

# Template for Requests for Revisions to the DHS Model Questionnaires, Optional Modules, and Biomarkers for DHS-8 (2018-2023)

## Section I. Information about the requesting party

1. Is this request being submitted on behalf of a group? If so, please provide the name of the group and the participating parties.

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## Section II. Indicator definition and rationale

2. Please define the indicator or indicators you are requesting The DHS Program to incorporate. *Multiple indicators derived from a single set of questions should be included in the same submission.* (Response required)

Fraction of people defecating in the open

3. What is the rationale for measuring this indicator (each of these indicators) in DHS surveys? (Response required)

Sustainable Development Goal (SDG) 6 aims to ensure availability and sustainable management of water and sanitation for all by 2030. This will involve eliminating open defecation. The WHO-Unicef Joint Monitoring Programme for Water Supply, Sanitation, and Hygiene (JMP) estimates that rural India is home to more than half of the world's open defecation, so progress towards eliminating open defecation in India will be essential to meeting the SDGs. Because many rural Indians defecate in the open despite having a functional latrine, India's DHS, which asks about the defecation behavior of everyone in the household all in one question, substantially underestimates open defecation in India. A new study, attached to this submission, finds that measuring open defecation at the individual level is feasible in a large household survey like the DHS, and more accurately estimates open defecation in India. The DHS provides essential insight on progress towards the SDGs, and is an important source of indicators for the JMP.

## Section III. Proposed additions/revisions to the questionnaires or biomarkers

### 4. Please describe the requested addition or revision.

*If the requested change is the addition of new questions to the DHS questionnaires or modules, complete questions 4.1 and 4.1.1. If the requested change is a revision to existing questions, complete question 4.2. If the change relates to anthropometry or a biomarker, please complete question 4.3.*

#### 4.1. **For additions:** If you have developed a question or set of questions to measure the indicator(s), please provide them in the space below or in a separate file attached with your submission.

Preface to questions: “I have seen that some people use a latrine to defecate in, and some people like to defecate in the open. Now I want to ask you about where you and your family members defecate.”

Then, for each individual in the household over the age of 2, ask the following question and fill the answer into a household roster: “The last time [name of household member] defecated, did [name of household member] defecate in the open or go in the latrine?”

These questions are suitable to ask in the Household Questionnaire of the India survey, after the Household Schedule has been filled in. An appropriate place for these questions is immediately before the section on mosquito nets (before 127). This is an ideal location because it achieves three goals: it provides enough distance from the original question on sanitation (109), it is asked after the surveyor is able to create rapport with the respondent, and it is before the respondent and surveyor transition to move around to look at mosquito nets and places for hand-washing.

We recommend asking this question for individuals over the age of 2 for several reasons. First, feces disposal for the youngest child (below the age of 3) is already collected in the Woman’s questionnaire. Second, children generally walk by the age of 2, and so this question is valid to ask for children over the age of 2.

#### 4.1.1 If requesting multiple questions, please specify the relative priority of each new question.

#### 4.2. **For revisions to existing questions:** Please specify the DHS-7 question number, the proposed revision to the question, and the rationale.

DHS-7 question number	DHS-7 question text	Proposed new question	Rationale


4.3. **For anthropometry and biomarkers:** Please describe the measurement procedures or specimen collection procedures, point-of-care or laboratory testing procedures (as relevant), and any recommendations for return of results.

5. Can any related questions be deleted from the questionnaire to make room for the proposed new content? If so please specify which questions using the DHS-7 question numbers.

6. What are the implications of these requested changes on measurement of trends using DHS data?

Introducing individual-level questions on defecation practices to the India survey will not disrupt cross-country comparisons, or measurement of trends over time. The original sanitation question (question 109) will still be a part of the survey and can be used for these types of comparisons.

It should be noted, however, that the measurement of open defecation from the original sanitation question, which asks a household-level question, substantially underestimates open defecation in India.

## Section IV. Indicator calculation

7. Indicate how to calculate the indicator(s). Include detailed definitions of the numerator and denominator of each individual indicator. If you have developed a tabulation plan for the indicator(s), please attach a file including the suggested table(s) with your submission.

Indicator: fraction of people defecation in the open

Numerator: the total number of individuals over the age of 2 identified as defecating in the open  
Denominator: the total number of individuals over the age of 2 listed in the household roster

8. Is the indicator useful when measured at the national level, or is it useful only when disaggregated to specific subnational areas, such as endemicity zones or project intervention regions?

*For each indicator, select one of the three options by clicking in the appropriate box.*

Indicator	Useful <u>only</u> for subnational endemicity zones or project intervention regions. A single estimate at the national level is <u>not</u> meaningful.	Useful at both national and subnational regions, as sample size allows.	Useful only at the national level. Subnational estimates are not needed.
Fraction of people defecating in the open	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Section V. Prior testing of the proposed question(s)

9. Have the proposed questions undergone any formal validation; i.e., have the questions been tested against a “gold standard” to assess their accuracy? If yes, please describe how well or poorly the questions performed and/or provide a publication or report of the validation exercise (or a link).

The proposed question has undergone formal validation. We conducted a randomized survey experiment among latrine-owning households in the rural parts of four Indian states in 2018. We randomly assigned households to receive one of two types of survey questions measuring sanitation behavior. 1,215 households were asked about latrine use or open defecation individually for every

household member, using the question described in 4.1. 1,216 households were asked the question used in India's DHS. Using two methods for comparing the rate of open defecation measured by each question, the individual-level question found 20 to 21 (95% CI 16 to 25 for both estimates) percentage points more open defecation than the household-level question. This study is the first to provide evidence that individual-level questions find more open defecation than household-level questions. The full research paper is attached to this submission.

The proposed question has been developed in collaboration with sanitation experts participating in the 3ie Promoting Latrine Use in Rural India Thematic Window, including sanitation researchers from Emory University and London School of Hygiene and Tropical Medicine.

10. Have the questions undergone any other kind of testing; e.g., cognitive testing, pilot testing. If so, please describe the results of the testing and/or provide a publication or report of the findings (or a link).

See response to 9.

## Section VI. Other considerations

11. Please provide information relevant to the kinds of questions below, and/or anything else you wish to share with us about this indicator (these indicators).

- Describe how the data for this indicator are being used (or will be used).
  - Are the data produced by this indicator actionable?
  - Who will use the data?
  - What kinds of decisions will be made using these data?
- For what kinds of countries would the indicator(s) be most useful?
- Does the DHS survey offer any particular advantage over other available data sources for measuring this indicator? If so, what?

The JMP uses data from DHS, and other sources, to calculate indicators measuring progress towards the SDGs. All of the data sources for India measure open defecation using a household-level question. Therefore, the JMP is substantially underestimating open defecation in India. If the Indian DHS adopts the individual-level question proposed in this document, it will provide the most accurate nationally-representative estimates of open defecation for India. Because large reductions in open defecation in India are essential to meeting the SDGs, and because exposure to open defecation has serious consequences for child mortality, health, and human capital development, it is essential to monitor its progress as accurately as possible.

The proposed question is relevant for the Indian DHS.