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Supplement of

Personal exposure to PM_{2.5} emitted from typical anthropogenic sources in southern West Africa: chemical characteristics and associated health risks

Hongmei Xu et al.

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Figure S1. Household cooking stoves and tools used in the target households: (a) Simple coal-burning stove and pot; (b) Another type simple coal-burning stove and jar; (c) Butane gas stove and pot; (d) Simple wood-burning stove (three pieces of stones) and pot.

SI A-C. Questionnaires for (A) women, (B) students and (C) drivers.

SI D. Activity diaries for women, students and drivers.



Figure S1.

2016

**Assessing Air Pollution Exposures in southern West Africa
- Questionnaire for Women**

1. Participant name: _____
2. Interviewer name: _____
3. Sampling site: _____
4. Address of the interview place: _____

5. Address of the participant home: _____

6. Interview date: ____/____/____ (yyyy/mm/dd)
7. Interview start time: _____ End time: _____

This questionnaire is for research purposes only. Please think carefully and answer all the questions below. Your answers will be kept completely confidential and your personal information will not be disclosed or displayed in any way and any case.

Thank you for your cooperation!

A. Basic Information

【Please choose by or fill in the answer】

A1. Gender: (0) Male (1) Female

A2. Age: _____ years old

A3. Height: _____ cm; Weight: _____ Kg

A4. Marital status:

(0) Single (1) Married

(2) Divorced (3) Widowed

A5. Highest level of education:

(0) Primary school

(1) Junior high school

(2) High school

(3) Undergraduate

(4) Above undergraduate

A6. The total number of family members (including you): _____

A7. Number of adults (18 years or older; including you): _____

A8. Family total annual income: _____ West African Franc / Month

A9. Now professional:

(0) Unemployed

(1) Students

(2) Retired staff

(3) Workers

(4) Farmers

(5) Corporate staff

(6) Civil servants

(7) Housewife

(8) Driver

(9) Others: _____

A10. Work address (if any)?

A11. Your housing type:

(0) Apartment

(1) One-storey house

(2) Other: _____

A12. _____ Floor

A13. Residential area: _____ m²

(0) One room and one hall

(1) Two rooms and one hall

(2) Three rooms and two halls

(3) Others

A14. How long did you move in this house after it was decorated?

(0) < 3 months (1) 3-6 months

(2) 6-12 months (3) > 12 months

A15. When was your house built? _____(year)

A16. How many years have you lived in this house? _____ (year)

A17. What material is your house built?

(0) Brick (1) Armored concrete

(2) Timber (3) Other materials

A18. What is the material of the floor in your house?

(0) Cement (1) Marble

(2) Solid wood (3) Composite wood

(4) Tile (5) Plastic (6) Rock

(7) Brick (8) Bare soil

A19. What is the material of the furniture in your house?

(0) Solid wood (1) Plastic

(2) Leather (3) Metal

(4) Stone (5) Glass

(6) Cloth (7) Artificial board

A20. Has your house been decorated in the last year?

(0) Yes (1) No

↳A21. What kind of decoration?

(0) Paint

(1) Change the floor

(2) Add new furniture

(3) Other: _____

A22. Does your house have ventilation

equipment?

- (0) Yes (1) No

↳ A23. What kind of equipment?

(Please select all suitable answers)

- (0) Hanging air conditioner
(1) Cabinet air conditioner
(2) Ventilator

A24. How far is your house from the main road?

- (0) <20m (1) 20-100m
(2) >100m

A25. Do you smoke?

- (0) Yes (1) No

A26. Do you have a smoking history?

- (0) Yes (1) No

↳ A27. How long is your smoking

history? _____ years

A28. Does your family member smoke (not including you)?

- (0) Yes (1) Used to smoke
(2) No

A29. In general, are you influenced by second hand smoke in the following environments often?

- (0) Your own home
(1) Working environment
(2) Other' house
(3) Restaurants, bars, supermarkets,

streets and so on

- (4) Other: _____
(5) Rarely affected by second hand

smoke

A30. Do you often drink alcohol?

