資　料

MINUTES OF DISCUSSIONS
ON THE PRELIMINARY STUDY ON THE GRANT AID PROJECT
FOR IMPROVEMENT OF COMMUNITY HEALTH
IN THE REPULIC OF GHANA

In response to the request from the Government of the Republic of Ghana (hereinafter referred to as "Ghana"), the Government of Japan decided to conduct a Study on the Grant Aid Project for Improvement of Community Health(hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent the Study Team (hereinafter referred to as "the Team"), headed by Mr. Kazuo NAKAGAWA, Director General, Grant Aid Management Department, to Ghana. The Team is scheduled to stay in the country from 28 April 2005 to 19 May 2005.

The Team held discussions with the officials concerned of the Government of Ghana and conducted field surveys in the study areas.

In the series of discussions and field survey, both parties confirmed the main items described in the attachment.

Accra, 17 May 2005

Mr. Kazuo Nakagawa
Leader
Study Team
Japan International Cooperation Agency
Japan

Hon. Dr. Mrs. Gladys Norley Ashitey
Deputy Minister
Ministry of Health
Republic of Ghana

ATTACHMENT

1. Responsible Agency

The Responsible Agency is Ministry of Health and Ghana Health Service.

2. Japan' s Grant Aid Scheme

2-1 Ghana side understood the Japan's Grant Aid Scheme explained by the Team, as described in Annex-1.

2-2 Ghana side will take the necessary measures as described in Annex-2 and Annex-3 for smooth implementation of the Project as a condition for implementating the Japanese Grant Aid.

3. Schedule of the Study

After the analysis and discussion with authorities concerned in Japan, JICA will make the draft concept of the future cooperation by Japanese Government and have discussion with the Ghana side about this draft after July, 2005.

4. The result of the Study

The health institutions in northern regions listed in Annex 4 were visited by the Team during 1-13 May, 2005. The summary of findings and conclusion of the Team are as follows. These are based on the observations and hearings from health administrative officers and healthcare providers during the field visits, and discussions with MOH/GHS and JICA Ghana office.

4-1 Findings of the situation of health sector in northern regions and CHPS

(1) Health System and CHPS

- The health administrative and referral system in northern regions are well structured. However, in reality, the regional hospitals in Upper East Region (UER) and Upper West Region (UWR) are almost the district-level hospital or slightly better than the district hospital, which is a big difference between UER/UWR and Northern Region (NR). The access to and utilization of health facilities by community people are generally poor, and the numbers of referral cases from health centers to district hospitals and district hospitals to regional hospitals are small in UER and UWR.
- In the situation that the community people have difficulties to access health facilities, the CHPS (Community-based Planning and Services) program is widely accepted by health service providers and communities in URE and UWR, and believed the program contributes to improving health status and health indicators in the regions.
- the implementation and expansion of CHPS program gets ahead in UER than in other Regions, since the pilot project of CHPS and its expansion project were conducted by the Navlongo Health Research Center in UER. However even in UER, there seems to be big differences in CHPS performance and CHPS expansion pace between the districts and CHPSs. The various factors cause the differences and one of them is the partnership with District Assembly. In UWR the program has been introduced but expansion is slightly slow. In

the both regions administrative officers mentioned the lack of fund is the one of the major constrain for launch the CHPS program.

- Regarding the development of CHN for CHPS program, the CHN Training Schools are functioning in the three northern regions, and they have already increased the number of the students or have the plan to produce more CHNs to meet the demand. The district sponsorship scheme has been introduced in three regions to secure CHNs to be allocated to CHPS compounds. However, some institutional changes are still necessary to motivate the CHNs to stay and work in the CHPS compounds.
- There seems to be a tendency that CHPS compounds with CHN/midwife are more active and more clients come than the CHPS compounds with CHN. CHPS largely relies on TBAs for attending the deliveries.
- Underlying factors for poor status of health are malnutrition and poor hygiene. These are not strongly focused in the program.
- To strengthen the referral system by CHPS program establishment of communication and transport network system is needed.

