

1. 協議議事録（評価報告書を含む）

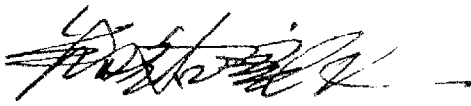
*Minutes of Discussion
between
Japanese Project Evaluation Team
and
Authorities in the Republic of Zambia
pertaining to
Japanese Technical Cooperation
for
Lusaka District Primary Health Care Project*

The Japanese Project Evaluation Team (hereinafter referred to as "the Team") organised by Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Dr. Yujiro Handa, Senior Advisor for health sector, Institute for International Cooperation, JICA, visited the Republic of Zambia from 16th September to 6th October, 2001, for evaluating the technical cooperation project concerning Lusaka District Primary Health Care Project (hereinafter referred to as "the Project").

During the above evaluation period in the Republic of Zambia, the team exchanged views with the related parties and also participated in the Joint Evaluation Meeting with the Zambian authorities concerned. The Joint Coordinating Committee Meeting of the Project was held between the Republic of Zambia and Japan in Lusaka on 4th October, 2001.

As a result of the discussion, both parties agreed to report their respective governments the matters referred to in the document attached hereto.

Lusaka, Zambia
5th October, 2001



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Leader
Project Evaluation Team
Japan International Cooperation Agency
Japan



Dr. Kashiwa Bulaya
Permanent Secretary
Ministry of Health
The Republic of Zambia



Dr. Moses Sinkala
District Director of Health
Lusaka District Health Management Team
The Republic of Zambia

List of Abbreviation

CBoH	Central Board of Health
CHW	Community Health Worker
ECOSOC	Economic and Social Council
EHT	Environmental Health Technologists
GEHC	George Environmental Health Committee
GMP+	Growth Monitoring Programme plus. An integrated approach for child health with growth monitoring, nutritional counselling, immunization and vitamin A supplementation conducted in the community
JICA	Japan International Cooperation Agency
LDHMT	Lusaka District Health Management Team
MoH	Ministry of Health
NGO	Non-Governmental Organization
NHC	Neighbourhood Health Committee
NP	Nutrition Promoter
PHAST	Participatory Hygiene and Sanitation Transformation
PHC	Primary Health Care
PTA	Parent Teacher Association
UTH	University Teaching Hospital
VIP	Ventilated Improved Pit

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Attached Document

Attendants of Joint Coordinating Committee Meeting

Japanese side

Project Evaluation Team

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JICA Zambia Office

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Zambian side

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Dr. Brian Chituwo	Acting Managing Director, University Teaching Hospital (UTH)
Dr. Moses Sinkala	Director of Health, Lusaka District Health Management Team (LDHMT)
Dr. Mphundu M Chikoya	Manager Planning and Development, LDHMT
Mr. Eddie C Musonda	Administrative Manager, LDHMT
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Mr. Derrick M'paka	School Health Coordinator, LDHMT
Ms. Mavis E Kalumba	Nutrition Expert, LDHMT
Mr. Evans Muduli	Laboratory Technologist, LDHMT
Mrs. Anne Katuta	Sister-in-charge, George Health Centre
Mrs. Evelyn Tembo	Maternal and Child Health in charge, George Health Centre
Mr. Musonda Mofu	Nutritionist, George Health Centre
Ms. Catherine Ng'uni	Sister-in-charge, Matero Reference Health Centre
Mr. Kennedy Njobvu	Environmental Health Technologist, Matero Reference Health Centre
Mrs. Elizabeth T Mushinda	Public Health Nurse, Kanyama Health Centre



Having noted and giving due consideration to the contents of the Joint Evaluation Report by visiting JICA Project Evaluation Team and Zambian authorities on the progress of the Japanese technical cooperation for Lusaka District Primary Health Care Project, there was general agreement between the Zambian authorities and the Japanese Team on the need for the following measures to ensure the sustainability and impact of the Project after the completion of project activities in the year 2002.

(I) Major Achievements of the Project

Capacity and institution building related to the community health issues at George Compound enabled the residents to achieve effective control of cholera outbreaks due to the intervention of water and sanitation in a participatory method and also establishment of a mechanism to practice GMP+ * as routine activities managed by health centre staff and community based organizations.

* *Growth Monitoring Programme plus: integrated programme for child health with growth monitoring, nutritional consultation, immunization and vitamin A supplementation conducted in the community*

1...Capacity and institution building

01.....Capacities of the stakeholders particularly of over 260 health centre staff were adequately built by the Project in various training courses in terms of the management and implementation of primary health care (PHC). In George Compound (zone 2 - 13), one of the low-income residential areas with population of 35,000 people, health service providers, such as community health workers (CHWs), nutrition promoters (NPs) and members of George Environmental Health Committee (GEHC), were trained to improve the existing health problems in the community by themselves.

02.....In addition to the above, the Project intended to achieve improvement of the capacities and reliabilities of various health systems in the entire Lusaka District in conjunction with the activities of George Compound. Positive indications were clearly recognized in some specific facets of service delivery, referral system and school health service.

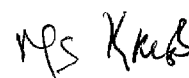
03.....Targets for the improvement were properly selected by means of participatory approach on (1) water / sanitation, (2) growth monitoring programme (GMP) in relation to the objective to reduce malnutrition, (3) health informatics, case management / laboratory and X-ray examinations at health facilities in relation to referral system and (4) health education and periodic medical check-ups in association with the control of diarrhoea and helminthiasis as a part of school health service.

04.....Lusaka District Health Management Team (LDHMT) played a major role as the direct counterpart of the JICA expert team to conduct various activities and recognized that the managerial capabilities of the key personnel headed by District Director of Health were improved particularly on planning and implementation of primary health care activities.

05.....Existing governmental¹ and non-governmental² organizations were sensitized from the planning stage in a challenging manner to achieve tangible outcomes of project activities and also to ensure the sustainability of the project outputs. With regard to improvement of sanitary facilities and promotion of environmental health, the Project in collaboration with Zambian counterpart organizations and *Association of Medical Doctors of Asia (AMDA International)* established a self reliant management group to deal with

¹ Ministry of Health (MoH), Central Board of Health (CBoH), Lusaka District Health Management Team (LDHMT)

² Neighborhood Health Committee (NHC), Salvation Army, CARE Prospect



fee-paying public toilets and showers as well as garbage collection and disposal. The supportive activities such as micro-credit programme, literacy promotion class, tailoring class and community farm development for the community organizations in the Project and the residents were successfully coordinated by the Project and AMDA International. This NGO is an organization with the United Nations ECOSOC³ consultative status, which is involved in the Project by provision of technical experts as well as methodology of community empowerment with grass roots approach.

2...Water and sanitation

06.....**With regard to water and sanitation issues**, residents of George Compound in collaboration with Environmental Health Technologists (EHTs) of health centres were empowered to construct and manage ventilated improved pit (VIP) latrines, drainages and stations for solid waste disposal at several points of the compound. A community committee called George Environmental Health Committee (GEHC) was formed. Its activities involved (1) water / sanitation, door-to-door health education, (2) solid waste management, (3) drainage clearing and construction, (4) VIP latrine construction and management and (5) cholera contact tracing and fumigation as a crisis management during the outbreaks. These activities were effectively implemented and maintained. Water supply system, provided by Japan's Grant Aid Project completed in 1996, was effectively utilized in the above activities. As a result of the activities, the number of deaths due to cholera in George Compound reduced drastically from 70/10,000 in 1994 to 1/10,000 in 2000.

07.....A mechanism of cost recovery in the maintenance of sanitary facilities was established and was accepted by the residents as "Fee Paying Toilet" schemes. This was initiated by the Project and supported by the community. It should be noted that the approach of Participatory Hygiene and Sanitation Transformation (PHAST) has been well-recognized by civil authorities related to the above issue with successful implementation and outcome.

3...Practice of GMP+ in the community

08.....**Practice of Growth Monitoring Programme plus (GMP+) for under-5 children** is managed as a routine self-help activity which has been extended beyond George Compound to 5 other compounds (Kanyama, Chawama, Ng'ombe, Chipata and Mtendere). A mechanism to conduct a set of activities on growth monitoring, consultation on food / nutrition for caretakers and immunization was established and autonomously conducted with the initiative of health centres and community based organizations comprising CHWs and NPs. The above situation created a favourable environment and influenced the improvement of recording and monitoring system with regard to nutrition of children.

09.....LDHMT and health centre staff obtained the ability to train CHWs. One hundred and forty-nine (149) CHWs have been trained (51 in George, 24 in Kanyama, 25 in Chawama, 25 in Chipata and 24 in Mtendere). The trained CHWs in George acquired skills to plan and implement their own community-based activities for promoting nutrition and growth of children.

10.....With the empowerment of residents of George Compound in conducting preventive and promotive activities in GMP+, health centre staff were able to concentrate on curative services and other critical issues. In the compound, underweight prevalence among under-5 children declined from 23% in 1999 to 15% in 2000, full immunization coverage of under-1 children increased from 15% to 61%, and the measles incidence among under-5 children declined from 8.5/1,000 to 1.8/1,000. This fact should be recognized as a win-win situation of this Project.

4...Health service delivery and the referral

11.....**Functional improvement of 1st referral health centres and 2nd / 3rd referral hospital** (University Teaching Hospital <UTH>) was intended by the Project to support the existing primary health care

³ Abbreviation of Economic and Social Council



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activities in the community of Lusaka District. Service delivery at one of the 1st referral health centre, namely Matero Reference Health Centre, was substantially improved by optimal inputs of laboratory and X-ray equipment with necessary technical and managerial trainings provided to staff. These trainings were conducted in collaboration with the Project experts, Chainama Hills College of Health Sciences and University Teaching Hospital. The establishment of X-ray Department at the centre has created confidence in both the staff and clients. Referral of cases requiring radiological examination has drastically reduced, and management of cases has also improved. The centre is now capable of conducting X-ray examinations independently for about 500 cases per month.

12.....The laboratory services were improved at 3 other 1st referral health centres (Chelston, Chilenje and Kanyama). The Project provided some equipment and training of laboratory staff including strengthening the laboratory diagnosis of malaria and bacteriological examinations during cholera outbreaks. This influenced the increase in utilization of health centres by respective catchment communities.

13.....The importance of developing health information system was emphasized for the entire Lusaka District Health System. A clinical recording capacity to capture, process and analyze the data using computer was introduced to the Paediatrics Out-patient Department of UTH and put into practice as the sole patient registration system with a simple but effective format developed in collaboration with the UTH Department of Paediatrics, LDHMT, University of Miami (USA), and the JICA Project.

5...School health service

14.....**School health services at 8 pilot primary / basic schools**, with the total population of 15,000 children, were strengthened by the commitment of the Project with specific objectives to improve the capacity of school health coordinators to undertake periodic medical check-ups of the pupils, and also to motivate pupils and the parents to participate in the de-worming activities in line with the improvement of health behaviours particularly on personal hygiene.

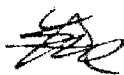
15.....Access to clean water at George Central Basic School was substantially improved by the installation of water supply system with multiple taps. The pupils were guided by school health coordinators to acquire knowledge on personal hygiene and prevention of diarrhoea and parasitic infection. Hand washing using soap made at the model school was in practice.

(II) Measures to be taken for ensuring the sustainability and positive impact of the Project to Zambian society

George Compound should be recognized as a model community for PHC in urban settings that can be extended to other compounds of Lusaka and other urbanized areas of Zambia.

17.....**An approach with the combination of Water / Sanitation and "GMP+"**, successfully implemented by the Project at George Compound, should be a standard package of LDHMT and Ministry of Health (MoH), by which the health authorities tackle the existing health problems in urban residential areas with low incomes. It is advisable to initiate a movement among various communities to learn and follow the achievement of George Compound. It is also recommended that MoH formulates a proper explanatory document useful to stakeholders in the community as well as health professionals of domestic and international organizations who are interested to create future project ideas. It is obvious that the Project and the LDHMT counterparts are highly expected to disseminate the achievements of lessons learned to other districts and also publish reports and related articles in local and international journals.

18.....**Control of cholera outbreak** should be prioritized as a health thrust requiring crisis management. Continuing efforts of MoH and LDHMT are highly expected to realize the standardization of environmental sanitation among various compounds affected with the common problems of drainage, solid



waste, latrine and utilization of safe water at respective household level.

19.....Regarding “GMP+”, special care should be taken, by health centres and LDHMT, on the management of the existing health volunteer groups to sustain their motivation by promoting income generating activities that can generate funds with financial credibility to support their allowances and other costs. GMP+ is an approach, which every community can initiate with reasonable cost and human resource. This can enable women to buy food stuff with the knowledge learnt in “GMP+” by their own will and money. It is recommended that LDHMT looks into the feasibility of integrating HIV/AIDS, safe motherhood and family planning in the GMP+.

20.....**Referral health centres** in Lusaka District, 4 out of 23 conventional health centres, should be further strengthened in function and service delivery capacity as the key referral facilities in the existing health care system. Maximal utilization of the limited resources is obviously a key to ensure the quality of service. Proper task sharing with communities and also with other health centres should further be strengthened. It is obvious that improvement of the entire referral system requires multi-disciplinary strategies with both bottom-up and top-down directions of the referral ladder with long term objectives. Funding is of course the most difficult part of the planning. Support from Central Board of Health (CBoH) and MoH is critical for the referral system to be strengthened in Lusaka.

