

Supplemental file B: Main Study Questionnaire

Part 1 General information about person interviewed and the organization she/he represents

1. Name:
2. ID No:
3. Date of interview:
4. Name of the interviewer:
5. Name of the industry:
6. Location of the industry:
7. Age group (yrs): ₁ 10-20 / ₂ 21-30/ ₃ 31-40/ ₄ 41-50/ ₅ 51-60/ ₆ 61-70
8. Sex: ₁ Male / ₂ Female
9. Food habits: ₁ Vegetarian / ₂ Non vegetarian
10. Education: ₁ Illiterate / ₂ Primary / ₃ Secondary / ₄ Higher Secondary / ₅ University/ ₆ Polytechnic/Diploma
11. Designation: ₁ Worker ₂ Supervisory ₃ Manager
12. Worker category:
13. Smoking: ₁ Smoker / ₂ Non Smoker / ₃ Ex smoker
14. Consuming alcohol: ₁ Yes ₂ No ₃ Ex
15. Any existing illness: Diabetes ₁ Yes ₂ No
Hypertension ₁ Yes ₂ No
Respiratory illness ₁ Yes ₂ No
Specify Others _____ specify
None ₁ Yes ₂ No
16. Taking NSAID Medication: ₁ Yes ₂ No
17. Taking any herbal medication: ₁ Yes ₂ No
If yes, which one –describe: _____

Part 2 Questions concerning the type of work

1. Type of work: ₁ Light ₂ Moderate ₃ Heavy ₄ Very Heavy
2. How many **hours** per day do you usually work excluding regular break timings? _____
3. Do you have additional breaks during summer? ₁ Yes / ₂ No
a. If yes, mention no. of **hours/minutes** _____
4. How long you are employed here? _____ **years/months** (more than 6months means acclimatized)
5. What was your previous job and where (relating to heat)? _____
6. Are you a seasonal worker?
a. If yes mention, the type of jobs you do during your away from present work.

Part 3 Questions in relation to heat exposure at work

1. Do you work near a direct heat source (outdoors) ₁ Yes / ₂ No
2. Are you comfortable with the ambient temperature? ₁ Yes / ₂ No
3. Is heat exposure a problem during the hot season? ₁ Yes / ₂ No
4. How many months do you feel hot /uncomfortably hot in this workplace?
₁ 1-3 months/ ₂ 4-6 months/ ₃ 7-9 months / ₄ 9-12 months/ ₅ Never
5. Describe how bad the heat stress can be in the hot season.
₁ Extremely bad/ ₂ Very bad/ ₃ Bad/ ₄ Manageable/ ₅ No stress at all

Part 4 Questions concerning impacts of heat on health

1. Have you ever had these symptoms at work?
 - a. Excessive sweating ₁ Yes / ₂ No
 - b. Muscle/Heat cramps ₁ Yes / ₂ No
 - c. Thirst ₁ Yes / ₂ No
 - d. Tiredness/weakness/₁ Yes / ₂ No
 - e. Dizziness ₁ Yes / ₂ No
 - f. Headache ₁ Yes / ₂ No
 - g. Nausea or vomiting ₁ Yes / ₂ No
 - h. Fainting ₁ Yes / ₂ No
 - i. Prickly heat ₁ Yes / ₂ No
 - j. Heat stroke ₁ Yes / ₂ No
 - k. Others _____
 - l. None ₁ Yes / ₂ No

Part 5 Questions concerning impacts of heat on worker's productivity

1. Have you ever taken sick leave/permission due to heat? ₁ Yes / ₂ No
 - a. If yes, approx. how many **hours/days** in a **week/month**? _____
2. Have you lost any wages due to absenteeism in summer months? ₁ Yes / ₂ No
 - a. If yes, how much **Rs.** _____?(currency)
3. Have you ever been advised/ ever been admitted in hospital/medical centre to take off due to heat related illness? ₁ Yes / ₂ No
 - a. If yes, approximately how many **days** _____
4. How does heat affect other aspects of your work (during hot seasons)
Absenteeism ₁ Yes / ₂ No
Less productivity ₁ Yes / ₂ No
Irritation/Interpersonal issues/Work related issues with manager ₁ Yes / ₂ No
Take more time to complete same task ₁ Yes / ₂ No
5. Do you have production target? ₁ Yes / ₂ No
 - a. If Yes, how much? _____
6. Do you complete your production target? ₁ Yes / ₂ No
 - a. If no, how much target is not completed? _____ units
7. To achieve production target or complete work do you have to work extra hours?
₁ Yes / ₂ No, If yes, how many extra hours _____