(2) Medical Equipment

- In general, all health facilities equipped with basic medical equipment, however the most of all equipment have not been replenished or renewed for 15 to 20 years. Therefore the equipment is deteriorated, broken, and/or deficient.
- Many items of medical equipment damaged with electricity power fluctuation, low voltage and power failure. This is the first issue to be solved before replenishing or introduction of medical equipment which needs electricity supply. In addition, some of the equipment has been left at a room without installation.
- All the hospitals allocate electrical engineer(s) to maintain the equipment and provide trouble-shooting services. However, actually the regional equipment engineers are doing maintenance services of medical equipment. Maintenance of some sophisticated equipment such as X-ray machine, ultrasound scanner and laboratory testing equipment are contracted out to local agents of the manufacturer.
- There is a general idea of inventory system of medical equipment, but necessary information is not compiled systematically. It is important to set up a more workable and sustainable maintenance system at the regional level.

(3) Infrastructure (Health Facilities and Equipment)

- Deteriorated buildings and structures are the common problem in the all hospitals visited by the Team. Leaky roof and rainwater damage are seen in some hospitals, which may have an influence on use and management of medical equipment.
- Capacity of generator equipped to the hospitals is very limited.
- There is no proper water supply system in the most of the health centers. Sufficient clean and safe water supply is the one of the minimum standard for health center facility where the safe and clean delivery is promoted.

- All three regions have the CHN training school. These schools manage to deal with the increased students in limited space to meet the demand of CHNs for CHPS program. Therefore the environment is not the best for learning in classrooms and staying in dormitories.

4-2. Issues in CHPS Program

- There are some problems and constraints to be solved in on-going CHPS program and a grand design of the CHPS program for expansion is necessary to be developed.
- Institutional change/improvement is needed to solve inhibiting factors for expansion of CHPS program. This includes a change of qualifications of candidacy for the PHN course to allow CHNs to apply, opening of the training course for CHNs to be qualified as a supervisor and a coordinator of CHPS, standardization and increase the in-service training of CHN in the area of obstetric care, and standardization of CHO training modules.
- Improvement of the coordination mechanism with District Assembly and other partners to bring more support by them including the fund should be considered.
- In the CHPS program, some CHPS compounds works/ed very well and some do/did not. For further expansion of CHPS program, detailed scientific analysis on factors promoting/inhibiting the program implementation and expansion, and which component/activity gives impact to improvement of health indicators is definitely needed.
- In some CHPS, a midwife provides service for safe delivery and some not, and the CHPS compound with a CHN/midwife are more active and more clients come than the CHPS compounds with CHN. CHNs are not expected to provide services for safe delivery except emergency cases and many cases are attended by TBAs in communities. This means that CHPS program has limited impact to reduction of maternal mortality ratio.
- Usually underlying factors of poor health status are poor hygiene and malnutrition. These components are not strongly focused in the program. Improvement of sanitation and nutrition may give a big impact to improvement of health in some communities.
- The CHN in CHPS program may be an intermediate between individual/household in the community and health service providers, rather than a health provider. There may be more appropriate and needed approach and activities which varies by communities.
- Therefore, CHPS components need to be reviewed and diversification of the menus should be considered for community participation.
- The concept of CHPS needed to be clarified at national level. On the other hand, active and flexible implementation and diversification of CHPS at district level and community level is also needed.
- Strengthening of health centers and district hospitals including some infrastructure improvement is also needed since these are the referral health facilities for CHPS and supervising institutions of CHPS.

4-3. Conclusion

4-3-1. The Team understand that the Ghana side is making effort to expand CHPS based on the recognition of effectiveness of CHPS.

4-3-2. Both side confirmed that the draft concept of the future cooperation by Japanese Government will be examined based on the following principles.

