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## APPENDICES

### Appendix 1: Questionnaire

#### SECTION I: GENERAL INFORMATION

- 1.1 Province
- 1.2 District
- 1.3 Village
- 1.4 Household (head of the HH or caretaker )
- 1.5 Sex of respondent
- 1.6 Age of respondent

#### SECTION II: ONCHOCERCIASIS CONTROL DEMAND FUNCTION

##### *2.1 Income*

Instead of jumping directly and asking the households how much they earn, an approach to classify the household in the community will be used. The pollster will be generally local inhabitant, who lived in the community. He will classify the household in low, medium and high income. By doing so it will help us to achieved significantly higher level of reliability; seeing that people knows better their community than everyone. After skillfully a sequence of questions about their expenditure will be used to know the income.

- \* In your view, how will you generally rate the household in term of yearly income
  - low
  - medium
  - high

(What is /are your reason(s) for your answer)

Some questions should be ask to make the interviewee at home

- Do you earn cash income monthly? (yes or no)
- How many other people in your household earn cash-income?
- Do you earn non-cash income?
- How many other people in your household earn non-cash income?

### 2.1.1 Expenditure on health care services

Instead of asking directly the households, how much they spend on health-care, an approach of first establishing the use of health care services is used. This approach should get the people thinking and after be able to estimate their expenditure correctly. It will also help the researcher to link expenditure to service use.

The total cost of health care will be the cost of health care services and transportation for the patient if any. These are the two most important cost items, and so the others like cost of food, accompanying relatives, opportunity cost though important will not be considered in order to make this approach both practical and manageable.

Three months rather than a month are used so as to capture more expenditure, because the occurrence of ill health may not be on a monthly basis within households.

How often do you or members of your household visit health care facilities in a year? These facilities include drugstores, clinic, hospital traditional doctors and herbalists, homeopath et cetera.

- Rarely = 0
- Once in a while = 1
- Regularly = 2

Did you or any member of your household visit or buy drugs from any of the above mentioned health facilities within the past 3 months? (yes or no)  
If yes, how much did you spend on health care on the whole?

How much did you spend on transport?

How much on the average does your household spend on health care yearly?

Total expenditure = expenditure on health care + transport fare

Average monthly expenditure = total expenditure/3

### 2.1.2 Expenditure on food

It is important to monetize the value of home produced food items, as done in question above.

How much does your household spend to buy food from the market monthly?  
If you produce some of food items that you consume in your household, how much do you consume in your household, how much do you think they are worth monthly?

Average monthly food expenditure =

### *2.1.3 Expenditure on ceremony*

How do you spend last season for the ceremony?

Average monthly ceremony expenditure =

### *2.1.4 Expenditure on education*

How much does your household spend on education yearly?

For children

For adult if any

Total expenditure on education / 12 =

### *2.1.5 Expenditure for other needs*

How much did you spend for others needs last three month?

Transport,  
Gifts, etc.

Average monthly other needs expenditure =

Total household income = sum of 2.1.1, 2.1.2, 2.1.3, 2.1.4 and 2.1.5.

### *2.1.6 The maximum amount he is willing to pay*

This is the crux of the matter and the most sensitive issue to be explored. Therefore a series of questions are used. The first two questions establish the availability of the drug for the disease and the nature of the cost that the household is expected to bear. They are intended to be used in gaining the confidence of the interviewee so that he or she will open-up.

It should be understood that only the answer to question 3 would be used in the analysis. The other questions are supportive.

- If there is a drug that can effectively prevent and also cure some of the diseases caused by onchocerciasis, will you be prepared to pay for such a drug for yourself and your household? Yes or No
- A drug called ivermectin is very effective in controlling onchocerciasis. The Government also provides it free. What is needed is the cost of bringing and distributing it to all eligible community members. May be from year 2002 you will bear the cost of the drug. Are you willing to contribute for its procurement? Yes or No
- Will you pay for the other eligible members of your household? Yes or No.

- What is the maximum amount that you will be prepared to pay or contribute yearly since the drug must be taken at least once yearly for some years in order to eradicate the disease from your community?

Price of treatment = Price of ivermectin + cost of transportation

- Number of person he is willing and able to treat

Given that price, how many member of your household are you willing and able to treat?

### SECTION III: ABILITY TO PAY

#### *3.1 Ownership of property*

Which one of the following do you own?

- a) Personal home with zinc/asbestos roof and or farming land and or bicycle.
- b) Option an above plus television set or refrigerator plus motor vehicle like a car etc.
- c) Owns nothing

#### *3.2 Type of savings*

How do you save your money?

