

# Supplementary Materials

## PATIENT QUESTIONNAIRE.

### I. Socio-economic status/demographics

1. Sex: 1. Male  2. Female
2. Date of birth (dd/mm/yyyy): .....
3. Education: What is your highest degree?
  - 3.1. Illiteracy
  - 3.2. Primary education (5-10 years old)
  - 3.3. Secondary education (11-18 years old)
  - 3.4. Post-secondary education
4. Major/Occupation:
  - 4.1. What is the main major/occupation in your life? .....
  - 4.2. Please indicate the longest period you worked in this major/occupation (years):
  - 4.3. Did you exposed to dust/fuels/chemicals when working on this major/occupation?  
Yes  No

**If you haven't any other major/occupation, please continue with question number 7.**

**If you have changed in other major/occupation, please continue with question number 6.**

5. Current -major/occupation:
  - 5.1. What is your current/occupation? .....
  - 5.2. Please indicate the longest period you worked in this /occupation (years):.....
  - 5.3. Did you exposed to dust/fumes/chemicals when working for this/occupation?  
Yes  No
6. How much is your average income per month?
  - 6.1. < 5 millions of VND
  - 6.2. 5 – 10 millions of VND
  - 6.3. > 10 millions of VND
7. Geographic origin: place of birth
  - A. Rural area  B. City
  - 7.1. Please indicate the name of your place of birth: .....
  - 7.2. Do you still live there? Yes  No   
Yes, how long do you live there?.....years.  
No, where do you live now? Rural area  City ; from (year):.....
8. General knowledge of chronic respiratory diseases (CRD):
  - 8.1. Do you know the respiratory disease you have? Yes  No
  - 8.2. In your opinion, can CRD cause death? Yes  No

- 8.3. In your opinion, CRD is as dangerous as cancer? Yes  No
- 8.4. In your opinion, CRD can improve with treatment? Yes  No

## II. Smoking habits

1. Do you currently smoke?
1. No, never
  2. Yes, I do
  3. No, I stopped smoking  From (year):.....
  4. No, but I'm often exposed to second hand smoke
2. What type of tobacco do/did you smoke?
- |                                       | Number of unit/day | Number of year(s) |
|---------------------------------------|--------------------|-------------------|
| 1. Cigarette <input type="checkbox"/> | .....              | .....             |
| 2. Cigar <input type="checkbox"/>     | .....              | .....             |
| 3. Pipe <input type="checkbox"/>      | .....              | .....             |

## III. Indoor and outdoor pollution

1. Which of the following types of accommodation do you live in most of your life? (pictures in annexe)
1. Non-tube house  in .....year(s)
  2. Tube house  in .....year(s)
  3. Rent house  in .....year(s)
  4. Old apartment (built  $\geq$  20 years)  in .....year(s)
  5. New apartment (built < 20 years)  in .....year(s)
  6. Rural house  in .....year(s)
2. A. How many people do you live with? ..... person(s)
- B. What is your housing area? .....m<sup>2</sup>
- C. Does the house have windows that are open for ventilation? Yes  No
3. Indoor biological pollutants:
- 3.1. Mouldy ambiance Yes  No
  - 3.2. Unpleasant smell Yes  No
  - 3.3. Lots of dust Yes  No
  - 3.4. Plants, flowers Yes  No
  - 3.5. Pets Yes  No
- Yes, please indicate the species: .....
- 3.6. Birds Yes  No
  - 3.7. Rats Yes  No
  - 3.8. Cockroaches Yes  No
4. Indoor ventilation and chemical pollutants:
- 4.1. Use of air extractor Yes  No

- 4.2. Use of air conditioner Yes  No
- 4.3. Use of biomass stove Yes  No
- Yes, for how many years: .....
- 4.4. Use of incense Yes  No
- Yes, for how many years:.....
- 4.5. Use of room spray products Yes  No
- 4.6. Use of volatile compounds (cleanse, wash) Yes  No
5. Distance from your accommodation to the public traffic:
1. In front of the house (<10 meters)
2. Far from the house  .....meters
6. What floor do you live on?
1. Basement
2. 0 - 2
3. 3 - 6
4. ≥7
7. Within the distance of <100 meters around where you live:
1. Industrial park Yes  No
2. Public entertainment center Yes  No
3. Bus/coaches station Yes  No
4. Landfill Yes  No

