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## **APPENDICES**

## APPENDIX A

### DATA COLLECTION INSTRUMENT

1. Interviewer code: \_\_\_\_\_

2. Date: \_\_\_\_\_

3. Telephone Number of (Subject in Urban): \_\_\_\_\_

4. House Number of (Subject in Rural): \_\_\_\_\_ **Subject ID.No.....**

**For each question, check the correct answer, where required.**

#### **Part 1. Questions about the general Household situation**

1. How many people are living in this household? (Include every one who live in this household?) \_\_\_\_\_

2. How many numbers of children under 5 years live in this household? \_\_\_\_\_

3. What type of house does your family live in?

1. Concrete Building \_\_\_\_\_

2. Traditional Bhutanese house \_\_\_\_\_

3. Hut \_\_\_\_\_

4. How many rooms does the house have (do not count bathroom) \_\_\_\_\_

5. Does your house have a separate kitchen?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

6. What type of the fuels used to cook? You may check more than one.

1. Gas \_\_\_\_\_

2. Electricity \_\_\_\_\_

3. Wood \_\_\_\_\_

4. Kerosene \_\_\_\_\_

5. Other (specify) \_\_\_\_\_

7. Is there at least one window in the kitchen?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

8. In summer, are kitchen windows usually opened during cooking?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

9. In winter, are kitchen windows usually opened during cooking?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

10. Does the kitchen have either of the following? You may check more than one.

1. Chimney \_\_\_\_\_

2. Exhaust fan \_\_\_\_\_

11. How many meals are cooked per day on average? Check only one.

1. 1 meal/ day \_\_\_\_\_

2. 2 meals /day \_\_\_\_\_

3. 3 meals / day \_\_\_\_\_

12. Do you use anything other than cook stove to help heat this home?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

13. What is the main method of heating? You may check more than one.

1. Electric heater \_\_\_\_\_

2. Kerosene Heater \_\_\_\_\_

3. Wood stove (Bhukari) \_\_\_\_\_

4. Portable (tin) stove \_\_\_\_\_

5. Other (specify) \_\_\_\_\_

14. If, Kerosene heater or portable stove is used for heating. Does it have a Chimney?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

**Part 2. Questions about children younger than 5 years old (answer these questions for each child under 5 years old). The questionnaire will have space up to 3 children under 5 years old (questions 15 through 29)**

15. How old is the child?

\_\_\_\_\_ years \_\_\_\_\_ months

16. Gender: 1. Female \_\_\_\_\_ 2. Male \_\_\_\_\_

17. Has the child been ill with a cough at any time in the past 2 weeks?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

If **YES** to question 17, answer question 18. If **NO skip to** question 19.

18. When this child was ill with cough, did he/she breathe faster than usual with short and rapid breaths?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

19. Has the child been ill with a cough at any time in the past 6 weeks?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

If **YES** to question 19, answer question 20. If **NO skip to** question 21.

20. When this child was ill with cough, did he/she breathe faster than usual with short and rapid breaths?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

21. When this child has a cold, does he/she usually have a cough?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

22. When this child does not have a cold, does he/she usually have a cough?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

If **YES** to either question 21 or 22, answer question 23. If **NO skip to** question 24.

23. He /she cough like this for about how many months each year? Check only one.



1. Less than one month \_\_\_\_\_

2. 1- 2 months \_\_\_\_\_

3. 3 months or more \_\_\_\_\_

24. When this child has a cold, does he/she usually bring up sputum from his/her chest?

Do not count mucus from nose or throat.

0.No \_\_\_\_\_ 1.Yes \_\_\_\_\_

25. When this child does not have a cold, does he/she usually bring up sputum from his/her chest? Do not count mucus from nose or throat.

0.No \_\_\_\_\_ 1.Yes \_\_\_\_\_

If **YES** to either question 24 or 25, answer question 26. If **NO** skip to question 27.

