妥当と考える。

3. エンブ病院，ケニアッタ病院への機器供与については技術者の派遣を行って据付け，並びに，以前に提供した機器のうち修理可能なものの検討をすべきと考える。
4. 若し修理不能であれば，全機材を廃棄させるのが望ましい。徒らに日本製機器の残骸の展示の如きは好ましくない。
5. 供与機器が決定されれば，可及的早く現地に到着するよう計られたい。
6. 慣例的に実施調査チームの如きを次に派遣することは，この際，この件に関しては不必要と考える。
7. この件に関しては，在ナイロビJICA高橋所長も全く同意見であった。
8. 10年の歳月はケニア国の発展の跡は著しいものがあるが，医療協力そのものについては，間隔が空き過ぎた感あり。この点，医療協力のやり方についても今後反省と検討すべき事項である。
9. 尚，今回の調査について，本部と現地との間の連絡不十分な点，今後大いに改めるべきと考える。
10. 今回の案件の今後の予定については決定次第，出来るだけ早くケニア側に連絡して，ケニア側の当事者に知らしめておくことは，今後わが国とケニア側の関係の維持に極めて重要なことと考える。

以 上

1) エンブ病院

(1) 病院概要

ベッド数	310床(このうち144床は現大統領Moi氏のよびかけるNyayo記念病棟として最近できたものである。Nyayoとは足跡のことであり，前ケニアッタ大統領の偉大な足跡に従って皆で力を合わせていこうという呼び掛けである。)
外来患者数	700～800人/日
手術件数	200/月(11月は122例)
医師総数	8人(院長1人，歯科医師2人を含む)
看護婦	200人(Staff Nrs. + Enrolled Nrs.)
医療助手	20人(Medical AssistantでありMedical Training Center出身であり外来患者の取扱い，麻酔等を担当している。)
守備範囲	70万人(Embu District HospitalとしてEmbu Districtの人口30万人+周辺人口40万人とで合計70万人の人口をcoverする。)

(2) 日本からの過去の医療援助に対する記憶

院長は2年前に就任しており1967～1973年の日本人チームの活躍を余り知らない。総婦長は1972年に就任しており日本人医師(Dr. 玉城晴孝, Dr. 村尾耕三)を記憶している。また, Medical Assistance のNjagi は多くの日本人医師(Dr. 吉永徹夫, Dr. 池田宏也, Dr. 森功, Dr. 玉城晴孝, etc.) を記憶しており懐かしかった。さらに日本人が来ているときいて2人の看護婦がかけよってきて懐かしかった。

(3) 日本からの医療機器の状態

1. レントゲン透視(島津製作所) 1
2. 自現機(フジ) 1
3. ポータブルレントゲン撮影機(島津製作所) 1
4. 手術場器具
手術台 1 (故障, 非常に不自由である)
シャークステン(大型) 1
オートクレイブ 1 (故障, 使用不能)
シンメル(大型) 1

(4) 評価

Embu District Hospital はProvincial Hospital ではないがEmbu 地域での医療活動では重要な役割を担っている。病棟の拡張がなされているのとは対称的に手術室の諸施設の荒廃が目立つ。

Embu 病院への援助としては,

1. 手術台
2. 无影灯 ※ 据付技師必要
3. 麻酔器
4. オートクレイブ
5. 手術用電気ドリル(たった1つしかなく今までによく活躍してきた日本製: メラ社製のものが故障しており外科医が途方に暮れていた。価格的には安価なものであるから是非とも新品を補充したい。)

2) ナグール病院

(1) 病院概要

ベッド数 500床+55床(Baby)

Nyayo 記念としてベッドもかなり増加している。

入院患者は平均800人であり1ベッドを2人で共用している。

外来患者数	1 2 0 0 人/日
手術件数	
医師総数	1 6 人(このうち Specialist は 1 5 人)
インターン	1 4 人
看護婦	5 1 6 人 (Registered Nrs. 1 9 6 人) (Enrolled Nrs. 3 2 0 人)
医療助手	2 4 人
守備範囲	7 0 0 万人 (Nakuru Provincial Hospital は Provincial Hospital であり、この Province には 1 3 の District があり各 District には、病院、GP が 1 ~ 2 存在するが Specialist が居るのはこの病院だけである。7 0 0 万人はケニア国の人口の約 1 / 3 をしめる。)

(2) 日本からの過去の医療援助に対する記憶

現院長は半年前に就任しており何も知らない。しかし前院長は 1 9 7 4 ~ 1 9 8 5 年まで 1 0 年間勤務しており日本人の Dr. および Nrs. のことをよく記憶していた。

(3) 日本からの医療機器の状態

1. レントゲン透視撮影器 (日立製)

1 0 年間くらい活躍したのち故障、現在は使用されていない。

新しいレントゲン棟が建設されており古いものはビル丸ごと放置されている。

2. 検査室の遠心器、かくはん器、顕微鏡、Incubator 等は尚活躍中。

3. かつて日本人医師チームが活躍していた Laboratory では室内の検査機器はほとんどすべて日本製であり現在も健在活躍中であつた。

(4) 評 価

前院長が病院の拡大発展に非常に熱心であつたからか、または現大統領 Moi 氏がこの地域の出身であるからかいずれにせよこの 6 年間におけるナクル病院の増築は相当のものであり、ケニア政府の力の入れ方が計りしれる。しかし反面人材の不足は著しく新築レントゲン棟の 6 部屋のうち、うまく利用されているのはわずか 2 ~ 3 部屋であり、2 部屋はイタリア製の新しいレントゲン機械が設置もされず 3 年以上も放置されていた。また日本製超音波断層心エコー機 (Aloka 社製) も梱包のまま 2 年以上放置されている。

雄弁な前院長は“我々は更に最新の医療機器がほしい。また、同時にこれら最新の医療機器の Maintenance の援助もほしい”と訴える。しかしながら彼のいう Maintenance とは機械の据え付け、故障の修復のみならず、いかにしてその新しい医療機器を使用するかという指導までも含まれている。

即ち、最新鋭の医療機器を投入しその設置、故障の修復、更にその使用法まで教育する

指導医まで援助してほしいという極めて虫のいい要求であるが、過去6年間にケニア政府が多額の投資をした結果、多数の高価な機材が利用もされずに放置されている現実をみてきた前院長の切実な願いも理解できない訳ではない。

ナクール病院では機材はむしろOversupplyとなっており、人材不足が目立つ。

ナクール病院への援助は、

1. 気 管 支 鏡
2. 胃 カ メ ラ
3. 腹 腔 鏡

これらは以前日本人医師チームにより指導されていたものであるが現在機材が行方不明で困っている。

4. 日本製の超音波断層心エコー機（Aloka社製）が梱包のまま2年間も放置されているのはいかにも気になる。日本のメーカーから技術者を派遣して早く利用できるようにしたい。更にCounterpartを日本に受け入れて実際にこれら超音波断層心エコー機が有効に利用できるようにしたいものである。

3) ケニアアッタ病院

(1) 病 院 概 要

ケニア唯一の国立病院であり、また大学病院である。日本人医療チームはそのうちのICUの開設と心臓手術のスタートに対して医療協力してきた。

ベッド数 2001床（10年前は600床であった）
ICUベッド数24床中11床のみopenしている。

外来患者

手術件数

医師総数 600人

看護婦数

医 学 生 毎年100人卒業

守 備 範 囲 Nairobiの首都圏人口は100万人

ケニア最高の医療施設であり国内のみならずアフリカの近隣諸国からも利用されている。

(2) 日本からの過去の医療援助に対する記憶

院長、総婦長は最近の就任であり日本人医療チームについては直接知らない。しかしICUのChiefである麻酔医Dr. Kisiaは10年前にDr. 大西健二と共にICU設立の為に尽くしたDr. であり、ICUの婦長Matlon Mkunguは同様に10年前一緒に仕事し日本にも研修に来た経験を持っている。更に現心臓外科ChiefのDr. Odjamboは10年前

Dr. 大西健二の指導を受けたナイロビ大学卒業1回生である。またCardiologistのChiefのDr. LoreはDr.藤田毅と共に働き1980年には学会参加の為日本に来た経験のある医師である。しかもICUの検査室はDr.大西健二と働き日本にも研修にきたMr. Makatiaである。まさにICUは親日派の医師と看護婦で運営されている。

(3) 日本からの医療機器の状態

当初はICU24床開設予定で建設されている。

- | | | |
|----------------------------------|-------|-------------------|
| 1. Central Monitor (三栄測器社製) 9人用 | ..... | 2 (2 故障, 使用不能) |
| Central Monitor (三栄測器社製) 6人用 | ..... | 1 (故障, 使用不能) |
| 2. Bed Side Monitor (三栄測器社製) 1人用 | ..... | 24 (17 故障, 使用不能) |
| | | (7 かりうじて使用可能?) |
| 3. Shock Monitor | ..... | 2 (2 故障, 使用不能) |
| 4. Respirator (Aika 社製) | ..... | 3 (3 故障, 使用不能) |
| 5. 冷 蔵 庫 | ..... | 2 (1 故障, 使用不能) |
| 6. 製 氷 器 | ..... | 1 (1 故障, 使用不能) |
| 7. 血液ガス分析装置 | ..... | 1 (1 故障, 使用不能) |
| 8. 電解質(カリウム)測定器 | ..... | 1 (1 かりうじて使用可能?) |
| 9. ヘモグロビン測定器 | ..... | 1 (1 使用可能) |
| 10. 人 工 心 肺 | ..... | 1 (1 使用可能) |
| 11. 低温高温環流ポンプ | ..... | 1 (1 使用可能) |
| 12. 保育器(クベース) | ..... | 9 (8 故障, 使用不能) |
| | | (1 かりうじて使用可能?) |
| 13. 脳波計(三栄測器社製) | ..... | 1 (故 障) |

(4) 評 価

ケニアアッタ病院も他施設同様に増設がなされベッド数は10年間に600床から2001床へと飛躍的に増加している。しかしながら、事ICUに関して述べれば過去10年間何の医療機器も新規投与はされていないで荒れるにまかせられている。24台のBed Side Monitorは何度か分解され故障した機器からはPartsをとり、かりうじて7つの心電図モニターが使用中であったが、それとお粗末な物であった。かつて10年前までは日本でも自慢できる程の医療機器が活躍していたこのICUも、今となっては広いスペースの3/4はMade in Japanの医療機器残骸のMusiumと化している。ただひたすらに親日派の辛抱強いチームがまさに根性のみでもってこのICUを現在まで維持してくれたとしか思えなかった。彼らはただ“ We are still going. But the ICU must be overhollid now ”と訴えていた。

10年前Dr.大西健二により華やかにスタートした心臓手術も今年はやっと4例できたにすぎない。

何の援助もなされないならばすぐにでも閉鎖になりうる危険な状態である。日本からの早急な援助が必要である。Kenyatta病院への援助としては、

1. ポリコーダー(圧: 3 Channel, ECG: 1 Channel, 計4 Channel) …… 1台
2. 2チャンネルモニター …………… 3台
3. ハートモニター(ECGのみ) …………… 3台