(1) The possible target sites are the Upper West Region, Upper East Region and Northern Region but the actual target may be more concentrative (esp. technical cooperation).

(2) The purpose of the future cooperation is to strengthen community health service including the expansion of CHPS and target facilities will be CHN Training Centre and the district hospital level or the lower level of health facilities.

(3) Technical Cooperation and Grant Aid Project shall be implemented coordinately to have synergistic effect.

Annex-1 JAPAN' S GRANT AID
Annex-2 Major Undertakings to be taken by Each Government
Annex-3 FLOWCHART OF JAPAN' S GRANT AID SCHEME
Annex-4 The list of health facilities that were visited by the team

JAPAN'S GRANT AID

The Grant Aid scheme provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials as such.

1. Grant Aid Procedures

Japan's Grant Aid Scheme is executed through the following procedures.

Application	(Request made by a recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal & Approval	(Appraisal by the Government of Japan and Approval by Cabinet)
Determination of Implementation	(The Notes exchanged between the Governments of Japan and the recipient country)

Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for the Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.
Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firm(s).
Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Scheme, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.
Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes (E/N) signed by the Governments of Japan and the recipient country.
Finally, for the smooth implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

2. Basic Design Study

(1) Contents of the Study

The aim of the Basic Design Study (hereafter referred to as "the Study"), conducted by JICA on a requested project (hereafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows:

- Confirmation of the background, objectives, and benefits of the requested Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation.
- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view.
- Confirmation of items agreed upon by both parties concerning the basic concept of the Project.
- Preparation of a Basic Design of the Project
- Estimation of cost of the Project

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid Scheme.
The Government of Japan requests the Government of the recipient country to take

whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA.

The consulting firm(s) used for the Study is(are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency.

3. Japan's Grant Aid Scheme

(1) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

(2) "The period of the Grant Aid" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consulting firm(s) and (a) contractor(s) and final payment to them must be completed. However, in case of delays in delivery, installation or construction due to unforeseen factors such as natural disaster, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

(3) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country. However, the prime contractors, namely, consulting, constructing and procurement firms are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

(4) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. The "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

(5) Undertakings required to the Government of the Recipient Country

In the implementation of the Grant Aid project, the recipient country is required to undertake such necessary measures as the following:

a) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction,
b) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
c) To secure buildings prior to the procurement in case the installation of the equipment,
d) To ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
e) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the

products and services under the Verified Contracts,

f) To accord Japanese nationals, whose services may be required in connection with the supply of the products and services under the Verified contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

(6) "Proper Use"

The recipient country is required to operate and maintain the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

(7) "Re-export"

The products purchased under the Grant Aid should not be re-exported from the recipient country.

(8) Banking Arrangements (B/A)