Part 6 Questions concerning impacts of clothing on heat stress and productivity

1. Dress material of the workers (Indian equivalent to ACGIH)
₁ Breathable cotton/ ₂ Thick cotton overall/ ₃ Rayon/Nylon/
₄ Plastic PPE/ ₅ Others _____
2. Worker perception about dress Material of the worker:
₁ Comfortable/ ₂ moderately comfortable/ ₃ Uncomfortable/ ₄ Others _____
3. If uncomfortable, can you give any suggestions to improve? _____
4. Do you feel hotter with uniform/ does the Dress Material increase heat? stress/ comfort? ₁ Sure/ ₂ Maybe/ ₃ Not sure/ ₄ No, not at all
5. Does clothing reduce your work output?
₁ Sure/ ₂ Maybe/ ₃ Not sure/ ₄ No, not at all

Part 7 Questions concerning coping mechanisms

1. How do you limit heat exposure/cope with heat exhaustion, when needed?
₁ take rest/ ₂ Change/remove clothing/ ₃ drink water/ ₄ cool shower, bath, or sponge bath/₅ move to an air-conditioned/cooler environment/
₆ any other method, do specify _____ ₇ None
2. Is sufficient water available at all times when you need it? ₁ Yes / ₂ No
3. Do you drink water at work? ₁ Yes / ₂ No
 - a. If yes, how much? _____(litres)
4. How much did you drink before you came to work today? What type of fluids did drink? _____

4. How much did you drink before you came to work today? What type of fluids did drink? _____
5. Do you take any traditional special diet to cope with heat? ₁ Yes / ₂ No
6. What traditional or other methods do you adopt for coping with heat? _____
7. Do you spend more money during hot seasons to cope with heat? ₁ Yes / ₂ No
 - a. If yes, specify _____ (Currency units) per week/month
8. Do you spend more time to cope with heat? ₁ Yes / ₂ No
 - b. If yes how much _____ (min/hrs) – convert to % of productivity time or personal time
9. Does the time spent on coping heat impact your social life? ₁ Yes / ₂ No
10. How does it affect your social life? ₁ Moderately/ ₂ Highly/ ₃ Extremely/ ₄ No impact

Part 8 Questions concerning access to welfare facilities

1. Do you have access to drinking water at your work? ₁ Yes / ₂ No
 - a. If yes: From where do you get that water?
 - a. From a water tank
 - b. Water bottles
 - c. A river or lake etc. close to the area
 - d. Others
2. Do you drink when you feel thirst? ₁ Yes / ₂ No
 - a. If no: why not?
 - a. Not access to water
 - b. Frequent urination and no access to toilets
 - c. It disturbs work continuity
 - d. Others
3. Do you think you would drink more if you had better access to toilets?
₁ Yes / ₂ No
 - a. If no: Why not?
 - a. The access to water is not good
 - b. The work does not allow it
 - c. Others

Part 9 Questions concerning access to toilets

- 1 Do you have access to toilets at work? ₁ Yes / ₂ No

Part 10 Questions if you have access to toilets

1. Do you use the toilets? ₁ Yes / ₂ No
 - a. If yes: How often
 - a. 1-2 times per day
 - b. 3-4 times per day
 - c. 5-6 times per day
 - d. >6 times per day
 - b. If no: Why not
 - a. They are too far away
 - b. Difficulties to get away from work
 - c. They are not clean/in good hygienic condition
 - d. Others
2. Can you talk about it in the open? ₁ Yes / ₂ No
 - a. If no: Why not
 - a. It makes you feel uncomfortable
 - b. It is taboo
 - c. People around you would treat you outrageous
 - d. Others

Part 11 Questions if you don't have access to toilets

1. How often do you go to urinate and defecate?
 - a. 0 times
 - b. 1-2 times
 - c. 3-4 times
 - d. 5-6 times
 - e. >6 times
- If b-e:
2. Where do you go to urinate and defecate?
 - a. A hidden area (small building etc.)
 - b. In the forest
 - c. On the streets
 - d. Others
 - e. None
3. Do you go alone? ₁ Yes / ₂ No
4. Do you feel comfortable with that option? ₁ Yes / ₂ No
 - a. If no: Why not?
 - a. Feel scared
 - b. Needs to hold it for longer than convenient
 - c. Feel uncomfortable
 - d. Others
5. Have something inconvenient happened to you when you go for urination or defecation? ₁ Yes / ₂ No
 - a. If yes: What have happened
 - a. Bitten by an animal
 - b. Someone has been watching
 - c. Assaulted
 - d. Others
6. Do you feel that you have to hold it for longer time than convenient?
₁ Yes / ₂ No
 - a. If yes: For how long approximately?
 - a. 1-2 hours
 - b. 3-4 hours
 - c. 4-5 hours
 - d. >6 hours
7. Do you sometimes have to stay home from work because of the toilet situation during some stomach disorder or similar situation? ₁ Yes / ₂ No
 - a. If yes: How often