- a) Saving with friends or in the house
- b) Saving with bank or saving with cooperative
- c) No saving

#### *3.3 Family size*

Family size represents the number of people living in the household during the last twelve months.

How many members live in your household?

#### *3.4 Source of income*

- a) Agriculture or farm = 1
- b) Others = 0

- a) Permanent = 1
- b) Non-permanent = 0



## SECTION IV: WILLINGNESS TO PAY

### 4.1 Level of knowledge about onchocerciasis

It will be necessary to translate the symptoms to the local terminology before conducting a survey. The questions are structured in a way that will gently prod the interviewees to reveal what he/she knows. No specific question will be asked about ivermectin; however, if the household tells about the drug, then questions regarding the knowledge about it should be included. The answers are scored according to the code illustrated below.

1 - Which kind of disease can give onchocerciasis?

2 - Which of the following diseases have you heard about that occurs in your community?

- a) Onchodermatitis (itching)
- b) Nodules
- c) Leopard Skin
- d) Hanging groin
- e) Blindness

3 – Do you know the cause of onchocerciasis or the cause of above diseases?

Yes

No

4 - If yes what is the cause of onchocerciasis?

- a) Bad air
- b) Witchcraft
- c) Bite from blackfly causing onchocerciasis
- d) From food
- e) Don't know

5 – According to you can we prevent people from getting onchocerciasis?

Yes

No

6 - If yes, what is the treatment or preventive measure for the disease?

- a) Medicine and surgery
- b) Spiritual healing
- c) Kill blackfly
- d) Do nothing
- e) Don't know

7 – If no, why?

Criteria for scoring:

- Knowledge of at least two symptoms of the disease and link with blackfly plus use of medicine, surgery or killing blackflies implies high degree of knowledge.

Score = 3

- Knowledge of one symptom and link with the blackfly or the use of medicine or surgery for management means middle Knowledge. Score = 2

- Knowledge below above. Score = 1

#### *4.2 Priority ranking of onchocerciasis*

We will not ask the households to list their priority problems, and then for the researcher to see whether onchocerciasis is one of them as done in qualitative studies. Rather, they are asked to rank the disease by grading, so that the result can analyzed quantitatively.

Do you consider onchocerciasis, which causes all the diseases, mentioned above a problem in your community.?

- a) No
- b) Little problem
- c) Big problem

#### *4.3 Presence of clinical onchocerciasis in a household member*

Does you or any member of your household suffer from any of the disease caused by onchocerciasis that were mentioned above?

- a) No
- c) Present in a household member
- d) Present in many household members

#### *4.4 Risk of an individual or household member contracting onchocerciasis.*

Do you feel that either you or any person in your household stands the risk of getting onchocerciasis?

- a) No risk
- b) Low risk
- c) High risk

## SECTION V: COMMUNITY INVOLVEMENT

### *5.1 Community involvement in designing distribution system and selecting distributors*

- Do the community involve in designing the distribution system and or selecting the distributors. Yes or No

### *5.2 Availability of credible distributors*

- Are credible distributors available? Yes or No

### *5.3 Leadership to facilitate effective functioning of the distribution system*

- Is community leadership to facilitate effective functioning existing? Yes or No

### *5.4 Perceived benefits of ivermectin*

- Do you think ivermectin is a helpful drug? Yes or No (give your reasons)

### *5.5 Integration with local health system*

Assuming a community fund is set up for the sole reason of financing the procurement of ivermectin, how would you like the fund to be managed?

- Managed by the community with government supervision or managed by the government with community supervision.
- Managed by the government
- Managed by the community

What type of payment do you prefer?

- a) Fee for service
- b) Pre-payment

Do you feel that those unable to pay like handicapped should also benefit from the scheme? Yes or No.

## **Appendix 2: Participating countries and donors**

### **The Onchocerciasis Control Program is sponsored by**

United Nations Development Program (UNDP),  
Food and Agriculture Organization (FAO),  
World Bank,  
World Health Organization (WHO), is acting as Executive Agency.

### **The Participating Countries are:**

Benin,  
Burkina Faso,  
Ivory Coast,  
Ghana,  
Guinea,  
Guinea Bissau,  
Mali,  
Niger,  
Senegal,  
Sierra Leone,  
Togo.