- (0) Yes (1) No (2) Not often

A31. Drinking type:

- (0) Alcohol (1) Beer
(2) Wine (3) Other

A32. Drinking frequency per week:

- (0) < once (1) 1-3 times
(2) > 3 times (3) I don't know

A33. Please describe your health status in general.

- (0) Very good (1) Good
(2) Not bad (3) Not good

A34. Do you have a family history of allergies?

- (0) Yes (1) No (2) I don't know

A35. Have you been allergic to flowers or animals, food, etc.?

- (0) Yes (1) No (2) I don't know

A36. Have you ever had itchy skin and red patches (rashes) lasting more than 6 months?

- (0) Yes (1) No (2) I don't know

A37. Do your parents have asthma?

- (0) Yes (1) No (2) I don't know

A38. Do you have asthma?

- (0) Yes (1) No (2) I don't know

A39. Have you heard any noise or wheeze in your chest (whistle sound) during breathing?

- (0) Yes (1) No (2) I don't know

A40. Have you had symptoms of sneezing, runny nose or stuffy nose in the absence of a cold?

- (0) Yes (1) No (2) I don't know

A41. Are you diagnosed with high blood pressure by your doctor?

- (0) Yes (1) No (2) I don't know

↳ A42. Are you taking antihypertensive drugs every day?

- (0) Yes (1) No

A43. Are you diagnosed with diabetes by your doctor?

- (0) Yes (1) No (2) I don't know

A44. Are you diagnosed with a myocardial infarction by your doctor?

- (0) Yes (1) No (2) I don't know

B. Environment

【Please choose by or fill in the answer】

B1. Do you cook at home?

- (0) Yes (1) No

↳ **B2. Cooking frequency per day:**

- (0) Once (1) Twice
(2) Three times
(3) > Three times

B3. What kind of fuel is used at home for cooking? (Please select all suitable answers)

- (0) Natural gas
(1) Coal
(2) Liquefied petroleum gas (LPG)
(3) Electricity
(4) Other: _____
(5) Don't cook at home

B4. Does your kitchen have ventilation equipment?

- (0) Yes (1) No

↳ **B5. What kind of equipment? (Please select all suitable answers)**

- (0) Kitchen smoke exhaust ventilator
(1) Kitchen ventilator
(2) Chimney

B6. Your kitchen area: _____ m²

B7. Do you usually make smoked fish?

- (0) Yes (1) No

B8. Where do you usually make smoked fish?

- (0) Kitchen at home (1) Yard at home
(2) Outdoor-working place

B9. How many times do you make smoked fish per week? _____ times

B10. How long do you average make the smoked fish each time? _____ min

B11. When do you usually make smoked fish?

- (0) Morning
(1) Noon
(2) Afternoon
(3) Evening

B12. Do you raise pet at home?

- (0) Yes (1) No

B13. Do you grow flowers or plants at home?

- (0) Yes (1) No

B14. Do you use insecticide at home?

- (0) Yes (1) No (2) I don't know

B15. What's the open conditions of your windows at home every day?

- (0) Wide open < 1h
(1) Wide open > 3h
(2) Half open < 1h
(3) Half open > 1h
(4) Never open

B16. What tool do you use to clean house?

- (0) Broom and mop
(1) Electric dust collector

C. Travel habits

【Please choose by or fill in the answer】

C1. How much time do you spend indoors per day, except sleeping?

- (0) > 50% (1) = 50% (2) < 50%

C2. How much sleep do you have daily, including daytime and nighttime? _____ h

C3. What time of the day do you stay in your house in general? (Please select all suitable answers)

Morning		Afternoon			Evening				
8-10 am	10-12 am	12-14 pm	14-16 pm	16-18 pm	18-20 pm	20-22 pm	22-24 pm	Next day 0-4 am	Nexr day 4-8 am

C4. What time of the day do you stay at your working place in general? (Please select all suitable answers)

Morning		Afternoon			Evening				
8-10 am	10-12 am	12-14 pm	14-16 pm	16-18 pm	18-20 pm	20-22 pm	22-24 pm	Next day 0-4 am	Nexr day 4-8 am

C5. What is your main travel style when you travel < 3 km from your house?