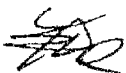
21.....**School health services** should be maintained within the available resources on prioritized components of the school health programme, such as health education with the focus on diarrhoea, parasitic infections and environmental health. Regular medical / dental check-ups and stool / urine examinations are cost-bearing activities that should be properly planned for with long term perspective. Cost-effectiveness on the de-worming components should be strengthened with regard to the organizational aspect in which Parent Teacher Association (PTA) shouldered the actual cost to procure de-worming tablets. This component has a potential of spreading to all primary schools in the district. Support of laboratory supplies for school health activities is critical to produce positive impact of school health programmes. With regard to the improvement in health of the school children, their household members should also be targeted on a broader scale.

22.....**Participatory Hygiene and Sanitation Transformation (PHAST)** is a suitable and convenient approach with proper integration of knowledge and behaviour improvement of the residents. Further elaboration is required to have an extension of the activity package developed by the Project to other compounds with emphasis on funding, trainings and community mobilization. It is also obvious that the sustainable advancement of community organizations developed in George Compound is the most vital issue. Proper collaboration with local NGOs should be explored to ensure the technical and financial sustainability.

23.....**In-service training opportunities** for middle level health professionals such as nurses, technicians and clinical officers should further be expanded with appropriate training targets. It is also important to include technical and managerial skill development in the curriculum. Relevant trainers’ training with emphasis on various priority areas should be tackled by MoH and UTH in partnership with LDHMT. Collaboration with external donor agencies and NGOs will be a useful approach on this issue.

24.....**Ministry of Health and LDHMT should further elaborate and provide training opportunities**, with priority, for health personnel working close to the community and health centre to stimulate the entire community health system with developed capabilities of the human resource.

25.....**Additional allocation of cadre especially for middle level health professionals should be considered with priority to LDHMT** to strengthen management capability of the team, which has to handle various issues for the most populated region in the country.



Annex

Joint Evaluation Report on the Progress of the Japanese Technical Cooperation for Lusaka District Primary Health Care Project by Visiting JICA Project Evaluation Team and Zambian Authorities

Compiled by

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and

Zambian Evaluation Team

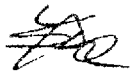
Mr. Davis M Chimfwembe

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Miss Grace Makayi

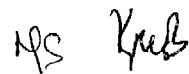
Donor Co-ordinator, Ministry of Health

Japan International Cooperation Agency



List of Abbreviation

ARI	Acute Respiratory Infection
CBO	Community-based Organization
CBoH	Central Board of Health
CHW	Community Health Worker
EHT	Environmental Health Technologists
GEHC	George Environmental Health Committee
GMP+	Growth Monitoring Programme plus. An integrated approach for child health with growth monitoring, nutritional counselling, immunization and vitamin A supplementation conducted in the community
IMCI	Integrated Management of Childhood Illnesses
JICA	Japan International Cooperation Agency
LDHMT	Lusaka District Health Management Team
MoH	Ministry of Health
NGO	Non-Governmental Organization
NP	Nutritional Promoter
PHAST	Participatory Hygiene and Sanitation Transformation
PHC	Primary Health Care
PCM	Project Cycle Management
PDM	Project Design Matrix
PHC	Primary Health Care
PTA	Parent Teacher Association
R/D	Record of Discussions
UHC	Urban Health Centre
UTH	University Teaching Hospital



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Executive Summary

Capacity and institution building related to the community health issues at George Compound enabled the residents to achieve effective control of cholera outbreaks due to the intervention of water and sanitation in a participatory method and also establishment of a mechanism to practice GMP+ * as routine activities managed by health centre staff and community based organizations.

George Compound should be recognized as a model community for PHC in urban settings that can be extended to other compounds of Lusaka and other urbanized areas of Zambia.

* *Growth Monitoring Programme plus: integrated programme for child health with growth monitoring, nutritional consultation, immunization and vitamin A supplementation conducted in the community*

Summary

Lusaka District Primary Health Care Project was a successful project, which indicated a various positive developments, in which capacities of the stakeholders were adequately built in terms of the management and implementation of primary health care (PHC). Targets for the improvement were properly selected by means of participatory approach on (1) water and sanitation, (2) growth monitoring programme (GMP+) (3) referral system and (4) school health service. Lusaka District Health Management Team (LDHMT) played a major role as the direct counterpart of the JICA expert team.

With regard to water and sanitation issues, water supply system, provided by Japan's Grant Aid Project, was effectively followed-up by door-to-door health education on usage of safe water as well as contact tracing / fumigation during the cholera outbreaks. These fundamental activities were strengthened by the empowered residents of George Compound constructing and managing ventilated improved pit (VIP) latrines, drainages and stations for solid waste disposal. As a result, the number of deaths due to cholera in George Compound reduced drastically from 70/10,000 in 1994 to 1/10,000 in 2000.

A mechanism of growth monitoring, consultation on nutrition for caretakers and immunization in the community was established with the initiative of health centres and community. As a result, improvement of nutritional status of children and reduction of measles were observed. These led to the situation that health centre staff were able to concentrate on curative services and other critical issues. To be noticed, GMP+ was extended beyond George Compound to 5 other compounds.

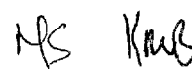
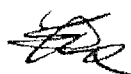
Functional improvement of health centres was intended by the Project to support the existing PHC activities in the community. Service delivery at one of the 1st referral health centre was improved by optimal inputs of laboratory and X-ray equipment with training for the staff. The laboratory services were improved also at 3 other 1st referral health centres. In addition, a health information management computer system was introduced to University Teaching Hospital (UTH).

School health services at 8 pilot primary / basic schools were strengthened with specific objectives to improve the capacity of school health coordinators to undertake periodic medical check-ups of the pupils, and also to motivate pupils and the parents to participate in the de-worming activities in line with the improvement of personal hygiene.

There were, however, various constraints and issues to be further elaborated by the counterpart organizations and other related bodies. In order to sustain the project's outcomes, the approach with the combination of water / sanitation and "GMP+", should be a standard package of LDHMT and Ministry of Health (MoH). It is also advisable to initiate a movement among various communities to learn and follow the achievement of George Compound. Control of cholera outbreak should be prioritized as a health thrust requiring crisis management. Participatory Hygiene and Sanitation Transformation (PHAST) is a suitable and convenient approach with proper integration of knowledge and behaviour improvement of the residents.

Referral health centres in Lusaka District, 4 out of 23 health centres, should be further strengthened in function and service delivery capacity as the key referral facilities. In addition to that, school health services should be maintained within the available resources on prioritized components of the school health programme. In-service training opportunities for middle level health professionals such as nurses, technicians and clinical officers should further be expanded with appropriate training targets.

MoH and LDHMT should further elaborate and provide training opportunities, with priority, for health personnel working close to the community and health centre. Additional allocation of cadre especially for middle level health professionals should be considered with priority to LDHMT to strengthen management capability of the team.



(I) Definition of Evaluation and the Targets

1. Definition

01.....Evaluation is an assessment, as systematic and objective as possible, of an ongoing or completed project, programme or policy, on its design, implementation and results. The aim is to determine the relevance and fulfilment of the objectives, effectiveness, development efficiency, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the design making progress of both recipients and donors.

2. Evaluation targets

02.....The evaluation target includes all activities in JICA technical cooperation on Lusaka District Primary Health Care, Zambia, (hereinafter referred to as "the Project") commenced on 17th March, 1997 and also its extension programmes carried out in conjunction with the Project. The status of the Project's collaboration with higher authorities related to the function of service, training and research / surveys organized by the Project in the responsible counterpart authorities for the said Project were also looked into in order to know the advancement of capacity building in relation to the good governance of the local and central governmental bodies. In addition to that, the evaluation team studied, with interests, how the coordination was carried out by the Project and the counterpart organizations in order to extend project impact to the entire health sector of the country.

03.....The role of primary health care (PHC) activities, particularly of child nutrition, environmental health, referral system and school health were the topics studied with verifiable indicators to clarify the relevance of the 5-year technical cooperation project of JICA with clear project purpose on the improvement of PHC management system, which was implemented with expectation to affect the entire health system in Zambia positively as a good and informative practice.

3. Evaluation Team


04.....This evaluation was conducted as an internal evaluation in line with the regulation of Project-type Technical Cooperation scheme of JICA. In order to assure the coherency, transparency and logicity, all the evaluation processes were monitored both by Japanese team members and Zambian officers, who were assigned by the relevant government offices.

(II) Background

1. Introduction – from project formulation to the current status -

05.....The health status of Zambian people was in the process of deterioration. Children were regarded especially to be in great danger. The mortality rate of under 5 children was in increasing trend at 191/1,000 live births in 1992 while it was 150/1,000 in 1980. This extremely high mortality was attributed to the economic constraints, chronic poverty, high birth rate, difficulty in nutrition, drought, drug-resistant malaria and prevalence of HIV/AIDS.

06.....The situation was found to be worse in Lusaka urban area with its extremely high density of population with a number of immigrants from rural area. Approximately 75% of the population of this area was living under extremely poor health conditions in the urban area that is called "Compound". The population growth in Lusaka was far beyond the government's efforts in terms of provision of basic infrastructure. Most of the residents, therefore, could not enjoy proper public services in health, environmental sanitation and also in educational sectors. High unemployment rate was also a serious problem to worsen the said situation.



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07.....In consideration of this situation, the Ministry of Health (MoH) introduced the Health Reforms in order to rehabilitate national health system, which consisted of the components, such as decentralization, reconstruction and improvement of operational management system, financial reform, including introduction of toll of health requirements, implementation of PHC or Essential Package of Care, community participation and improvement of case management.

08.....Health in Lusaka urban area was handled by 21 urban health centres (UHCs) and University Teaching Hospital (UTH). UTH was originally established as an institute for the third level health care. However, it was also covering the first-visit patients, which should have been treated at UHCs. This was due to the lack of the 1st referral health facilities with proper function and inadequate capability of UHCs to meet the demand of residents.

09.....In the above context, the Government of Zambia requested the Government of Japan in January 1996 to implement a technical cooperation project with a long-term goal of improving health condition in Lusaka urban area through:

- Promotion of community participation in primary health care (PHC);
- Improvement in the quality of health care at urban health centres (UHCs);
- Improvement in the referral system; and
- Establishment of the 1st referral health facilities (This was decided to be excluded from the plan during the studies prior to the implementation of the project.)

10.....In response to the request, the Government of Japan, through JICA, sent the Preliminary Survey Team followed by the Long Term Survey for further information collection to assess the feasibility of the Project. The Implementation Survey Team was thereafter dispatched to discuss on the framework of the Project with the Zambian authorities. Record of Discussion (R/D) was signed, based on the result of the said survey, on 19th February, 1997. Lusaka District Primary Health Care Project was commenced on 17th March 1997 with the cooperation period of 5 years. As a core implementing body of the Project Lusaka District Health Management Team (LDHMT) was chosen.

11.....The project purpose was to improve PHC management system in Lusaka District. Two approaches were selected to achieve this purpose: improvement of community based PHC programmes and effective operation of the referral system between different levels of health care. Based on the above strategies, various surveys were conducted to define the project site for PHC activities and to collect further detailed information on communities and referral system during the first year of the Project.

12.....In March 1998, one year after the commencement of the Project, the followings were agreed upon as the implementation structure and targets of the Project:

- The George compound was selected as a pilot compound for the community based PHC programmes focusing on prevention of malnutrition and diarrhoeal diseases of small children with major activities of health education and improvement of sanitary conditions. Income generation and school health activities were to be examined to clarify whether or not these topics should be included as components of the Project
- The referral system was to be improved by some training components for health centre staff and provision of equipment to these health centres

13.....In January 1999, it was decided to focus on the following targets in order to maximize outputs of the Project and also to ensure future sustainability:

- Health promotion activities by Community Health Workers (CHWs) in the pilot compound should be revitalized for community based PHC
- Referral system in Lusaka District should be further strengthened with the improvement of diagnosis and case management at health centres with tangible advancement in the training of health centre staff and with provision of basic laboratory equipment

- Pilot school health programme should be established in relation to the existing activities in the communities.

14....Income generating activities, which were initiated within the framework the Project were shifted to outside of the Project that should be taken care of the AMDA, an existing international NGO, which has been collaborated with the Project as a body to provide technical experts and ideas of community empowerment related to the activities in the communities.

15....Four years after the starting point of the Project, in March 1999, the project evaluation was conducted. The sustainability related to each activity was assessed by the Project with assistance of the visited Japanese mission. In some activities, strategies and implementation conditions were thereafter modified or changed based on the above assessment and advice of the mission.

2. Methodology of Evaluation

16....Project Cycle Management (PCM) method was applied for the evaluation. The evaluation is conducted by comparing design and outcomes of the Project using the 5 evaluation criteria: relevance, effectiveness, efficiency, impact and sustainability. In this method, Project Design Matrix (PDM) represents the project design. The previous PDMs, documents and reports were reviewed to produce a PDM for evaluation that describes the project design in the 5-year cooperation period, which was similar to the PDM produced in March 2001.

17....To compare the outcomes of the Project with its design, an evaluation grid was produced. For each of the above criteria, evaluation questions were set, and method of data collection was decided. In addition to that, Information related to indicators in the PDM collected by the project members prior to the arrival of the evaluation team. Some field survey results, conducted by the team, were also used for the evaluation. This report was produced based on the obtained data was then analysed from the view points of 5 evaluation criteria

3. Criteria for Monitoring and Evaluation

18....

3-1 Relevance

An overall assessment of whether the project purpose and overall goal are in keeping with donor and recipient policy and with local needs and priorities.

3-2 Effectiveness

A measure of whether the project purpose has been achieved. This is then a question of the degree to which the outputs contribute towards achieving the intended project purpose.

3-3 Efficiency

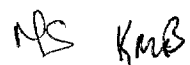
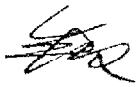
A measure of the production of outputs (results) of the Project in relation to the total resource inputs. In other words, how economically the various inputs were converted into outputs.