※ 据付技師必要

4) Ministry of Health の意見

Ministry of Health の Dr. Otete には2度面会して討論した。

第1回目の面会ではDr. Otete は

1. エンブ, ナクール, ケニアッタのICUにおける日本からの医療援助について述べるなら, 先ず, あまりにも早く援助を中止してしまったことである。
2. 10年以上を経過してしまった今になって, 当時日本から援助した施設, 機材について, どうなっているか調査することは至難の業である。
3. 日本からの機材のMaintenance については個々の小さな部品, ネジ, ナットに至るまでケニアではどうにもならないで困っている。
4. 今後の日本からの医療援助に何を期待すると言われても, 我々はただ空っぽの両手を拡げて待っているのみである。(援助の規模も内容がわからないので, 質問の仕方に無理があったか?)
5. ケニアの医療の将来計画としてはナイロビの医療レベルはまあまあである。今後は地方の医療レベルの向上に力を入れる方針である。

Kisumu, Mombasa あたりにも医科大学を建設したい。

Nakuru にも ICU を建設したい。

Nairobi の医療レベルをケニアの全国土に拡げるのが当面の目標である。

6. 日本はエンブ, ナクール, ケニアッタ病院と言っているけれど, 何故これら3施設にこだわるのか? ケニアは広い, 西はKisumu から南はMombasa までである。もつともつと援助してほしい。

と述べていた。

第2回目の面会ではDr. Otete は

1. エンブ病院は機材の不足で困っている。
2. ナクール病院は機材が Oversupply となっている。
3. ケニアッタ病院のICUは風前の灯であり, 半年以内になんらかの処置が必要である。

ということ等よく把握していた。

日本からの医療機器援助についての上記の3つの施設のうち2つを選択しなければならないという仮定のもとに、施設の優先順位について彼の意向を質問してみると第1位がエンブ病院、第2位がケニアツタ病院のICUという回答がえられている。

さらに、Mr. Otete はケニアの病院と日本の病院とで姉妹都市のような関係を持って将来ずっと永い永い間の物資、人材の協力は得られないだろうかと提案していた。一瞬これは永久的援助関係であり、姉妹というよりもむしろ親子とも言うべき一方的な虫のいい話であると思った。しかし、グラスゴーやモントリオールからは実際にそういうパターンの援助がendlessに行われて効を奏していると彼は真面目に訴えている。我々日本人の発展途上国に対する考え方は欧米先進国に比すればまだまだ幼稚なのかもしれない。

5) 医 療 事 情

○ 医 療 機 関

ケニア国は、1特別区(Nairobi)7州(Central, Coast, Eastern, North-Eastern, Nyanza, Rift Valley, Western)の行政区域に分れている。診療体系は、唯一の国立総合病院でありナイロビ大学医学部の教育病院であるKenyatta National Hospitalを中心として、各州に1つのProvincial Hospitalが設けられ、うち数ヶ所にはParamedical staffsの養成教育機関が附設されている。このProvincial Hospitalが設けられていないDistrictsには、各地区ごとにDistricts Hospitalが設けられ、少数だがSub Districts Hospitalが設けられている。

以上の国公立病院の他にNairobi Hospital, Aga-Khan Hospital等の私立病院及び個人開業医療機関があるが医療保険制度が完備されていない同国においては医療費が高価になるため一般国民には利用が困難なようである。

なお、医療費は国公立病院の場合にあっては、退院時に20シリングを支払うだけのことであった。(外来診療は不明)

又、宗教団体によって設立された医療施設が約350ほどあり、ケニアの地方における医療の中心をなしているとのことである。病院数においてはケニア全医療機関の約20%を占めているが、日本と同様、病院運営が困難になりつつある。

(参考) 1982年における保健施設数

	病 院	ヘルスセンター	診 療 所 (準ヘルスセンター)	計	%
中 央 政 府	84	233	802	1,109	66.6
地 方 自 治	2	2	19	23	1.4
宗 教 団 体	84	38	232	354	21.3
私 立	48	1	130	179	10.7
計	218	264	1,183	1,665	100.0

独立時(1972年)病院数は148で内、政府管理56、残りは宗教団体の所有であったが、上図表のように拡充されてきている。

診療所も1963年には少数であったが、1982年には1,183に達し、ヘルスセンターの完成により地域医療が確立されてきている。

。 主なる保健医療政策

1. 地域保健の質的向上

一部の地域では、予算面での制約により保健医療面での遅れが目立っているが、今後、地方の医療施設の充実の為に予算を重点的に配分する必要がある。これによって、地域レベルでの直接医療を行うことができる。

また、医療施設の充実化と併せて疾病予防対策の促進を図らなければならない。結果として財政面で有効な方法となるであろう。その為には、地方の保健政策に対する支出の面での見直しが必要である。

2. 母子保健と家族計画

多産と母親及び幼児の疾病・死亡に対する施策は、一部地域では重要な課題である。母子保健・家族計画は過去においてはわずかな影響力でしかなかったが、現在は強化され、広がりつつあるが、今後とも充実する必要がある。

3. 伝染病対策(病原菌媒介昆虫による疾病を含む。)

伝染病対策の対象疾病は次のものとする。

コレラ、ジフテリア、赤痢、インフルエンザ、らい、はしか、脳膜炎、百日ぜき、狂犬病、破傷風、トラコーマ、炭疽病

病原菌媒介昆虫による疾病の研究は、ケニア中央医学研究所(KEMRI)で進められる。

4. 生活衛生対策

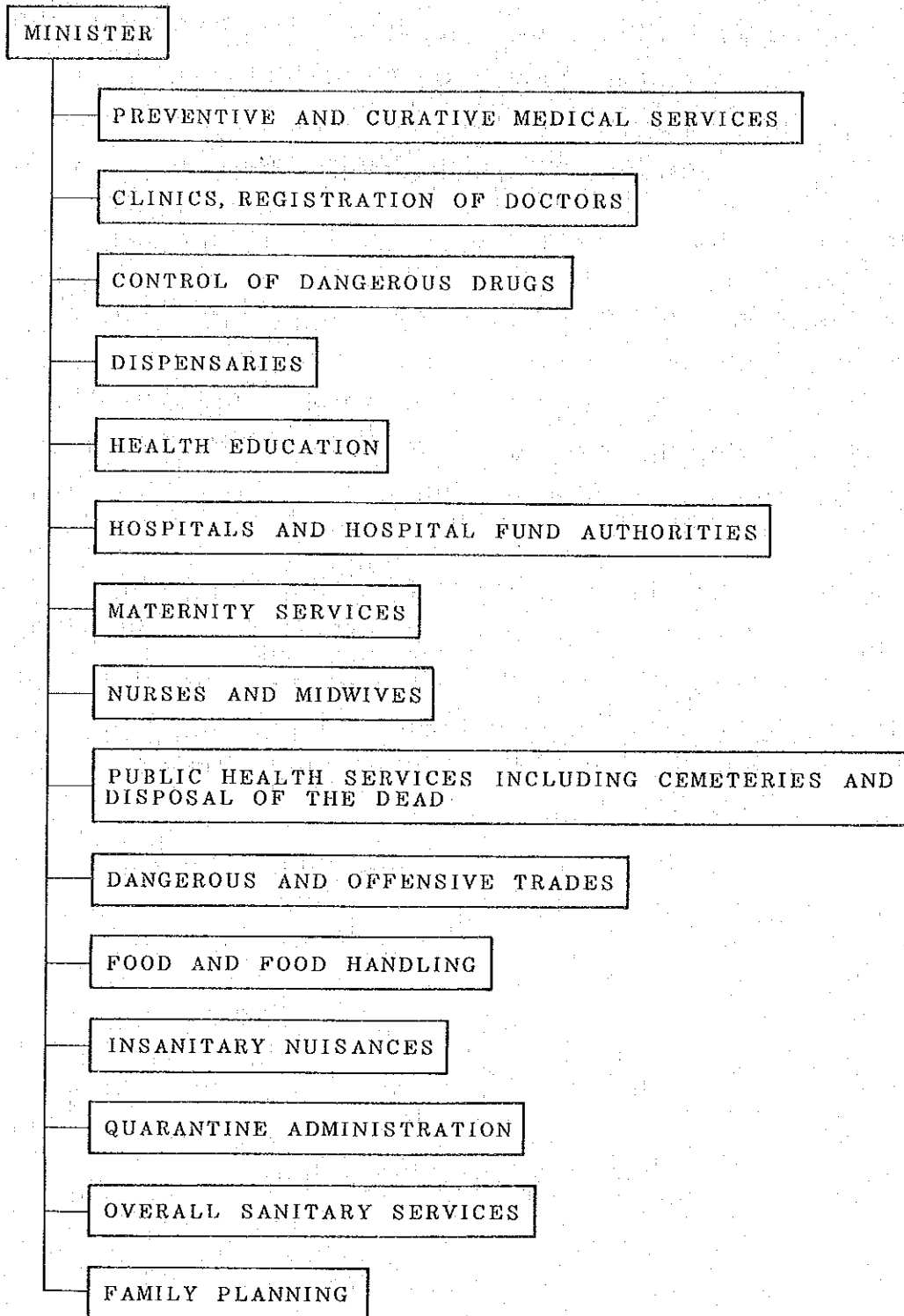
生活衛生対策としては、水道設備、水質改善対策、下水処理、生ゴミ等の処理、産業廃棄物処理が進められる。

5. 国立家庭福祉センター

国立家庭福祉センターは、1979年に設立され、母子保健・家族計画対策を実施し、同時に同スタッフの教育・訓練を行ってきた。さらに、避妊薬の向上、家族計画が多くの人々に受け入れてもらうための努力を図っている。次の5ヶ年の間の対策効果の主眼点は、日々の母子保健・家族計画対策ということに向けられるであろう。

(資料、第5次5ヶ年計画(1984~1988))

ケニ了国保健省組織図



○ 感 想

1. 専門家の派遣

専門家の長期派遣の必要性を認識することができた。ただし、国立病院の医師等は、その設立目的から長期派遣（結果として長期休診科目に対する地域住民の反発）は困難である。当省職員の場合は、2・3ヶ月の短期派遣と、現状ではならざるをえない。この場合、国立病院は特別会計によって運営されており、休診期間中の診療報酬の減少を、何らかの形で補てんする必要がある。

2. 研修員の受入れ

専門家の移転した技術水準の維持を図るためには研修員の受け入れの必要性を認識することができた。

ただし、日本国で研修を受けた者の転職禁止規定（5～7年間）を相手国政府と約束する必要がある。同時にプロ技協の協力期間終了後、10年位は、単発専門家派遣及び研修員の受け入れを他の案件より優先して行うことも必要と考える。

3. 資 機 材

資機材の供与に当たっては、現地の故障修理能力を勘案して選定すべきである。

（インドネシアのある製薬合併企業では、日本国内で10数年前に使用していた資機材を搬入し、現在も有効に働いているとのことである。

（現地の工業水準にあっいて、メンテが容易なため。）

The Finding of Discussions Between The Post Evaluation Survey Team and The Authorities concerned of The Government of the Republic of Kenya on the Japanese Technical Cooperation for Terminated Japanese Technical Cooperation Projects.

