WORLD HEALTH
ORGANIZATION

ORGANISATION MONDIALE
DE LA SANTE

REGIONAL OFFICE FOR THE WESTERN PACIFIC
BUREAU REGIONAL DU PACIFIQUE OCCIDENTAL

WORKSHOP ON FIELD OPERATIONS FOR FILARIASIS ELIMINATION IN THE PACIFIC

Brisbane, Australia
16-20 October 2000

WPR/MVP/MVP(P)(1)/2000.5
5 October 2000

ENGLISH ONLY

COUNTRY REPORT

FIJI

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1. BACKGROUND INFORMATION

1.1 Physical and demographic facts of the Fiji Islands.

The following factors, affect the way health programmes can operate, therefore they need to be noted.

⇒ Geographic location :- FIJI
- lies between 15 to 22 South of the equator
- and between 174 to 177 West
- it straddles the 180th meridian (international line)
- relative to neighbouring countries
- 3,167 nautical miles to the north-east of Sydney (Australia)
- 1,164 miles North of Auckland (New Zealand)
- and 3.174 miles south-west of Honolulu (Hawaii)

⇒ Physical composition
- the group comprises 322 islands varying in size from to total the land area of 18,333 sq.km
- the largest island, Viti Levu, is 10,429 sq.km and the second largest, Vanua Levu is 5,566 sq.km. These two islands account for almost 90% of the total land mass.
- The group consists of both high volcanic and low lying coral islands

⇒ Climate
- The mountain ranges, lying across the prevailing southeast tradewinds, exert a modifying effect on the tropical oceanic climate.
- The temperatures vary from 36C in "summer" to 16C in "cooler periods"
- The annual rainfall in coastal areas range ____________.

⇒ Population
- the population of Fiji is 775,077 (1996)
- it is estimated that the age distributions are as follows:
- 45.9 % are less than 20 years old
- 31.5 % are between 20 to 39 years of age
- 16.9 % are between 40 to 59 years of age
- 4.9 % beyond 60 years old

According to the 1996 population census the ethnic distributions were as follows :
- Fijians 50.7%
- Indians 43.7 %
- Others (Rotumans, Chinese, Part-Europeans and other Pacific Islanders) 5.6%

1.2 *Administrative and Health Structure of the Fiji Islands.*

The overall control of the Ministry of Health is under the Minister of Health, who is responsible for the formulation of health policies, political leadership and all other constitutional functions. The Permanent

Secretary for Health is responsible to the Minister for professional and administrative functions of the Ministry.

The structure of the health services from the Ministry of Health, down to the local Village Health Committee and the Primary Health Care Workers is illustrated in ANNEX 1.

1.3 Distribution and endemicity of lymphatic filariasis in the Fiji Islands.

1.3.1 Microfilarial rate

Dr Mataika and his research team carried out the most recent blood surveys for microfilariae in Fiji between 1991 to 1995. During this survey, 3/20cmm finger prick blood smears were collected, stained and examined under low power microscopy for microfilariae.

In this survey, the positive microfilarial rate ranged from as low as 0.22% to as high as 19.74%. This distribution and extent of the areas where lymphatic filariasis is endemic in Fiji, has been illustrated on a map in ANNEX 2.

1.3.2 Vector species

Lymphatic filariasis in Fiji is caused by a parasitic worm => Wuchereria bancrofti.
The chief mosquito vector in Fiji has been:

- Aedes pseudoscutellaris – which found mainly inland
- Aedes polynesiensis – along coastal areas mainly
- Aedes fijiensis – mainly inland
- Aedes rotumae – found only in Rotuma, and is the main vector there.

[Above data derived from mosquito survey conducted in the north of Fiji by Macnamara and Rakai in 1968-1969]

1.3.3 Clinical manifestations of lymphatic filariasis

In a survey conducted by Dr Mataika et.al in Kadavu (1985) and Lomaiviti (1986), the following clinical manifestations were most prevalent :-

- palpable inguinal nodes (41%)
- palpable epitrochlear nodes (14.5 %)
- palpable axillary nodes (2.8%)
- fever (2.3 %)
- hydrocele (2.1 %)
- elephantiasis of arm, legs, genitalia, breasts (<1%)

1.3.4 Previous control Campaigns conducted in the Fiji Islands

Treatment of filariasis began in 1969 using DEC at 5mgm per kilogram given in weekly doses for 6 weeks followed y 5 mgm per kg body weight taken monthly for 22 months.