3-4 Impact

The positive and negative changes produced directly and indirectly as the result of the Project, which is foreseen and unforeseen consequences for society.

3-5 Sustainability

An overall assessment of the extent to which the positive changes achieved by the Project can be expected to last after the completion of the Project.



(II) Record of Evaluation Procedures

1. Preparation of PDM for evaluation

19.....Assessment of the latest PDM, which was produced 6 months ago, was carried out through discussion with JICA resident experts. This process is namely an exercise to improve the PDM content to meet the demand for the evaluation processes. The revised PDM for evaluation (see Appendix 1) was similar to the latest PDM. The amended parts are as follows:

- Target group of the Project was stated
- Assumptions were revised
- More information of inputs were provided
- The implemented activities were re-structured and sorted in line with the logical sequence to each project output.

The narrative summary of the Project was prepared from the PDM for evaluation to devise evaluation questions along with the five evaluation criteria as below:

Overall Goal:

The overall health status of people in the community of the Lusaka District will be improved

Project Purpose:

The primary health care management system will be improved in Lusaka District in line with the Zambian Health Reform and the Strategic Plan

Outputs:

- (1) Community based PHC programmes are improved in response to the needs of the community in the pilot area
- (2) The referral system between the different levels of health care in Lusaka District is operated effectively
- (3) School health services are effectively in operation

Inputs

(figures are estimated numbers as of March 2002. Detailed information is provided in Appendix 2)

- Japanese side -

Dispatch of JICA Experts	286M/M (21 persons)
Counterpart Training in Japan	29M/M (16 persons)
Provision of Equipment	71,281 thousand Japanese yen 5 Cars, office equipment, computers, clinical and laboratory equipment, X-ray, chlorine, weighing scales, etc.
Provision of local cost	65,088 thousand Japanese yen

- Zambian side -

Allocation of Counterparts	Counterparts from Lusaka District Health Management Team (LDHMT), University Teaching Hospital (UTH), Health Centre Staff and members of community organizations
Provision of land and facilities	- Office space and construction of a room for JICA experts - Infrastructure at George Health Centre for trainings and meetings - Provision of human resource for trainings - Provision of training facility at Chainama Hills College of Health Sciences and UTH

- Appropriation of operational cost
- Cost sharing for “middle-level manpower training”
66,855 thousand Zambian Kwacha
 - Operational cost of the project office
 - Cost sharing of allowance for LDHMT staff for the Project activities
-

2. Evaluation Questions and the Assessment Result

20.....Based on the above summary of the analysis of the content of PDM and actually conducted activities in details, the assessment was carried out on relevance, effectiveness, efficiency, impact and sustainability of the Project. Referring to the indicators set up in the PDM and evaluation criteria, various evaluation questions were set and asked through questionnaire followed by interviews to clarify response in the questionnaires. The evaluation grid is attached in Appendix 3.

21.....The results was thereafter summarized and assessed by the evaluation team. The information related to the above five criteria of evaluation were then extracted from the collected data and summarized as the “Evaluation form the Five Criteria” combined with the result of field survey. The assessment result of indicators is attached in Appendix 4. The result of the questionnaire is not attached due to confidentiality of the respondents.

3. Evaluation from the Five Criteria

3-1. Relevance

22.....It may go without saying that an effective project would be on high demand in a developing nation context, particularly if it is oriented toward specific urban communities with low income residents. This Project was designed as a health sector intervention to improve the capability of Zambian stakeholders (both in community organizations and district health authorities) in planning, implementation, monitoring, and evaluation related to PHC. In this regard, the objectives of this project were “relevant”. The target was absolutely in line with the Zambian national policy advocated in the National Health Strategic Plan.

23...Some of the outputs of this project targeted broader populations than the original target population of George, due to the extensive nature of these outputs. The Project even tried to intervene with the issues regarded as external, uncontrollable factors identified in its initial stage in the attempt to minimize their negative impacts. Some activities related to the referral system and the school health were conducted with large target groups, for example, with the entire population of Lusaka District, while the other activities were focused undoubtedly on the main target area, George Compound (zone 2 - 13), populated with 35,000 residents.

24.....In the conceptual framework of the Project, there was a clear principle that the services should be extended directly to the community and households, as close to families as possible. Three main areas were accordingly described in the original PDM as the expected outputs of the Project. However, the Project actually spanned 5 distinctive working areas; (1) nutrition of under-5 children, (2) water and sanitation, (3) referral system improvement, (4) school health services and (5) capacity and institution building related to each of the other 4 areas. The diversity of these areas and the extent of the workload should have been assessed in the planning stage, where more details may have been sought via a more thorough planning exercise. It is clear, however, that the planning was conducted in line with policy and regulation of JICA and Japanese Government and also it is clear that the planning team which consisted of Zambian and Japanese experts was aware of the importance of cost-effectiveness in public health and medical services.



3-2. Effectiveness

25....The Project intended to improve the capabilities of communities, health centres, and particularly of LDHMT, in order to enhance PHC activities. Community-based organizations (CBOs), health centres, and the district health service administrators improved technical and managerial capacities to a standard where they can plan and implement community PHC programmes regarding GMP+ and environmental health for themselves. School health coordinators were also trained to update their skill and knowledge of school health services through training courses provided by the Project. There were positive indications of effectiveness of the screening service and personal hygiene activities at 8 model schools.

26....It was intended that the quality of diagnosis and case management of acute respiratory infection (ARI), malaria and diarrhoea be improved using the concepts of Integrated Management of Childhood Illnesses (IMCI). A well-planned seminar and in-service training was provided by the Project and LDHMT partnership. However, the scope of the project activities did not provide sufficient monitoring and follow-up of the trainees at health centres to fully evaluate their effectiveness.

27....Workload for LDHMT staff seemed to exceed their capacity due to the chronic shortage of personnel, although the participation of the staff was favourable both in managerial and technical training.

3-3. Efficiency

28....GMP+ in the pilot compound was conducted with high efficiency as a package of growth monitoring, nutritional consultation, immunization and other essential health education provided to the caretakers of under-5 children. The activities were in line with the principle of promoting community participation and collaboration with the local health centre. The attendance at GMP+ visits for 19 sites in George Compound (zone 2-13, population: 35,000) demonstrated a steep increase corresponding to progress of the project activities guided by health centre staff and JICA experts. It was recorded that over 4,000 children per month were cared for by this scheme according to the most recent statistics.

29....Safe water and environmental sanitation in the pilot area at George Compound was substantially improved with construction of latrines, drainage and stations for solid waste collection. This reflected community participation in conjunction with the establishment of the community organization through the Project. Cholera contact tracing was also conducted by the community people. The activities for the pilot area were designed and implemented in an efficient manner. It should be noted that for the extension of this approach to the entire compound and further to Lusaka District, a strong initiative by LDHMT with appropriate funding is necessary.

30....The referral system of the health service in Lusaka District was too extensive to be well addressed by the Project as one of the "output" components, since the issue was multi-factorial and required strategies both bottom-up and top-down in the ladder of the referral system. The referral system improvement activity of an outreach skill training was discontinued due to logistics difficulty and lack of tangible outcome. It was replaced by a programme to improve the laboratory and X-ray examination at the Reference Health Centres, and to conduct skill training of diagnosis and case management at UTH. This was named the "reverse" outreach programme in the Project. The purpose of this activity does not directly complement other project components. However, improvement of X-ray (at Matero Reference Health Centre) and the laboratory examination at 4 reference health centres (Matero Reference, Chelston, Chilenje and Kanyama) demonstrated an efficiency as was verified by indicators related to X-ray examination and laboratory functions.

31....The computer and server equipment and the training component related to health informatics were well-designed and regarded as an activity with high efficiency for Department of Paediatrics and Child Health, UTH, where computerized clinical recording and patient registration system was introduced for the first time in February, 2000. It is however obvious that the extension of this system to other facilities in the referral ladder is mandatory if the Project intended to monitor the improvement of

the referral system in the district through this information system.

32....It was recognized that the activity of school health service improvement commenced in the early phase of the Project with the improvement of the guideline. This was initiated by LDHMT in collaboration with the Project. It was assumed that the upgraded guideline contributed to the efficiency of the activities conducted thereafter. Eight schools were selected as pilot venues for a package of activities comprising (1) health education, (2) annual health check of all pupils and (3) de-worming with subsequent confirmation of the effectiveness by stool examination. Existing school health coordinators were used efficiently in the activities of delivering messages on personal hygiene to the pupils.

33....De-worming was conducted with the participation of PTA, which provided funds to procure medicine. In order to conduct an efficient health education, de-worming with 100 % coverage of stool examination on pupils in a regular interval should be considered followed by the prompt feedback of the results to each pupil. It is obvious that the success of this activity is at the hands of the implementers who should decide to provide support for handling stool examination and its reliable reporting in large quantity.

3-4. Impact

34....No major negative impacts to the community, health centre, LDHMT or other stakeholders were found. Positive impacts were found primarily related to the practice of GMP+, which was extended to 5 compounds outside the pilot area (Kanyama, Chawama, Ng'ombe, Chipata and Mtendere). It was also recognized that congestion of George Health Centre, resulting from the provision of growth monitoring services in the past, was reduced when the service became available in an integrated manner in the community. In the compound, underweight prevalence among under-5 children declined from 23% in 1999 to 15% in 2000, full immunization coverage of under-1 children increased from 15% to 61%, and the measles incidence among under-5 children declined from 8.5/1,000 to 1.8/1,000.

35....Principle of community participation and self-help PHC activities were properly adopted by other compounds and this enabled the residents of these compounds to manage GMP+ in their own communities. The improved capacities of the stakeholders in these other compounds (health centre staff, community health workers and nutrition promoters) are responsible for the successful adoption of these activities by other compounds.

36....The number of deaths by cholera in George Compound declined drastically from 70/10,000 in 1994 to 1/10,000 in 2000 by promoting the principles of safe water use and environmental sanitation. The outbreaks in the compound were also well controlled in the pilot area even in the instances where the infection was imported from other areas. The impact of the establishment of community organizations against cholera was recognized in the compound. The compound received Japan's Grant Aid in the form of a safe water supply system. Door-to-door health education (encouraging chlorination of drinking water, hand washing with soap, usage of container with lid to keep water, etc.) was conducted by the Project.

3-5. Sustainability

37....The Project was sensitive to the importance of achieving sustainability for ongoing activities since the planning stage. The involvement of existing government and non-government organizations was properly done to achieve tangible outcomes of project activities and also to ensure the sustainability of the project outputs. For the establishment of a system related to the cost sharing mechanism of latrine and drainage issues, the collaboration among the Project, Zambian counterpart organizations and the *Association of Medical Doctors of Asia (AMDA)* was effective enough to form a local residents' management group that has become self-reliant both in financial and organizational aspects. This is a good example of sustainable approach in this project, which was designed to assure the continuing commitment of local NGO's even after the completion of the Project.

38....The development targets were too many and diversified when the initial project design was

looked at in retrospect. The components of the referral system and the school health service should have been implemented on a larger scale and in more depth than the present allowed conditions if the substantial outcomes were to be achieved. These were the topics that could have been independent projects. Sustainability of these two areas of the Project should therefore be carefully monitored by the related parties to secure the substantial outcomes promised by these initial inputs.

39.....Finance is the key to ensure sustainability even for successful activities such as GMP+. The most sensitive issue for sustainability is recurrent costs. MoH and LDHMT are aware of the demand for allowances and incentives seemingly needed for continued engagement of various health personnel including volunteers. It is not easy to maintain credibility for funding such allowances and incentives.

4. Conclusion

40.....Capacity and institution building related to the community health issues at George Compound enabled the residents to achieve effective control of cholera outbreak with the intervention of water and sanitation in a participatory method and also to establish a mechanism to practice GMP+ * as a routine activities managed by health centre staff and community based organizations.

* Growth Monitoring Programme plus: Integrated programme for child health with growth monitoring, nutritional consultation, immunization and vitamin A supplementation conducted in the community

George Compound should be recognized as a model community for PHC in urban settings that can be extended to other compounds of Lusaka and other urbanized areas of Zambia.

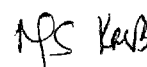
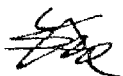
5. Recommendation

41.....An approach with the combination of Water / Sanitation and "GMP+", successfully implemented by the Project at George Compound, should be a standard package of LDHMT and Ministry of Health (MoH), by which the health authorities tackle the existing health problems in urban residential areas with low incomes. It is advisable to initiate a movement among various communities to learn and follow the achievement of George Compound. It is also recommended that MoH formulates a proper explanatory document useful to stakeholders in the community as well as health professionals of domestic and international organizations who are interested to create future project ideas. It is obvious that the Project and the LDHMT counterparts are highly expected to disseminate the achievements of lessons learned to other districts and also publish reports and related articles in local and international journals.

42.....Control of cholera outbreak should be prioritized as a health thrust requiring crisis management. Continuing efforts of MoH and LDHMT are highly expected to realize the standardization of environmental sanitation among various compounds affected with the common problems of drainage, solid waste, latrine and utilization of safe water at respective household level.

43.....Regarding "GMP+", special care should be taken, by health centres and LDHMT, on the management of the existing health volunteer groups to sustain their motivation by promoting income generating activities that can generate funds with financial credibility to support their allowances and other costs. GMP+ is an approach, which every community can initiate with reasonable cost and human resource. This can enable women to buy food stuff with the knowledge learnt in "GMP+" by their own will and money. It is recommended that LDHMT looks into the feasibility of integrating HIV/AIDS, safe motherhood and family planning in the GMP+.