The Japanese Survey Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Dr. Hisao MANABE visited the Republic of Kenya from December 5, 1985 to December 17, 1985 for the purpose of observing the details of the technical cooperation program concerning the Terminated Japanese Technical Cooperation Projects (hereinafter referred to as "the Projects").

During its stay in the Republic of Kenya, the Team had a series of discussions and observations of Embu, Nakuru and Kenyatta Hospitals, with the Kenya authorities.

As a result of the discussions and observations, the Team recommended to the Kenya Government to submit the application forms enclosed herewith for provision of equipment from the Government of Japan. The recommended list from the team, is attached for your reference.

Nairobi, 13th December 1985

Priority Order

1. Embu ****

- 1) Operating table
- 2) Light (for operation)
- 3) Anesthetic machine
- 4) Autoclave
- 5) Electric drill

2. Nairobi *****

- 1) Policorder (4 channel monitor & recorder)
 1. ECG
 2. pressure + transducer
 3. pressure + transducer
- 2) 2 channel monitor
 1. ECG
 2. pressure + transducer
- 3) ECG monitor
- 4) Syringe pump
- 5) Respirator

3. Nakuru *****

- 1) Gastrofiberscope
- 2) Fiberoptic bronchoscope
- 3) Laparoscope

表-1 ケニア国エンプ病院ケニアアタ病院 (ICU) 派遣専門家

番号	専門家名	等級	指導科目	派遣期間	生年月日	最終学歴	赴任時現職
1	中村 滋	1-1	内科	42. 6. 17 ~ 43. 6. 30	大 7. 12. 26	大阪大学 (医)	国立療養所刀根山病院
2	佐伯 文太郎	4	外科	42. 6. 17 ~ 44. 6. 20	昭 8. 3. 14	"	"
3	徳田 種二	3	産婦人科	43. 1. 9 ~ 44. 7. 5			伊丹市立伊丹病院
4	吉永 徹夫	1-2	内科	43. 7. 5 ~ 45. 4. 4			大阪大学医学部
5	坪井 圭之助	2-2	外科	44. 6. 11 ~ 46. 2. 10			大阪鉄道病院退職
6	藤沢 博人	5-1	小児科	44. 10. 21 ~ 45. 10. 20			大阪大学病院
7	山村 好弘	1-2	内科, 呼吸器科	45. 3. 25 ~ 46. 3. 24	大 14. 11. 17	大阪大学 (医)	刀根山病院 (第二内科)
8	安保 純郎	2-2	外科	45. 10. 13 ~ 47. 10. 12	昭 6. 9. 11	奈良県立医大	国立刀根山病院
9	瀧本 洋司	5-2	外科	46. 1. 17 ~ 47. 7. 16	昭 17. 2. 8	大阪大学 (医)	大阪大学病院 (整外)
10	池田 宏也	5-2	整形外科	46. 5. 9 ~ 47. 5. 8	昭 18. 1. 24	"	住友病院退職
11	森 功	5-1	内科	46. 6. 26 ~ 47. 6. 29	昭 15. 11. 12	大阪市大 (医)	"
12	石橋 俊元	2-2	麻酔	46. 7. 22 ~ 47. 7. 30	大 15. 11. 28	大阪大学 (医)	名古屋大学医学部
13	渡辺 福一	(-) 2	据付技師	46. 7. 22 ~ 46. 9. 21	昭 7. 9. 14	中央大学工学部	三栄測器株式会社
14	岡本 美佐子	(-) 6-1	看護	46. 8. 2 ~ 47. 8. 5	昭 19. 10. 15	刀根山附属看護学校	刀根山病院
15	中村 万里	(-) 6-1	看護	46. 8. 2 ~ 47. 8. 5	昭 20. 2. 6	阪大附属看護学校	無職
16	森 隆豊	(-) 6-2	検査技師	46. 10. 9 ~ 49. 6. 30	昭 20. 6. 21	阪大衛生検査技師学校	大阪大学病院
17	橋本 俊一	(-) 5-1	据付技師	47. 1. 13 ~ 48. 10. 8	昭 13. 2. 27	都立港工業高校	株式会社レントゲン
18	藤田 毅	2-1	外科	47. 7. 9 ~ 48. 8. 28	昭 6. 4. 11	大阪大学 (医)	大阪大学病院
19	森 護	3	外科	47. 7. 9 ~ 48. 7. 8	昭 12. 12. 15	"	"
20	塚原 貞夫	(-) 4	(ICU) 機器調整	47. 7. 27 ~ 47. 9. 26	昭 9. 10. 12	武蔵工大 (短)	三栄測器株式会社

	専門家名	等級	指導科目	派遣期間	生年月日	最終學歷	赴任時現職
21	宗田 滋夫	5-1	外科	47. 8. 31 ~ 48. 8. 30	昭16. 7. 23	大阪大学(医)	大阪大学病院
22	大木下 洋子	(6-1	看護	47. 8. 31 ~ 48. 8. 30	昭19. 4. 12	阪大附属看護学校	"
23	高橋 克子		看護	48. 1. 18 ~ 49. 3. 31	昭21. 8. 27	習志野病院看護学校	国立習志野病院
24	玉城 晴孝	5-1	産婦人科	47. 6. 18 ~ 48. 7. 16	昭17. 4. 13	名古屋大学(医)	西宮中央市民病院
25	村尾 耕三	5-1	整形外科	47. 11. 2 ~ 48. 11. 1	昭18. 9. 9	大阪大学(医)	大阪厚生年金病院
26	高木 洋治	4	外科	48. 7. 5 ~ 49. 8. 9	昭17. 1. 29	"	大阪府立病院
27	美馬 昂	2-2	麻酔	48. 8. 2 ~ 49. 8. 31	昭10. 1. 21	"	"
28	武田 勝文	5-2	外科	48. 8. 23 ~ 49. 11. 2	昭19. 12. 22	"	大阪大学病院(退職)
29	鈴木 真由美	(6-2	看護	48. 8. 23 ~ 49. 8. 22	昭23. 4. 21	横浜市立高等看護学院	横浜市立大学病院
30	川田 忠男	6-1	臨床検査	49. 6. 6 ~ 50. 9. 30	昭23. 9. 1	大阪大学医療短大	兵庫職業訓練所
31	石川 久留美	6-1	看護	49. 6. 27 ~ 50. 6. 23	昭25. 1. 26	阪大医療短大	大阪大学病院
32	井原 勝彦	4	ICU外科	49. 8. 1 ~ 50. 9. 30	昭18. 3. 30	大阪大学(医)	"
33	大西 健二	3	ICU外科	49. 8. 15 ~ 50. 9. 30	昭15. 3. 20	"	"
34	中島 篤巳	4	ICU外科	49. 10. 1 ~ 50. 9. 30	昭19. 2. 27	"	刀根山病院
35	藤田 毅	2-2	心臓外科	51. 2. 26 ~ 51. 3. 31	昭 6. 4. 11	"	大阪大学病院
36	高野 久輝	4	心臓外科	51. 2. 26 ~ 51. 3. 31	昭15. 7. 6	"	大阪大学医学部
37	大西 健二	3	ICU外科	52. 2. 10 ~ 52. 2. 23	昭15. 3. 20	"	大阪大学病院
38	曲直部 善夫	特	総括	" ~ "	大10. 9. 28	"	大阪大学医学部

表一 2 ケニ了全ナクル病院派遣専門家

番号	専門家名	等級	指導科目	派遣期間	生年月日	最終学歴	赴任時現職
1	原 耕 平	3	内科	41. 3. 12 ~ 42. 5. 10	昭 5. 3. 13	長崎大学医学部	長崎大学医学部教官
2	金子 満 雄	5-1	外科	41. 3. 12 ~ 43. 3.	昭 9. 10. 24	"	"
3	松 武 滋 子	6-1	看護学	41. 3. 12 ~ 43. 9.	昭 16. 4. 28	長崎大学附属病院	長崎大学附属看護学校
4	大 田 絹 枝	5-2	"	41. 3. 12 ~ 43. 12. 3	昭 10. 4. 30	"	"
5	馬 場 尚 道	5-1	外科	43. 3. 12 ~ 44. 6. 15			
6	石 崎 驍 驍	4	内科	42. 1. 8 ~ 44. 6. 15	昭 9. 5. 29	長崎大学医学部	長崎大学医学部助手
7	田 中 耕 三	4	外科	44. 5. 28 ~ 46. 3. 31			長崎大附属病院第一外科講師
8	田 村 一 則	5-1	内科	44. 5. 28 ~ 45. 12. 25			長崎大医学部助手(徳島内科)
9	堀 元 子	4	看護学	43. 11. 22 ~ 45. 12. 25			放射線科
10	川 良 玲 子	4	"	43. 11. 22 ~ 45. 12. 25			長崎大学附属病院整形外科
11	高 橋 彬 彬	4	X線操作指導	44. 9. 24 ~ 44. 12. 25			長崎大学附属病院
12	中 林 和 男	4	X線据付	44. 7. 20 ~ 44. 8. 30			中央放射線部
13	中 村 啓 一 郎	5	"	44. 8. 5 ~ 44. 8. 21			TEL 421-5111 シンパデイン商事営業技術部
14	粉 川 宏	6	"	44. 7. 20 ~ 44. 8. 30			日立レントゲンKK(大阪)
15	村 上 文 也	1-2	内科	45. 11. 29 ~ 47. 2. 28	大 10. 8. 14	長崎医科大学	長崎大学熱帯医学研究所
16	西 村 聖 子	5-1	看護学	45. 11. 29 ~ 47. 11. 28	昭 12. 2. 1	長崎大学附属看護学校	長崎大学附属病院
17	宣 崎 美 和 子	6-1	"	45. 11. 29 ~ 47. 11. 28	昭 20. 12. 2	"	"
18	柴 田 敏 一 郎	5-2	外科	46. 3. 10 ~ 48. 5. 18	昭 15. 5. 6	長崎大学医学部	"
19	所 沢 剛	2-1	病理学	46. 5. 26 ~ 47. 5. 25	大 15. 9. 17	東京大学医学部	長崎大学熱帯医学研究所
20	南 宣 行	5-2	外科	46. 5. 26 ~ 48. 7. 10	昭 18. 11. 8	長崎大学医学部	長崎大学附属病院退職