- (0) Walk (1) Bicycle (2) Motorcycle
 (3) Public bus (4) Car (5) Seldom travel

C6. How many hours do you spend on traveling each day?

- (0) 0 h (1) 0-0.5 h (2) 0.5-1 h (3) 1-1.5 h
 (4) 1.5-2 h (5) 2-3 h (6) > 3 h

C7. How often do you perform outdoor exercises for longer than 30 minutes per week? _____ times

C8. What kind of transportation do you use when you go to work (if any)? How long does it take?

- (0) Walk average time _____ min
 (1) Bicycle, tricycle average time _____ min
 (2) Electric bicycles, motorcycles average time _____ min
 (3) Bus, private car, taxi average time _____ min

The interview is over. Thank you for your cooperation again!

2016

**Assessing Air Pollution Exposures in southern West Africa
- Questionnaire for Students**

1. Participant name: _____
2. Interviewer name: _____
3. Sampling site: _____
4. Address of the interview place: _____

5. Address of the participant home: _____

6. Interview date: ____/____/____ (yyyy/mm/dd)
7. Interview start time: _____ End time: _____

This questionnaire is for research purposes only. Please think carefully and answer all the questions below. Your answers will be kept completely confidential and your personal information will not be disclosed or displayed in any way and any case.

Thank you for your cooperation!

A. Basic Information

【Please choose by or fill in the answer】

A1. Gender: (0) Male (1) Female

A2. Age: _____ years old

A3. Height: _____ cm

A4. Weight: _____ Kg

A5. Grade: _____ grade

A6. The total number of family members
(including you): _____

A7. Number of adults (18 years or older): _____

A8. Your housing type:

(3) Apartment

(4) One-storey house

(5) Other: _____

↳ A9. _____ Floor

A10. Residential area: _____ m²

(4) One room and one hall

(5) Two rooms and one hall

(6) Three rooms and two halls

(7) Others

A11. How many years have you lived in this
house? _____ (year)

A12. What material is your house built?

(0) Brick (1) Armored concrete

(2) Timber (3) Other materials

A13. What is the material of the floor in your
house?

(0) Cement (1) Marble

(2) Solid wood (3) Composite wood

(4) Tile (5) Plastic (6) Rock

(7) Brick (8) Bare soil

A14. What is the material of the furniture in
your house?

(0) Solid wood (1) Plastic

(2) Leather (3) Metal

(4) Stone (5) Glass

(6) Cloth (7) Artificial board

A15. Has your house been decorated in the last
year?

(1) Yes (1) No

↳ A16. What kind of decoration?

(0) Paint

(1) Change the floor

(2) Add new furniture

(3) Other: _____

A17. Does your house have ventilation equipment?

(1) Yes (1) No

↳ A18. What kind of equipment? (Please
select all suitable answers)

(0) Hanging air conditioner

(1) Cabinet air conditioner

(2) Ventilator

A19. How far is your house from the main road?

(0) <20m (1) 20-100m

(2) >100m

A20. Does your classroom have ventilation
equipment?

(0) Yes (1) No

↳ A21. What kind of equipment? (Please
select all suitable answers)

(0) Hanging air conditioner

(1) Cabinet air conditioner

(2) Ventilator

A22. How far is your classroom from the main road?

- (0) <20m (1) 20-100m
(2) >100m

A23. Do you smoke?

- (0) Yes (1) No

A24. Does your family member smoke (not including you)?

- (0) Yes (1) Used to smoke
(2) No

A25. In general, are you influenced by second hand smoke in the following environments often?

- (0) Your own home
(1) Working environment
(2) Other' house
(3) Restaurants, bars, supermarkets,

streets and so on

- (4) Other: _____
(5) Rarely affected by second hand

smoke

A26. Do you often drink alcohol?

- (0) Yes (1) No (2) Not often

A27. Mainly drinking type:

- (0) Alcohol (1) Beer
(2) Wine (3) Other

A28. Please describe your health status in general.