44.....Referral health centres in Lusaka District, 4 out of 23 conventional health centres, should be further strengthened in function and service delivery capacity as the key referral facilities in the existing health care system. Maximal utilization of the limited resources is obviously a key to ensure the quality



of service. Proper task sharing with communities and also with other health centres should further be strengthened. It is obvious that improvement of the entire referral system requires multi-disciplinary strategies with both bottom-up and top-down directions of the referral ladder with long term objectives. Funding is of course the most difficult part of the planning. Support from Central Board of Health (CBoH) and MoH is critical for the referral system to be strengthened in Lusaka.

45.....**School health services** should be maintained within the available resources on prioritized components of the school health programme, such as health education with the focus on diarrhoea, parasitic infections and environmental health. Regular medical / dental check-ups and stool / urine examinations are cost-bearing activities that should be properly planned for with long term perspective. Cost-effectiveness on the de-worming components should be strengthened with regard to the organizational aspect in which Parent Teacher Association (PTA) shouldered the actual cost to procure de-worming tablets. This component has a potential of spreading to all primary schools in the district. Support of laboratory supplies for school health activities is critical to produce positive impact of school health programmes. With regard to the improvement in health of the school children, their household members should also be targeted on a broader scale.

46.....**Participatory Hygiene and Sanitation Transformation (PHAST)** is a suitable and convenient approach with proper integration of knowledge and behaviour improvement of the residents. Further elaboration is required to have an extension of the activity package developed by the Project to other compounds with emphasis on funding, trainings and community mobilization. It is also obvious that the sustainable advancement of community organizations developed in George Compound is the most vital issue. Proper collaboration with local NGOs should be explored to ensure the technical and financial sustainability.

47.....**In-service training opportunities** for middle level health professionals such as nurses, technicians and clinical officers should further be expanded with appropriate training targets. It is also important to include technical and managerial skill development in the curriculum. Relevant trainers' training with emphasis on various priority areas should be tackled by MoH and UTH in partnership with LDHMT. Collaboration with external donor agencies and NGOs will be a useful approach on this issue.

48.....**Ministry of Health and LDHMT should further elaborate and provide training opportunities**, with priority, for health personnel working close to the community and health centre to stimulate the entire community health system with developed capabilities of the human resource.

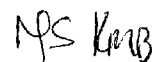
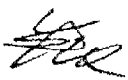
49.....**Additional allocation of cadre especially for middle level health professionals should be considered with priority to LDHMT** to strengthen management capability of the team, which has to handle various issues for the most populated region in the country.

6. Lessons Learned

50.....Empowerment of the community in collaboration with local technical and administrative personnel is a decisive condition to ensure the activation of PHC activities. To guarantee the sustainability, participatory approach should be employed, with coherence, both in the planning and implementation strategies. Sensitization of the existing organizations and groups to tackle the constraints are, therefore, essential after appropriate stakeholder analysis.

51.....**Safe water / environmental sanitation** is one of the essential components of PHC activities. Strategies to strengthen health education on hand washing with soap and safe water use, should be combined with construction of deep well / bore-hole as the supply system of safe water.

52.....**Growth Monitoring Programme plus (GMP+)** is an integrated programme for child health with growth monitoring, nutritional consultation, immunization and vitamin A supplementation conducted in the community in collaboration with health centre staff and community people. At the same time, this is a comprehensive preventive strategy to monitor and ascertain healthy growth of under-5 children.



It is also emphasized that GMP+ can be an useful vehicle to transfer other important messages related to health promotion such as HIV/AIDS and safe motherhood.

53.....The components of the referral system and the school health service should be implemented on a larger scale and in depth if the substantial outcomes are to be achieved. These are the topics with multi-factorial background to be tackled as independent projects.

7. Acknowledgements

The Project Evaluation Team would like to extend our gratitude to LDHMT staff, personnel of UTH and health centre staff and members of community organizations in George Compound for their generous cooperation to our evaluation activities under the tight schedule. Our thanks go also to resident Japanese expert team for their enormous efforts in data collection and coordination related to this evaluation process. We would like to say good luck for the successful advancement of the rest of your activities until the ending point of the project.



MS KMB

Project Design Matrix for Evaluation (PDM_E) for Lusaka District Primary Health Care Project

Implementation period: 17 March 1997 to 16 March 2002

Target area: Lusaka District, Zambia

Target group: Health service providers (LDHMT staff, health centre staff, and community organizations in the pilot (George) compound)

Date of preparation: October 2001 – at the Project Evaluation Study

Narrative summary	Verifiable indicators (Refer to more detailed indicators in the next table)	Means of verification	Important assumptions
<p>Overall goal The overall health status of people in the community of the Lusaka District will be improved</p>	1. Improvement of health indicators in Lusaka District	1. Health report by Ministry of Health or LDHMT	1. Economic and political situation in the Republic of Zambia will be stable
<p>Project purpose The primary health care management system will be improved in Lusaka District in line with the Zambian Health Reform and the Strategic Plan</p>	1. Improved capacity of LDHMT, UHCs and community organizations in order to implement PHC activities in the community and to improve the referral system	1 DHMT Annual Action Plan 2 Group discussion and individual interviews	1. Proper budget can be allocated to LDHMT to scale up selected community-level programmes, to maintain the standard of UHCs and to monitor referrals between UHCs and UTH
<p>Output 1. Community based PHC programmes are improved in response to the needs of the community in the pilot area</p>	1-1 Improvement of capacity and capability of community members to conduct community based health activities in nutrition and environmental health 1-2 Knowledge behavioural change of community people in the pilot area 1-3 Change in sanitary condition and nutritional status of under-5 children	1-1 Observation and evaluation by Health Centre staff and JICA Experts; and Knowledge, Attitude and Practice (KAP) survey 1-2 Knowledge, Attitude and Practice (KAP) survey 1-3 Group discussion and individual interviews; and district database	1. LDHMT will maintain its commitment (financial, technical, managerial) for sustainable PHC activities and in-service training
2. The referral system between the different levels of health care in Lusaka District is operated effectively	2-1 Existence of a system to measure appropriateness of referral 2-2 Existence of systems to evaluate - reliability of equipment - skills and training of Health Centre staff 2-3 Usability of the X-ray equipment provided to Matero Reference Health Centre 2-4 Ability of lab technologist at 4 1 st referral health centres	2-1 Report of UTH-DHMT Paediatric Data System 2-2 Interviews to officers in charge at district office 2-3 Quarterly Report of Matero Reference Health Centre 2-4 Training assessment report	
3. School health services are effectively in operation	3-1 Improvement of capacity and knowledge of school health coordinators on specific components of the school health programmes	3-1 Pre- and post-training tests, report by school health team to DHMT 3-2 Stool examination survey	

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	3-2 Prevalence of worm infection in primary school children in the pilot schools																		
<p>Activities</p> <p>See the attached list of activities</p>	<p>Inputs (see attached documents in detail) figures are estimated numbers as of March 2002</p> <p>- Japanese side -</p> <p>1. Dispatch of Japanese Experts</p> <table border="0"> <tr> <td>Chief advisor</td> <td>60M/M</td> </tr> <tr> <td>Coordinator</td> <td>61M/M</td> </tr> <tr> <td>Expert in health education</td> <td>57M/M</td> </tr> <tr> <td>Expert in health programming and planning</td> <td>44M/M</td> </tr> <tr> <td>Expert in public health</td> <td>38M/M</td> </tr> <tr> <td>Expert in primary health care/environmental health</td> <td>18M/M</td> </tr> </table> <p>Other experts in Social research, Nutrition, Medical equipment and maintenance, Evaluation and analysis, Medical laboratory, Quantitative and qualitative evaluation methods⁸¹ Total: 21 persons, 286M/M</p> <p>2. Provision of machinery and equipment Cars, office equipment, computers, clinical and laboratory equipment, X-ray, chlorine, weighing scales, etc. 71,281 thousand Japanese yen</p> <p>3. Training of the counterparts in Japan Total: 16 persons, 29M/M</p> <p>4. Provision of local cost 65,088 thousand Japanese yen</p>	Chief advisor	60M/M	Coordinator	61M/M	Expert in health education	57M/M	Expert in health programming and planning	44M/M	Expert in public health	38M/M	Expert in primary health care/environmental health	18M/M	<p>- Zambian side -</p> <p>1. Allocation of Counterparts</p> <table border="0"> <tr> <td>Project director/District Director of Health, LDHMT</td> <td>60M/M</td> </tr> <tr> <td>Project Coordinator/Manager Planning and Development, LDHMT</td> <td>60M/M</td> </tr> </table> <p>Counterparts for Japanese Experts from:</p> <ul style="list-style-type: none"> - LDHMT - UTH staff, Dept of Paediatrics and Child Health - Community-based organization - Community Health Workers <p>2. Provision of land and facilities</p> <ul style="list-style-type: none"> - Office space and construction of a room for JICA experts - Infrastructure at George Health Centre for trainings and meetings - Provision of human resource for trainings - Provision of training facility at CHCH and UTH <p>3. Appropriation of operational cost</p> <ul style="list-style-type: none"> - Cost sharing for "middle-level manpower training" 66,855 thousand Zambian Kwacha - Operational cost of the project office - Cost sharing of allowance for LDHMT staff for the project activities 	Project director/District Director of Health, LDHMT	60M/M	Project Coordinator/Manager Planning and Development, LDHMT	60M/M	<p>1. Counterpart personnel will continue to work for the Project</p> <p>Pre-condition The Zambian Government maintains PHC policy for the improvement of health status</p>
Chief advisor	60M/M																		
Coordinator	61M/M																		
Expert in health education	57M/M																		
Expert in health programming and planning	44M/M																		
Expert in public health	38M/M																		
Expert in primary health care/environmental health	18M/M																		
Project director/District Director of Health, LDHMT	60M/M																		
Project Coordinator/Manager Planning and Development, LDHMT	60M/M																		

Abbreviations

CHW: Community Health Workers
GMP: Growth Monitoring and Promotion

NP: Nutrition Promoters
LDHMT: Lusaka District Health Management Team

M/M: man-months
PHC: Primary Health Care
UHC: Urban Health Centre

UTH: University Teaching Hospital

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Summary of activities

1. Community based PHC programmes are improved in response to the needs of the community in the pilot area

Gathering basic information

1. Baseline surveys were conducted in several candidate sites to implement community-based PHC programmes, through which George was selected as a pilot compound in March 1998. Information obtained included health status of the population and available health services in each compound.
2. Mapping activities were conducted in George Compound.
 - A map was produced that provided information including roads, health and sanitation related facilities such as water sources, garbage dumps and health centres, and other major buildings such as churches and schools in mid-1998.
 - A registry book was produced that included the information on the health condition and socio-economic status of households in mid-1999.

Activities in the pilot compound, George compound

3. The capacity of the health services providers in the pilot area was improved in conducting community-based PHC programmes through:
 - Designing and publishing CHWs training manuals and curricula that corresponded with the integrated health service package in collaboration with CBoH in FY1998.
 - Conducting a five-day "Training of Trainers" on community health for 10 participants from LDHMT and health centres in FY1998.
 - Conducting trainings of CHWs in George Compound in FY1998. Twenty-three existing (for 3 weeks) and 25 new CHWs (for 6 weeks) were trained, which enabled the allocation of two CHWs to each of 12 Zones and 7 churches.
 - Conducting a re-training of 26 NPs in FY2001 that expanded their knowledge and skills not only in nutrition promotion in the community, but also in project management and basic accounting.
4. Community-based activities have been implemented for promoting nutritional improvement and growth of children in the pilot area. These include:
 - A household survey conducted by CHWs in FY1999. Information on families and their living condition was collected.
 - GMP sessions conducted by health centre staff and CHWs at 12 Zones and 7 churches in George Compound since FY1998.
 - Health talk sessions held at the Health Centre, AMDA/JICA Tailoring Schools, and in the community by CHWs since FY1998.
 - Soya beans promotion as supplement food. It has been conducted by CHWs targeting under-grown children since FY1998, and was revised and expanded to target the entire community by NPs in FY1999.
 - The "Backyard Vegetable Activity" organized by twenty community groups in FY1998.



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5. Empowerment of the community activities has been promoted through:
 - Fortnightly meetings between CHWs and Health Centre Staff since 1998.
 - Fortnightly meetings between CBO members and Health Centre Staff since 1999.
 - Literacy classes in Nyanja Language for 20 CHWs conducted in collaboration with AMDA three times a week since FY1999.
 - Quarterly Health Promotion Campaign in the community and the schools in George Compound conducted by CBOs since 1999.
 - Refresher workshops for CHWs and NHC members conducted since 1998.


6. Community-based PHC activities were expanded beyond the pilot area to other five compounds in Lusaka through:
 - "Trainings of Trainers" in community health provided for 25 staff from LDHMT and 4 health centres (Kanyama, Chawama, Chipata and Mtendere) for 25 days in FY1999.
 - Training of 98 CHWs in the four compounds mentioned above for 6 weeks in FY1999 and FY2000.
 - Training of 99 NPs in Kanyama, Chawama and Mtendere Compounds for 5 days in FY2001.
 - Training in supervision of community-based GMP provided for 10 staff from 4 health centres (George, Chawama, Kanyama and Ng'ombe) for 5 days in FY2000.
 - Refresher workshops for CHWs and NHCs in Kanyama, Chawama, Chipata, Mtendere and Ng'ombe since 1998.
 - Quarterly Joint Meetings between CHWs, Health Centre staff, and LDHMT staff for sharing information and discussing issues held since FY2001.