専門家名	等級	指導科目	派遣期間	生年月日	最終學歷	赴任時現職
21 野村 修	5-1	検査技師	46. 9. ~ 47. 9. 30	昭13. 10. 23	長崎大学薬学部	長崎大学病院
22 井上和 義	3	"	46. 9. ~ 47. 7. 30	昭 4. 2. 21	長崎市立商業	"
23 木村 昭二郎	5-2	放射線	46. 12. 15 ~ 48. 3. 31	昭16. 9. 23	長崎大学(医)	"
24 原田 尚 紀	5-1	内科	47. 3. 14 ~ 49. 3. 13	昭15. 1. 12	"	"
25 春田 純 吾	5-1	検査	47. 8. 27 ~ 48. 8. 26	昭14. 10. 21	長崎工業高校	"
26 一瀬 博	6-2	"	47. 8. 27 ~ 48. 8. 26	昭24. 1. 5	熊本大学衛検学校	"
27 渡辺 豊 輔	1-1	病理学	47. 9. 4 ~ 48. 4. 6	大 8. 1. 11	東京大学(医)	長崎大学熱帯医学研究所
28 中村 春 枝	6-2	看護	47. 11. 16 ~ 48. 11. 15	昭21. 4. 13	長崎助産婦学校	長崎大学病院
29 中村 晴 代	6-2	"	47. 11. 16 ~ 48. 11. 15	昭22. 3. 25	長崎看護学校	"
30 森 洋 藏	4	放射線	48. 3. 10 ~ 49. 3. 9	昭16. 12. 2	長崎大学(医)	長崎県庁診療所
31 菅 治 普	5-1	外科学	48. 4. 5 ~ 49. 4. 4	昭17. 1. 1	"	長崎大学病院
32 塘 永 健	2-2	病理学	48. 9. 27 ~ 49. 3. 26	大14. 3. 22	久留米医大	久留米大医学部
33 岩 渡 勝 彦	4	検査	48. 8. 9 ~ 49. 8. 9	昭10. 1. 11	長崎工業高校	長崎大学病院
34 猿 田 昇	4	外科	48. 8. 9 ~ 49. 12. 6	昭19. 7. 25	北里大衛生学部	"
35 原 昌 夫	4	内科	48. 7. 5 ~ 49. 9. 30	昭13. 1. 27	長崎大学	"
36 中 板 英 世	2-2	病理学	49. 4. 18 ~ 50. 6. 24	昭16. 10. 23	"	五島中央病院
37 内 藤 達 郎	1-2	臨床検査(細菌学)	49. 6. 22 ~ 49. 12. 6	昭10. 11. 23	東京大学(医)	長崎大学
38 高 木 正 剛	5-1	外科	49. 8. 29 ~ 50. 8. 28	大15. 12. 18	長崎大学	"
39 山 下 裕 人	5-2	病理学	49. 9. ~ 50. 9. 11	昭20. 8. 18	"	"
40 中 嶋 茂 宏	5-1	臨床検査	49. 10. 24 ~ 50. 10. 23	昭21. 11. 15	"	"
41			49. 11. 28 ~ 50. 11. 27	昭18. 9. 6	九州医学術専門学校	長崎大学病院

計(延人数) 41名

表一三 機材供与額（輸送費含む）（20,656.3万円）

	ナグー病院	エンプ病院	ケンアッタ病院（ICU）
昭和41年	294万円 機材（診断用心電計他） 薬品（マイタイムイン他）		
昭和42年	138万円 機材（ポータブル心電計他） 薬品（レスタミン他）	663.4万円 機材（外科用手術台他） 薬品（アスピリン他）	
昭和43年	1,266万円 機材（X線テレビ他）	1,559.9万円 機材（集団検診用X線自動車） 薬品（メチオジン他）	
昭和45年	548.5万円（繰越） 機材（ファイバースコープ他）	382.5万円（繰越） 機材（X線透視撮影台他）	2,037.7万円 機材（4人分ICU監視装置他）
昭和46年	1,717.1万円 機材（病理用機材ミクロトーム他） 薬品（アクロマイセチン他）	575.7万円 薬品（クロラムフェニコール他）	4,416.5万円 機材（18人分ICU監視装置他）
昭和47年	1,473.5万円 機材（X線装置，検査用機材他） 薬品（アイロタイシン他）	357.1万円 機材（診断用ドップラー他） 薬品（アドナ他）	865.4万円 機材（心電計他）
昭和48年	1,300万円 機材（血圧計他） 薬品		1,300万円 医療機器（超音波ネブライザー他）
昭和49年	590万円 （蒸溜装置他）		1,171万円 （万能注入器他）
合計	7,327.1万円	3,538.6万円	9,790.6万円

カウンターパート受入れ実績

「ナクール病院」関係

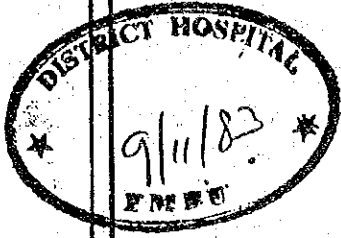
- (1) Dr. V. P. NAGPAL, Provincial Physician, 1970年2月より3ヶ月
(注 1974年1月よりケニアタ国立病院へ転属となったが、その後、健康上の理由もあって、開業したとのこと)
- (2) Mr. A. P. J. D'CUNNHA, Provincial Surgeon, 1971年9月より3ヶ月
(注 現在もProv. Surgeonとして勤務中)
- (3) Mr. E. O. WAGA, Laboratory Technician, 1972年6月より1ヶ月
(注 中央検査全般、主として細菌検査関係を研修、帰国後、検査部門副主任として特に、細菌部門を担当し、他部門の主任不在時にはそれをカバーしていたが、1975年1月より検査部門主任として活躍中)
- (4) Dr. S. K. AVASTHY, Provincial Medical Officer (院長), 1974年1月より3ヶ月
(注 現在もP. M. O.として勤務中)
- (5) Mr. Z. O. KENZA, 生化学検査, 1974年8月30日より1ケ年

「ケニアタ国立病院ICU」関係

- (1) Dr. DAVE, ICU部門, 1975年3月2日より1ヶ月
- (2) Dr. MONGOLA, 内科部門, 1975年3月2日より1ヶ月

5. 資 料

THE MOH - EMBU



REPUBLIC OF KENYA

MINISTRY OF HEALTH

EASTERN PROVINCE

ANNUAL REPORT

1982

MKBML

MINISTRY OF HEALTH

OFFICE OF

THE PROVINCIAL MEDICAL OFFICER
EASTERN PROVINCE
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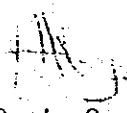
The Permanent Secretary,
Ministry of Health,
P.O. Box 30016,
NAIROBI.

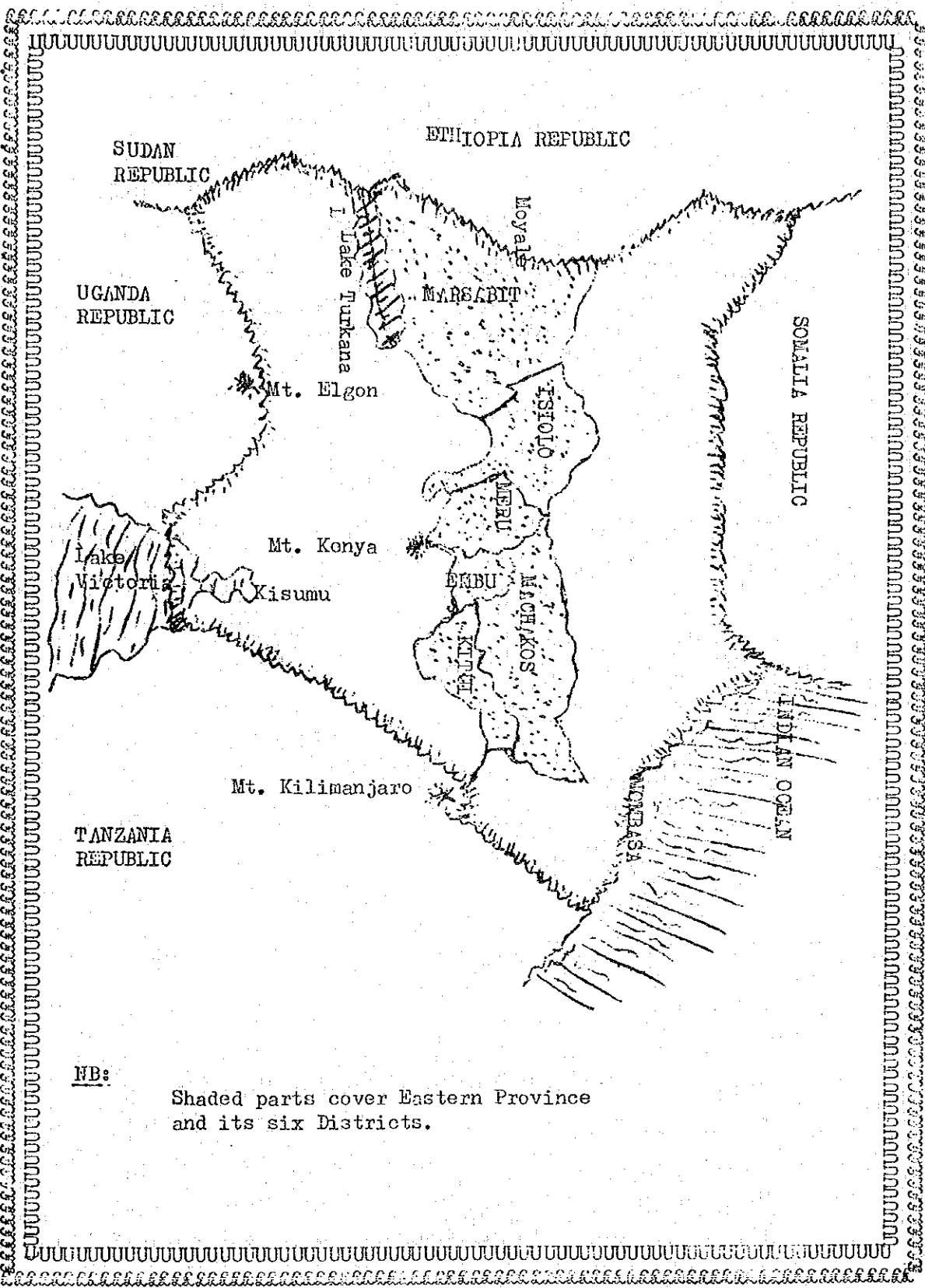
ANNUAL REPORT

EASTERN PROVINCE

1982

I have the honour to present my 1982 Annual Report.


DR. A. O. OYOO
PROVINCIAL MEDICAL OFFICER
EASTERN PROVINCE



NB: Shaded parts cover Eastern Province and its six Districts.

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C H A P T E R I

GENERAL OVERVIEW

Eastern Province with six (6) administrative districts (Machakos, Meru, Embu, Kitui, Isiolo and Marsabit) is the second largest province in the Republic of Kenya. The population of 3,056,320 persons (1982 projection) inhabit a surface area of 159,891 sq. kms. giving an overall population density of 19.0 persons per sq. km. However, the population density varies from district to district with the highest being Meru (118 persons per sq. km.) and the lowest being Marsabit (1.2 persons per sq. km.) Other districts are Machakos 72 persons per sq. km., Kitui 15.8 persons per sq. km., Embu 97 persons per sq. km. and Isiolo 1.7 persons per sq. km. The major Urban areas are Machakos, Embu and Meru being municipalities. Isiolo and Marsabit Town are relatively small. Due to increase of major development projects eg. Kitui Arid Semi Arid (ASAL), Embu-Meru-Isiolo British aided projects, Machakos Integrated Development Programme there has been a sharp increase of in-migration into Machakos, Kitui, Embu and Meru. The same has applied to Marsabit where United Nations Organisation through UNESCO is conducting a research on camels, ecology in relative to inhabitants of the district.