The mass drug administration of DEC was carried out in Fiji in six stages in a two year cycle. At the end of the MDA all treated areas had shown decreased microfilarial rates down to 1% or less.

In 1983, following a mass blood survey, it was found that almost all areas had an increasingly alarming rise in the microfilarial rate, this prompted the adoption of a Filariasis Control Pilot Project which was conducted in Fiji from 1984 to 1991, in three demonstration areas.

This project saw a dual regimen of MDA with DEC.

- first demonstration area – with DEC at 6mgm/kgBW , annually for 5 years
- second area – DEC at 5mgm/kgBW, weekly for 6 weeks then monthly for 22 months
- third area (control area) – no DEC administered for the first 3 years.

RESULTS: marked reduction in the microfilarial rates in the first two areas.

Following the above results along with information from the Western Samoan Filariasis Programme by Kimara et.al in 1985, the Fiji Ministry of Health decided to launch a national filariasis control programme. This consisted of MDA of DEC at 6 mgm/kgBW with the addition of Ivermectin (mectizan) at 200um/kgBW which was to be given annually for the next 10 years staring in the Eastern division in October 1996.

2. TARGETS OF THE PROGRAMME

⇒ Filariasis elimination from the Fiji Islands by the year 2010.

- elimination to be defined as: -

Filariasis cases less than 1 per 3000 people, including no antigenaemia per 1000 children under 10 years

3. STRATEGY AND TACTICS

- To reassess the prevalence of filariasis antigenaemia in the population of the Fiji Islands
- To eliminate the risk of filariasis infection from the population by interrupting transmission through Mass Drug Administration and vector control.

3.1 Epidemiological Assessment

3.1.1 Method of assessing samples – ICT test kits

- using whole blood
- easily transported and cost effective
- field staffs require little training in the use of the kits

3.1.2 Sample population and size

Prior to conducting the programme, information regarding the campaign would have to be disseminated to the communities in liaison with the following: -

- Divisional Medical Officer]
- Divisional Health Sister]
- Subdivision Medical Officer] medical personnel
- Subdivisional Health Sister]
- Permanent Secretary for Fijian Affairs
- Roko Tui of Provinces (when appropriate)
- Permanent Secretary of Education
- Principals of Schools (accordingly)

The Divisional/ Subdivisional medical personnel select the villages to be surveyed, then forwards the population statistics to the National campaign team who organises the itinerary in liaison with the respective Subdivisional medical personnel's.

3.2 Microfilaricidal treatment to control transmission

The drug distribution methods that will be adopted in urban and rural communities are going to be one of the same. Prior to the distribution of the drugs, the village community under the supervision of the local district nurse sends the individual household demographic data on a specified treatment sheets to the National Filariasis Campaign team. These data are then used to prepare the amount of drugs required per household in a village.

The regimen of albendazole –plus-DEC in single doses co-administered once yearly is the regimen of choice for MDA.

4. HEALTH EDUCATION AND TRAINING

Health education about lymphatic filariasis, plus the purpose and benefits of the programme will be carried out as follows:

- conduct divisional and subdivisional workshops for the all medical staffs involved in this campaign

- training programmes at the village level to inform the villages about the disease and mosquitoes plus the MDA programmes, seeking their permission and participation
- talks on filariasis to be broadcast at regular intervals, informing the public
- pamphlets and posters on the disease to be prepared by the Health Education Unit.

Currently, we have pamphlets and posters, which concentrates on the MDA programme. However, these have been revised to include more information on the disease process.

5. ADMINISTRATION AND MANAGEMENT

5.1 The National Filariasis Control Committee

- ➢ Director of Primary/Public Health
- ➢ Chief Medical Officer (Vector-borne)
- ➢ Senior Health Inspector
- ➢ CMO, National Health Promotion
- ➢ Acting Director of Nursing services
- ➢ Senior Laboratory Technician
- ➢ National Programme Coordinator
- ➢ WHO representative

5.1.1 Responsibilities :

- ⇨ Policy, strategy plan and logistics
- ⇨ Supplies and budget
- ⇨ Coordination with internal and external support
- ⇨ Publicity and media