- a. Once per year
- b. 2-5 times per year
- c. 6-11 times per year
- d. Once per month
- e. More than 1 time per month

8. Do you think your working situation would be better if you had access to toilets? ₁ Yes / ₂ No

Part 12 Questions concerning reproduction history & menstrual history (for women)

1. Is your menstrual cycle regular? ₁ Yes / ₂ No/ ₃ Others

a. If yes: Can you work during your menstrual cycle? ₁ Yes / ₂ No/
₃ Others

b. If no: Why not?

- a. Lack of toilets
- b. No access to dispose sanitary pads
- c. Others

2. Do you have access to a place to change sanitary pads during your menstrual cycle? ₁ Yes / ₂ No

a. If yes: Do you go there? ₁ Yes / ₂ No

b. If no: Why not

- a. It is too far away
- b. It is too dirty
- c. It is not private enough
- d. Afraid that someone will be aware of you menstrual cycle
- e. Others

3. If you don't have access: How do you manage?

- a. Go somewhere else
- b. Wait the whole day
- c. Stay home from work
- d. Others

4. Do you wash yourself regularly during your menstrual cycle? ₁ Yes / ₂ No

5. Do you feel itching around your genitals? ₁ Yes / ₂ No

a. If No, Do you think this problem would have been better if you had better access to toilets? ₁ Yes / ₂ No

Part 13 Questions concerning kidney problems

1. Have you noticed changes in your urine volume? ₁ Yes / ₂ No

2. Do you have excessive tiredness or skin itching? ₁ Yes / ₂ No

3. Do you have numbness or swollen legs or hands due to water retention?

₁ Yes / ₂ No

- a. If Yes to 1, 2 and 3, what is the color of your urine?
 - a) Reddish
 - b) Dark Yellow
 - c) Yellow
 - d) Colorless
 - e) Have not noticed
 - f) Don't know
4. Have you been treated for kidney stones? ₁ Yes / ₂ No
 - a. If yes: When? -----
5. Do you feel pain in the bottom of your back? ₁ Yes / ₂ No
 - a. If yes: For how long?
 - a) The last week
 - b) The last month
 - c) The last 2-6 month
 - d) Longer than the last 6 months
6. Do you think this problem would have been better if you had better access to toilets? ₁ Yes / ₂ No
7. Have you ever been admitted to hospital/medical centre because of kidney problems? ₁ Yes / ₂ No

Part 14 Questions concerning dehydration

1. Do you feel dehydrated? ₁ Yes / ₂ No
2. Do you have any pressure ulcers? ₁ Yes / ₂ No
3. Do you have any other skin conditions? ₁ Yes / ₂ No
4. Do you have nausea or fainting spells? ₁ Yes / ₂ No
5. Have you ever been admitted to hospital/medical centre due to dehydration?
 ₁ Yes / ₂ No
 - a. If yes: Approximately for how many days?.....
6. Do you think this problem would have been better if you had better access to drinking water facilities? ₁ Yes / ₂ No
7. Do you think this problem would have been better if you had better access to toilets? ₁ Yes / ₂ No

Part 15 Questions concerning effects on daily life

1. Does the toilet situation impact your social life? ₁ Yes / ₂ No
 - a. If yes: How?
 - a. Have to stay home more than if there had been toilets ₁ Yes / ₂ No
 - b. Feeling tired ₁ Yes / ₂ No
 - c. UI ₁ Yes / ₂ No
 - d. Others ₁ Yes / ₂ No Specify,