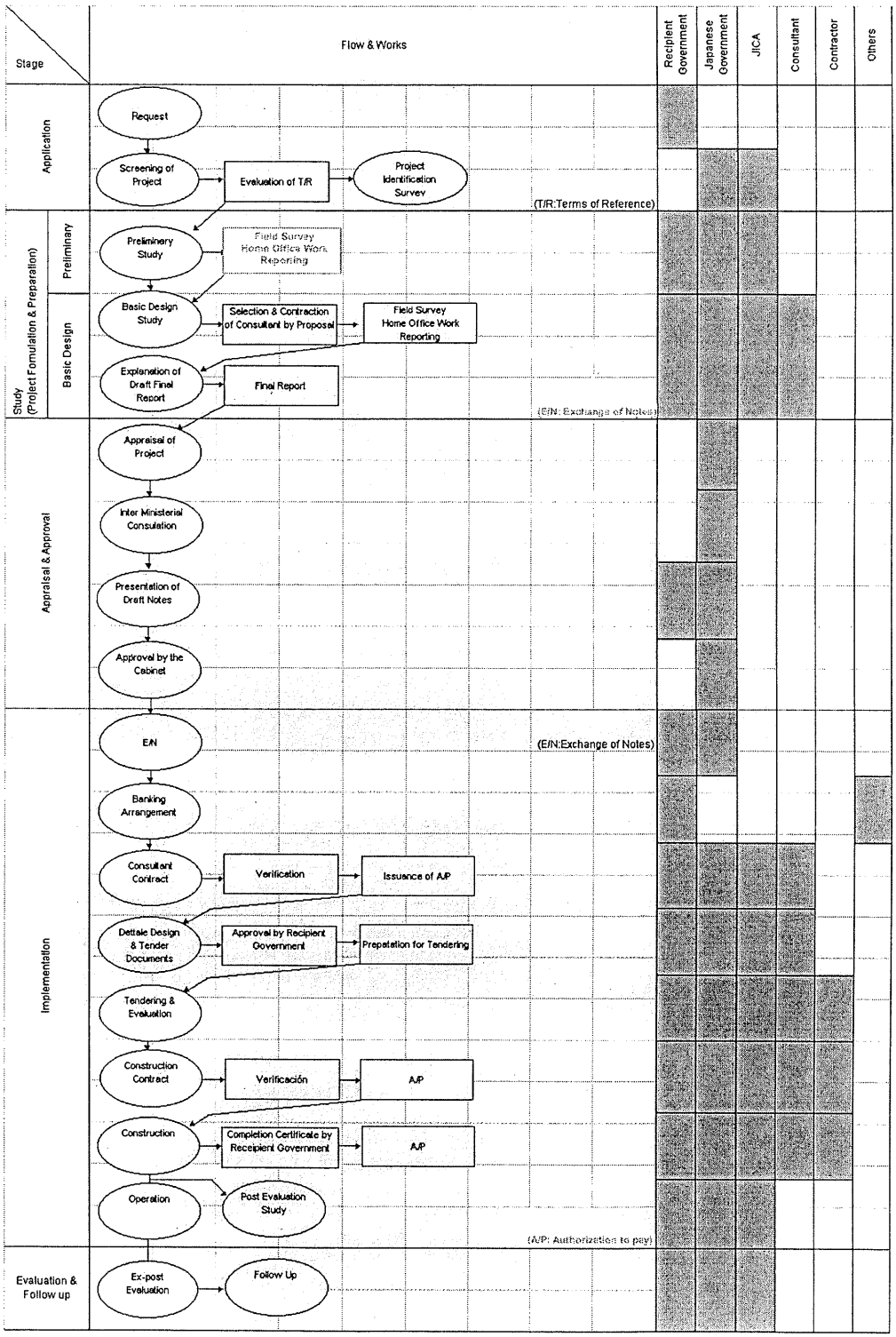
a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions to the Bank.

FLOWCHART OF JAPAN'S GRANT AID SCHEME



Major Undertakings to be taken by Each Government

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To bear the following commissions to the Japanese bank for the banking services based upon the B/A		
	1) Advising commission of A/P		•
	2) Payment commission		•
2	To ensure prompt unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient	•	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		•
	3) Internal transportation from the port of disembarkation to the project site	(•)	(•)
3	To accord Japanese nationals, whose services may be required in connection with the supply of the products and the services under the verified contact, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		•
4	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts		•
5	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant		•
6	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment		•

(B/A: Banking Arrangement, A/P: Authorization to pay)

Annex 4. List of Health Institutions visited by the Team

Upper East Region

Navlongo National Health Research Center, GHS
Regional Health Administration, Upper East Region
Regional Hospital, Upper East Region
Kassena-Nankata District
District Health Administration, War Memorial Hospital (District Hospital), Chiana Health Center, Pungu-North CHPS compound, Naga CHPS Compound
Builsa District
Chuchuliga Health Center, Builsa District
Training Institute
Navlongo CHN Training School