The Province exhibits highland, marginal, semiarid and arid zones portraying varying disease pattern. The largest portion of the Province falls within semi-arid zone with a large portion of Marsabit and Isiolo districts being arid. In Marsabit and Isiolo most inhabitants are nomadic practising "transhumance" - that is the population moves to two locations (areas) during the year to take advantage of different natural resources. The nomads depend largely on livestock farming.

The year under review (1982) was for practical purposes uneventful. No disease entity reached epidemic proportion. Malaria, respiratory infection, eye diseases, ulcers, pulmonary tuberculosis and accidents remained common causes of morbidity and mortality. Human rabies was not reported from Machakos and Kitui inspite of many specimen (dogs and wild animals) taken to Veterinary Research Laboratory Nairobi proved positive of rabies. The increasing positive rabies in dogs and other wild animals in Machakos particularly in the absence of human rabies was area of concern.

Health Services continued to be provided largely by Ministry of Health. Non-Government Organization particularly churches played an important role in provision of health services throughout the province with a noticeable concentration in Meru, Kitui and Marsabit districts. In Marsabit district rural health services are dominated by church organizations. African Medical and Research Organization through Flying Doctors/Surgeons/Dentist continued to complement health services in Marsabit. Sight by the Wings continued to provide Ophthalmic services in Marsabit district. Private Medical Practitioners provided health services on fee-for-service basis mainly in Urban areas.

Primary Health Care was predominantly provided by Non-Government Organizations. African Medical and Research Foundation (AMREF) continued to train, supervise Community Health Workers (CHW) and Traditional Birth Attendants (TBAs) in Kibwezi division in Machakos district. Outreach mobile clinics operating from Kibwezi (AMREF) Health Centre continued uninterrupted. Chogoria P.C.E.A. Hospital continued to provide primary health care to its catchment area through static and mobile clinics.

Maua Methodist Church also in Meru district established outreach mobile clinics in Igembe area assisted by Tigania Mission Hospital covering mostly Igembe South Division. International Eye Foundation started a primary health care programme in Lare-Igembe area. In Kitui district Catholic Mission with aid from USAID through cooperation in Development Inc. (CODEL) continued conducting sixteen (16) mobile clinics each in Mutomo, Mutito, Kimangao and Nuthale. Diocese of Machakos - Catholic Mission continued to volunteer health workers in various parts of Machakos district. Church Province of Kenya - Mount Kenya East Diocese - Primary Health Care Programme moved its headquarters from Embu to Kerugoya. However, the organization continued to train, and supervise volunteer health workers in Embu and Meru district.

A number of Sectoral development projects were at various stages of progress. On the whole progress was very slow. Matungulu, Kola and Kaani dispensaries in Machakos district were completed. Other projects in the district including Nunguni, Mbooni, Migwani, Thinu, Matiliku, Sultan Hamud were in various stages of construction. Kalawa and Masinga remained at a standstill as no new contractors were assigned the projects.

In Isiolo Garba Tulla and Nerti Health Centres continued to be constructed. Construction work at Gafarsa dispensary was started. Korbasa remained untouched as no new contractor was assigned the project. Miathene Health Centre in Meru never progressed and by the end of the year the contractor was still on the job which never got completed. Construction of Nkondi and Ithimbari was started. Kathangachini, Kanjuki and Kirua were completed. By the end of the year the contractor had not completed constructing Mutuati dispensary. Meru hospital extension was still under construction and by the end of the year the extensions were not completed. Construction of Moyale hospital was in good progress. North Horr was completed and handed over to Catholic Mission. In Kitui district Kauwi Health Centre was still under construction.

The question of rendering Mwingi Hospital functional was pursued vigorously culminating in His Excellency the President directing Ministry of Health to take over the running of the hospital from the Independent Presbyterian Mission. Consequently Mwingi hospital was opened on 6th December, 1982.

Harambee Health Projects continued to ^{be} implemented in nearly all districts. In Machakos, Kimutwa and Nguluni were taken over by Ministry of Health. In Isiolo district Health services were provided by the Ministry at Rapsu and Logobito dispensaries. Rapsu was constructed by NCKK while Logobito by Division of Livestock Marketing. Kinoro in Meru was taken over from Chogoria P.C.E.A. Hospital. Kerio and Makima dispensaries in Embu were opened during the year under review. With the take over of these Harambee health projects efforts to construct more health facilities in the Province continued. In total fourteen (14) harambee health facilities were taken over in 1981 and 1982 throughout the province.

The doctor/population and bed/population ratio has not changed from 1981 (see the table I). With the above harambee dispensaries opened the total number of dispensaries in the Province increased to 108. Chogoria P.C.E.A. Hospital started providing health services at Ngonyi dispensary in Meru district. Consequently the total number of dispensaries operated by Non-Government Organisation increased to 20 (see table II).

Due to inadequate funds, supervision of health services by the Provincial Health Team was not regularly performed.

Finally the Province was blessed by the visit of the Permanent Secretary, Ministry of Health - Mr. G. R. Mwirichia. The Provincial Medical Officer - Dr. A. O. Oyoo undertook a two-months' course in Planning and Evaluation at the Charles Drew Postgraduate Medical School in Los Angeles California - U.S.A. together with participants the team produced a manual in Planning and Evaluation for District Health Management Teams.

Provincial Health Team consisting of the Provincial Medical Officer, Senior Hospital Secretary, Provincial Public Health Officer and his Deputy, Senior Nursing Officer, Provincial Drugs Inspector, Provincial Supplies Officer, Provincial Health Education Officer, Provincial Personnel Officer and Provincial Nutritionist continued to conduct supervisory visits to the districts throughout the year under review.

TABLE 1:

HEALTH ACTIVITIES

DISTRICT	DOCTOR: POPULATION		BEDS PER 1000 PEOPLE		
	TOTAL	GOVT.	TOTAL	GOVT.	% OF NGOs BEDS
Machakos	25,000	27,000	0.88	0.77	5.87
Neru	32,000	93,000	1.30	0.38	64.77
Kitui	39,000	64,000	1.20	0.67	45.0
Embu	20,000	25,000	1.63	1.10	32.4
Isiolo	24,000	24,000	1.47	1.47	0
Marsabit	19,000	28,000	2.54	1.38	45.4
Total	27,000	36,000	1.2	0.70	38.20

Dentists : Population ratio = 437000

In 1982 all dentists were in Government service.

TABLE II STATISTICS FOR 1982 INDICATING DISTRIBUTION OF POPULATION, HEALTH FACILITIES, BEDS & DOCTORS/ DENTISTS BY DISTRICTS

DISTRICT	FACILITIES											NUMBER OF BEDS					DOCTORS/DENTISTS				
	GOVERNMENT						NGOS					GOVT.					NGOS		PRIV.		TOTAL
	ACQ.	HOSP.	HC	HSC	DISP.	HOSP.	HC	DISP.	PRIV.	GOVT.	NGOS	GOVT.	NGOS	PRIV.	TOTAL	GOVT.	NGOS	PRIV.	TOTAL		
Machakos	1,153,810	4	11	9	35	1	1	5	2	888	60	73	1,021	46	-	1	47				
Meru	931,377	2	8	6	26	7	-	48	3	356	787	72	1,215	11	16	2	29				
Kitui	512,660	2	8	5	18	3	1	-	-	341	279	-	620	9	4	-	13				
Embu	297,569	2	4	4	17	1	-	1	-	327	157	-	484	13	2	-	15				
Isiolo	48,877	1	2	2	7	-	-	1	-	72	-	-	72	2	-	-	2				
Marsabit	112,024	2	-	-	1	2	5	6	-	155	129	-	284	4	2	-	6				
Total	3,056,320	13	33	26	104	14	7	61	5	2,139	1,112	145	3,696	85	24	3	112				

Key: NGO's - Non-Government Organizations - all are cur-managed health facilities.
 HC - Health Centre
 HSC - Health Sub-Centre - providing outpatient curative and preventive (MCH/FP) services.
 DISP. - Dispensaries PRIV. - Private GOVT. - Government POP. - Population.

Comments: There are a total of seven (7) Dentists distributed as follows:-
 Machakos - 4 Meru - 1 Kitui - 1 Embu - 1

E A S T E R N P R O V I N C E

HOSPITAL STATISTICS - 1982

TABLE III

HOSPITAL	OPD GENERAL ATTENDANCE					MCH/FP ATTENDANCE					OPD GENERAL/MCH/FP ATTENDANCE					IMPHILENT ADMISSIONS		
	TOTAL	MONTHLY AVERAGE	DAILY AVERAGE	TOTAL	MONTHLY AVERAGE	DAILY AVERAGE	GRAND TOTAL	MONTHLY AVERAGE	DAILY AVERAGE	TOTAL ADMISSIONS	MONTHLY AVERAGE	DAILY AVERAGE	TOTAL	MONTHLY AVERAGE	DAILY AVERAGE			
MACLEKOS	149437	12495	411	117143	9762	321	267080	22257	732	36661	3055	100						
MERU	265922	22005	726	45463	3790	125	310505	25375	851	16789	1399	46						
LAMBU	121619	10135	333	54260	4521	149	175879	14657	482	18467	1539	51						
KIPUI	155087	12924	425	56075	4810	159	213162	17764	581	8181	682	22						
ISILOLO	87477	7290	240	12210	1018	34	99687	8307	273	2600	217	7						
MARSABIT	83992	6984	228	7153	596	20	90245	7520	247	1582	132	4						
KUNGURU	116137	9678	318	59091	4924	162	175228	14602	480	4793	399	13						
MAKUENI	107672	8973	295	56960	4947	156	164632	13719	451	4367	364	12						
MOYALE	78641	6553	133	7004	584	19	55645	4637	152	1786	149	5						
ISHARA	61225	5102	168	11707	976	32	72932	6078	200	1582	132	4						
MAKINDU	63834	5320	175	23351	1946	64	87185	7265	239	2651	221	7						
GHUKA	76152	6349	209	7020	585	19	83212	6934	228	565	47	2						
KURURU RHTC	43578	3632	119	22783	1899	62	66361	5530	182	1143	95	3						

C H A P T E R II

PERSONNEL ACTIVITIES

Introduction

The Provincial Personnel office caters for all the personnel activities in the Province. This was done in liaison with both the district offices (i.e. M.O.s) and the Head office - Ministry of Health Headquarters.

It involved initiation and coordination of personnel activities which include among others staff establishment proposals, recruitment, discipline, retirement, terms of service, resignation, leave, allowances/advances and interpretation of personnel regulations.

