## **Person-centered maternity care scale, process and instructions for use**

Documentation of person-centered maternity care (PCMC) can be done through surveys using the 30-item PCMC scale (see Table 1 below). Where length of the survey is a concern, we recommend the 13-item scale, with 3 additional items on companionship, verbal abuse, and physical abuse (see Table 3 below). These data can be collected in community surveys or facility exit surveys. Since most EmONC indicators are collected at the facility, facility exit surveys may be the most feasible approach. These surveys can be conducted following discharge from the facility after delivery, or when women return for postnatal care. The PCMC scale can be administered to women who have recently given birth up to 12 weeks postpartum.

At the facility level, PCMC data can be obtained through self-administered surveys in literate populations. In populations where many people are not literate, the surveys need to be interviewer-administered. To reduce social desirability bias, ideally the person collecting the data should not be part of the care team for the patient. Local Community Health Workers or designated staff at a facility (such as a ward assistant who can read and write) can be trained to administer the PCMC surveys. While the survey data are collected at the facility level, the data collection process should be managed by sub-national or national managers. Given the sensitive nature of the data, it is also recommended that calculation of scores and analysis of data be conducted at the sub-national or national level, and then shared with facilities for their own monitoring (and if applicable, quality improvement) purposes.

A general recommendation is a sample size of about 80 women who recently gave birth for every 1,000 annual deliveries at a facility.[[1]](#footnote-1) For a facility with 750 annual deliveries, that would translate to a sample of 60 women, or approximately two interviews per day for one month. Data collection can be accelerated by interviewing labor and delivery clients as well as women returning for postnatal and child welfare checks (as long as the woman delivered in that facility). To increase sample size, data collection can be extended over a longer period (e.g., three months). Some facilities may choose to interview women on a more routine basis, in which case it could be done throughout the year. To ensure a diverse pool of experiences in larger facilities, respondents who gave birth at different times during the week should be interviewed (e.g., giving birth at night and during the day, giving birth during the week and over the weekend).

Calculating the numerator for this indicator requires three steps:

**Step 1: Calculate each respondent’s PCMC score** - After completion of the surveys, each woman’s PCMC score is calculated. To generate the PCMC score (normalized to 100), all the items in the scale should be summed and divided by the maximum possible score for the scale. (See the bottom of Table 1 below (30-item PCMC Scale) for guidance on reverse coding negative response items and recoding “Not applicable” responses.) In addition to the overall score, scores can be calculated for each sub-scale. See Table 2 below for sub-scale domains and example calculations for the 30-item version of the scale.

**Step 2: Calculate each facility’s average PCMC score** - The average PCMC score for each facility being assessed is calculated by combining the scores for all women who are included in the sample for that facility (i.e., all women who gave birth in the facility who were interviewed) and dividing by the number of women interviewed.

**Step 3: Calculate how many facilities meet the threshold for PCMC** - Count how many facilities have an average PCMC score of 90 or higher. That number serves as the numerator for the PCMC indicator.

PCMC scores for steps 1 and 2 above (once normalized to 100) range from 0 to 100, where 0 is the lowest PCMC score and 100 is the highest PCMC score. Preliminary results from a systematic review of PCMC studies shows that average scores range from about 40 to 97 across 12 countries, with scores generally lower than 70 in studies from LMICs, although increasing to over 90 in India after an intervention. U.S. studies tend to report scores over 80. Thus, we recommend a benchmark of “100% of facilities have an average PCMC score of 90 or above with 0 women reporting abuse”. This benchmark assumes all women respond at least “most of the time” to all positively worded indicators and “no, never” to all negatively worded indicators.