Upper Westt Region

Regional Health Administration, Upper West Region
Regional Hospital, Upper West Region
Jirapa District
District Health Administration, District Hospital (Mission Hospital), Karni Health Center (Mission Health Center)
Sissara District
Tumu District Hospital, Welembelle Heath Center, (Jaffisi Health Center), Sakai CHPS (Building only)
Nadowli District
District Health Administration, District Hospital, Daffiama Health Center, Goli CHPS compound
Lawra District
District Health Administration, District Hospital, Zambon Health Center, Nanyaari CHPS compound
Training Institute
Jirapa Nursing Training School, Jirapa Midwifery Training School, Jirapa CHN Training School

Northern Region

Regional Hospital, Northern Region,
West Gonja District
West Gonja District Hospital (Mission Hospital), Damango
Training Institute
Tamale CHN Training School

付属資料-2. 主要面談者リスト

1. 保健省（アクラ）

Honorable Mrs. Dr. Gladys Morley Ashitey	Deputy Minister of Health
Mrs. Salamata Abdul-Salam	Chief Director
Mr. Emmanuel Langi	Deputy Director
Mr. F. G. Dakpallah	Head of Policy, Planning & Budget Departmnet, Policy Planning, Mmonitaring & Evaluaiton Division
Mr. Ahmed Mohommed	Assistant Director of Administration Division
Mr. Isaac Admms	Acting Director of Research, Statistics & Information Management Division
Mr. Mawuli Hlodze	Head of Project Monitoring and Evaluation, Capital Planning Unit, Ministry of Health
Dr Polycap Asman	Bio-medical Engineering Department, Policy Planning, Mmonitaring & Evaluaiton Division
及川　雅典	チーフアドバイザー・保健セクター戦略情報システム構築プロジェクト（JICA 専門家）

2. ガーナ・ヘルス・サービス（アクラ）

Dr. Frank Nyonator	Director of Policy Planning Monitoring & Evaluation Division
Mr. Emmanuel Tidakbi	Director of Health Administration & Support Services Division
Mr. Yam Brobbey Mpimi	Health Administration & Support Services Division
Dr. Nicholas Adjabu	Deputy Director of Clinical Engineering Department, Health Administration & Support Services Division
Mr. Yahya Khasem	Architect, Project Management & Planning Unit
Mr. Andreas Eskesen	Architect, MAA MAAT Technical Advisor
Mr.Adamus Asuma	Head of Building Maintenance Unit (Engineer)

3. アッパーイースト州

（1）ボルガタンガ（Bolgatanga）

州保健局

Dr. Joseph A. Amankwa	Regional Director for Health Service
Mr. Augustini Ayidiya	In-Service Training Coordinator
Mrs. Joyce K. Bagina	In-Service Training Coordinator
Mr. M.G. Bozie	Health Promotion Officer
Mrs. Vida A. Abaseka	Public Health Administrator
Mr. Dua Oyinka	Administrator
Mr. Abdul Rauf Ibraham	Equipment Manager
Mr. Ernest Tsegah	Transport Officer

州病院

Dr. Aduko Amiah	Medical Director
Mr. Kaba Edward-Danlami	Administrator

（2）カセナ・ナンカナ（Kasena-Nankana）郡

郡保健局、ナブロンゴ（Navrongo）

Mrs. Rofina Asuru	GHS, Director of Health, Kassena-Nankana District
Mrs. Mary K. Atiare	DPHM (RCH)
Mr. Hypolite Yeladuor	District Disease Control Officer

郡病院（War Memorial Hospital)、ナブロンゴ

Mr. Kofi Konlan	Administrator
Mr. Aoron Abuosi	Health Service Administrator
Mrs. Hellen P. Ataya	Principal Nursing Officer
Mrs. Regina A.A	Principal Nursing Officer
Mr. Seid Yahaya	Electrician

北プング CHPS コンパウンド、北プング（Pungu North）

Mrs. Diana Kaba	Community Health Officer (CHO)