- (0) Very good (1) Good
(2) Not bad (3) Not good

A29. Do you have a family history of allergies?

- (0) Yes (1) No (2) I don't know

A30. Have you been allergic to flowers or animals, food, etc.?

- (0) Yes (1) No (2) I don't know

A31. Have you ever had itchy skin and red patches (rashes) lasting more than 6 months?

- (0) Yes (1) No (2) I don't know

A32. Do your parents have asthma?

- (0) Yes (1) No (2) I don't know

A33. Do you have asthma?

- (0) Yes (1) No (2) I don't know

A34. Have you heard any noise or wheeze in your chest (whistle sound) during breathing?

- (0) Yes (1) No (2) I don't know

A35. Have you had symptoms of sneezing, runny nose or stuffy nose in the absence of a cold?

- (0) Yes (1) No (2) I don't know

B. Environment

【Please choose by or fill in the answer】

B1. Do you cook at home?

- (0) Yes (1) No

↳ **B2. Cooking frequency per day:**

- (0) Once (1) Twice
(2) Three times
(3) > Three times

B3. What kind of fuel is used at home for cooking? (Please select all suitable answers)

- (0) Natural gas
(1) Coal
(2) Liquefied petroleum gas (LPG)
(3) Electricity
(4) Other: _____
(5) Don't cook at home

B4. Does your kitchen have ventilation equipment?

- (0) Yes (1) No

↳ **B5. What kind of equipment? (Please select all suitable answers)**

- (0) Kitchen smoke exhaust ventilator
(1) Kitchen ventilator
(2) Chimney

B6. Your kitchen area: _____ m²

B7. Does your family usually make smoked fish?

- (0) Yes (1) No

B8. How many times does your family eat smoked fish per week? _____ times.

B9. Do you raise pet at home?

- (0) Yes (1) No

B10. Do you grow flowers or plants at home?

- (0) Yes (1) No

B11. Do you use insecticide at home?

- (0) Yes (1) No (2) I don't know

B12. What's the open conditions of your windows at home every day?

- (0) Wide open < 1h
(1) Wide open > 3h
(2) Half open < 1h
(3) Half open > 3h
(4) Never open

B13. What's the open conditions of your windows at classroom every day?

- (0) Wide open < 1h
(1) Wide open > 3h
(2) Half open < 1h
(3) Half open > 3h
(4) Never open

B14. What tool does your family use to clean house?

- (2) Broom and mop
(3) Electric dust collector

B15. What tool does your class use to clean classroom?

- (0) Broom and mop
(1) Electric dust collector

B16. How far does dumps away from your house? _____ m

Walking time:

- (0) < 5min
(1) 5-10min
(2) 10-15min
(3) 15-20min
(4) 20-30 min
(5) > 30 min

B17. How far does dumps away from your school? _____ m

Walking time:

- (0) < 5min
- (1) 5-10min
- (2) 10-15min
- (3) 15-20min
- (4) 20-30 min
- (5) > 30 min

B18. Can you see waste burning at home?

- (0) Yes
- (1) No

↳ **B19. How many times per week?**

_____ times

B20. Can you see waste burning at school?

- (0) Yes
- (1) No

↳ **B21. How many times per week?**

_____ times

B22. Can you smell smoke from waste burning at home?

- (0) Yes
- (1) No

B23. Can you smell smoke from waste burning at school?

- (0) Yes
- (1) No

B24. How to deal with your home waste?

- (0) Throwing to dumps
- (1) Burning by yourselves
- (2) I don't know

B25. Does waste burning in dumps impact on your live?

- (0) Yes
- (1) No

↳ **B26. What specific performance?**

(Please select all suitable answers)

(0) Road congestion, inconvenient travel

(1) Air odor, black smoke filled

(2) Air pollution, low visibility

(3) Water pollution, fish and shrimp death

B27. Does waste burning in dumps impact on your health?

