



# EOC Measurement Resource Guide for USAID Missions

## Findings from a Systematic Scoping Review

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MOMENTUM Knowledge Accelerator

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# Objectives and Guide Overview

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# Objectives

- To scope, compile, and assess the quality of self-reported experience of care (EOC) measures across the sexual, reproductive, maternal, newborn, child, and adolescent health (SRMNCAH) continuum in low- and middle-income countries (LMICs)
- To develop a resource guide of vetted measures of self-reported EOC for use by USAID Missions

The guide:

- Includes a mix of qualitative and quantitative EOC measures
- Is organized by the eight domains of person-centered care (PCC) described by Sudhinaraset et al. (2017)
- Identifies whether recommended EOC measures have been formally research-validated or piloted/implemented in LMICs
- Identifies measures that may be feasible to use as is or with minor adaptations specific to an LMIC context
- Discusses how EOC measures can potentially be introduced into routine data collection systems (e.g., HMIS) in addition to periodic data collection

# Methods: Systematic Scoping Review

## **Inclusion criteria:**

- Published after February 1, 2014
- English language
- LMIC
- Human subjects
- SRMNCAH, FP, STIs/HIV

## **Person-centered care:**

- Respectful care
- Respectful maternal\* OR newborn care
- Respect
- Dignity
- (Personal) autonomy
- Privacy
- Confidentiality
- Trust
- Communication
- (Social) support
- Compassionate care
- Nurturing care

## **Measures including:**

- Measure\*
- Scale
- Survey
- Questionnaire
- Indicator
- Metric

## **Outcomes related to SRMNCAH.**

### **Specifically:**

- Experience of care
- Service experience
- (Patient) Satisfaction
- Quality
- Quality of care

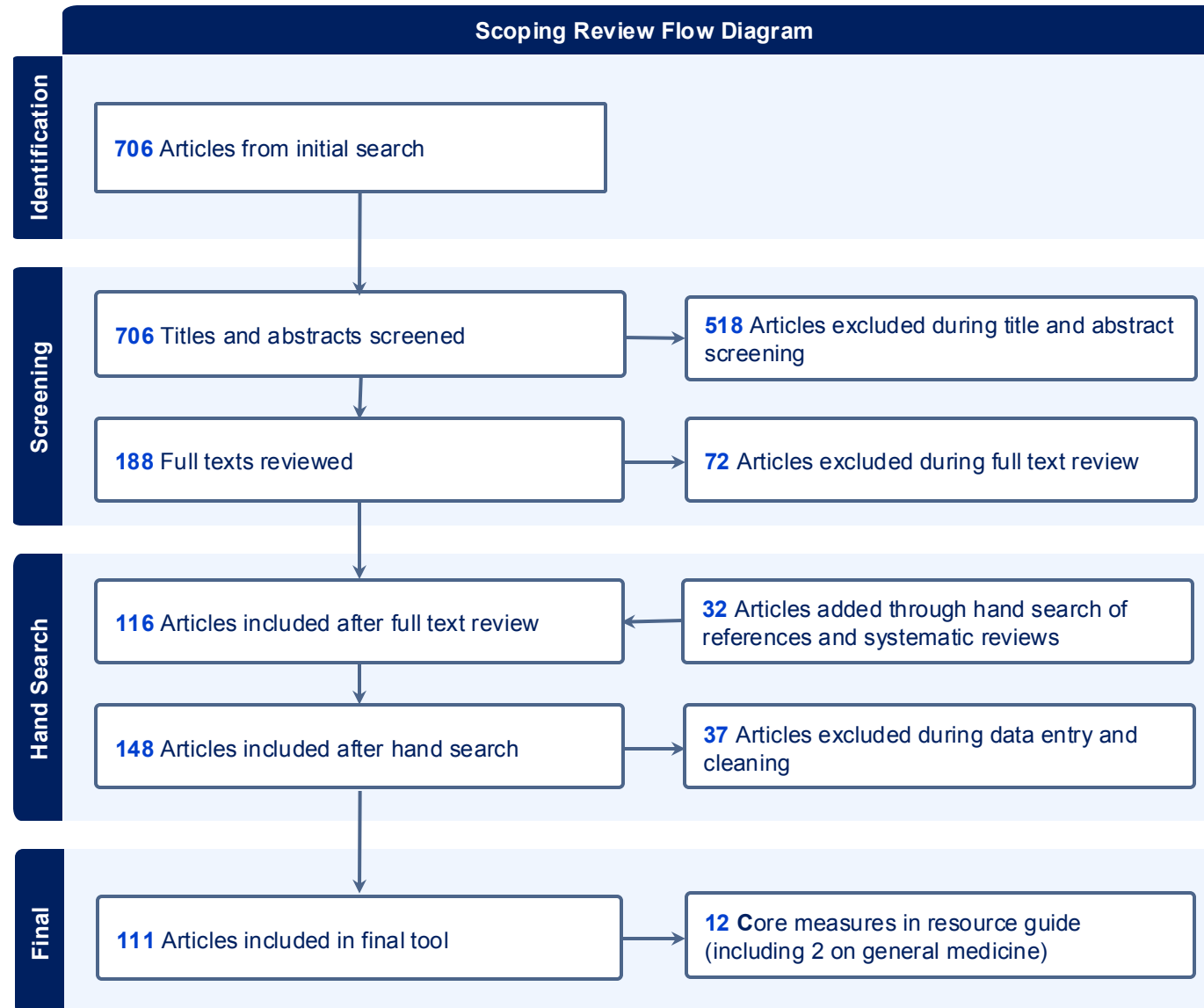
Note: FP: family planning; hiv: human immunodeficiency virus; LMIC: low and middle income country; SRMNCAH: sexual, reproductive, maternal, newborn, child, and adolescent health; STI: sexually transmitted disease