ナガ CHPS コンパウンド、ナガ（Naga）

Ms. Pordia Adoba	CHO
Ms. Cecilia Addah	Assistant for CHO

ナブロンゴ地域保健看護師（CHN）養成校

Mr. Amalba David	Principal
Mrs. Afua Williams	Tutor
Mrs. Dohn Lazame	Tutor

ナブロンゴ・国立保健研究センター（National Health Research Centre）

Dr. Abraham Hodgson	Director
Dr. Ayaga Bawah	Demographer
Dr. John Williams	Surveillance Coordinator
Mr. Robert A. Alirigia	Field Coordinator
Mrs. Charity Bukari	Field Coordinator
Mrs. Veronica Awogba	Field Coordinator

（4）ブイルサ（Builsa）郡

チュチュリガ・ヘルスセンター、チュチュリガ（Chuchulga）

Mr. Agamba Augustine	Disease Control, Public Health
Mr. David Abolua	Principal Nurse
Ms. Gifty ayamdoo	Community Health Nurse, CHO

4. アッパーウエスト州

（1）ワ（Wa）

州保健局

Dr. Daniel Yayemain	Deputy Director (Senior Medical Officer)
Mr. Yaw Owusu Ansait	Health Information Officer
Mr. Anokye Daniel Kwadwo	Estate Manager
Mr. Kpaal Wilson	Record Supervisor
Mrs. Josephne Ahorsu	In-Service Training Coordinator
Mr. Lawrence J. Bezagrebere	Accountant
Mr. Jacob P. Duormaa	Principal Pharmacist
Mrs. Mary I. Bapuwroh	Deputy Director of Nursing Service

州病院

Dr. Abdulai Abukari	Acting Medical Director, Medical Officer
Mrs. Faith Loggah	Chief of Nursing Service
Mrs. Ceglia Binni	Principal Nursing Officer
Mrs. Cetestine Deri	Personnel Officer
Mrs. Williams M. Karim	Principal Accountant
Mrs. Mary Saan	Senior Pharmacist
Mr. Bavuno Samson	Acting Estate Manager
Mr. David Basignaa	Electrician

（2）ジラパ（Jirapa）郡

郡保健局、ジラパ

Mrs. Beatrice Kunfah	Director
Mrs. Grace Danlara	District Nutrition Officer
Mrs. Theodora Mwaamaal	District Public Health Nurse
Mr. Tenre Henry	District Disease Control Officer
Mr. Roland Kuuzagr	District Disease Control Officer

郡病院、ジラパ

Mrs. Mary Doozuoh	Deputy Director of Nursing Service
Mr. Albert Zineyelle	Assistant Chief Executive

ジラパ地域保健看護師（CHN）養成学校

Mr. Vincent Tanye	Tutor, Nursing School
Mrs. Ngsotinge Elizabeth	Tutor, Midwifery School

カルニ・ヘルスセンター、カルニ（Karni）・サブディストリクト

Mrs. Helen Aswicoono	Midwife

（3）東シサラ（Sissala East）郡

郡保健局、トゥム（Tumu）

Dr. Thompson Dumba	Director

郡病院、トゥム

Mr. Kuubetuure George	Administrator
Mr. Mumuui Williams	Accountant
Mrs. Lawrencia Hanee	Acting Director, Principal Nursing Officer

ウェレンベレ・ヘルスセンター、ウェレンベレ（Wellembelle）・サブディストリクト

Mrs. Victoria Mumuw	PMS
Mrs. Rosemary Bangzie	Community Health Nurse
Mrs. Rose Dery	Midwife
Mrs. Mary Abagve	Midwife
Mrs. L.D. Naaza	MIA
Mrs. Christina Hillia	Ward Assistant