- (0) Yes
- (1) No

↳ **B28. What specific performance?**

(Please select all suitable answers)

(0) Congestion, runny nose

(1) Dry eyes, tears

(2) Skin allergies

(3) Throat dry, inflamed

(4) Difficulty breathing

(5) Other: _____

C. Travel habits

【Please choose by or fill in the answer】

C1. How much time do you spend indoors per day, except sleeping?

- (0) > 50% (1) = 50% (2) < 50%

C2. How much sleep do you have daily, including daytime and nighttime? _____ h

C3. What time of the day do you stay in your house in general? (Please select all suitable answers)

Morning		Afternoon			Evening				
8-10 am	10-12 am	12-14 pm	14-16 pm	16-18 pm	18-20 pm	20-22 pm	22-24 pm	Next day 0-4 am	Nexr day 4-8 am

C4. What time of the day do you stay at school in general? (Please select all suitable answers)

Morning		Afternoon			Evening				
8-10 am	10-12 am	12-14 pm	14-16 pm	16-18 pm	18-20 pm	20-22 pm	22-24 pm	Next day 0-4 am	Nexr day 4-8 am

C5. What is your main travel style when you travel < 3 km from your house?

- (0) Walk (1) Bicycle (2) Motorcycle
 (3) Public bus (4) Car (5) Seldom travel

C6. How many hours do you spend on traveling each day?

- (0) 0 h (1) 0-0.5 h (2) 0.5-1 h (3) 1-1.5 h
 (4) 1.5-2 h (5) 2-3 h (6) > 3 h

C7. How often do you perform outdoor exercises for longer than 30 minutes per week? _____ times

C8. What kind of transportation do you use when you go to school? How long does it take?

- (0) Walk average time _____ min
 (1) Bicycle, tricycle average time _____ min
 (2) Electric bicycles, motorcycles average time _____ min
 (3) Bus, private car, taxi average time _____ min

The interview is over. Thank you for your cooperation again!

2016

**Assessing Air Pollution Exposures in southern West Africa
- Questionnaire for Drivers**

1. Participant name: _____
2. Interviewer name: _____
3. Sampling site: _____
4. Address of the interview place: _____

5. Address of the participant home: _____

6. Interview date: ____/____/____ (yyyy/mm/dd)
7. Interview start time: _____ End time: _____

This questionnaire is for research purposes only. Please think carefully and answer all the questions below. Your answers will be kept completely confidential and your personal information will not be disclosed or displayed in any way and any case.

Thank you for your cooperation!

A. Basic Information

【Please choose by or fill in the answer】

A1. Gender: (0) Male (1) Female

A2. Age: _____ years old

A3. Height: _____ cm; Weight: _____ Kg

A4. Marital status:

- (0) Single (1) Married
(2) Divorced (3) Widowed

A5. Highest level of education:

- (5) Primary school
(6) Junior high school
(7) High school
(8) Undergraduate
(9) Above undergraduate

A6. The total number of family members (including you): _____

A7. Number of adults (18 years or older; including you): _____

A8. Family total annual income: _____ West African Franc / Month

A9. Which kind of car do you drive when you work?

- (0) Motorcycle (1) Car
(2) Tricycle (3) Others _____

A10. As a driver, how long do you work per day?

- (0) < 1h
(1) 1-3h
(2) 4-6h
(3) 7-9h
(4) 10-12h
(5) >12h

A11. Your housing type:

- (6) Apartment
(7) One-storey house
(8) Other: _____

↳A12. _____ Floor

A13. Residential area: _____ m²

- (8) One room and one hall
(9) Two rooms and one hall
(10) Three rooms and two halls
(11) Others

A14. How long did you move in this house after it was decorated?

- (0) < 3 months (1) 3-6 months
(2) 6-12 months (3) > 12 months

A15. When was your house built? _____ (year)

A16. How many years have you lived in this house? _____ (year)

A17. What material is your house built?

- (0) Brick (1) Armored concrete
(2) Timber (3) Other materials

A18. What is the material of the floor in your house?

- (0) Cement (1) Marble
(2) Solid wood (3) Composite wood
(4) Tile (5) Plastic (6) Rock
(7) Brick (8) Bare soil

A19. What is the material of the furniture in your house?