##### **Table 1.** The 30-item PCMC Scale([[2]](#endnote-1),[[3]](#endnote-2))

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **SCALE TO MEASURE PERSON-CENTERED MATERNITY CARE DURING LABOR AND DELIVERY** | | | | | | |
| “Now I am going to ask you some questions about your experiences in the health facility during your last delivery. Remember that all the questions in this section refer specifically to the time you were in the health facility for this last delivery. Also, know that everything you tell me is confidential and will not be shared with the health facility.” | | | | | | |
| **QUESTION** | **RESPONSE OPTIONS** | | | | | |
| #1: How did you feel about the amount of time you waited? Would you say it was very short, somewhat short, somewhat long, or very long?\* | *Very short* | *Somewhat short* | | *Somewhat long* | | *Very long* |
| 3 | 2 | | 1 | | 0 |
| #2: During your time in the health facility did the doctors, nurses, or other health care providers introduce themselves to you when they first came to see you? **If yes:** Was it a few of them, most of them, or all of them? | *No, none of them* | *Yes, a few of them* | | *Yes, most of them* | | *Yes, all of them* |
| 0 | 1 | | 2 | | 3 |
| “Now I will ask you some questions about how you were treated at the health facility. Tell me if the following things happened all the time, most of the time, a few times, or it never happened. You can say a few times if it happened one or two times, and most of the time will be if it happened 3 or more times, but not always. For some questions I will ask specifically if something occurred during labor, delivery, or after delivery. If I do not specify please answer based on your experiences during the entire time you were in the facility from labor till discharge.”  **Probe for all questions:** *If the woman just responds yes, ask them: “Did this occur a few times, most of the time, or all the time?”* | | | | | | |
| #3: Did the doctors, nurses, or other health care providers call you by your name? | *No, never* | *Yes, a few times* | | *Yes, most of the time* | | *Yes, all the time* |
| 0 | 1 | | 2 | | 3 |
| #4: Did the doctors, nurses, or other staff at the facility treat you with respect? | 0 | 1 | | 2 | | 3 |
| #5: Did the doctors, nurses, and other staff at the facility treat you in a friendly manner? | 0 | 1 | | 2 | | 3 |
| #6: During examinations in the labor room, were you covered up with a cloth or blanket or screened with a curtain so that you did not feel exposed? | 0 | 1 | | 2 | | 3 |
| #7: Do you feel like your health information was or will be kept confidential at this facility? | 0 | 1 | | 2 | | 3 |
| #8: Did you feel like the doctors, nurses or other staff at the facility involved you in decisions about your care?+ | *No, never* | *Yes, a few times* | *Yes, most of the time* | | *Yes, all the time* | *Did not have to make any decisions* |
| 0 | 1 | 2 | | 3 | 2 |
| #9: Did the doctors, nurses or other staff at the facility ask your permission/ consent before doing procedures on you? | *No, never* | *Yes, a few times* | | *Yes, most of the time* | | *Yes, all the time* |
| 0 | 1 | | 2 | | 3 |
| #10: During the delivery, do you feel like you were able to be in the position of your choice? | *No, never* | *Yes, for a short time* | | *Yes, most of the time* | | *Yes, all the time* |
| 0 | 1 | | 2 | | 3 |
| #11: Did the doctors, nurses or other staff at the facility speak to you in a language you could understand? | *No, never* | *Yes, a few times* | | *Yes, most of the time* | | *Yes, all the time* |
| 0 | 1 | | 2 | | 3 |
| #12: Did the doctors and nurses explain to you why they were doing examinations or procedures on you? | 0 | 1 | | 2 | | 3 |
| #13: Did the doctors and nurses explain to you why they were giving you any medicine?+ | *No, never* | *Yes, a few times* | *Yes, most of the time* | | *Yes, all the time* | *Did not get any medicine* |
| 0 | 1 | 2 | | 3 | 2 |
| #14: Did the doctors and nurses at the facility talk to you about how you were feeling? | *No, never* | *Yes, a few times* | | *Yes, most of the time* | | *Yes, all the time* |