Staff - Establishment Proposals

There were various proposals for additional man power especially the non-professional staff (included S.S., Clerical Officers, Drivers etc.) to man the new health facilities and extensions of various hospitals which had been completed or were due to be completed.

In Machakos district there were proposals for the new out-patient department of Machakos Hospital. And the health centres included Sultan Hamud, Hatiliku, Munguni, Tuku, Kalawa and Mbooni, and sub-health centres included Matigula, Iki, Mazi and Masinga.

In Embu district the proposals were for Kianjokoma and Kiritiri Health Centres. Whereas in Meru district additional staff was required for the new wards, Kitchen and laundry in Meru district hospital. And the rural health facilities included Mithene health centre and the following dispensaries:- Kirua, Mutuati, Kajuki, Kathangachini, Kinoru, Nkondi and Ithimbari.

In Isiolo district the following rural health facilities Garba Tulla, Merti, ErsaBoru and Garfarsa needed additional staff. And also Moyale sub-district hospital.

The opening of Mwingi hospital necessitated the need of staff both professional and non-professional. Whereas it was possible to post the professional staff from other stations, it was difficult to withdraw the non-professional staff or specially the subordinate staff cadre without seriously affecting the services at their respective stations. Therefore there was need for an additional fifty-five (55) subordinate staff to work at the various sections of the hospital.

Nearly all the stations experienced an acute shortage of Copy-Typists, and there were proposals of this cadre.

Recruitment/Appointments

The section dealt with few recruitment/appointments in the year under review. This did not meet the requirements of additional staff hence the stations experienced a shortage, especially the subordinate staff cadre.

Discipline

Discipline involved cases of being absent from duty without permission, negligence of duty, drunkenness on duty, theft, accident to GK vehicles, insubordination etc.

It was observed that like the previous years that the commonest type of such disciplinary cases was absence from duty without permission ranging from one to six months or more.

Various measures were taken which aimed at correcting and not only punishing. This was done in conjunction with the laid-out regulations, such measures included recovery of salary, reprimand, interdiction etc. The cases were summarised and endorsed with comments and recommendations and were forwarded to the Permanent Secretary for further action.

Retirement

The section dealt with many retirement cases. The majority of such cases were compulsory retirement under the 55 year rule. There were also few voluntary retirement cases. It was noted just as in the previous year that most of the officers did not forward their birth certificates on time, and this caused some delay in the processing of the cases.

Most of the staff who had retired i.e. the subordinate staff cadre had worked with local authority and then were transferred to the Central Government in 1970 and as such they only qualified for service gratuity and not pension.

Terms of Service

The section aimed at hastening the finalisation of terms of service of officers. The terms of service for various cadres were analyzed and were recommended to the Permanent Secretary for their terms of service to be locked into.

Like the previous year it was observed that most of the female officers from Job Group 'C' and above opted to serve on contract. Also it was noted that many of the officers served on temporary or on probationary terms of service for unnecessarily too long. This was again looked into.

Resignation

There were resignations of various officers of all cadres. In most cases there was no adequate reason given as to why the officers had resigned.

This did not have a big impact on the already existing staff as the resignations were few.

Leave

Leave for all cadres was approved and computed from this office. In most cases this was done in conjunction with the leave rosters. It was noted that most of the officers had not accumulated their leave over the years.

The maternity leave application was accompanied by the doctor's certificate as per the regulations.

Allowances/Advances

Some of the officers were accommodated in the Government quarters but most of them could not due to the shortage of houses. This necessitated those who are eligible for house-allowance to be granted.

There were also requests for house allowance by some female officers on the grounds that their husbands were not working, but not covered by the regulations.

There were few requests for refrigerator advance in the hardship areas of Isiolo, Marsabit and Moyale.

General Comments

In the year under review the personnel activities were carried out fairly well. There were few visits to other stations, and during such visits there were discussions regarding the personnel matters and advice was given accordingly.

The office also participated in one seminar organised for the Nutrition Field Workers at Keaga Rural Training Centre. There were fruitful discussions in issues regarding to personnel matters.

But the major handicap was shortage of office accommodation. This to some extent affected the flow and input of the work. This problem persisted even in the previous year and in this respect I would suggest an alternative or extra accommodation be acquired.

It is also recommended that all the staff should undergo through personnel management course according to their cadres. This would aim at improving the efficiency of the work.

The office enjoyed a cordial relationship from all the other officers in the Ministry.

C H A P T E R I I I

NURSING SERVICES AND EDUCATION

At the beginning of the year, Mrs. Gladys Munuhe (Nursing Officer I) was posted to Provincial Medical Officer's office as Deputy Provincial Nursing Officer.

The shortage of basic hospital supplies and overcrowding remained the same. Towards the end of the year Mwingi Hospital was born as a new Unit run by Government. Many staff members with single certificate went for further studies causing shortage of staff. Many harambee units especially in Machakos and Isiolo districts were taken over by the Government and the Nursing staff had to be over stretched to cover those units without additional staff being posted to us from Afya House.

Management of Patients

(a) Main Hospitals

This has improved as reported last year (1981). Observation of vital signs to ascertain the condition of patients remained a problem because not much is recorded on the bedhead tickets. There is a bad tendency for drugs to be given but not recorded. The procedure for sterilisation of equipment and materials is not religiously practised by qualified staff.

(b) Health Centres and Dispensaries

The staff in these units are trying very hard to see that work is done but they have a lot of constraints. Shortages of supplies is the main constraint coupled by lack of refund when incurring expenses while doing Government work.

Shortage of Supplies

It is like a sing song. Time and again staff complained of shortages or lack of the following items:

1. Water shortage:

Hospitals like Makueni, Machakos, Kitui and Embu experienced shortage of water but Makueni's problem has never been solved. Many Health Centres and dispensaries were found dirty.

2. Drugs, Surgical Dressings and Lotions

These have not been forthcoming for many months. Only Embu district which is on New Drugs Management that had drugs throughout the year.

3. Paraffin Shortage:

This affected the health centres and dispensaries and it was impossible to maintain sterilisation of equipment. One could not keep the refrigerators working without paraffin and many vaccines had to be transferred to main hospitals. It was not possible to estimate the amount of vaccines that lost potency.

4. Stationary Shortages:

Lack of writing papers affected the Nursing care very badly especially in the wards and patients records could not be maintained.

NURSING TRAINING SCHOOLS

MACHAKOS SCHOOL OF COMMUNITY NURSING

(a) Teaching Staff

Miss W. M. Kamau	- D.A.N.	- Principal Nurse Tutor i/c.
Mrs. P. K. Nzyoka	- D.A.N.	- Head Nursing (general)
Mrs. M. Karanja	- D.A.N.	- Head Midwifery
Mrs. S. Mutua	- D.P.H.N.	- Head Public Health
Mrs. B. Undusu	- P.H.N.	- Public Health
Miss J. Oluoch	- KRN/M	- Nursing (general)
Miss E. Namiti		- Clinical Instructor (Community health)
Mrs. E. Mukonyo		- Clinical Instructor (Midwifery)

(b) Supportive Staff

Clerical staff	- 7
Housekeepers	- 2
Drivers	- 2
Cleaners	- 15
	- 3 Hostel
	- 6 Compound
	- 6 Dining hall
Watchmen	- 2

(c) Transport

Vehicles on The Road	- 1 Nissan Combi
	- 48 seater bus
Off the Road	- 1 Nissan
	- 1 Landrover
	- 1 small saloon car.

The present situation on transport is very poor since most vehicles are out of order.

(d) Finance

The Principal Tutor is now the Sub-A.I.E. holder instead of the Medical Officer of Health.

(e) Comments

1. It will help a lot if enough supportive staff with enough orientation in accounts and store keeping are posted to the school.
2. There was gross underestimation in the following
 - (a) Transport operation and maintenance
 - (b) Electricity, water and conservancy
 - (c) Students uniforms was not included in the main A.I.E. hence a lot of problems have occurred as a result of trying to obtain school uniforms. The school has been receiving uniforms in bits e.g. shirts were received without trousers.
 - (d) The running expenses for Rural Demonstration Centres was not enough although this does not come under the school sub-A.I.E. but it does affect the training since students cannot be kept at the Health Centres all the time as per training requirements.

(f) Students Population

Total number	- 186 students
Students qualified from training	- 54
Students commenced training	- 60
Students were re-admitted to training	- 7
Students discontinued training	- 13

NERU SCHOOL OF COMMUNITY NURSING

(a) Students Population

Capacity is	- 96
Present population	- 93

(b) Physical Facilities

The school has only 2 classrooms one small and one large. This is not enough for 6 groups of classes. The number per class is as follows:-

	<u>Male</u>	<u>Female</u>	<u>Total</u>
July 1979	3	9	12
January 1980	4	8	12
July 1980	9	7	16
January 1981	8	15	23
July 1981	2	12	14
July 1982	4	11	15

(c) School Teaching Staff

Mrs. M. G. Mbogori	KRN/M/DAN
Miss M. M. Ndungu	KRN/E/DAN
Mrs. M. G. Aritho	KRN/H/RPHN
Miss A. Kariuki	KRN/L/DAN
Mr. Johnson Kabuga	KRN/DAN
Miss K. M. Wogachu	KRN/M
Mrs. D. A. Mboi	KRN/H/RPHN

(d) Office and Other Supportive Staff

Mr. D. Okongo	Accounts Clerk
Mr. Miriti	Clerical Officer
Miss S. K. Mbuani	Clerical Officer
Houskeeper	- 1
Cook Attendants	- 11
Cleaners	- 5
Library staff	- 2
Watchmon	- 6

(e) General Comments

1. The first students graduated on 9th July, 1982 with 100% pass.
2. There is a need for an executive officer to deal with accounts for the school. He will also assist with storoskeeping.
3. Additional tutors and subordinate staff are required for the school. More teaching aids are also required.
4. It was difficult to do the cooking for students using charcoal on small jikos outside the building in the open air. The kitchen had no gas supply.

EMBU SCHOOL OF HEALTH VISITORS

(a) Students Population

October 1981 class	- 13 Females
	- 2 Males
October 1982 class	- 15 Females
	- 1 Male

Total - 30 students

About 15 students graduated in October 1982. One student failed the final examination. One student discontinued training due to pregnancy.

(b) Teaching Staff

Miss E. Mesheck	KRM/M/KRPHN
Mrs R. Kimani	KRM/A/D.M.F
Miss G. Munene	KRM/W
Mrs. M. Muratha	K.S.F.H. (Clinical Teaching)

(c) Supportive Staff

Nutrition Field Worker	- 1
Cook grade III	- 1
Cook Attendants	- 3
Shamba Attendants	- 2
Watchmen	- 3
Driver	- 1

(d) Visiting Lecturers

Mr. M'Nabea	- District Clinical Officer
Miss Mwaura	Public Health Officer
Mr. Muthui	- E.M.T. Clinical Officer
Miss Muta	- District Health Education Officer
Mr. Kingori	Public Health Officer in charge P.H.T's at D.D.C.
Mr. Muriithi	- Clinical Officer in charge T.B. & Leprosy Programme
Mr. D. Kiarie	- Clinical Officer in charge of Ophthalmology.