- (0) Solid wood (1) Plastic
(2) Leather (3) Metal
(4) Stone (5) Glass
(6) Cloth (7) Artificial board

A20. Has your house been decorated in the last year?

- (2) Yes (1) No

↳A21. What kind of decoration?

- (0) Paint
(1) Change the floor
(2) Add new furniture
(3) Other: _____

A22. Does your house have ventilation equipment?

(2) Yes (1) No

↳ A23. What kind of equipment?

(Please select all suitable answers)

(0) Hanging air conditioner

(1) Cabinet air conditioner

(2) Ventilator

A24. How far is your house from the main road?

(0) < 20m (1) 20-100m

(2) > 100m

A25. Do you smoke?

(0) Yes (1) No

A26. Do you have a smoking history?

(0) Yes (1) No

↳ A27. How long is your smoking history? _____ (year)

A28. Does your family member smoke (not including you)?

(0) Yes (1) Used to smoke

(2) No

A29. In general, are you influenced by second hand smoke in the following environments often?

(0) Your own home

(1) Working environment

(2) Other' house

(3) Restaurants, bars, supermarkets,

streets and so on

(4) Other: _____

(5) Rarely affected by second hand

smoke

A30. Do you often drink alcohol?

(0) Yes (1) No

(2) Not often (3) Already abstaining

A31. Mainly drinking type:

(0) Alcohol (1) Beer

(2) Wine (3) Other

A32. Drinking frequency per week (If any):

_____ times.

A33. Please describe your health status in general.

(0) Very good (1) Good

(2) Not bad (3) Not good

A34. Do you have a family history of allergies?

(0) Yes (1) No (2) I don't know

A35. Have you been allergic to flowers or animals, food, etc.?

(0) Yes (1) No (2) I don't know

A36. Have you ever had itchy skin and red patches (rashes) lasting more than 6 months?

(0) Yes (1) No (2) I don't know

A37. Do your parents have asthma?

(0) Yes (1) No (2) I don't know

A38. Do you have asthma?

(0) Yes (1) No (2) I don't know

A39. Have you heard any noise or wheeze in your chest (whistle sound) during breathing?

(0) Yes (1) No (2) I don't know

A40. Have you had symptoms of sneezing, runny nose or stuffy nose in the absence of a cold?

(0) Yes (1) No (2) I don't know

A41. Are you diagnosed with high blood pressure by your doctor?

(0) Yes (1) No (2) I don't know

↳ A42. Are you taking antihypertensive drugs every day?

(0) Yes (1) No

A43. Are you diagnosed with diabetes by your doctor?

(0) Yes (1) No (2) I don't know

A44. Are you diagnosed with a myocardial infarction by your doctor?

(0) Yes (1) No (2) I don't know

B. Environment

【Please choose by or fill in the answer】

B1. Do you cook at home?

- (0) Yes (1) No

↳ **B2. Cooking frequency per day:**

- (0) Once (1) Twice
(2) Three times
(3) > Three times

B3. What kind of fuel is used at home for cooking? (Please select all suitable answers)

- (0) Natural gas
(1) Coal
(2) Liquefied petroleum gas (LPG)
(3) Electricity
(4) Other: _____
(5) Don't cook at home

B4. Does your kitchen has ventilation equipment?

- (0) Yes (1) No

↳ **B5. What kind of equipment? (Please select all suitable answers)**

- (0) Kitchen smoke exhaust ventilator
(1) Kitchen ventilator
(2) Chimney

B6. Your kitchen area: _____ m²

B7. Do you cook at home?

- (0) Yes (1) No

B8. Does your family usually make smoked fish?

- (0) Yes (1) No

B9. How many times do you eat smoked fish at home per week? _____ times.

B10. Do you raise pet at home?

- (0) Yes (1) No

B11. Do you grow flowers or plants at home?

- (0) Yes (1) No

B12. Do you use insecticide at home?

- (0) Yes (1) No (2) I don't know

B13. What's the open conditions of your windows at home every day?

- (0) Wide open < 1h
(1) Wide open > 3h
(2) Half open < 1h
(3) Half open > 1h
(4) Never open

B14. What tool do you use to clean house?