5.2 *Operational Team*

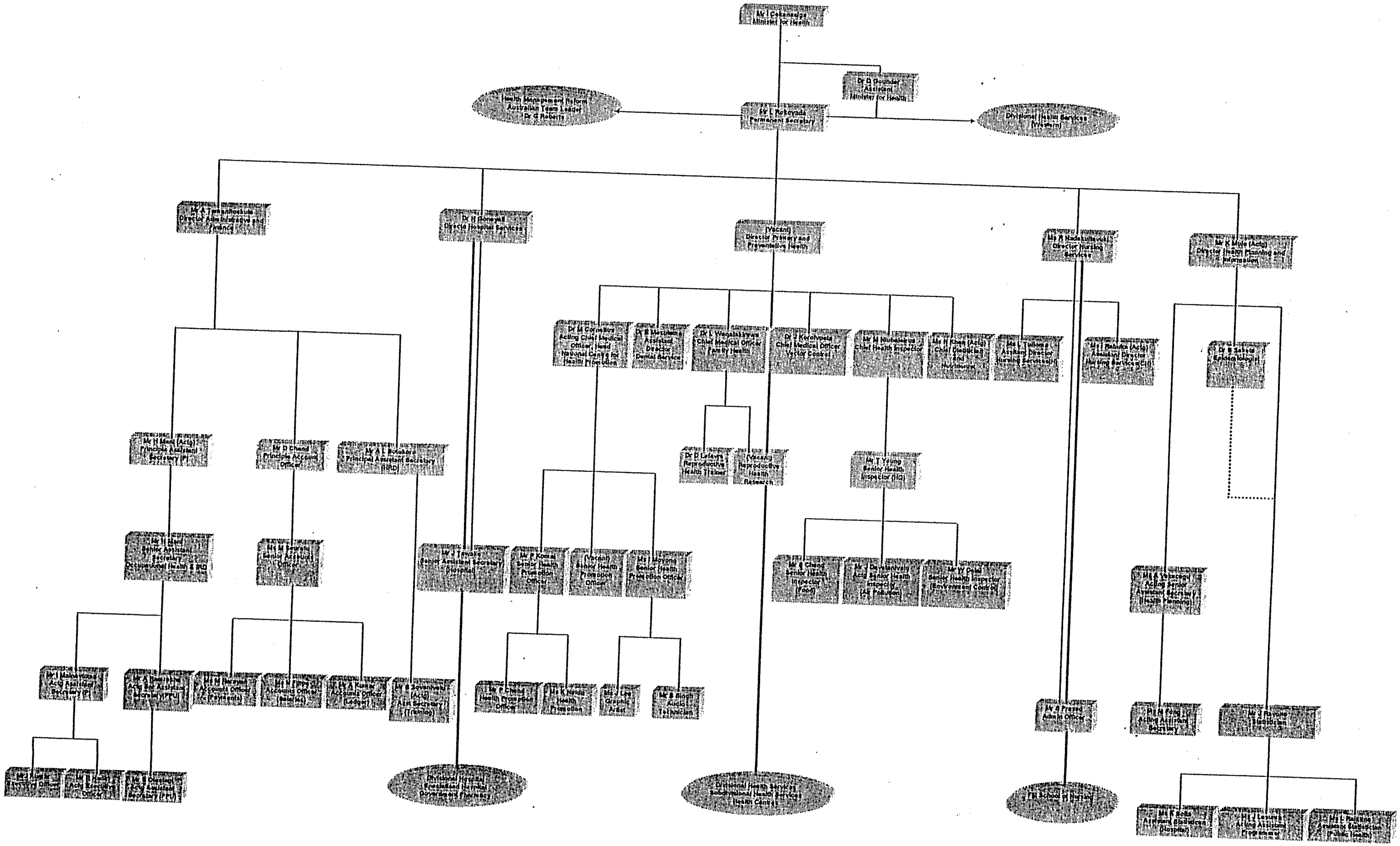
- ➢ Dr Joe Koroivueta, Chief Medical Officer (Team Leader)
- ➢ Dr Ilisapeci Kubuabola
- ➢ Mr Mosese Seru, Research officer
- ➢ Ms Theresa Young , Laboratory Technician
- ➢ Mr Paula Laqere, Health Inspector
- ➢ Mr Simione Sokiqele, Technical assistant