| 0 | 1 | | 2 | | 3 |
| #15: Did the doctors, nurses or other staff at the facility try to understand your anxieties and fears? +θ | *No, never* | *Yes, a few times* | *Yes, most of the time* | | *Yes, all the time* | *Did not have any anxiety or fears* |
| 0 | 1 | 2 | | 3 | 2 |
| #16: Did you feel you could ask the doctors, nurses or other staff at the facility any questions you had? | *No, never* | *Yes, a few times* | | *Yes, most of the time* | | *Yes, all the time* |
| 0 | 1 | | 2 | | 3 |
| #17: Were you allowed to have someone you wanted (from outside of staff at the facility, such as family or friends) to stay with you during labor?+ | *No, never* | *Yes, a few times* | *Yes, most of the time* | | *Yes, all the time* | *I did not want someone to stay with me* |
| 0 | 1 | 2 | | 3 | 2 |
| #18: Were you allowed to have someone you wanted to stay with you during delivery?+ | 0 | 1 | 2 | | 3 | 2 |
| #19: When you needed help, did you feel the doctors, nurses or other staff at the facility paid attention? | *No, never* | *Yes, a few times* | | *Yes, most of the time* | | *Yes, all the time* |
| 0 | 1 | | 2 | | 3 |
| #20: Do you feel the doctors or nurses did everything they could to help control your pain? | 0 | 1 | | 2 | | 3 |
| #21: Did you feel the doctors, nurses, or other health providers shouted at you, scolded, insulted, threatened, or talked to you rudely? (If yes) will you say this happened once, a few times, or many times?\* | *No, never* | *Yes, once* | | *Yes, a few times* | | *Yes, many times* |
| 3 | 2 | | 1 | | 0 |
| #22: Did you feel like you were treated roughly like pushed, beaten, slapped, pinched, physically restrained, or gagged? (If yes) will you say this happened once, a few times, or many times?\* | 3 | 2 | | 1 | | 0 |
| #23: Do you think there was enough health staff in the facility to care for you? | 0 | 1 | | 2 | | 3 |
| #24: Did you feel the doctors, nurses or other staff at the facility took the best care of you? | 0 | 1 | | 2 | | 3 |
| #25: Did you feel you could completely trust the doctors, nurses or other staff at the facility with regards to your care? | 0 | 1 | | 2 | | 3 |
| “The next set of questions are about the health facility environment” | | | | | | |
| #26: Thinking about the labor and postnatal wards, Did you feel the health facility was crowded?\*θ | *No, never* | *Yes, once* | | *Yes, a few times* | | *Yes, many times* |
| 3 | 2 | | 1 | | 0 |
| #27: Thinking about the wards, washrooms and the general environment of the health facility, will you say the facility was very clean, clean, dirty, or very dirty? | *Very dirty* | *Dirty* | | *Clean* | | *Very clean* |
| 0 | 1 | | 2 | | 3 |
| #28: Was there water in the facility?θ | *No, never* | *Yes, a few times* | | *Yes, most of the time* | | *Yes, all the time* |
| 0 | 1 | | 2 | | 3 |
| #29: Was there electricity in the facility?θ | 0 | 1 | | 2 | | 3 |
| #30: In general, did you feel safe in the health facility? | 0 | 1 | | 2 | | 3 |
| \* Reverse coding is necessary so that a high score equals high PCMC for these four questions: 1, 21, 22, and 26 (time to care, verbal abuse, physical abuse, and crowding). Note that while the PCMC items related to time, verbal abuse, and physical abuse have different response options, they all have the same underlying values when reverse coded. | | | | | | |
| + For items with "Non applicable responses” (8, 13, 15, 17, and 18) the response should be recoded to the higher middle category (2). | | | | | | |
| θ Excluded from final India scale: 15 (Support anxiety), 26 (Crowding), 28 (Water), 29 (Electricity). Additional item added to India scale after 22: “Did the doctors, nurses or other staff at the facility ask you or your family for money other than the official cost?” (Bribes) | | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCALE** | **# OF ITEMS** | **POSSIBLE RANGE OF SUMMATIVE SCORES** | **SUMMATIVE SCORE FOR SAMPLE** | **RESCALED SCORE FOR SAMPLE** | **POSSIBLE RANGE OF RESCALED SCORES** |
| Full PCMC | 30 | 0-90 | W | ) \* 100 | 0-100 |