(e) General Comments

1. Renovation e.g. ceiling for the dormitory is required
2. Additional teaching staff at least 1- 2 staff is required.
3. Two clerical staff to deal with accounts and storeskeeping of general stores and stationery.

NUMBER OF STAFF IN HOSPITALS BY DECEMBER 1982

	No. of Beds	No. of Cots	No. of Inpat	Total 1982										Total 1981					
				DAN	KRM	KRPIN	KRN	KRN	KRN	EM/EM	EPHV	EN	EM		EMN	KPNS	EN	KRN	E/Ns
Mochokos	631	106	-	7	15	2	17	2	2	31	25	1	52	17	3	33	129	42	116
Makuoni	122	36	-	-	1	-	6	-	-	10	2	-	14	6	-	7	32	5	32
Kangundo	26	33	-	-	6	-	6	-	-	21	4	2	21	13	-	12	64	16	53
Kakindu	41	12	-	-	-	-	3	-	-	2	-	-	5	7	-	3	21	4	22
Vitui	140	39	-	-	4	2	10	2	3	21	6	-	20	15	2	10	64	20	48
Meru	186	47	-	4	10	3	-	-	-	1	-	-	-	-	-	-	-	26	137
Embu	159	23	-	1	8	2	7	2	34	22	5	64	5	1	20	131	27	108	
Ishara	38	-	-	-	1	-	3	-	-	11	3	-	7	-	-	4	21	4	18
Iarurupo	21	-	-	-	1	1	-	1	4	5	-	2	-	-	3	11	2	2	10
Isiolo	43	6	-	-	5	1	5	1	20	7	-	39	1	1	11	68	12	45	
Marsabit	86	8	-	-	2	-	7	-	26	6	1	16	-	-	9	49	10	45	
Movale	51	7	-	-	1	9	-	-	18	1	6	-	-	-	10	25	7	19	
PMO's Office	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	2	-	1	0
Mwingi	100	-	-	-	2	-	5	-	12	2	-	1	-	-	7	15	0	0	

C H A P T E R - I V

PROMOTIVE HEALTH SERVICES (HEALTH EDUCATION)

P r e a m b l e

The Public Health Educators struggled daily to bridge the gap between ideas and people. Target audiences of Health Education were identified and appropriate knowledge was imparted calculated to cause the desired health behaviour. This task was not an easy one for health itself is not the finest flower but it is the soil from which the finest flowers grow.

We should continuously give health education even to the elite because modern civilisation in addition to reaping the sweet fruits of progress, it is suffering from the spoils. Nowadays where speed, status, comfort and economic success are high marks of achievement, it is not uncommon to find men and women who cannot adjust to the increasing pressures. They keep plugging along, lacking an apparent sense of values. Some become overfed and under-active while others become complacent and simply vegetate from year to year with few goals in life to stimulate the best in them. There are others who literally "burn" themselves out in a life packed with situations generating insecurity, fear, anxiety, worry, jealousy, anger and hatred. Therefore the resulting tensions refuse to stay bottled up and they make their presence known in headaches, indigestion, gastro-intestinal upsets, restlessness, sleeplessness, irritability and fatigue.

The task, before the Public Health Educators is indeed an enormous one. "The greatest of follies is to neglect ones health for other virtues in life."

Changing values and life-style have also resulted in more cholesterol to cause coronary disease, increased secretions to cause gastric ulcers, high blood pressure to cause cerebral haemorrhage and frustrations leading to the doors of Mather hospital. Then survival depends on the physical-mental-spiritual balance. Moreover it depends on how one travels toward the goals of life, perhaps more than whether or not he ever arrives.

Health Education as an instrument of behavioural change has, yet again, been hampered by what I call "value illness." (The negative element behind smoking, drug addiction, alcoholism, corruption etc.). The knowledgeable individual is simply indifferent to the consequences of his own acts. He is not immoral, antisocial, or destructive in intent but simply amoral. His own principles of right and wrong do not compel him to act in keeping with what he knows is best for his health. Perhaps man is indeed his own greatest enemy.

Supervisory Staff

The six District Health Educators continued supervising the one hundred and twenty three (123) Family Health Field Educators except Marsabit where there was no District Health Educator. Transport and office accommodation were the main constraints.

FIELD STAFF DEPLOYMENT

There were six community Health Educators in the five districts of Eastern Province and one hundred and twenty-three Family Health Field Educators doing family health education activities for primary health care.

The said extension workers were normally deployed as two per service Delivery Point and they reached clients through home-visits, clinic talks, group talks, barazas, school forums and patient counselling. Mobile clinics were also organised as an out-reach system within the same district.

The family Health Field Educators covered long distance on foot and this had adverse effects on their performances. The state of immobility of the supervisors aggravated the situation. Supply of uniforms to the Family Health Field Educators improved tremendously.

The training of F.H.F.Es. was suspended till further notice due to lack of funds. A few inevitable transfers for F.H.F.Es. were done in various districts. Here below was the staffing pattern.

<u>District</u>	<u>D.H.Es.</u>	<u>F.H.F.Es.</u>	<u>S.D.Ps.</u>
Machakos	2	42	23
Meru	1	31	20
Kitui	1	22	11
Embu	1 + (PHE)	17	9
Isiolo	1	7	3
Marsabit	-	4	2
Total 1982	7	123	68
Total 1981	7	124	62

There was some improvement over the previous year.

The service delivery points increased by 6.

CIVIL REGISTRATION OF BIRTHS AND DEATHS

Civil Registration Demonstration Project is a cooperative project between the Government of Kenya and United Nations Fund for population activities. It started in 1981 with two component programmes:-

1. Improvement of Registration systems.
2. Civil Registration Enlightenment campaign.

These programmes covered the demonstration areas Murang'a, Nyeri Kirinyaga and Lurambi Division of Kakamega District. Being involved in C.R.E.C. activities, my contributions were:-

1. Writing of health messages (lessons) for use during the training of Registration Informants - Traditional Birth Attendants and village Elders. (1700 T.B.A's and 2100 V.D.s).
2. Making handout for the same training sessions. "REGISTER BIRTHS and DEATHS FOR BETTER FUTURE."
3. Help in compiling a booklet for the whole training project - "A GUIDE FOR DIFFUSION INSTRUCTORS."
4. Making of posters.
5. Writing spot announcements for V.O.K.
6. Making the Snake-Ladder game with registration of Births and Deaths messages.
7. Help in organising the seminars for Diffusion Instructors and Registration Informants.
8. Writing of Primary School Lessons for Civil Registration Educational Programme.

A good Government must plan for its increasing population and the surest way of determining the continuous rise in population is through effective registration of all births and deaths occurring in the health facilities or at home. Therefore what are the main benefits of Registration?

1. Enables the Government to properly plan for mother and child care services.
2. Enables you to comply with the law which is made for your benefit.
3. Is a proof of citizenship.
4. Helps us to obtain a passport or identity card.
5. Provides a proof of legal age for voting.
6. Provides a proof of identity and inheritance rights.
7. Gives a proof of age required for employment.
8. Gives a proof of age for entrance to school.
9. Helps to quicken medical help and immunisations because all particulars are in the birth certificate.

Again, what are the main benefits of Death Registrations?

1. Helps the Government to know the population decrease in order to effectively plan for development.
2. Helps to get a Burial permit as the law requires.
3. Helps the sharing of the property of the deceased among the heirs.
4. Helps the medical people to find out the cause of death and then protect the remaining relatives and other people from diseases.

EMBU MUNICIPALITY VILLAGE HEALTH COMMITTEES

In 1981 five village Health Committees were formed to cover the eight wards of Embu Municipality. The Provincial Health Educator and the District Health Educator were the initiators. The Family Health Field Educators are the supervisors in cooperation with Public Health Technicians and Nutrition Field Workers viz:

1. Matakari V.H.C.	- 19 Members
2. Kamiu V.H.C.	- 17 Members
3. Majengo V.H.C.	- 13 Members
4. Blue Valley V.H.C.	- 17 Members
5. Njukiri V.H.C.	- 21 Members
Total	- 87 Members

The following are some of the main achievements of the said V.H.C.'s

New clients referred to S.D.P.	- 83
Social cases referred to Social Workers	- 138
Malnutrition cases identified	- 25
Child welfare clinics referred	- 138
Ante-natals referred to S.D.P.	- 54
New pit latrines dug	- 36
Pit latrines repaired	- 13

DISTRIBUTION OF VISUAL AIDS

Assorted educational materials were distributed as follows:-

<u>District</u>	<u>Where</u>	<u>Number</u>
Embu	Health facilities	139
Machakos	Health facilities	40 (Breast milk for baby)

ACTIVITIES OF SERVICE DELIVERY POINTS

The MCH/FP clinics or services delivery points continued giving services on daily basis from Monday to Friday and the following statistical raw data reflects the trend in each district.

DISTRICT	C. W. C.		ANTENATAL		F. P.	
	<u>New</u>	<u>Reatt.</u>	<u>New</u>	<u>Reatt.</u>	<u>New</u>	<u>Reatt.</u>
Embu	8731	75231	10025	29502	1326	1733
Machakos (whole district)	72191	254463	52558	155398	3476	18086
Kitui	16492	54421	19469	44238	801	4611
Isiolo	5516	8792	2451	3591	233	791
Marsabit	55	314	73	170	8	40
Meru	6855	9432	4803	11905	2199	8289
Totals 1982	109840	402653	89385	248803	8043	33550
Totals 1981	57646	219992	44143	115306	7139	12992

ACTIVITIES OF F.H.F. EDUCATORS

They motivated clients for service delivery points as follows:-

<u>District</u>	<u>Coupons Issued</u>	<u>Clinics Talks</u>	<u>Group Talks</u>	<u>Home Visits</u>
Embu	414	447	945	7377
Kitui	-	-	-	-
Machakos	-	-	1175	9460
Isiolo	-	-	-	-
Meru	-	-	-	-
Marsabit	-	-	-	-

SCHOOL HEALTH EDUCATION IN THE DISTRICT

There is a captive audience for Health messages and the pupils would provide a multiplier effect in their homes.

OTHER PRIMARY HEALTH CARE WORKERS

1. The Chogoria Church Hospital continued with its twenty-seven (27) Family Health Field Workers in its fifteen (15) Family Health Clinics in Meru.
2. The Family Planning Association of Kenya continued with its seventeen (17) Family Planning Field Educators in Kitui, Embu, Meru and Isiolo. (viz. Kitui (5) Embu (5), Meru (6) and Isiolo (1). Also, there are fifteen (15) Family Planning lay Educators in Meru.