5.2.1 Responsibilities:

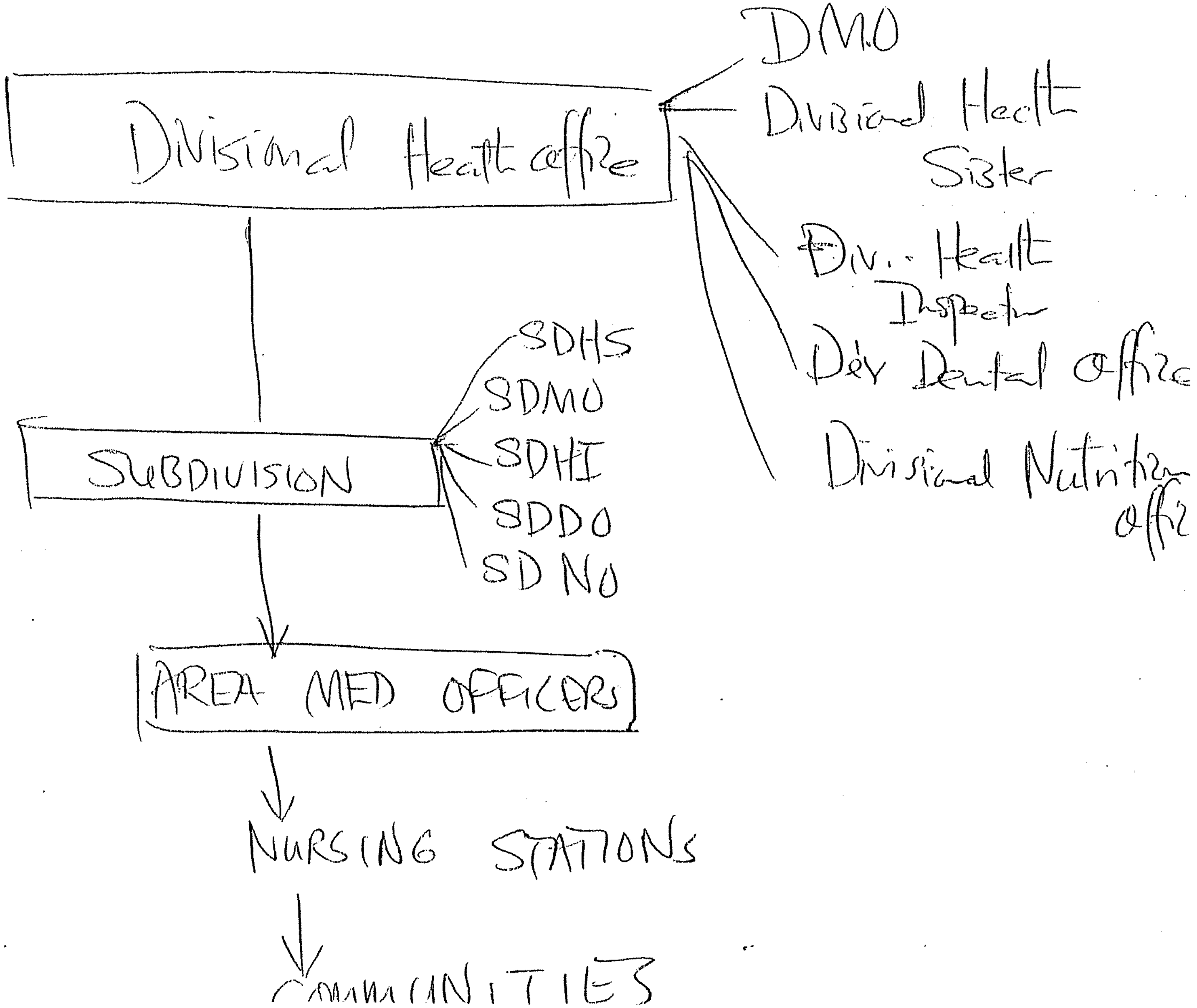
- ⇨ Village / island blood survey
- ⇨ Data collection and analysis
- ⇨ Supervising filariasis laboratories
- ⇨ Organise MDA
- ⇨ Report to the committee.