### **1994 donors are:**

African Development Bank,  
Belgium,  
Calouste Gulbenkian Fondation,  
Denmark,  
European Community,  
France,  
Germany,  
Italy,  
Japan,  
Republic of Korea,  
Kuwait,  
Luxembourg,  
Netherlands,  
OPEC Fund for International development,  
Portugal,  
Saudi Arabia,  
Switzerland,  
UNDP,  
United Kingdom,  
USA,  
WHO and World Bank.

### Appendix 3: Hypothetical data

#### ABILITY TO PAY

ATP	FS	Op	Y	Ts	Sy
0	4	1	25000	1	1
1	7	0	50000	0	0
1	10	1	60000	0	0
0	3	1	27000	0	1
1	10	0	70000	1	1
1	4	0	66000	0	0
0	6	0	38000	1	1
1	7	0	80000	0	1
1	5	0	52000	0	0
0	2	1	29000	1	0
1	10	0	59000	0	1
1	9	0	90000	0	1
0	8	0	37000	0	0
1	5	0	64000	0	1
0	2	0	31000	0	1
1	9	0	75000	1	0
1	12	0	160000	0	1
1	4	0	70000	0	1
0	10	1	37000	0	0
1	3	0	72000	0	1
1	10	0	160000	0	0
0	2	1	38000	1	1
0	3	0	23000	0	0
1	4	0	72000	0	0
1	6	0	72000	0	1
0	4	0	26000	0	1
0	4	1	21000	0	0
1	9	0	140000	1	1
1	5	1	52000	0	0
1	6	0	150000	0	1
1	4	0	53000	0	1
1	6	0	146000	0	1
1	8	1	50000	0	0
0	10	0	22000	0	0
1	5	0	55000	1	1
1	6	0	75000	0	1
1	2	1	100000	0	1
1	2	0	80000	0	0
1	8	0	110000	0	1
0	9	0	22000	1	0
1	3	0	120000	0	1
0	4	0	28000	0	0
0	6	1	30000	1	1
1	4	0	130000	0	1
0	5	0	40000	1	1
1	10	0	145000	0	1
1	7	0	130000	0	1
0	10	1	42000	0	0
0	6	1	44000	0	0
1	8	0	54000	0	0
1	12	0	130000	0	1
0	10	0	37000	0	0
1	8	0	110000	0	1

## WILLINGNESS TO PAY

Le	Lk	Tc	Pr	Rc	M
1	1	2000	1	0	2
1	1	1500	1	0	3
1	1	1000	1	0	4
0	0	1000	1	1	3
1	0	1000	0	0	6
0	0	1000	0	1	7
1	1	1500	1	0	3
0	0	1500	0	0	10
0	0	500	0	0	8
0	0	500	0	1	10
1	0	1500	1	0	4
0	0	1000	0	1	8
0	1	1500	1	0	5
1	0	1000	0	0	4
1	0	1300	0	0	5
0	0	700	0	0	8
0	0	2000	0	0	10
0	0	1100	0	1	10
1	0	1100	1	1	5
1	0	600	0	0	10
0	0	1600	1	0	8
0	1	1200	1	1	3
0	1	800	1	0	6
1	0	1700	0	0	7
1	0	1900	0	1	7
0	0	550	0	1	7
0	0	500	0	1	8
0	0	1300	0	1	10
1	0	750	0	0	75
0	0	1000	0	0	10
0	0	1000	1	0	10
1	0	1000	0	0	10
1	0	1500	1	0	6
1	1	2000	1	0	6
0	0	1700	0	1	6
0	0	2000	1	0	8
1	0	500	0	0	10
0	0	1000	0	0	10
0	0	1000	0	0	10
1	1	1000	1	1	3
0	0	2000	0	0	8
1	0	1000	1	1	5
0	0	1500	1	0	5
0	0	2200	1	0	10
1	0	1500	0	0	6
0	1	1500	0	1	10
0	1	1500	0	0	7
1	0	1000	1	0	4
1	1	1000	1	0	6
0	0	1000	0	1	7
1	0	2000	0	1	5
1	0	2000	0	1	3
1	0	1000	0	0	9