サカイ CHPS コンパウンド、サカイ（Sakai）、ウェレンベレ・サブディストリクト

Mr. Patrick Baduon	Community Health Volunteer

（4）ナドリ（Nadowli）郡

郡保健局、ナドリ

Mrs. Pespetua Mosdah	Director
Mrs. Melary Bolcumr	District Health Service
Mrs. Alijata Issaka	Senior Staff Nurse (Midwife)
Mrs. Prudence Yiripare	Nutrition
Mr. Abenego Yebeah	Assistant Biologist

郡病院、ナドリ

Dr. Sabastian Sendari	Medical Director

ダフィアマ・ヘルスセンター、ダフィアマ（Daffiama）・サブディストリクト

Mrs. Magdahire Saayeng	Medical Assistant

ゴリ CHPS コンパウンド、ゴリ、ゴリ（Goli）・サブディストリクト

Mrs. Catrine Tumchoge	CHO (Midwife)

（5）ローラ（Lawra）郡

郡保健局、ローラ

Mrs. Kuuder Virginia Saauboh	Acting Director
Mrs. Enphemia Gamdaa	Nutrition

郡病院、ローラ

Dr. Oclod Doe	Medical Officer
Mrs. Susana Tang	Deputy Director, Nursing Service
Mr. Dongzoing Paschel	Administrator
Mr. Valeus Duah	Pharmacist

ザンボ・ヘルスセンター、ザンボ（Zambo）・サブディストリクト

Mrs. Augustina Jatoe	Midwife
Ms. Faustina Chapirah	CHN/CHO

ナニャリ CHPS コンパウンド、ナニャリ（Nanyaari）、ザンボ・サブディストリクト

Ms. Faustina Chapirah	CHO
Mr. Nizuka John Sienii	ビレッジ・チーフ

5. ノーザン州

（1）タマレ

州病院

Mr. Gotdon Anafo	Estate Manager

タマレ地域保健看護師（CHN）養成学校

Mrs. Juliet Atioga	Principal Nursing Officer, Acting Principal
Mrs. Mary Mwah	Vice Principal
Mr. Iustun Amoro	Coordinator (SNO), In-service Training

（2）西ゴンジャ（West Gonja）郡

郡病院、ダモンゴ

Mr. Damasus Ayangba	Administratior
Dr. Chrysamsus Kublo	Medical Superintendent
Mrs. Donata Kanmwaa	Acting Matron
井澤　真栄子	海外青年協力隊員（放射線技師）

6. ドナー

デンマーク国際開発庁　保健セクター支援事務所（DANIDA Health Sector Support Office）

Ms. Helen K. Dzikunu	Senior Program Advisor

ユニセフ（UNICEF）

Dr. Aliu Bello	Project Officer

7. 民間企業

電気会社、アクラ

Mr. John Nuokuru	Director, Northern electricity Department, Volta River Authority

携帯電話会社、アクラ

Mr. Chalabi	Marketing Director, Spacefone

8. 在ガーナ国日本大使館

窪田　博之	一等書記官（経済協力班）

中瀬　崇文	専門調査員（経済協力班）

9. JICA ガーナ事務所

宍戸　健一	所長
小淵　伸司	次長
晋川　眞	所員
清水　治代	保健セクター企画調査員
藤原　好子	保健セクター企画調査員
矢敷　裕子	企画調査員
正木　幹生	企画調査員
小濱　真澄	シニア隊員