Part 16 Questions concerning urinary tract infection

1. Do you have burning sensation during urination? ₁ Yes / ₂ No
 - a. If yes: How often?
 - a. Every day ₁ Yes / ₂ No
 - b. Few days a week ₁ Yes / ₂ No
 - c. Once a week ₁ Yes / ₂ No
 - d. Less than once a week ₁ Yes / ₂ No
 - b. If yes: For how long?
 - a. The last week ₁ Yes / ₂ No
 - b. The last month ₁ Yes / ₂ No
 - c. The last 6 months ₁ Yes / ₂ No
 - d. Longer than 6 months ₁ Yes / ₂ No
2. Do you have difficulties to hold it? ₁ Yes / ₂ No
3. Do you feel difficulty while urinating even if it is needed? ₁ Yes / ₂ No
 - a. If yes: How often?
 - a. The last week ₁ Yes / ₂ No
 - b. The last month ₁ Yes / ₂ No
 - c. The last 6 months ₁ Yes / ₂ No
 - d. Longer than 6 months ₁ Yes / ₂ No
4. Do you think this problem would have been better if you had better access to toilets? ₁ Yes / ₂ No
5. Have you ever been admitted to hospital/medical centre due to urinal or defecation problems? ₁ Yes / ₂ No
 - a. If yes: Approximately for how many days?.....

Part 17 Questions concerning other health effects

1. Do you feel any other health problems than the ones mentioned above? ₁ Yes / ₂ No
 - a. If yes: What kind of health problems?
 - b. If yes: Do you think they may be caused by lack of toilets? ₁ Yes / ₂ No
2. Do you think it would be less health problems if you would drink more? ₁ Yes / ₂ No

Part 18 Questions concerning eye problems

1. Do you have any of the following symptoms?
 - a. Glare ₁ Yes / ₂ No
 - b. Redness of eyes ₁ Yes / ₂ No
 - c. Burning of eyes ₁ Yes / ₂ No
 - d. Excessive watering ₁ Yes / ₂ No
 - e. Dimness of vision ₁ Yes / ₂ No
 - f. Photophobia ₁ Yes / ₂ No

- g. Pain in eyes ₁ Yes / ₂ No
- h. Night blindness ₁ Yes / ₂ No
- i. Others, Specify _____
- j. None ₁ Yes / ₂ No

2. How long have you had these symptoms? _____

Part 19 Questions concerning Skin

- 1. Do you feel Allergic contact dermatitis? ₁ Yes / ₂ No
- 2. Do you have Photo-dermatitis on your body? ₁ Yes / ₂ No
- 3. Have you had any of the following symptoms?
 - a. Itching ₁ Yes / ₂ No
 - b. Ulceration ₁ Yes / ₂ No
 - c. Thickening of skin ₁ Yes / ₂ No
 - d. Cracks ₁ Yes / ₂ No
 - e. Burning sensation ₁ Yes / ₂ No
 - f. Dryness ₁ Yes / ₂ No
 - g. Others, Specify _____
 - h. None ₁ Yes / ₂ No
- 2. How long have you had these symptoms? _____

Part 20 Questions concerning fungal infection

- 1. Do you have fungal infection in different parts of the body due to moist air? ₁ Yes / ₂ No

Part 21 Questions concerning joint pains

- 1. Have you ever experienced any complaints regarding upper and lower limbs? ₁ Yes / ₂ No
- 2. If yes, what were your complaints?
- 3. Upper _____ 4. Lower _____
- 5. If yes, how long did the symptoms last? _____

Part 22 Questions concerning headache

- 1. Have you experienced headaches during work? ₁ Yes / ₂ No

Part 23 Questions concerning illness

- 1. Have you experienced any illness recently? ₁ Yes / ₂ No If yes, when? _____

Part 24 Questions concerning breathlessness

- 1. Have you experienced breathlessness, when not doing physical work? ₁ Yes / ₂ No
- 2. If yes, how long were your symptoms? _____

Part 25 Questions concerning accidents or injuries

1. Have you experienced any accidents or injuries during work? ₁ Yes / ₂ No

If yes, describe _____

Part 26 Questions concerning chronic diseases

1. Are you suffering from the following diseases?

- a. Asthma ₁ Yes / ₂ No
- b. Kidney problem ₁ Yes / ₂ No
- c. Cancer ₁ Yes / ₂ No
- d. CVD ₁ Yes / ₂ No
- e. Stroke ₁ Yes / ₂ No
- f. None ₁ Yes / ₂ No
- g. Others _____

Part 27 Questions concerning hypertension

- I. Have you experienced dizziness during work? ₁ Yes / ₂ No
- II. Do you have hypertension? ₁ Yes / ₂ No
- III. If yes, how long have you had the symptoms? _____
- IV. What medication are you taking for it? _____
- V. If yes, how long did you take the medications _____

Part 28 Questions concerning Diabetes

- I. Have you experienced dizziness during work? ₁ Yes / ₂ No
- II. Do you have Diabetes? ₁ Yes / ₂ No
- III. If yes, how long have you had the symptoms? _____
- IV. What medication are you taking for it? _____
- V. If yes, how long did you take the medications _____