7. A fee-paying flush toilet facility was constructed in the market with the initiative by the NHC in George in FY1999. The Fee Paying Toilet Management Committee (FPTC), formed and organized under George Health Centre, is responsible for its management (Attached to this toilet, a fee paying shower facility was opened in September, 2001)

8. The access to safe water has been promoted through:
 - Sampling and testing of shallow well water for bacterial contamination during the rainy season since 1999. The results have been communicated to the residents to discourage the use of unchlorinated shallow well water and encourage home chlorination.
 - Contact tracing for cholera patients conducted since FY1999. Seven members of CBOs were trained for the cholera contact tracing.

9. The Water and Sanitation Survey has been conducted to understand the knowledge and behaviour of the people in water use and sanitation in George Compound since FY2000.
 - The FY2000 survey collected information from 1038 households.
 - The FY2001 survey sampled 1098 households. It is intended the collected information be used to evaluate the impact of the intervention.

10. Participatory Approach, including the Participatory Hygiene And Sanitation Transformation (PHAST) was introduced to the pilot compound and LDHMT.
 - PHAST workshops were held in the pilot community for 5 days in August, 2000 and 6 days in January, 2001. Participants included leaders of health-related CBOs, who identified



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sanitation problems such as solid waste management, lack of proper drainage, and inefficient access to safe water.

- Based on the discussions at the PHAST workshops, George Environmental Health Committee (GEHC) was formed to solve the identified problems. GEHC took leadership in conducting the following activities:
 - Improvement of human waste management through construction of 12 model VIP (ventilated improved pit) latrines. Each VIP latrine is to be shared among five neighbouring households. Maintenance cost anticipated for the future use has been collected by the sub-committee. Construction of additional 20 VIP latrine has been under preparation.
 - Improvement of solid waste management through:
 - a) GEHC's weekly garbage collection which was started in August 2000. A fee collection was introduced in March 2001.
 - b) Construction of midden boxes in the pilot area in order to collect garbage.
 - Improvement of the drainage condition of George Compound through:
 - a) Clearing of drainage by GEHC twice a week since February 2001, which reduced overflowing.
 - b) The plan to build a stone pitched drainage in one of the major drainage routes in the pilot area. GEHC has completed a 200 meter stretch and plans to finish another 180 meters by the end of the project.
 - Promotion of access to safe water through the door-to-door health education. Over 8,000 households in George Compound were visited by the GEHC health educators in FY2000. Home water chlorination was promoted in this education.
 - Upon request from LDHMT, a 7-day PHAST Facilitators Training was held, and 8 EHTs, 11 HC staff, and 8 community leaders were trained.
11. Promotion of proper hand washing has been implemented through activities such as:
- A hand-washing basin was constructed at George Middle Basic School with the participation of parents, teachers and pupils in March 2000. Another basin will be constructed at another pilot school of the School Health activities.
 - Monthly workshops of domestic soap making have been provided for CBOs and schools with the leadership from GEHC since April 2001. This activity was initiated due to the fact that many community people cannot afford commercial soap.
12. In the attempt to build solid institutions of CBOs,
- The Project assisted the process of registration of the George NHC as a member of the Registrar of Society and its opening a bank account.
 - The Project also assisted the GEHC's establishment of its constitution and opening of a bank account.
 - Training on proposal writing was provided for 13 CBO members in September, 2001. Trainings on project and financial managements are also planned.
- 2. The referral system between the different levels of health care in Lusaka District is operated effectively.**



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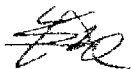
13. Baseline surveys were conducted to understand the situations of 23 health centres and 9 laboratories in the health centre.
14. Aiming improvement of case management at health centre,
- Trainings were conducted for health centre staff in case management: in FY1998 and FY1999, 69 each were trained in the “reverse outreach” workshops. In FY2000, 16 were trained in the Integrated Management of Childhood Illnesses (IMCI) workshop.
 - Opportunities to attend the Certificate of Public Health Course were provided to 8 LDHMT staff in the FY1998, another 8 in the FY1999, 10 in the FY2000, and 8 in the FY2001. The cost for the training was shared between JICA/PHC and LDHMT, the proportion of which to be covered by the LDHMT was gradually increased.
 - Basic treatment equipment was provided to 4 health centres (George, Lilanda Subclinic, Ng’ombe, and Matero Reference) in FY1999.
15. Capacity for diagnostic examinations was improved at health centres including first referral centers by:
- Provision of lab testing equipment to 7 health centres (George, Chipata, Kanyama, Matero Ref, Chelstone, Mtendere, and Chilenje) and reagents to 4 first referral health centers in FY1999.
 - Review of medical equipment maintenance system and provision of necessary advice for better system in FY2000.
 - A two-day workshop for training of HC staff in handling and maintenance of medical equipment in FY2000, and
 - Training of staff in laboratory testing for 9 lab technicians at health centres in August 2001.
16. A monitoring system of referrals between health centres, first referral health centres and the university hospital (University Teaching Hospital, UTH) has been planned, designed and
- A new system was introduced to the UTH Paediatrics Department to monitor referral from health centres.
 - A similar system is planned for the UTH Obstetrics and Gynaecology Department.
 - A pilot system of patient information to monitor referrals at George Health Center has begun to be implemented.
 - A similar system is planned for implementation at a first referral centre (Matero Reference Health Centre).
 - A comprehensive plan on IT training for health services staff has been developed in collaboration with UTH, LDHMT, ITMI and JICA/PHC.
 - Trainings in computer skills at different skill levels have been provided to health centre staff, UTH clerks, and LDHMT staff. The number of those trained during totalled to over 60.

3. School health services are effectively in operation

17. A baseline survey was conducted to understand the situations of school health programme.
- Using the information, the school health programme was developed.
 - Eight pilot schools, namely, George Central, Chakunkula, Chipata, New Kanyama, Chimwemwe, Kamwala, Muyooma, and Mahatma Gandhi, were selected for school health activities.

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18. To strengthen planning and implementing body,
- The guideline for implementing school health programme was developed.
 - The training workshops for school health coordinators have been conducted once a year since 1999.
 - One hundred forty-two nurses and teachers have been trained as school health coordinators at the workshop.
19. Strategies against the identified problems were planned and implemented. These include:
- Design and implementation of a school health card that records information on individual students (FY1999).
 - Annual school health examinations conducted by the school health team (1 clinical officer, 2 nurses, 2 lab technicians and 2 teachers) using the individual school health card since 1999.
 - Deworming of 15,000 pupils in the 8 pilot schools from May to July, 2001. The PTA funded the cost for medicine.
 - Stool examination for parasite infestation as a follow-up of the deworming at three of the pilot schools (George Central, Mahatma Gandhi and New Kanyama). It is planned that this activity be conducted biannually.



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Dispatch of Japanese Experts

Name	Title	Duration	1997			1998				1999				2000			2001		
			4	7	10	1	4	7	10	1	4	7	10	1	4	7			
Mr. Y Saito	Chief advisor	24/03/97 - 23/10/99	[Solid black bar]																
Mr. K Matsuo	Chief advisor	12/10/99 - 18/03/02	[Solid black bar]																
Mr. M Oikawa	Coordinator	24/03/97 - 24/03/00	[Solid black bar]																
Mr. S Sasaki	Coordinator	29/02/00 - 18/03/02	[Solid black bar]																
Dr. K Hattori	Health Programming and Planning	03/12/97 - 01/03/00	[Solid black bar]																
Dr. R Ogiwara	Health Programming and Planning	18/06/00 - 19/08/00	[Solid black bar]																
Dr. A Hiraoka	Health Programming and Planning	19/12/00 - 18/03/02	[Solid black bar]																
Ms. Y Shimada	Health Education	12/12/97 - 11/12/98	[Solid black bar]																
Ms. M Senoo	Health Education	04/07/98 - 02/07/01	[Solid black bar]																
Ms. K Hata	Health Education	08/06/01 - 18/03/02	[Solid black bar]																
Dr. H Yamamoto	Public Health	04/08/97 - 25/08/97	[Solid black bar]																
Dr. H Yamamoto	Public Health	12/12/98 - 31/03/00	[Solid black bar]																
Dr. M Hirota	Public Health	23/05/00 - 18/03/02	[Solid black bar]																
Mr. T Okayasu	Participatory Environmental Health	27/06/00 - 27/09/00	[Solid black bar]																
Mr. T Okayasu	Primary Health Care	10/12/00 - 18/03/02	[Solid black bar]																
Mr. M Okamoto	Social Research	20/02/98 - 04/04/98	[Solid black bar]																
Prof. K Miyanishi	Nutrition	07/08/98 - 01/09/98	[Solid black bar]																
Mr. M Kadono	Maintenance of Medical Equipment	05/12/00 - 31/03/01	[Solid black bar]																
Ms. E Fukushi	Evaluation and Analysis	11/03/01 - 26/03/01	[Solid black bar]																
Ms. N Sato	Medical Laboratory	07/08/01 - 16/08/01	[Solid black bar]																
Dr. M Uechi	Quantitative and Qualitative Evaluation and Analysis	20/08/01 - 27/09/01	[Solid black bar]																

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Provision of Equipment from JICA

JFY 1997

Item	Quantity	Cost (thousand JPY)	Distribution
Vehicle (Mitsubishi Pajero)	2	5,160	Project Office
(Toyota Landcruiser)	1	2,763	Project Office
Photocopy machine (Cannon NP6035)	1	1,698	Project Office
Printing machine (Gestner 5385)	1	2,482	Project Office
Computer (Compaq 2000DT)	2	621	LDHMT
Printer (HP Laser Jet 6P)	1	455	Project Office
Computer (IBM ThinkPad 380)	1	442	Project Office
Camera (Canon EOS 500N)	1	203	Project Office
Video Projector (Epson EMP 5000)	1	1,223	Project Office
Generator (Yamaha YL1600)	1	107	Project Office
Sub total		15,154	

JFY 1998

Vehicle (Mitsubishi Pajero)	1	2,600	Project Office
Laboratory Equipment	-	25,147	George HC, Matero Reference HC, Chipata HC, Kanyama HC, Chelston HC, Chawama HC, Kalingalinga HC, Mtendere HC, Matero main HC
Basic Medical Equipment	-	3,893	George HC, Matero Ref HC, Ng'ombe HC, Matero main HC
Sub total		31,640	

JFY 1999

Computer (IBM PC300GL)	2	460	Project Office
Printer (HP Laser Jet 4500)	2	920	Project Office
X-ray equipment	1	12,237	Matero Ref HC
Carts	12	299	George HC
Computer accessory (SCSI 20 GB)	1	290	Project Office
Computer accessory (UPS)	2	85	Project Office
Sub total		14,291	

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JFY 2000

Item	Quantity	Cost (thousand JPY)	Distribution
Desks and chairs	-	646	UTH Outreach Center
Chlorine (bottles)	50,000 bottles	401	LDHMT
Computer (Dell Opitlex GX110)	4	870	UTH
(UPS)	1		
Computer server (Dell Power Edge 2400)	1	1,054	UTH
Computer accessory	-	244	UTH
Laboratory agar and consumables	-	1,615	Matero ref HC, Chelston HC, Chilenje HC, Kanyama HC
Weighing scales	100	640	Chawama HC, Kanyama HC, Ng'ombe HHC, Mtendere HC, Chipata HC
Vehicle (Mitsubishi Pajero)	1	2,914	Project Office
Sub total		8,384	

JFY 2001 (planned)

Chlorine	50,000 bottles	527	LDHMT
Computer	2	859	UTH, George HC, Matero ref HC
Weighing Scales	30	258	Chawama HC, Kanyama HC, Ng'ombe HHC, Mtendere HC, Chipata HC
Syringes and needles	-	42	LDHMT
Bicycles	12	126	George HC
Sub total		1,812	

Total (JFY 1997 - 2001)

71,281

Counterpart Training in Japan (as of October 2001)

Name	Training course	Duration
Dr. R Kumwenda-Phiri	Management of communicable diseases	29/03/97 - 16/04/97
Ms. L Mungaba	Community health management	23/03/98 - 28/04/98
Ms. M Banda	Community health management	23/03/98 - 28/04/98
Mr. P Mulenga	Counter measure for improvement of infant mortality rate	15/08/98 - 28/09/98
Ms. E Kalumba	Women in nutrition and diet improvement	15/11/98 - 03/02/99
Ms. M Chinkumbi-Kachimba	Community health services	22/03/98 - 17/09/99
Mr. E Muduli	Parasite control administration	19/01/99 - 13/02/99
Ms. A Maidazimu	Community health services	03/11/99 - 05/12/99
Mr. S Mwale	Community health services	03/11/99 - 05/12/99
Mr. M Mofu	Community health services	03/11/99 - 05/12/99
Ms. E Tembo	Counter measure for improvement of infant mortality rate	08/05/00 - 23/06/00
Mr. N Mfula	Community health services	29/03/01 - 29/04/01
Mr. N Tembo	Community health services	29/03/01 - 29/04/01
Dr. M Sinkala	Health system management	14/05/01 - 15/06/01
Ms. T Mwamulowe	Health and environmental technologist	07/06/01 - 16/12/01



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Operational costs

Japanese support for operational cost

	Operational cost (thousand Japanese yen)
JFY 1997	9,000
JFY 1998	14,603
JFY 1999	14,297
JFY 2000	15,497
JFY 2001 (planned)	11,691
Total	65,088

JPY: Japanese Fiscal Year (April - March)

Operational costs by Zambian side

- Cost sharing for "middle-level manpower training" (see the table below)
- Operational cost of the project office
- Cost sharing of allowance for LDHMT staff for the project activities

Cost sharing for "middle-level manpower training"