##### **Table 2.** Scoring guidance for PCMC sub-scales(2)

To generate sub-scale scores, the items in that sub-scale are summed. The items under each domain are shown below. For ease of comparison, the calculated summative score can be normalized to 100 by dividing the calculated score by the total possible scores for the scale and subscales and then multiplied by 100, such that each score ranges from 0 to 100. See example below for the 30-item version of the scale.

|  |  |  |  |
| --- | --- | --- | --- |
| **QUESTION** | **DIGNITY & RESPECT** | **QUESTION** | **SUPPORTIVE CARE** |
| #4 | Treated with respect | #1 | Time to care |
| #5 | Friendly | #14 | Talk about feeling |
| #6 | Visual privacy | #15 | Support anxiety |
| #7 | Record confidentiality | #17 | Labor support |
| #21 | Verbal abuse | #18 | Delivery support |
| #22 | Physical abuse | #19 | Attention when need help |
| **QUESTION** | **COMMUNICATION & AUTONOMY** | #20 | Control pain |
| #2 | Introduce self | #23 | Enough staff |
| #3 | Called by name | #24 | Took best care |
| #8 | Involvement in care | #25 | Trust |
| #9 | Consent to procedures | #26 | Crowded |
| #10 | Delivery position choice | #27 | Clean |
| #11 | Language | #28 | Water |
| #12 | Explain exams/procedures | #29 | Electricity |
| #13 | Explain medicines | #30 | Safe |
| #16 | Able to ask questions |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCALE OR SUB-SCALE** | **# OF ITEMS** | **POSSIBLE RANGE OF SUMMATIVE SCORES** | **SUMMATIVE SCORE FOR SAMPLE** | **RESCALED SCORE FOR SAMPLE** | **POSSIBLE RANGE OF RESCALED SCORES** |
| Full PCMC | 30 | 0-90 | W | ) \* 100 | 0-100 |
| Dignity & respect | 6 | 0-18 | X | ) \* 100 | 0-100 |
| Communication & autonomy | 9 | 0-27 | Y | ) \* 100 | 0-100 |
| Supportive care | 15 | 0-45 | Z | ) \* 100 | 0-100 |