- (4) Broom and mop
(5) Electric dust collector

B15. What kind of road do you usually drive on?

(Please select all suitable answers)

- (0) Unsurfaced road (1) Stone road
(2) Asphalt road (3) Cement road
(4) Others: _____

B16. What kind of environment do you usually drive on? (Please select all suitable answers)

- (0) Business district (1) Industrial area
(2) Residential area (3) Suburbs
(4) Others: _____

B17. What type of power does your motorcycle use?

- (0) Diesel (1) Gasoline
(2) Manpower (3) Electricity

B18. When do you usually work with motorcycle?

- (0) Daytime (1) Nighttime
(2) Morning rush hour
(3) Night rush hour

B19. What is the main purpose of your driving

motorcycle?

- (0) Freight (1) Passenger
(2) Both of above (3) Others_____

B20. How far do you drive motorcycle per day?

_____Km

B21. How do you feel about the surrounding air when driving every day?

- (0) Very good (1) Good
(2) Not bad (3) Bad

B22. Can you smell the exhaust when driving every day?

- (0) Yes (1) No

B23. Do you wear a helmet when driving every day (if applicable)?

- (0) Yes (1) No

C. Travel habits

【Please choose by or fill in the answer】

C1. How much time do you spend indoors per day, except sleeping?

(0) > 50% (1) = 50% (2) < 50%

C2. How much sleep do you have daily, including daytime and nighttime? _____ h

C3. What time of the day do you stay in your house in general? (Please select all suitable answers)

Morning		Afternoon			Evening				
8-10 am	10-12 am	12-14 pm	14-16 pm	16-18 pm	18-20 pm	20-22 pm	22-24 pm	Next day 0-4 am	Nexr day 4-8 am

C4. What time of the day do you drive cars for work in general? (Please select all suitable answers)

Morning		Afternoon			Evening				
8-10 am	10-12 am	12-14 pm	14-16 pm	16-18 pm	18-20 pm	20-22 pm	22-24 pm	Next day 0-4 am	Nexr day 4-8 am

C5. What is your main travel style when you travel < 3 km from your house?

(0) Walk (1) Bicycle (2) Motorcycle
 (3) Public bus (4) Car (5) Seldom travel

C6. How often do you perform outdoor exercises for longer than 30 minutes per week?
 _____ times

The interview is over. Thank you for your cooperation again!

SI D.

2016

Assessing Air Pollution Exposures in
southern West Africa

DETAILED TIME-ACTIVITY DIARY

Participant name: _____

Start date: __/__/__ **Time:** __:__

MM/DD/YY

End date: __/__/__ **Time:** __:__

MM/DD/YY

Interviewer name: _____

DETAILED ACTIVITY DIARY FOR WOMAN

Time	Location (mark all that apply)	Activities (mark all that apply)
x:00 am-x:30 am* Pollution sources <input type="checkbox"/> Environmental tobacco smoke <input type="checkbox"/> Cooking <input type="checkbox"/> smoking fish <input type="checkbox"/> no smoking fish <input type="checkbox"/> Use of cleaning products <input type="checkbox"/> House decoration <input type="checkbox"/> Transportation emissions <input type="checkbox"/> Other (specify): _____	Indoors <input type="checkbox"/> Home <input type="checkbox"/> kitchen <input type="checkbox"/> living room <input type="checkbox"/> bedroom <input type="checkbox"/> courtyard <input type="checkbox"/> Work <input type="checkbox"/> Other (specify): _____ Outdoors <input type="checkbox"/> In transit (specify): _____ <input type="checkbox"/> Other (specify): _____	<input type="checkbox"/> Cooking <input type="checkbox"/> Smoking fish <input type="checkbox"/> Cleaning room <input type="checkbox"/> Washing the clothes <input type="checkbox"/> Taking food <input type="checkbox"/> Watching television <input type="checkbox"/> Taking a rest <input type="checkbox"/> Working at office <input type="checkbox"/> Going out <input type="checkbox"/> Taking exercise <input type="checkbox"/> Shopping <input type="checkbox"/> Visiting friends <input type="checkbox"/> Other (specify): _____

*X refers to the hour.