Annex 1

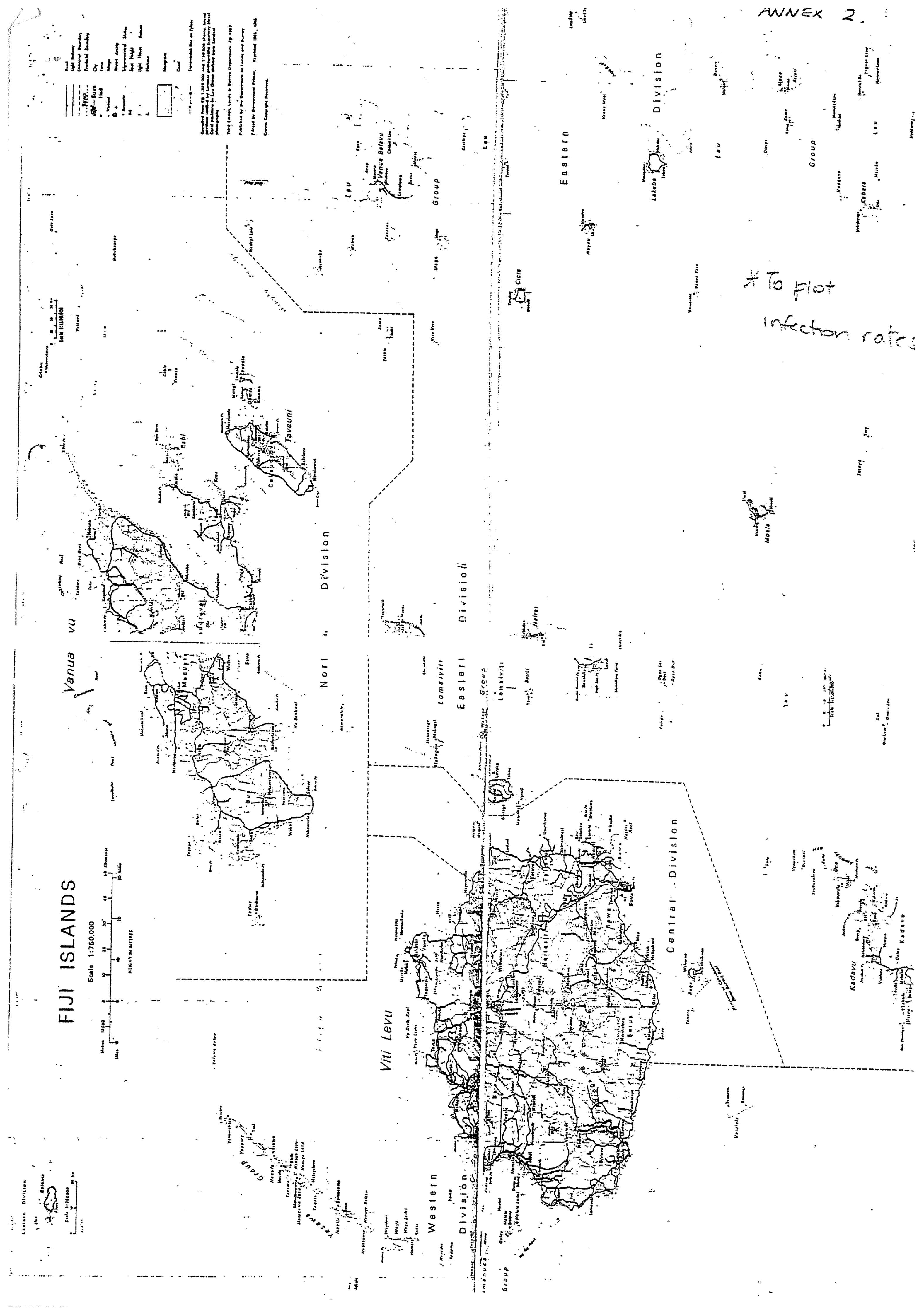
MINISTRY OF HEALTH ORGANISATION CHART



Divisional H/S Organisatn



ANNEX 2.



*To plot infection rates

6. TIME PLAN FOR FILARIASIS CAMPAIGN

MONTH	WORKPLAN ACTIVITY
September 2000	• draft a National Plan of Action (poa) to be handed to Dr Ichimori by 26/09/00
October 2000	• Plan of action to be reviewed and edited by Dr Koroivueta and Dr Ichimori • Need to establish a National committee, to whom the operational team will be reporting to
November 2000	• Formulation of a National Policy for filariasis campaign • Decide which areas are going to be visited in liaison with the Divisional personnel, get contacts established, get demographic statistics for areas chosen to be visited • Need to remember education departments if we are considering schools as part of population to be studied • Prepare for blood surveillance based on data sent by respective divisional or medical areas – order for ICT kits
December 2000	• conduct an awareness workshop for all divisional/subdivisional staffs involved +/- the community workers • memos to be sent out to all concerned on the itinerary of the blood surveillance
January 2001	• blood surveillance
February 01	
March 01	
April 01	
May 01	• MDA campaign – health education for the public • Training of community health workers and district nurses on the administration of the drugs • Analysis of baseline survey
June 01	
July 01	• National meeting for MDA • MDA preparation
August 01	
September 01	
October 01	• National MDA starting date – to be conjunction with independance day (easy to remember)
November 01	• Prepare work plan for 2002 => onwards - in terms of ongoing surveillance - follow-up treatment of positive cases - vector surveillance, control etc.
December 01	