	Zambian side (Zambian Kwacha)	Japanese side (Zambian Kwacha)	Total
JFY 1998	0	32,359,140	32,359,140
JFY 1999	7,848,800	33,412,989	41,261,789
JFY 2000	21,966,800	33,925,150	55,891,950
JFY 2001 (planned)	37,039,500	24,693,000	61,732,500
Total	66,855,100	124,390,279	191,245,379

The cost by Japanese side is included in the operational cost above



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Allocation of Zambian counterparts

		1997			1998			1999			2000			2001		
		4	7	10	1	4	7	10	1	4	7	10	1	4	7	10
Chief Advisor																
Dr. R Kumuenda-Phiri	District Director of Health, LDHMT															
Dr. M Sinkala	Ag District Director of Health/District Director of Health, LDHMT															
Dr. S Malumo	Ag District Director of Health, LDHMT															
Project Coordinator																
Dr. M. Sinkala	Manager Planning and Development, LDHMT															
Mrs. L Mungaba	Manager Administration, LDHMT															
Mr. E Musonda	Manager Administration, LDHMT															
Mrs. M Kachimba	Liaison Officer, LDHMT															
Dr. Makasa	Manager Planning and Development, LDHMT															
Public Health																
Mr. P Mulenga	Health Management Information System Officer, LDHMT															
Mr. L Wamunima	Health Management Information System Officer, LDHMT															
Prof. A. Bhat	Head, Department of Paediatrics and Child Health, UTH															
Dr. C Kankasa	Paediatrician, Department of Paediatrics and Child Health, UTH															
Health Planning																
Dr. S Malumo	Manager Planning and Development, LDHMT															
Mr. D M'paka	School Health Coordinator, LDHMT															
Mr. E Muduli	Laboratory Technologist, LDHMT															
Mr. J Khondowe	Medical Equipment Maintenance, LDHMT															
Mr. E Musiwa	Medical Equipment Maintenance, LDHMT															
Dr. M Tambatamba	Manager Planning and Development, LDHMT															
Health Education																
Mrs. R Makumba	Mother and Child Health, LDHMT															
Mrs. M Banda	Mother and Child Health in charge, LDHMT															
Mrs. A Mwale	Maternity Service Department, LDHMT															
Mrs. M Kalumba	Nutrition Expert, LDHMT															
Ms. E Tembo	Mother and Child Health in charge, George Health Centre															
Mr. M Mofu	Nutritionist, George Health Centre															
Primary Health Care																
Mr. P Mulenga	Principal Environmental Health Officer, LDHMT															
Ms. T Mwanulowe	Environmental Health Technologist, George Health Centre															
Ms. M Chime	Environmental Health Technologist, George Health Centre															
Ms. M Kanyenge	Environmental Health Technologist, George Health Centre															
Mr. K Njobvu	Environmental health Technologists, Matero Referece HC															
Mr. N Tembo	Chairperson, George Environmental Health Committee															

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Evaluation Grid

Relevance

1 Relevance with Zambian needs

1-1 Relevance with National Plan

	Evaluation criteria	Data collection methods	Actual question to ask
01	Has the project been along with Zambian national health policy since 1997?	<ul style="list-style-type: none"> * Questionnaire to Director, LDHMT * Questionnaire to Project Formulation Advisor, JICA Zambia office * Questionnaire to Chief Advisor, Japanese expert team 	Has the project been along with Zambian national health policy? If yes, please give the name of the source you are referring to and explain the national policy briefly. If no, state the reason(s).
02	<p>This project consists of 3 main activities:</p> <p>[1] primary health care (PHC) programme in the community in George compound to improve nutritional status of small children and sanitary environment of habitants;</p> <p>[2] improvement of referral system (improvement of health centres through training of staff, provision of clinical and laboratory equipment, and establishment of health information system); and</p> <p>[3] rehabilitation of school health programme at 8 primary schools in Lusaka.</p> <p>Do all components meet the needs of Ministry of Health?</p>	<ul style="list-style-type: none"> * Questionnaire to Director, LDHMT 	Same as the left question. And add "If yes, please give the name of the source you are referring to and explain the national policy briefly." If no, state the reason(s).

1-2 Relevance with the needs of LDHMT

03	Does the integrated approach of the project (consisting of community-based PHC activities, referral system and school health) meet the needs of LDHMT?	<ul style="list-style-type: none"> * Questionnaire to Director, LDHMT 	Does the integrated approach of the project (consisting of community-based PHC activities, referral system and school health) meet the needs of LDHMT? If yes, please give the name of the source you are referring to and explain the LDHMT policy briefly. If no, state the reason(s).
04	Does each component of the project (see the Q-02) meet the needs of LDHMT?	<ul style="list-style-type: none"> * Questionnaire to district staff: - Manager Planning and Development, LDHMT - School Health in charge, LDHMT - Nutrition Expert, LDHMT - Clinical Care Expert, LDHMT - Maternal and Child Health in charge, LDHMT - Environmental Health Officer/Health 	Does (community-based PHC in nutrition / in environmental health / referral system / school health) programme meet the needs of LDHMT? If yes, please give the name of the source you are referring to and explain the LDHMT policy briefly. If no, state the reason(s).

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		Management Information System, LDHMT	
1-3 Relevance with the needs of the community			
05	Does each component of the project (see the Q-02) meet community's need?	<ul style="list-style-type: none"> * Questionnaire to leaders of community organizations and health centre staff: - MCH in charge, George Health Centre - Environmental Health Technologist, George HC - EHT, Matero Reference HC - Nutritionist, George HC - Chairperson, Nutrition Promoter, George - School Health Coordinator, George Basic School - Nurse, Mtendere HC - Supervisor, Fee Paying Toilet Committee, George - Advisor, George Environmental Health Committee - Chairman, GEHC/NHC, George - Chairman, Community Health Worker, George 	Does (community-based PHC in nutrition / in environmental health / referral system / school health) program meet community's need? Give the reason(s) briefly why you think so.
2 Relevance with Japanese needs			
2-1 Relevance with Japanese aid policy			
06	Has the project along with the Japanese aid policy and JICA's aid policy to Zambia?	* Questionnaire to Resident Representative, JICA Zambia office	Has the project been along with the Japanese aid policy and JICA's aid policy to Zambia? If yes, please give the name of the source you are referring to and explain the Japanese and JICA's policy briefly. If no, state the reason(s)
2-2 Relevance of Japanese expertise			
07	Is Japanese expertise appropriate in conducting this type of project?	* Questionnaire to Director, LDHMT <i>should be those know other donors and NGOs</i>	Is Japanese expertise appropriate in conducting this type of project? Also, please state the reason(s) briefly.

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Effectiveness

1 Degree of achievement of project purpose			
	Evaluation criteria	Data collection methods	Actual question to ask
21	Is there any change in DHMT policy?	* Questionnaire to Director, LDHMT	Is there any change on LDHMT policy due to the achievement of the project? If yes, state briefly the change(s) you made.
		* Document analysis, LDHMT Annual Action Plan	
22	Is there any change in allocation of personnel?	* Questionnaire to Director, LDHMT	Is there any change in allocation of personnel due to the achievement of the project? If yes, state briefly the change(s) you made.
		* Survey by Japanese experts and individual interview	
23	Has the capacity of the heads and leaders of health service providers improved?	* Questionnaire to related staff of LDHMT, health centre staff in charge, leaders of community organisations - MCH in charge, LDHMT - Nursing Care Expert, LDHMT - MCH in charge, George HC - EHT, George HC - EHT, Matero Ref HC - Nutritionist, George HC - Chairman, CHW, George - Chairman, GEHC/NHC, George	Has your capacity increased working with the project? If yes, state briefly the lessons learned. If no, state the reason(s).
		Focus group discussion with community health coordinators	
24	Has the community activity in the pilot area had a spin-off effect to other compound?	* Survey by Japanese experts	
2 Appropriateness of selection of outputs for the realization of the project purpose			
25	Were the approaches (outputs in PDM) taken to achieve the project purpose appropriate?	* Questionnaire to Director, LDHMT * Questionnaire to Chief Advisor, the Japanese expert team. * Questionnaire to the Japanese study team?	Were the approaches (i.e. outputs in PDM) taken to achieve the project purpose appropriate? State briefly alternative options that could be taken if you can think of.
3 External factors affected the degree of achieving the project purpose			
26	Were there any movement of other organizations that affected positively or negatively the achievement of the project purpose?	* Questionnaire to Director, LDHMT	Were there any movement of other organizations that affected the achievement of the project purpose positively or negatively? If yes, please state their project or support.

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Efficiency

1 Degree of achievement of outputs

1-1 Achievement of output 1: "community-based program are improved in response to the needs of the community un the pilot area"

	Evaluation criteria	Data collection methods	Actual question to ask
31	What is the degree of improvement of capacity and capability of community members to conduct health activities in promoting nutrition and environmental health?	See the indicator in the PDMe (1-1) in detail	
32	What was the degree of knowledge and behavioural changes of the community people in the pilot area in the areas of child nutrition and environmental health?	See the indicator in the PDMe (1-2) in detail	
33	Are there any changes in child nutrition and sanitary condition?	See the indicator in the PDMe (1-3) in detail	
34	What was the degree of activation of the community-based PHC programmes? What are the factors that contributed the activation?	This is the indicator in the PDMe (1-4) * Questionnaire to 2 Japanese experts working in the community and Chief Advisor, Japanese expert team * Questionnaire to key counterparts - MCH in charge, George HC - EHT, George HC - EHT, Matero Ref HC - Nutritionist, Mtendere HC - Public Health Nuresse, Kanyama HC	Have the community-based PHC programmes been activated by the project? If yes, please give contributing factors.

1-2 Achievement of output 2: "the referral system between the different levels of health care in Lusaka District is operated effectively"

35	Is there any system to measure appropriateness of referrals between different levels of health facilities?	See the indicator in the PDMe (2-1) in detail	
36	Is there any system to evaluate reliability of medical equipment at health centres?	See the indicator in the PDMe (2-2) in detail	
37	Is there any system to evaluate skills and training of health centre staff?	See the indicator in the PDMe (2-2) in detail	
38	Have the case management skill of health centre staff improved?	No appropriate way to investigate this issue at the time of this evaluation	
39	Have the lab testing skill of lab technicians improved?	See the indicator in the PDMe (2-4) in detail	
40	Have the health facility functionally improved due to the provision of equipment?	No appropriate way to investigate this issue at the time of this evaluation	

1-3 Achievement of output 2: "School health services are effectively in operation"

41	What is the degree of improvement of capacity and knowledge of school health coordinators?	See the indicators in the PDMe (3-1) in detail	
42	What is the prevalence of worm infestation in primary school children in the pilot schools	See the indicators in the PDMe (3-2) in detail	

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2 External factors that affect degree of achievement of the outputs

51	Were the "trained" Zambian counterparts remaining in their original organizations or in the project?	* Questionnaire to Director, LDHMT	Was there a quick turnover of your staff? If yes, did it make difficult for you to continue the activities in the project?
		* Questionnaire to all Japanese experts	Was there a quick turnover of your counterparts? If yes, did it make difficult for you to continue your activities?
		* Document analysis	
52	Were there any barriers that affected efficient implementation of the activities?	* Questionnaire to Japanese experts * Questionnaire to key counterparts - MCH in charge, George HC - EHT, George HC	Were there any barriers that affected efficient implementation of the activities?

3 Effective utilization of inputs

3-1 Utilization of the inputs

53	Are there any of the following equipment under utilized? car, x-ray, computers, clinical equipment, lab testing equipment, scales, school health kits	* Questionnaires to related Japanese experts and Zambian counterparts - cars to coordinator - x-ray to sister-in-charge, Matero Ref HC - computers to Dept of Pead. UTH, and Sister-in-charge, George HC - clinical equipment to Medical Equipment and Maintenance, LDHMT - lab testing equipment to Lab Technologist, LDHMT - weighing scale to expert working in growth monitoring - school health kits to expert working in school health	Is there any provided equipment (.....) that is not utilized? If there is, what are the reason(s) of it?
54	Was the sufficient explanation and/or training provided to use equipment effectively?	* Questionnaire to related Japanese experts and Zambian counterparts - x-ray to sister-in-charge, Matero Ref HC - computers to HMIS Officer, LDHMT - weighing scale to MCH in charge, George HC - lab testing equipment to Lab Technologist, LDHMT	Was the sufficient explanation and/or training provided to use equipment (.....) effectively? If yes, please name the provided explanation/training. (such as "1-day workshop on scale reading and on-the-job training with supervision of health staff")

3-2 Timing of the inputs

55	Were Zambian counterparts available on time to implement the project?	* Questionnaire to all Japanese experts	Were Zambian counterparts available on time to implement the project? If no, state briefly the reason(s).
56	Were Japanese experts available on time to implement the project?	* Questionnaire to Director, LDHMT * Questionnaire to Chief Advisor, Japanese expert team	Were Japanese experts available on time to implement the project? If no, state briefly the reason(s).
57	Were there any times when you could not implement planned	* Questionnaire to Chief Advisor, the	Were there any times when you could not implement planned

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	activities due to counterpart's financial constraints?	Japanese expert team	activities due to counterpart's financial constraints?
58	Were there any times when you could not implement planned activities due to JICA's financial constraints?	* Questionnaire to Director, LDHMT	Were there any times when you could not implement planned activities due to JICA's financial constraints?

