

The Research and Control of Infectious Diseases Project, Phase 2



Project Sites Nairobi

1. Background of Project

JICA has been supporting the Kenya Medical Research Institute (KEMRI) through the KEMRI Construction Project by grant aid (1982 – 83), the KEMRI Technical Cooperation Project (1985 – 90), and the Research and Control of Infectious Diseases Project, Phase I (1990 – 96). Results of this series of projects, and the evaluation findings of the last project led to the request for a project focused on public health priorities in Kenya (HIV/AIDS, acute respiratory infections (ARI) and viral hepatitis (VH)). The project for Improvement of KEMRI by grant aid was implemented in 1997 to construct the P3 lab, which is an essential facility for this Project.

2. Project Overview

(1) Period of Cooperation

1 May 1996 – 30 April 2001

(2) Type of Cooperation

Project-type Technical Cooperation

(3) Partner Country's Implementing Organization

Kenya Medical Research Institute (KEMRI)

(4) Narrative Summary

1) Overall Goal

The health situation in Kenya is improved by strengthening research capability and developing human resources at KEMRI.

2) Project Purpose

Sustainable research and development (R&D) related to HIV/AIDS, ARI, and VH is realized.

3) Outputs

- a) An R&D system for HIV/AIDS diagnostic kits (PA kits) is developed.

- b) A system of research on ARI is developed.
- c) An R&D system for VH diagnostic kits (HEP-CELL II kits) is developed.

4) Inputs

Japanese Side

Long-term experts	15
Short-term experts	39
Trainees received	20
Equipment	253 million yen
Local cost	130 million yen

Kenyan Side

Counterparts	59
Land and facilities	
Tax exemption	
Equipment	
Local cost	20 million yen

3. Members of Evaluation Team

Team Leader:

Shunzo CHIBA, Professor, Medical School of Sapporo Medical University

HIV/AIDS:

Takashi KURIMURA, Professor Emeritus, Osaka University

ARI:

Shigeru KAMIYA, Professor, Medical School of Kyorin University

VH:

Michitami YANO, Director, Nagasaki Chuo National Hospital

Coordinator:

Ikuo TAKIZAWA, Second Medical Cooperation Division, Medical Cooperation Department, JICA

4. Period of Evaluation

9 August 2000 – 26 August 2000

5. Results of Evaluation

(1) Relevance

The project on the targeted diseases, HIV/AIDS, ARI, VH was relevant, as all of them have been public health priorities in Kenya.

(2) Effectiveness

From the outputs of the HIV/AIDS program, KEMRI was enabled to locally produce PA kits. Research on medicinal plants led to the discovery of their antiviral activities. Also, clinical tests showed the effect of preventing mother-to-child transmission of HIV.

Drug sensitivity tests for ARI revealed drug-resistance against some standard medicines. The findings will enable more effective medication.

Local production of HEPCELL kits was started in the previous phase of the Project for VH. This phase further introduced lyophilization for quality preservation. As a result, 2,670 kits were produced between July 1996 and February 2000, of which 1,776 kits were distributed to all provincial hospitals in Kenya.

(3) Efficiency

Under limited inputs, satisfactory outputs were shown, thus the project was managed efficiently as a whole. However, some equipment and consumables from earlier stages were underutilized due to changes in the project plan. Very few counterparts were motivated well enough to transfer knowledge and skills to their colleagues; thus training of personnel needs to be improved.

(4) Impact

Although the local production scheme was established for PA kits, this type of kit has not been widely utilized due to its only recent approval by the Government. The research results of medicinal plants collected in Kenya as well as the clinical tests on mother-to-child transmission have high potential to be applied to the prevention and treatment of HIV/AIDS in the future.

Treatment effects of ARI will be improved when the survey findings of drug-resistance are reflected in treatment guidelines. Educational activities with videos and pamphlets were successful despite the limited budget. Household-visit education by women volunteers is among the factors of success. These educational activities are expected to contribute effectively to preventing infantile ARI.



Consultations on the project implementation

By the improvements of production technologies of the KEPCELL II kits, their usage in screening VH-B increased to have 60% share of the total blood supply in the Government facilities in Kenya. It has greatly contributed to the prevention of infection.

(5) Sustainability

Technology transfer was sufficiently conducted, assuring technical sustainability. Mid- to long-term sustainability is questionable, considering KEMRI's weak human resource development strategies for young researchers.

Financial sustainability is possible due to the growing local production of KEPCELL II kits, the commitment of the Ministry of Health to procure KEPCELL II, and the expected development of PA kits as KEPCELL II. For other research and development activities, sustainability would not be attained since most of the operating costs, except for personnel costs, were financed by the project costs.

6. Lessons Learned and Recommendations

(1) Lessons Learned

Release strategies of the research results should be clearly defined from the beginning of the project. It will help identify and specify activity goals of research and development.

(2) Recommendations

Data and experiences gained from the research on mother-to-child HIV transmission should be documented.

The production plan of the KEPCELL II kits, and the PA kits should be embodied.

Also, for the overall project, data of all the studies should be analyzed and documented for each research and development activities.