3. The Catholic Mission at Kitui through U.S.A. (CODEL) continued P.H.C. activities.
4. The Bishop of Mt. Kenya East has trained and deployed seventeen (17) Voluntary Primary Health Workers in Embu.
5. The Diocese of Machakos continued with its (108) Volunteer Health Workers in Yatta Division.
6. The AMREF - Rural Health project at Kibwezi continued with its (100) Village Health workers.
7. There are five village Health Committees in Embu Municipality comprising of eighty-three (83) committee members.
8. The Foster Parents Plan International did socio-economic survey of its primary health care activities in Embu.

SEMINARS

Seminars provide fertile ground for imparting knowledge and sharing experiences with the participants. During the year under review, the Provincial Health Educator was involved in twelve seminars as follows:-

<u>Date</u>	<u>Place</u>	<u>Seminar Purpose</u>	<u>Target Audience</u>	<u>Participants</u>
14.1.82	School H.V.	Eye diseases slides	Nurses	15
20.1.82	D.D.C.	Family planning	Chiefs/Teachers	40
23.1. - 6.2.82	Tiwi	K.E.P.I. (mid level)		1
9.2. -12.2.82	Isaac Walton	Red cross	Members	50
16.3.82	Town Hall	Health education	Village Health Committee	100
26.3.82	Town Hall	Social services	Women leaders	80
25.3.82	D.D.C.	P.H.T. lessons	P.H.T.	40
25-26.5.82	D.D.C.	F.P/MCH	FIAC Members	30
14-18.6.82	Mosoriot	Eyes diseases curriculum dev.	"HUTS" Tutors	30
27-31.7.82	Kitui	Management	D.H. Teams	60
16-21.8.82	Karurumo	"HUTs" supervision	supervisors	30
10.9.82	Karurumo	"HUTs" lecture	"HUTs"	30
24-30.10.82	Kaaga	Nutr. Curric. Design	N.F.W.	36
			Total	<u>548</u>

A crowd of about 4,500 people visited health stand during A.S.K. show in Embu 5th - 7th August, 1982.

Seminars/Meetings Held In The Districts

Seminars provide a fertile ground for disseminating health knowledge and experiences.

<u>District</u>	<u>Number</u>	<u>Population Reached</u>
Embu	7 seminars 7 meetings	374
Machakos	17 seminars 12 meetings	658

Other Districts their reports not received.

C H A P T E R - V

ENVIRONMENTAL HEALTH SERVICES

Introduction

During the year under review environmental health services continued successfully. Heavy rains caused stagnation of water and then breeding of mosquitoes in Machakos District. Also, mushrooming of unplanned markets was a big problem. River pollution by coffee factories was evidenced in Embu and Meru. Overflowing sewage was a public health problem at Chogoria Church Hospital. Kitui health staff were mostly busy supervising buildings constructions. There were no major changes in Marsabit but Isiolo health staff were very busy improving sanitary facilities and housing. The following is environmental sanitation report by district and also see appendix I - III.

EMBU DISTRICT

Food Control Services

Embu district is without large food factories except one salt parking plant and one rather large bakery. Various shortcomings to the two factories have been rectified without problems. Quantities of various foodstuffs were seized and condemned as indicated herebelow:-

Sugar	8,400 Kg.	milk	1,600 litres
salt	264 Kg.	canned peas	16 cans
soda sprite	160 crates	Tea	475 gallons
soda coke	27 crates	Beer	601 crates
bread	485 loaves	pawpaw	26 Kgs.
tomatoes	274 Kgs.	mangoes	845 Kgs.
onions	226 Kgs.	squash	262 litres
chapati	800	mandazi	2640

Sampling of food was regularly done either on formal or informal practises.

The following food plants were inspected thus food factories 3, grain stores 748, homestead stores 2,086, markets 116, eating places 946, hotels 3, bars 348 and general shops 1,201. Various premises were temporarily closed due to insanitary conditions thus bars 26, hotel 1, eating establishments 49 and 14 milk shops.

Meat inspection in the rural areas is carried out by health workers which the Ministry of Livestock development inspects in the Embu Municipality. Except for inadequate transport the service was well done. Meat inspection figures will be found at the appendix.

Water Supplies

Machanga dispensary had a 10,000 gallons masonry tank completed together with roofing. Gategi water engine was dismantled and stolen leaving the school without water.

Riakanau water project had pump and engine submerged into the dam water. However, the local people managed to save engine and pump. Tana River Development Authority give compensation to the tune of KSh. 10,352/= enabling rehabilitation of the project.

Kianjokoma market was connected to Embu Water Supply. The present hydram remains inoperational. Kyeni school sanitation block started in 1981 could not be completed due to inadequate funds. D.D.C. however, allocated a further KSh. 160,000/= and work was still in progress by the close of the year.

District Development funds to the tune of KSh. 98,480/= were allocated for St. Peters Boarding School at Ishiara. Funds were for the construction of a sanitary block which was completed.

Construction work both at Rukuriri and Kanyuambora Primary Schools came to a stand still due to lack of funds.

Embu Municipality

Services to this Municipality remain our responsibility. Refuse collection was well maintained. Vector control and rodent eradication was well coordinated by health staff.

Water supply for Runyenjes market remained untreated. Provision of 35,000/= enabled rectification of the nuisances caused by poor drainage. There was however, no form of refuse collection whatsoever.

Housing Sanitation

Most primary schools had permanent structures. However dilapidated buildings were the order of the day due to financial problems. This applied to secondary schools as well. Sanitary accomodation to most schools was in appalling condition although grants to that effect had been given both by the D.D.C. and the Ministry of Education. Shortage of houses continued through out the year.

Health Institutions

Embu hospital expansions to Provincial status have not yet started. Congestion however continued worsening encouraging filthy conditions.

The expansion at Ishiara hospital was completed.

Kiambere health centre and Rwika dispensary were being improved by Foster Parents Plan International to fully fledged units.

MACHAKOS DISTRICT

Achieved Goals

Pit latrines constructed	- 111
Pit latrines repaired	- 324
Pit latrines under construction	- 216
Refuse pit dug	- 196
Soakage pit dug	- 188
Urinals constructed	- 27
Food plants repaired	- 397
Spring protected	- 12
Refuse bays installed	- 8
Home steads visited	- 614

Problems Encountered

Certain problems were encountered during the year such as lack of adequate transport, break down of Ngwata Water Project pump, mushrooming of shanties in Machakos Municipality and some County Council markets. Delay in reimbursement of claims with adverse effect on the staff morals. Shortage of paraffin to health institutions, high incidence of animal bites, pollution of rivers by coffee wastes, overloading of Machakos sewage works, water shortages to hospitals, inadequate sanitary facilities to health units and lack of incinerators to all hospitals.

Meetings Attended

Numerous meetings were attended during the year such as those of the Provincial Medical team, D.D.C., liquor licensing, site meetings, housing committee, show committee and many others such as those of the Municipal and County Councils.

Water Supplies

Implimentation of water projects was widely carried out. Kisekini Water Kiosk was accomplished. Matungulu masonry tank was commissioned. Extension of Kawai water project was completed. Relaying of Ithaeni water project was started and nearing completion by the end of the year. One spring was protected at Mukaa while seven springs were protected at Kilungu. Construction of masonry water tank at Mwala started. Protection of Lua spring started but suspended due to lack of pipes. Extension of Kiteini/Ndiu spring water line started.

Cholera

On 8th December, 1982 a suspected case of cholera was reported from Kangundo hospital. The suspect was a teacher in South Nyanza who had come to visit his family. The patient died. However, the family and other contacts were given prophylaxis.

Animal Bites

Dog bites figured prominently of all cases reported and remained a problem during the period under review. Five hundred seventeen (517) cases were reported out of which 369 were observed 116 suspected and 15 investigated as positive. Fourteen (14) positive reports were received from the Veterinary Research Laboratories Kabete and action taken as advised.

During the said year, it was observed that there was a remarkable increase in the number of stray dogs. It was further established that many dog bites were due to young children provoking dogs by either kicking or harrassing them.

Food Control

Food hygien was well enforced in the district. Food plants inspected is as follows:-

Food factories	4	Hotels	249
Grain stores	92	Bars	361
Homestead stores	642	General shop	792
Market stalls	216	Butcheries	316
Eating houses	1021	Posho mills	24

Many food premises were temporarily closed due to various shortcomings. Rectifications were carried out in all cases thus necessitating reopening thus butcheries 46, eating houses 109, posho mills 4, slaughter slabs 7 and bars 24. Meat inspection figures will be found at the appendix whereas the following were foods condemned:-

Bread 180 loaves, pancakes 253 pieces, powder milk 250 kg. fresh milk 2078 litres, milk (DC) 2692 packets, maize 2 bags, soda 531 bottles, rice 40 x 50 Lbs and wheat 15 x 50 Lbs.

Slaughter Houses

Kangundo slaughter house experienced poor drainage which attracted stray dogs. The same problem was noticed at Tala slaughter house. County council slaughter slabs remained a health risk due to poor construction, inadequate water supply or no water at all, wrong sitting and inadequate cleaning staff or non at all.

Hospital

Machakos and Makueni experienced periodic water shortages. During such periods cleanliness was most impossible. Compounds remained reasonably clean. Sanitary fittings to all our hospitals remained unattended by the Ministry of Works. Equally all our Health Centres and dispensaries remained out of repair due to lack of relevant vote allocations.

MERU DISTRICT

Immunisations were somehow hampered by lack of kerosene for refrigerators to the rural health units.

Food handlers were attended to. All travellers who attended to the clinic were issued with certificates as indicated herein i.e. T.A.B. 1st dose 3,164, 2nd dose 1,604 and cholera 35.

Food Control Practice

Commercial premises were intensively inspected thus factories five (5), food premises 165, posho mills 235, bars 165 and markets 30.

In addition to food premises 4566 pit latrines were pegged and out of that number 2050 were constructed. Four hundred forty-four (444) compost pits were dug. Eight health education lectures delivered.

Foods Condemned

Bread due to staleness 272 loaves, Biscuits due to mouldness 900 packets, Beef exposed to contamination 4622 kgs, Chilly sauce 2266 gms. and margarine blown tins 10 kgs. Open air markets had such items as bananas, cabbage and fruits condemned due to spoilage.

Informal and form samples of various foods were taken to Public Health Laboratory Nairobi. Such were sodas, maize grains, kitchen salt, house baking flour and bread.

Approval of Plans

Plans were drawn by the local authorities concerned. The office however, approved the followings:-

Commercial premises	- 261
Residential buildings	- 196
Schools	- 11
Churches	- 6
Hides and skins	- 2
Banks	- 1

Prosecutions

A few prosecutions were affected as follows:-

- (a) Twenty (20) people were charged for failing to use appropriate garments while handling food. They were fined a total of KSh. 1,830/=.
- (b) Nineteen (19) people contravened medical examination for food handlers. They were fined a total of KSh. 1,740/=.
- (c) Eleven (11) people were charged due to exposure of unwholesome food and fined KSh. 4,090/=.
- (d) Fourteen (14) people were charged for having failed to provide latrine accommodation fined a total of KSh. 1,560/=.