26. Do he /she brings up sputum like this for about how many months each year? Check only one.

1. Less than 1 month \_\_\_\_\_

2. 1-2 months \_\_\_\_\_

3. 3 months or more \_\_\_\_\_

27. Has this child's chest ever sounded wheezy or whistling?

0.No \_\_\_\_\_ 1.Yes \_\_\_\_\_

28. Has a doctor ever said that this have any of the following conditions? Check Yes or No for each condition.

1. Asthma 0.No \_\_\_\_\_ 1.Yes \_\_\_\_\_

2. Bronchitis 0.No \_\_\_\_\_ 1.Yes \_\_\_\_\_

3. Pneumonia 0.No \_\_\_\_\_ 1.Yes \_\_\_\_\_

4. Tuberculosis 0.No \_\_\_\_\_ 1.Yes \_\_\_\_\_

**Part 3. Questions about (the study child's mother)**

29. How old are you? \_\_\_\_\_ years

30. What is the highest level of education that you have completed? Check only one.

1. None \_\_\_\_\_

2. Non-formal \_\_\_\_\_

3. Primary level VI \_\_\_\_\_

4. Lower Secondary (VII - VIII) \_\_\_\_\_

5. Higher Secondary (IX-XII) \_\_\_\_\_

6. College/University \_\_\_\_\_

31. What is your occupation? Check only one.

1. House wife \_\_\_\_\_

2. Government Services \_\_\_\_\_

3. Business \_\_\_\_\_

4. Farming \_\_\_\_\_

5. Other (specify) \_\_\_\_\_

32. Have you ever smoked?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

33. Did you smoke while pregnant with the study child?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

34. Did you smoke during the first year of the study child's life?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

35. When the study child was a baby, was he / she ever breast fed by mother?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

**Part 4. Other Questions.**

36. Apart from the mother, do any other household members smoke during first year of the study child?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

37. Have any other household members smoked in last 5 years?

0. No \_\_\_\_\_ 1. Yes \_\_\_\_\_

## APPENDIX B

### INFORMED CONSENT

I am Bhutanese (Master in Public Health) student at Chulalongkorn University; Thailand. I am conducting a study on the Effects of Indoor Air Pollution on risk of Acute Respiratory

Infection and other respiratory illness in children under age five in Bhutan. You can help in this study by consenting to complete a short questionnaire. Although you may or may not directly benefit from this study, the benefit to others would be tremendous. All the information given during the interview is confidential. Your identity will not be reflected or mentioned in the documents that this study or present in study results. Results will be presented only for groups of people, not for individual persons. Participation is voluntary and should you decide not to participate in this study, your decision will be respected. The signature on this form will be indicate that you have understood what is involved and that you consent to participate in this study.

Yours sincerely

Nima Sangay

Signature

Date

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name of the

Signature

Date

Mother

## APPENDIX C

### SCHEDULE FOR THE RESEARCH STUDY

Activity	Aug 04	Sep	Oct	Nov	Dec	Jan 05	Feb	Mar	Apr	May	
Preparation of thesis protocol		←————→									
Defense of thesis protocol						←→					
Data collection							←→				
Data analysis								←→			
Report writing									←→		
Presentation of thesis report										←→	

## APPENDIX D

### THESIS EXPENSE PROPOSAL

Activity	Quantity	Amount/Unit(baht)	Total amount
Air fare (round trip)	1	20,000	20,000
Air port tax(Bkk)	1	500	500
Paro Airport tax	1	300	300
Tax fare	2	600	1200
Traveling allowance during data collection & Charge for interviewer		35,000	35,000
Printing and copying Expense		10,000	10,000
<b>Total</b>		<b>66,400</b>	<b>67,000</b>

## CURRICULUM VITAE

Nima Sangay is Bhutanese. He was born on 04 .05. 1970. He completed high School from Yangchenphu High School in 1988. He did his undergraduate course in nursing from Royal Institute of Health Sciences in Bhutan in 1991. He joined the Department of Health services in 1992 and served in various clinical fields in National Referral Hospital. He worked as Chief Nurse in operation theatre department. He did Bachelor in Nursing from Latrobe University, Australia in 2002.

He was working as Deputy Nursing Superintendent in Jigme Dorji Wangchuk National Referral hospital in Thimphu before joining the Master of Public Health program. He has two children (one son and one daughter). He will be working back in same hospital.