DETAILED ACTIVITY DIARY FOR STUDENT

Time	Location (mark all that apply)	Activities (mark all that apply)
x:00 am-x:30 am* Pollution sources <input type="checkbox"/> Environmental tobacco smoke <input type="checkbox"/> Cooking <input type="checkbox"/> smoking fish <input type="checkbox"/> no smoking fish <input type="checkbox"/> Use of cleaning products <input type="checkbox"/> House decoration <input type="checkbox"/> Transportation emissions <input type="checkbox"/> Other (specify): <hr style="width: 100%;"/>	Indoors <input type="checkbox"/> Home <input type="checkbox"/> kitchen <input type="checkbox"/> living room <input type="checkbox"/> bedroom <input type="checkbox"/> courtyard <input type="checkbox"/> School classroom <input type="checkbox"/> Other (specify): <hr style="width: 100%;"/> Outdoors <input type="checkbox"/> In transit (specify): <hr style="width: 100%;"/> <input type="checkbox"/> Other (specify): <hr style="width: 100%;"/>	<input type="checkbox"/> Cooking <input type="checkbox"/> Smoking fish <input type="checkbox"/> Cleaning room <input type="checkbox"/> Washing the clothes <input type="checkbox"/> Taking food <input type="checkbox"/> Watching television <input type="checkbox"/> Taking a rest <input type="checkbox"/> Studying at school <input type="checkbox"/> Studying at home <input type="checkbox"/> Going out <input type="checkbox"/> Taking exercise <input type="checkbox"/> Shopping <input type="checkbox"/> Playing <input type="checkbox"/> Other (specify): <hr style="width: 100%;"/>

*X refers to the hour.

DETAILED ACTIVITY DIARY FOR DRIVER

Time	Location (mark all that apply)	Activities (mark all that apply)
<p>x:00 am-x:30 am*</p> <p>Pollution sources</p> <p><input type="checkbox"/> Environmental tobacco smoke</p> <p><input type="checkbox"/> Cooking</p> <p style="padding-left: 20px;"><input type="checkbox"/> smoking fish</p> <p style="padding-left: 20px;"><input type="checkbox"/> no smoking fish</p> <p><input type="checkbox"/> Use of cleaning products</p> <p><input type="checkbox"/> House decoration</p> <p><input type="checkbox"/> Transportation emissions</p> <p><input type="checkbox"/> Other (specify):</p> <p>_____</p>	<p>Indoors</p> <p><input type="checkbox"/> Home</p> <p style="padding-left: 20px;"><input type="checkbox"/> kitchen</p> <p style="padding-left: 20px;"><input type="checkbox"/> living room</p> <p style="padding-left: 20px;"><input type="checkbox"/> bedroom</p> <p style="padding-left: 20px;"><input type="checkbox"/> courtyard</p> <p><input type="checkbox"/> Other (specify):</p> <p>_____</p> <p>Outdoors</p> <p><input type="checkbox"/> In transit (specify):</p> <p>_____</p> <p><input type="checkbox"/> In the street</p> <p><input type="checkbox"/> Other (specify):</p> <p>_____</p>	<p><input type="checkbox"/> Cooking</p> <p><input type="checkbox"/> Smoking fish</p> <p><input type="checkbox"/> Cleaning room</p> <p><input type="checkbox"/> Washing the clothes</p> <p><input type="checkbox"/> Taking food</p> <p><input type="checkbox"/> Watching television</p> <p><input type="checkbox"/> Taking a rest</p> <p><input type="checkbox"/> Driving the MOTO</p> <p><input type="checkbox"/> Driving the car</p> <p><input type="checkbox"/> Going out</p> <p><input type="checkbox"/> Taking exercise</p> <p><input type="checkbox"/> Shopping</p> <p><input type="checkbox"/> Visiting friends</p> <p><input type="checkbox"/> Other (specify):</p> <p>_____</p>

*X refers to the hour.