## COMMUNITY INVOLVEMENT

Ad	Ds	Cl	Ih	Pb	CI
1	1	1	0	0	1
1	0	1	0	0	0
1	0	1	0	0	0
0	0	0	0	1	0
0	0	0	0	0	0
0	0	0	0	0	0
1	0	1	1	1	1
0	0	0	1	0	0
1	1	0	0	0	0
1	0	1	1	0	1
1	0	0	0	0	0
1	1	1	1	1	1
1	1	1	1	1	1
1	1	1	1	1	1
0	0	1	1	0	1
0	0	0	0	0	0
1	0	0	0	0	0
1	1	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
1	0	1	1	0	1
1	0	1	1	0	1
0	0	1	0	0	1
0	0	1	0	0	0
1	0	1	0	0	0
1	0	1	0	0	1
1	0	1	0	0	0
0	1	1	0	0	0
1	1	0	0	1	1
1	1	1	0	1	1
1	0	1	0	0	0
0	0	0	1	1	0
0	0	0	0	0	0
1	0	1	0	0	0
1	0	1	0	0	0
1	1	0	0	1	1
0	1	0	0	0	1
1	1	1	0	0	1
1	0	1	0	0	0
0	0	0	0	1	0
1	0	1	0	0	0
0	0	0	0	1	0
0	0	1	0	0	0
1	1	0	0	0	1
1	1	0	0	0	1
1	0	0	0	0	0
0	1	1	1	0	1
1	1	1	1	1	1
0	0	0	0	0	0

## ONCHO DEMAND FUNCTION (POOR)

M	Ph	Y
2	1000	15000
2	1000	17000
2	1100	20000
2	1100	22000
2	1100	30000
2	1200	31000
4	1000	35000
4	1000	36000
4	1000	37000
4	1100	39000
4	1200	41000
6	500	16000
6	500	19000
6	1000	25000
6	1200	45000
6	1300	47000
6	1200	49000
8	1000	48000
8	1000	37000
8	900	49870
8	1000	48000
8	750	45000
8	1000	47000
10	900	48500
10	850	49500
2	1000	15000
2	1000	17000
2	1100	20000
2	1100	22000
2	1100	30000
2	1200	31000
4	1000	35000
4	1000	36000
4	1000	37000
4	1100	39000
4	1200	41000
6	500	16000
6	500	19000
6	1000	25000
6	1200	45000
6	1300	47000
6	1200	49000
8	1000	50000
8	1000	51000
8	900	49870
8	1000	52000
8	750	55000
8	1000	47000
10	900	50000
10	850	49500
2	1000	15000
2	1000	17000
2	1100	20000



## ONCHO DEMAND FUNCTION ( RICH)

H	Ph	Y
3	1100	54000
4	1000	55000
4	1000	52000
4	1100	60000
4	1100	65000
4	1100	90000
4	1200	90000
8	1000	100000
8	1000	110000
8	1000	110000
8	1100	120000
8	1200	120000
12	500	50000
12	500	55000
12	1000	75000
12	1200	150000
12	1300	145000
12	1200	145000
14	1000	152000
14	1000	145800
14	900	141000
14	1000	154000
14	750	165000
14	1000	139000
15	900	174000
15	850	158000
5	1350	124000
4	1000	50000
4	1000	52000
4	1100	60000
4	1100	65000
4	1100	90000
4	1200	90000
8	1000	100000
8	1000	110000
8	1000	110000
8	1100	120000
8	1200	120000
12	500	50000
12	500	55000
12	1000	75000
12	1200	150000
12	1300	145000
12	1200	145000
14	1000	152000
14	1000	145800
14	900	141000
14	1000	154000
14	750	165000
14	1000	139000
15	900	174000
15	850	158000
8	1000	110000

## CURRICULUM VITAE

Name: EKANMIAN Gatién Koffi

Date of birth: 18 December 1959

Place of birth: Porto-Novo (Benin)

Nationality: Beninese

Religion: Christianity, Roman Catholic

Marital status: Married

Languages: French and English, fluent speaking, reading and writing

Educational Qualification:

- Doctorate Degree in Medicine (Doctorat d'Etat)
- Certificate in financing of health service
- Certificate in English

Place and date obtained:

- Faculty of Medicine, National University of Benin, Cotonou; 1990.
- CREDESA, Ministère de l'Éducation Nationale du Bénin, Pehou; 1995.
- Tema Language Centre, Ghana; 1997

Present Employment: Department of consultation, diffusion and training  
Centre Regional pour le Développement et la Santé / Soins de Santé Primaires  
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Post: Research Fellow in Health Economics, Head of field training, Member of the International Course of Financing Management of Health District. In charge of the Network of the pilot communes ( implementation of Bamako Initiative / PHC)

Experience: Many research activities in PHC, Bamako Initiative, Health Planning and Financing including International Consultations in Health Program Evaluation and Bamako Initiative at community and district level.

Hobbies: Travel, Sports, Music and Reading.