**IV. Characteristics of chronic respiratory disease**

1. Childhood and teenage period (0 - 17 years old) :

1.1. Gestational age at birth	<input type="checkbox"/> Full-term	<input type="checkbox"/> Premature	<input type="checkbox"/> Unclear
1.2. Weight at birth	<input type="checkbox"/> ≥ 2.5kg	<input type="checkbox"/> <2.5kg	<input type="checkbox"/> Unclear
1.3. Living environment	<input type="checkbox"/> Unpolluted	<input type="checkbox"/> Polluted	<input type="checkbox"/> Unclear
1.4. Severe pulmonary infection	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Unclear
1.5. Smoke exposure from parents	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Unclear
1.6. Fumes exposure from fuel stove	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Unclear
1.7. Diagnosis of asthma	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Unclear

2. Have you had frequently the following symptoms within 3 last months?
1. Dry cough Yes  No
2. Cough with phlegm Yes  No
3. Oppression Yes  No
4. Wheezing Yes  No
5. Shortness of breath Yes  No

2bis. If you frequently feel shortness of breath, please indicate the level of this symptom:

1. I only get breathless with heavy exercise
2. I get shortness of breath when brisk walking on the flat road or walking up a slight hill
3. I walk slower than people of same age on the level because of breathlessness or has to stop to catch breath when walking at their own pace on the level
4. I have to stops for breath after walking about 100 meters or after few minutes on the level
5. I'm too breathless to leave the house, or breathless when dressing or undressing

3. Have you had any of the following situations within 12 last months?

1. Respiratory infections Yes  .....time(s)/year; No
2. Worsening of baseline symptoms Yes  .....time(s)/year; No

For each of above answers: if « Yes », continue question 4; if « No », continue question 5.

4. Which of the following treatments maked you feel better?

1. Bronchodilators
2. Antibiotics
3. Corticosteroids
4. Hospitalization/ICU

5. When was the onset of your respiratory symptoms?

1. < age of 20
2. within 20 and 40
3. > age of 40

6. How were your respiratory symptoms?

1. Fluctuant
2. Persistent

7. Do you frequently have any of the following symptoms of allergies?

1. Runny nose Yes  No
2. Sinusitis Yes  No
3. Itchy red eyes Yes  No
4. Skin vesicules Yes  No
5. Rash Yes  No
6. Eyes/lip edema Yes  No

8. Do you frequently have any of the following symptoms of chronic rhinitis?

- |                 |                              |                             |
|-----------------|------------------------------|-----------------------------|
| 1. Runny nose   | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 2. Blocked nose | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 3. Itchy nose   | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 4. Sneeze       | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

9. Does anyone in your family have the following problems?

- |  |                              |                             |
|--|------------------------------|-----------------------------|
| 1. Asthma                                | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 2. Chronic obstructive pulmonary disease | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

10. In your adulthood, have you ever been diagnosed with the following problems?

- |  |                              |                             |
|--|------------------------------|-----------------------------|
| 1. Asthma                                | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 2. Chronic obstructive pulmonary disease | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 3. Chronic bronchitis                    | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 4. Pulmonary disease persist > 3 months  | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 5. Emphysema                             | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 6. Pulmonary tuberculosis                | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

11. Do you have any of the following comorbidities?

- |                               |                              |                             |
|-------------------------------|------------------------------|-----------------------------|
| 1. Hypertension               | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 2. Diabetes                   | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 3. Cardiopathies              | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 4. Gastro-intestinal diseases | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 5. Other(s)                   | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

Yes, please indicate the disease: .....

**Figure S1.** Type of dwelling.



a) Non-tube house



b) Tube house



c) Rent house



d) Old apartment



e) New apartment



f) Rural house