付属資料-3. 医療機材の整備内容（医療機材リスト）（案）

ここに示す内容は各施設レベルに必要になろうと思われる標準的な仕様であり、詳細は施設の状況に応じた検討が求められる。

(1) 郡病院の医療機材整備内容（帝王切開ができるレベルを基準とする）

（1 施設当りの老朽化機材の更新内容）

部門	機材名	数量	単価（円）	計（円）
外来	1. 体重計、乳幼児	2	20,000	40,000
	2. 体重計、成人用	2	50,000	100,000
	3. 血圧計	3	15,000	45,000
	4. 乾熱滅菌器	1	300,000	300,000
	5. 医用冷蔵庫	1	450,000	450,000
産科	1. 分娩台	2	750,000	1,500,000
	2. 診察灯	2	120,000	240,000
	3. 吸引娩出器	1	300,000	300,000
	4. 胎児心音計	1	200,000	200,000
	5. ビリルビンメータ（経皮）	1	360,000	360,000
	6. 体重計、乳児用	1	35,000	35,000
	7. 保育器	1	1,000,000	1,000,000
	8. 超音波診断装置	1	6,000,000	6,000,000
	9. 乾熱滅菌器	1	300,000	300,000
手術	1. 手術台	1	1,600,000	1,600,000
	2. 無影灯	1	1,300,000	1,300,000
	3. 吸引器	1	300,000	300,000
	4. 麻酔器	1	2,800,000	2,800,000
	5. 電気メス	1	1,200,000	1,200,000
	6. パルス・オキシメータ	1	450,000	450,000
	7. 乾熱滅菌器	1	300,000	300,000
	8. 高圧蒸気滅菌装置（卓上）	1	450,000	450,000
	9. 高圧蒸気滅菌装置	1	4,500,000	4,500,000
	10. 外科手術器具セット*	1	1,200,000	1,200,000
検査	1. 顕微鏡	2	450,000	900,000
	2. 比色計（ヘモグロビン）	1	300,000	300,000
	3. 分光光度計	1	600,000	600,000
	4. 遠心器	1	350,000	350,000
	5. 血液保冷庫	1	500,000	500,000
	6. 乾熱滅菌器	1	300,000	300,000
	7. 高圧蒸気滅菌器	1	450,000	450,000
			合　計	28,370,000
その他				
救急	救急車（4x4）	1	4,900,000	4,900,000
通信	無線システム	1	200,000	200,000

＊：腰椎麻酔、会陰切開、帝王切開、虫垂炎切除、子宮摘出術の各器具セットの構成

(2) ヘルスセンターの医療機材整備内容　(1 施設当りの計画機材内容)

部門	機材名	数量	単価（円）	計（円）
外来	1. 体重計、乳幼児	1	20,000	20,000
	2. 体重計、成人用	1	50,000	50,000
	3. 血圧計	3	15,000	45,000
	4. 煮沸消毒器（ガス式）	1	80,000	80,000
産科	1. 分娩台	1	500,000	500,000
	2. 分娩器具セット	2	150,000	300,000
	3. ベッド	2	50,000	100,000
	4. 胎児心音聴診器	2	10,000	20,000
			合　計	1,115,000
その他				
通信	無線システム+ソーラー発電	1	1,500,000	1,500,000

(3) CHN 養成校の教育機材整備内容　(1 施設当りの教育・実習用機材内容)

分類	機材名	数量	単価（円）	計（円）
(1) 授業で用いる機材（人体･臓器模型）				
1	人体模型（男子）	2	550,000	1,100,000
2	人体模型（女子）	2	460,000	920,000
3	脳／神経模型	2	357,000	714,000
4	呼吸器模型	2	53,000	106,000
5	循環器模型	2	108,000	216,000
6	消化器（肝･膵･腎）模型	2	75,000	150,000
7	消化器（消化系）模型	2	72,000	144,000
8	泌尿／生殖器模型（男子）	2	101,000	202,000
9	泌尿／生殖器模型（女子）	2	127,000	254,000
10	妊娠模型	2	113,000	226,000
			小　計	4,032,000
(2) 演習用機材				
1	採血・静脈注射手技	3	47,000	141,000
2	上腕筋肉内注射シミュレータ	3	110,000	330,000
3	分娩介助シミュレータ	2	250,000	500,000
4	血圧計	3	15,000	45,000
			小　計	1,016,000
			合　計	5,048,000
その他				
1	スクールバス	1	4,000,000	4,000,000