3-3 Amount and quality of inputs

59	Were there sufficient counterparts to work with to achieve the outputs?	* Questionnaire to all Japanese experts	Was there sufficient number of counterparts to work with to achieve the outputs?
60	Were there sufficient Japanese experts to work with to achieve the outputs?	* Questionnaire to Director, LDHMT	Was there sufficient number of Japanese experts to work with to achieve the outputs?
61	Was the quality of Japanese experts sufficient enough to implement the project?	This question is covered by the Q-07	

3-4 Alternative activities to achieve each output

62	Were there any other the approach(es) or activities that could be taken to improve community based PHC programme?	* Questionnaire to key counterparts in community PHC activities - MCH in Charge, LDHMT - Public Health and Social Service Department, LCC - MCH in charge, George HC - EHT, George HC - EHT, Matero Ref HC - Nutritionist, George HC	Do you think of any other the approach(es) or activities that could be taken to improve community based PHC programme? If you do, itemize possible alternative(s).
63	Were there any other the approach(es) or activities that could be taken to improve referral system between the different levels of health care?	* Questionnaire to Director, LDHMT * Questionnaire to Manager Planning and Development, LDHMT	Do you think of any other the approach(es) or activities that could be taken to improve referral system between the different levels of health care? If you do, itemize possible alternative(s).
64	Were there any other the approach(es) or activities that could be taken to operate school health services more effectively?	* Questionnaire key counterparts in school health - School Health in charge, LDHMT - School Health Coordinator, George Basic School - Head Teacher, George Basic School	Do you think of any other the approach(es) or activities that could be taken to operate school health services more effectively? If you do, itemize possible alternative(s).

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Impact

	Evaluation criteria	Data collection methods	Actual question to ask
71	Was there any improvement of health indicator of the residents in the community?	* Questionnaire to Japanese expert working in the community	Was there any improvement of health indicator of the residents in the community? If yes, give supporting figures.
72	Has the achievement of the project been reflected in planning and budgeting in Ministry of Health?	* Questionnaire to Director General, CBoH	Has the CBoH reflected the achievement of the PHC project on its health policy and planning? If yes, please state how it has.
73	Were the activities expanded to other area out of the pilot compound?	* The answer of this question is given by one of the indicator of the project purpose in PDMe	N/A
74	<i>What are the negative impacts caused by the project if any?</i>	* <i>Questionnaire to all players in the project</i>	<i>Give any negative impacts caused by the project if any?</i>

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Sustainability

Sustainability of District staff

	Evaluation criteria	Data collection methods	Actual question to ask
81	What are the constraints to implement activities and what would be the constraints after the completion of JICA project (financially, technically, institutionally, socially, culturally)? What can be done to overcome these constraints?	* Questionnaire to Director, LDHMT	What are the constraints you are facing to implement activities and what would be the constraints after the completion of JICA project (financially, technically, and in other aspects (e.g. institutionally, socio-culturally))? What would you do to overcome these constraints?
82	Is it possible to expand the current activities?	* Questionnaire to Director, LDHMT	Would you plan to expand some of the activities in future? If yes, state the activities you would.
92	What are the constraints to implement community-based PHC programme and what would be the constraints after the completion of JICA project (financially, technically, institutionally, socially, culturally)? What can be done to overcome these constraints?	* Questionnaire to - MCH in charge, LDHMT - Nutrition Expert, LDHMT - Environmental Health Officer/Health Management Information System, LDHMT	What are the constraints you are facing to implement community-based PHC programme and what would be the constraints after the completion of JICA project (financially, technically, and in other aspects (e.g. institutionally, socio-culturally))? What would you do to overcome these constraints?

Sustainability of health service providers (health centre staff and community organizations)

83	Can LDHMT keep providing in-service training to the staff for the training programmes whose cost was shared with LDHMT?	* Questionnaire to Director, LDHMT	Would the LDHMT keep providing in-service training to health staff for IMCI, certificate of Public Health, and School Health Workshop, whose costs have been covered by JICA and LDHMT?
84	Can LDHMT keep providing in-service training to health staff for the training programmes whose cost was covered by the project?	* Questionnaire to Director, LDHMT	Would LDHMT keep providing in-service training to health staff, such as ToT of CHWs and EHTs, computer skill training, etc., which are supported by JICA financially?
85	Are consumables available for health staff to operate their service using the provided equipment?	* Questionnaire to - lab equipment to Laboratory Technologist, LDHMT - x-ray to sister-in-charge, Matero Ref HC	Are consumables available to operate? Are there any concerns after the completion of the project? If yes, specify your concerns briefly.
86	Are consumables available for health information system staff to operate their service?	* Questionnaire to - Health Management Information System, LDHMT - Dep. Ped, UTH - Sister in charge, George HC	Are consumables available to operate the developed health information system by the project? Are there any concerns after the withdrawal of JICA project? If yes, specify your concerns briefly.
87	Will community organizations (CHWs, NPs, GEHC) sustain financially	* Questionnaire to leaders of community organizations - Sister in charge, George HC - MCH in charge, George HC - EHT, Matero Ref HC - Nutritionist, George HC	Do you think your organization is financially sustainable? (grade the sustainability from 1 through 5, with 5 being as the highest sustainability) Please state the reason(s) of your score, too.

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		<ul style="list-style-type: none"> - Chairperson, Nutrition Promoter, George - Chairman, GEHC/NHC, George - Supervisor, Fee Paying Toilet Committee, George - Chairman, CHW, George <p><i>Sustainability of CHWs in other expanded compound was also asked</i></p> <ul style="list-style-type: none"> - Nutritionist, Mtendere HC - Chairperson, CHW, Mtendere - Public Health Nurse, Kanyama HC - Chairperson, CHW, Kanyama 	
88	Will the deworming programme sustain?	<ul style="list-style-type: none"> * Questionnaire to - School Health in charge, LDHMT - School Health Coordinator, George Central School - School Health Coordinator, Mtendere HC 	Do you think your deworming program is financially sustainable? (grade the sustainability from 1 through 5, with 5 being the highest sustainability) Please state the reason(s) of your score, too.
89	Will the annual physical examination sustain?	<ul style="list-style-type: none"> * Questionnaire to - School Health in charge, DHMT - School Health Coordinator, George Central School - School Health Coordinator, Mtendere HC 	Do you think your annual physical examination is sustainable? (grade the sustainability 1 through 5, with 5 being the highest score) If no, please state the reason(s) briefly. Please state the reason(s) of your score, too.
90	Do community organizations and health communicate well?	<ul style="list-style-type: none"> * Questionnaire to - Sister in charge, George HC - MCH in charge, George HC - EHT, Matero Ref HC - Nutritionist, George HC - Chairperson, Nutrition Promoter, George - Chairman, GEHC/NHC, George - Supervisor, Fee Paying Toilet Committee, George - Chairman, CHW, George 	What is your satisfaction level in terms of communication between health centre staff in charge and members of community organization? (grade the sustainability 1 through 5, with 5 being the highest satisfaction). Please state the reason(s) of your score, too.
91	At the monitoring and evaluation workshop in March 2001, the participants gave constraints they were facing and set strategies to overcome the constraints. What is the progress of these strategies?	<ul style="list-style-type: none"> * Questionnaire to Japanese experts except Chief Advisor and Coordinator 	At the monitoring and evaluation workshop in March 2001, the participants gave constraints they were facing and set strategies to overcome the constraints. What is the progress of these strategies?

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Indicators in PDM

Project purpose:

Improved capacity of LDHMT, UHCs and community organizations in order to implement PHC activities in the community and improve the referral system

Verifiable indicators	Data source	Results																				
1) Policy change of LDHMT	LDHMT Annual Action Plan and interview	<ol style="list-style-type: none"> 1. Re-affirmation and commitment to school health and nutrition programmes in the district action plans 2. Implementation of reverse outreach with University Teaching Hospital 3. Strengthening in-service training for community health workers 4. Incorporating training of mid-level manpower in certificate in public health 5. A participatory approach to transform communities in sanitation and hygiene (Participatory Hygiene and Sanitation Transfer: PHAST), which was introduced in the project, is now diffused to Environmental Health Technologist and Environmental Health Officers as a new technique 																				
2) Change in allocation of human resource for community activities	Survey by JICA experts and individual interviews	<table border="1"> <thead> <tr> <th></th> <th>1998</th> <th>1999</th> <th>2000</th> <th>2001</th> </tr> </thead> <tbody> <tr> <td>Public health nurses</td> <td>4</td> <td>4</td> <td>4</td> <td>7</td> </tr> <tr> <td>Nutritionists</td> <td>5</td> <td>7</td> <td>8</td> <td>9</td> </tr> <tr> <td>Environmental Health Technicians</td> <td>0</td> <td>9</td> <td>16</td> <td>18</td> </tr> </tbody> </table>		1998	1999	2000	2001	Public health nurses	4	4	4	7	Nutritionists	5	7	8	9	Environmental Health Technicians	0	9	16	18
	1998	1999	2000	2001																		
Public health nurses	4	4	4	7																		
Nutritionists	5	7	8	9																		
Environmental Health Technicians	0	9	16	18																		
3) Improved of ability of LDHMT staff	Focus group discussion with community health coordinators (all are health centre staff)	<ol style="list-style-type: none"> 1. Communication and facilitation skills have improved 2. They are now able to plan, budget, implement, monitor and evaluate community activities 3. They are now able to integrate a health care package 4. They have become more organised and focused in coordinating community activities. 																				
4) Expansion of community based PHC programmes by spin-off effect to other compounds from 1997 to 2001 <ol style="list-style-type: none"> a) increased number of compounds where PHC programmes have been expanded b) increased number of community based activities in other compounds c) increased number of existing Community-based Organizations in other compounds 		<ol style="list-style-type: none"> 5 compounds (Kanyama, Chawama, Ng'ombe, Chipata, Mtendere) <table border="1"> <thead> <tr> <th>Kanyama HC</th> <th>1999</th> <th>2000</th> <th>2001</th> </tr> </thead> <tbody> <tr> <td>no. of community-based activities</td> <td>5</td> <td>10</td> <td>14</td> </tr> <tr> <td>no. of existing CBOs</td> <td>6</td> <td>10</td> <td>12</td> </tr> </tbody> </table>	Kanyama HC	1999	2000	2001	no. of community-based activities	5	10	14	no. of existing CBOs	6	10	12								
Kanyama HC	1999	2000	2001																			
no. of community-based activities	5	10	14																			
no. of existing CBOs	6	10	12																			

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Chawama			
no. of community-based activities	10	13	13
no. of existing CBOs	8	10	12
Ng'ombe			
no. of community-based activities	13	16	18
no. of existing CBOs	7	9	10
Chipata			
no. of community-based activities		5	11
no. of existing CBOs		9	14
Mtendere			
no. of community-based activities		6	10
no. of existing CBOs		5	8

Output 1: Community based PHC programmes are improved in response to the needs of the community in the pilot area

Verifiable indicators	Data source	Results																				
1-1 Improvement of capacity and capability of community members to conduct community based health activities in nutrition and environmental health																						
1) Change in capacity and capability of community organizations between 1998 and 2001 a) Number of existing community organizations/committees b) Frequency of meetings between UHC and community c) Number and contents of implemented activities d) Role of community members;	Observation and evaluation by Health Centre staff and JICA Experts Focus group discussions with community based organization members, community residents and health centre staff	<table border="1"> <thead> <tr> <th></th> <th>1998</th> <th>1999</th> <th>2000</th> <th>2001</th> </tr> </thead> <tbody> <tr> <td>a) No. CBOs & committees</td> <td>7</td> <td>11</td> <td>13</td> <td>20</td> </tr> <tr> <td>b) Freq. meetings b/w UHC and community</td> <td>3</td> <td>8</td> <td>9</td> <td>10</td> </tr> <tr> <td>c) No. activities</td> <td>3</td> <td>12</td> <td>16</td> <td>21</td> </tr> </tbody> </table> <p><i>Nutrition</i> 1998: only active during outbreak; inadequate knowledge and skills 2001: CHWs acquired adequate knowledge and skills; CHWs are adequately conducting health education programme for the community residents; CHWs have reduced the workload of UHC staffs.</p>		1998	1999	2000	2001	a) No. CBOs & committees	7	11	13	20	b) Freq. meetings b/w UHC and community	3	8	9	10	c) No. activities	3	12	16	21
	1998	1999	2000	2001																		
a) No. CBOs & committees	7	11	13	20																		
b) Freq. meetings b/w UHC and community	3	8	9	10																		
c) No. activities	3	12	16	21																		

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<p>e) Change of support for community from George Health Centre</p> <p>f) Change of supports by Japanese experts</p>	<p>Focus group discussions with community based organization members, community residents and health centre staff</p> <p>Observation by JICA experts and counterparts</p>	<p><i>Environmental health</i> <u>1998</u>: CBOs is doing community mobilization and participated in activities initiated by LDHMT and NGOs <u>2001</u>: GEHC members has identified problems and started making the activity plans; even if JICA PHC stopped to support the incentives, some of GEHC activities have been continued; GEHC members started to have motivation to expand the programmes; they can chair the meeting and make the minutes in some activities; they started to take initiatives of sustainability of programmes; Drainage Committee made the typed project proposal by themselves and tried to find the donors and has obtained a fund from another donor; George Basic School has submitted a project proposal to funding agencies; GEHC has made a constitution to be registered as a society and to open a bank account.</p> <p><i>Nutrition</i> <u>1998</u>: no interaction between UHC staffs and CHWs <u>2001</u>: interaction between the UHC staffs and CHWs; to recognize consider CHWs in various activities; initially all activities are more clinic centre.</p> <p><i>Environmental health</i> <u>1998</u>: no motivation from members of UHC staffs to support community activities <u>2001</u>: increase of coordination and communication between the community and UHC staffs; increase of support by the UHC staff for the community; the staffs have been motivated to work extra hard to support community.</p> <p><i>Nutrition</i> <u>1998</u>: programming of the activity; assisting for implementation; supervision/evaluation <u>2001</u>: supporting for programming; assisting for implementation (only new activities); supporting for supervision/evaluation.</p> <p><i>Environmental health</i> <u>1998</u>: there was no JICA expert working in environmental health <u>2001</u>: JICA experts supported community initiated activities and worked in partnership with health center stuff; promoted training in participatory training methodologies; do not need to program and just supervise CBOs for existing activities.</p>
<p>2) Change in capacity and capability of community members between 1998 and 2001</p>		

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- a) Number of skilled members among CHWs on GMP skills in planning, publicity, preparation, weighing, plotting, interpretation, tallying, registration, counselling and reporting
- b) Number of skilled members among CHWs on health education skills in summarising contents, presentation, and usage of visual aids
- c) Number of skilled members of GEHC and associated CBOs on VIP latrine construction, drainage construction, brick work, soap making and cholera outbreak investigation
- d) Number of skilled members of GEHC and associated CBOs on health educations and management skills in public relations, financial management, reporting and proposal writing

19 leaders of CHWs were trained (active leaders are 18 (dropout was 6%). Number of skilled leaders: planning (8), publicity (3), preparation (3). 51 CHWs were trained (active members are 45 (dropout was 12%). Number of skilled members: weighing (23), plotting (24), interpretation (32), tallying (23), registration (14), counselling (21).