##### **Table 3.** The 13-item PCMC Short Scale([[4]](#endnote-3),[[5]](#endnote-4)) (with 3 additional items on companionship, verbal abuse, and physical abuse)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **DOMAIN** |  | **QUESTION** | **RESPONSE OPTIONS** | | | | |
| **0** | **1** | **2** | **3** | **N/A** |
| **DIGNITY/RESPECT** | **1** | Did the doctors, nurses or other healthcare providers call you by your name? | No, never | Yes, a few times | Yes, most of the time | Yes, all of the time |  |
| **2** | Did the doctors, nurses or other staff at the facility treat you with respect? | No, never | Yes, a few times | Yes, most of the time | Yes, all of the time |  |
| **3** | Did the doctors, nurses or other staff at the facility treat you in a friendly manner? | No, never | Yes, a few times | Yes, most of the time | Yes, all of the time |  |
| **PRIVACY/**  **CONFIDEN-TIALITY** | **4** | During examinations in the labor room, were you covered up with a cloth or blanket or screened with a curtain so that you did not feel exposed? | No, never | Yes, a few times | Yes, most of the time | Yes, all of the time |  |
| **AUTONOMY** | **5** | Did you feel like the doctors, nurses or other staff at the facility involved you in decisions about your care? | No, never | Yes, a few times | Yes, most of the time | Yes, all of the time | Did not have to make any decisions |
| **6** | Did the doctors, nurses or other staff at the facility ask your permission/consent before carrying out procedures and examinations? | No, never | Yes, a few times | Yes, most of the time | Yes, all of the time |  |
| **7** | During the delivery, do you feel like you were able to be in the position of your choice? | No, never | Yes, a few times | Yes, most of the time | Yes, all of the time |  |
| **COMMUNICATION** | **8** | Did the doctors and nurses explain to you why they were carrying out examinations or procedures? | No, never | Yes, a few times | Yes, most of the time | Yes, all of the time |  |
| **9** | Did the doctors and nurses explain to you why they were giving you any medicine? | No, never | Yes, a few times | Yes, most of the time | Yes, all of the time | Did not get any medicine |
| **10** | Did you feel you could ask the doctors, nurses or other staff at the facility any questions you had? | No, never | Yes, a few times | Yes, most of the time | Yes, all of the time |  |
| **SUPPORTIVE CARE** | **11** | Did the doctors and nurses at the facility talk to you about how you were feeling? | No, never | Yes, a few times | Yes, most of the time | Yes, all of the time |  |
| **12** | When you needed help, did you feel the doctors, nurses or other staff at the facility paid attention? | No, never | Yes, a few times | Yes, most of the time | Yes, all of the time |  |
| **TRUST** | **13** | Did you feel the doctors, nurses or other staff at the facility took the best care of you? | No, never | Yes, a few times | Yes, most of the time | Yes, all of the time |  |
| **ADDITIONAL ITEMS** | **14** | Were you allowed to have someone you wanted (from outside of staff at the facility, such as family or friends) to stay with you during labor?+ | No, never | Yes, a few times | Yes, most of the time | Yes, all the time | I did not want someone to stay with me |
| **15** | Did you feel the doctors, nurses, or other health providers shouted at you, scolded, insulted, threatened, or talked to you rudely? (If yes) will you say this happened once, a few times, or many times?\* | No, never | Yes, once | Yes, a few times | Yes, many times |  |
| **16** | Did you feel like you were treated roughly like pushed, beaten, slapped, pinched, physically restrained, or gagged? (If yes) will you say this happened once, a few times, or many times?\* | No, never | Yes, once | Yes, a few times | Yes, many times |  |
| \*Reverse coding is necessary so that a high score equals high PCMC for these two questions: 15, 16 (verbal abuse, physical abuse). Note that while the PCMC items related to verbal abuse and physical abuse have different response options, they all have the same underlying values when reverse coded. | | | | | | | | |
| + For items with "Non applicable responses” (question 14) the response should be recoded to the higher middle category (2). | | | | | | | | |

#### *References*

1. As more experience is gained with large-scale, national administration of the PCMC scale, statistical sampling recommendations may need to be adjusted. [↑](#footnote-ref-1)
2. () Afulani PA, Diamond-Smith N, Golub G, Sudhinaraset M. Development of a tool to measure person-centered maternity care in developing settings: validation in a rural and urban Kenyan population. Reprod Health. 2017;14. doi:10.1186/s12978-017-0381-7 [↑](#endnote-ref-1)
3. () University of California, San Francisco, Institute for Global Health Sciences & University of California, Los Angeles, Jonathan and Karin Fielding School of Public Health. Person-Centered Maternity Care (PCMC) Scale Guide [↑](#endnote-ref-2)
4. () Afulani PA, Feeser K, Sudhinaraset M, Aborigo R, Montagu D, Chakraborty N. Toward the development of a short multi-country person-centered maternity care scale. International Journal of Gynecology & Obstetrics. 2019;0(0). doi:10.1002/ijgo.12827 [↑](#endnote-ref-3)
5. () University of California, San Francisco, Institute for Global Health Sciences; University of California, Los Angeles, Jonathan and Karin Fielding School of Public Health; & Metrics for Management. Person-Centered Maternity Care (PCMC) 13 Item Short Scale Guide. Available at: https://m4mgmt.org/publications/person-centered-maternity-care. [↑](#endnote-ref-4)