Number of skilled members: planning (40), presentation (19), usage of visual aids (26), summarize (27).

VIP latrine construction (13), drainage construction (18), soap making (64), brick layer (7), cholera outbreak investigation (7)

Financial management (2), proposal writing (13), computer skill (2), reporting (7)

1-2 Knowledge and behavioural changes of community in the pilot area

Knowledge, Attitude and Practice (KAP) survey
GMP survey in 2001

1) Comparison of knowledge and attitude between regular and non-regular attendants to GMP programme

- a) Knowledge and attitude of caretakers in necessity of growth monitoring; interpretation of growth line; cause, home care and prevention of malnutrition and diarrhoea; and benefits of soya beans

The percentages in the table show the proportion of the respondents in a specified condition to the all respondents

		Regular attendants (n=527)	Non-regular attendants (n=496)
Necessity of growth monitoring (full mark=5 pts)	0 pts	0.6%	3.4%
	≥ 3 pts	15%	3%
Interpretation of growth line	correct answer	81%	63%
Cause of malnutrition (full mark = 4 pts)	0 pts	3%	11%
	≥ 2 pts	29%	19%
Cause of diarrhoea (full mark = 3 pts)	0 pts	15%	18%
	≥ 2 pts	39%	34%
Home care of malnutrition (full mark=7 point)	0 pts	4%	12%
	≥ 4 pts	11%	1%
Home care of diarrhoea (full mark=5 point)	0 pts	2.3%	7.1%
	≥ 3 pts	8.7%	3.4%

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b) Practice for prevention of diarrhoea; intake of soya beans; vaccination history; and growth of children

prevention of malnutrition (full mark = 4 pts)	0 pts ≥ 2 pts	4.9% 31%	6.0% 19%
Prevention of diarrhoea (full mark = 8 pts)	0 pts ≥ 4 pts	4% 11%	12% 1%
benefits of soya beans (full mark = 4 pts)	0 pts ≥ 2 pts	29% 29%	33% 14%

The percentages in the table show the proportion of the respondents in a specified condition to the all respondents

		Regular attendants (n=527)	Non-regular attendants (n=496)
Number of practices for prevention of diarrhoea	none ≥ 4	2% 35%	21% 14%
Frequency of intake of soya beans	none many	72% 10%	70% 11%
Completion of vaccination	none compl	0.6% 75%	2.6% 63%
Under-weighted of children	under weight	26%	38%

2) Change of average number of monthly attendants to GMP from 1999 to 2001

	1999	2000	2001
Ave no. monthly attendants in George compound	1279	2255	4394

* Total population and under-5 children in the catchment area was about 33,000 and 8,700 respectively in 1999.

3) Changes attributable to water and sanitation programmes between 2000 and 2001
a) Change in knowledge and attitude

Water and Sanitation survey conducted in 2000 and 2001

		2000 (n=1038)	2001 (n=543)
Information of chlorine	ever heard of chlorine	87%	95%
Information source of chlorine	from GEHC from CHWs	0% 20%	27% 12%
Information source of diarrhoea	from GEHC from CHWs	0% 1%	24% 7%
Correct info to prevent diarrhoea	% 0 pts	19%	14%

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b) Change in practice		Correct info about cause of diarrhoea	% 0 pts	13%	7%
		Information about fee paying toilet	Ever heard of the fee paying toilet	48%	56%
c) Change in diarrhoea and cholera case				2000 (n=1038)	2001 (n=543)
		Source of drinking water	from JICA tap water	77%	81%
			from shallow well	15%	13%
		Storage of water	usage of jerry can	69%	90%
			covering the container	98%	92%
		Usage of chlorine		27%	44%
		Correct use of chlorine		68%	80%
		Usage of soap for hand washing		55%	59%
		Mode of disposing garbage	- dig a hole and dump	46%	41%
			- pit in sacks and dispose at a designated place	24%	18%
			- dispose at undesignated place	19%	34%
		Having bottle of chlorine		8%	17%
		usage of fee paying toilet		9%	10%
c) Change in diarrhoea and cholera case				2000 (n=1038)	2001 (n=543)
		Case of diarrhoea in the last 2 weeks		17%	24%
		Case of cholera in the last year		4%	3%
1-3 Change in sanitary condition and nutrition status of under 5 children in comparison between 1997 and 2001 in the pilot area	Focus group discussions with community based organization members, community residents and health centre staff				
1) Change in nutrition status of children		There are fewer cases of children with malnutrition now as compared to before 1997. The health status of children has improved and those children that are losing weight or are static are counselled and an improvement is noticed.			

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2) Change in sanitary condition		Reduction in garbage heaps. The reduced water flooding during the rainy season due to drainage clearing. The drainage construction will reduce flooding. The spread of home chlorination. The construction of VIP latrines. The construction of the fee-paying toilets. There is less apathy towards health related activities. Decrease of vandalism of infrastructure.												
3) Change in statistics (nutrition and immunization)	District database	<table border="1"> <thead> <tr> <th></th> <th>1999</th> <th>2000</th> </tr> </thead> <tbody> <tr> <td>Underweight prevalence among under-5 children</td> <td>23% (5,192/22,755)</td> <td>15% (6,786/46,054)</td> </tr> <tr> <td>Full immunization coverage of under-1 children</td> <td>15% (1,045/6,933)</td> <td>61% (4,503/7,369)</td> </tr> <tr> <td>Measles incidence among under-5 children</td> <td>8.5/1,000 (296/34,666)</td> <td>1.8/1,000 (65/36,849)</td> </tr> </tbody> </table>		1999	2000	Underweight prevalence among under-5 children	23% (5,192/22,755)	15% (6,786/46,054)	Full immunization coverage of under-1 children	15% (1,045/6,933)	61% (4,503/7,369)	Measles incidence among under-5 children	8.5/1,000 (296/34,666)	1.8/1,000 (65/36,849)
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Measles incidence among under-5 children	8.5/1,000 (296/34,666)	1.8/1,000 (65/36,849)												

Output 2: The referral system between the different levels of health care in Lusaka District is operated effectively

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Verifiable indicators	Data source	Results
2-1 Existence of a system to measure appropriateness of referral	Report of UTH-LDHMT Paediatric Data System	
1) Availability of the following information: a) % referrals actually seen at UTH within specific period (e.g. 4 hours) b) % referrals admitted at UTH c) % referrals that arrived by LDHMT transport (i.e. ambulance) d) % discharged and follow-up at UHC e) % self referrals to UTH f) % referrals on which UHC received immediate (e.g. within 4 hours) feedback from UTH g) evaluation of clinical skills of UHC staff		<p>*** staff training is carried out currently. The system starts in October.</p> <p>42.4% of outpatients were admitted in UTH (53.3% of outpatients is omitted to get this number due to unavailability of their info) Data not available</p> <p>*** staff training is carried out currently. The system starts in October.</p> <p>42.3% in 2001</p> <p>*** staff training is carried out currently. The system starts in October.</p> <p>*** staff training is carried out currently. The system starts in October.</p>

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2-2 Existence of systems to evaluate:		
<p>1) Existence of systems to evaluate reliability of equipment – monitoring and recording system of:</p> <p>a) number of equipment in broken status</p> <p>b) frequency of breakdown of equipment</p> <p>c) downtime of equipment (downtime refers to the period between time when breakdown was reported/recorded and when the equipment has been repaired and returned to its position)</p>	Interview to the officer in charge at district office	<p>The systems to evaluate exist. LDHMT makes up with annual inventory list with show number of broken equipments and conditions of others. The same as above.</p> <p>As long as repair parts available the downtime quite minimum (about 1 or 2 days).</p>
<p>2) Existence of systems to evaluate skills and training of Health Centre staff – a protocol for periodic assessment of performance of UHC staff that measures:</p> <p>a) number of trained staff</p> <p>b) clinical performance of UHC in IMCI</p>		<p>Data currently not available</p> <p>Data currently not available</p>
2-3 Usability of the x-ray equipment provided to Matero Ref HC		
1) average number of the referred to the x-ray department	Quarterly report of Matero Ref HC	443 cases per month in 2001
2) coverage of cost by user fee		89.3% are covered by user fee. LDHMT bears the remainder. The user fee is K5,000 per case. Articles of consumption (x-ray film, chemical, envelope) charges are K5,600.
2-4 Ability of laboratory technologists at four 1 st referral HCs (Matero ref HC, Kanyama HC, Chelston HC and Chilenje HC)		
1) number of trained laboratory technologists	Training assessment report	0 in 2000, 9 in 2001
2) increased number of laboratory tests by provision of equipments and training		15 before the project, 20 in 2001 (now haematocrit, blood glucose, electrolyte analysis, blood count, culture and sensitivity analysis are available)

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Output 3: School health services are effectively in operation

Verifiable indicators	Data source	Results																								
3-1 Improvement of capacity and knowledge of school health coordinators on specific components of the school health programmes	3-1 Pre- and post-training tests, report by school health team to LDHMT																									
1) Number of trained staff for school health coordinator	Follow up assessment of school health coordinator	<table border="1"> <thead> <tr> <th></th> <th>1999</th> <th>2000</th> <th>2001</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>No. trained staff</td> <td>48</td> <td>47</td> <td>47</td> <td>142</td> </tr> </tbody> </table>		1999	2000	2001	Total	No. trained staff	48	47	47	142														
	1999	2000	2001	Total																						
No. trained staff	48	47	47	142																						
2) Comparison of knowledge of school health coordinator on health and disease a) average score of pre- and post-test b) follow up test for school coordinators of pilot and non-pilot area		<p>Pre-test: 30.7 pts, post-test: 34.7 pts in February, 2001 (100 point full mark)</p> <table border="1"> <thead> <tr> <th></th> <th></th> <th>Pilot area</th> <th>Non-pilot area</th> </tr> </thead> <tbody> <tr> <td>Components of school health activities</td> <td>% full mark</td> <td>65%</td> <td>46%</td> </tr> <tr> <td>Items in the First-Aid box</td> <td>% full mark</td> <td>65%</td> <td>36%</td> </tr> <tr> <td>HIV/AIDS transmission route</td> <td>% full mark</td> <td>10%</td> <td>27%</td> </tr> </tbody> </table>			Pilot area	Non-pilot area	Components of school health activities	% full mark	65%	46%	Items in the First-Aid box	% full mark	65%	36%	HIV/AIDS transmission route	% full mark	10%	27%								
		Pilot area	Non-pilot area																							
Components of school health activities	% full mark	65%	46%																							
Items in the First-Aid box	% full mark	65%	36%																							
HIV/AIDS transmission route	% full mark	10%	27%																							
3) Frequency and contents of school health activities in the pilot schools		<p><u>1997</u> 6 activities: physical examination, health education, immunization, environmental health inspection, oral health, treatment of minor ailments)</p> <p><u>2001</u> 8 activities: Physical examination (physical check-up, urine test, blood test, stool examination), health education, immunization, environmental health inspection, oral health, treatment of minor ailments, deworming, workshop for school health coordinators)</p>																								
3-2 Reduction in Prevalence of worm infestation in primary school children in the pilot schools	Stool examination survey	<p>Percent of positive worm infestation</p> <table border="1"> <thead> <tr> <th></th> <th>1999</th> <th>2000</th> <th>2001</th> </tr> </thead> <tbody> <tr> <td>George Central School</td> <td>18%</td> <td>27%</td> <td>22%</td> </tr> <tr> <td>New Kanyama Basic School</td> <td>47%</td> <td>13%</td> <td>11%</td> </tr> <tr> <td>Chakunkula Basic School</td> <td>25%</td> <td>28%</td> <td>-</td> </tr> <tr> <td>Mahatma Gandhi Basic School</td> <td>-</td> <td>-</td> <td>4%</td> </tr> <tr> <td>Total</td> <td>30%</td> <td>22%</td> <td>13%</td> </tr> </tbody> </table>		1999	2000	2001	George Central School	18%	27%	22%	New Kanyama Basic School	47%	13%	11%	Chakunkula Basic School	25%	28%	-	Mahatma Gandhi Basic School	-	-	4%	Total	30%	22%	13%
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Total	30%	22%	13%																							

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		<p>In 1999, those with positive were administered with de-worming drug after screening In 2000, only screening was conducted In 2001, at New Kanyama and Mahatma Gandhi, the stool exam was carried out one month after the administration while two months after at George Central</p>
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WMB.