# Methods: Systematic Scoping Review

Exclusion criteria:

- High-income country (HIC)
- Other specific health sector (e.g., cancer, dementia, cardiology)
- Did not measure PCC (e.g., measures mistreatment/D&A or content of care)
- Not client self-reported data
- Tool not provided

# Results



# Overview of Measures

## Fields:

- Measure reference
- Year of publication
- Measure developer
- Is the resource open access?
- Type of care (adolescent, child, family planning/reproductive health, maternal-newborn, maternal-only, newborn-only, sexual health/STIs)
- Data collection method
- Measure description
- Data analysis
- Periodicity
- PCC Domains: Eight from Sudhinaraset et al. (2017)
- LMIC where tested
- Four quality assessment parameters and criteria to assess each of them: construct validity, criterion validity, reliability, and generalizability (with total quality score)

# Score Calculation

Quality Assessment Criteria			
Construct Validity	Criterion Validity	Reliability	Generalizability
Systematic or scoping literature review conducted	Convergent and discriminant validity assessed by triangulation or correlational analysis	Internal consistency reliability assessed through Cronbach's alpha/ average inter-item correlation/ average item-to-total correlation	The measure is generic and can be adapted for varying health care sectors without significant revision.
Expert consensus sought	Concurrent or predictive validity assessed through regression analysis or structural equation modeling	Interrater reliability assessed through ICC/kappa/rwg	The measure has been adapted and validated in one or more LMIC settings.
Pilot tested with relevant sample	Factor analysis performed, e.g. exploratory/confirmatory/principal factor analysis	Reliability of results assessed through test-retest or split-half test	Measure generalizability has been assessed using generalizability theory approaches or confirmatory factor analysis.
Q-sort analysis or cognitive testing conducted	Synthesis of existing validated measures		
No evidence of assessment	No evidence of assessment	No evidence of assessment	No evidence of assessment
<b>SCORE: 0–4</b>	<b>SCORE: 0–4</b>	<b>SCORE: 0–3</b>	<b>SCORE: 0–3</b>

- One point per criterion
- Summative score
- 0 for “no evidence of assessment”
- Total possible score = 14
- Poor quality reflects scores between 0–4; fair reflects scores between 5–8; good reflects a score of at least 9, and those with no individual quality criterion receiving a 0 score.

<b>GOOD</b> = (≥9 AND No Quality Criterion = Zero)	<b>FAIR</b> = (5 - 8)	<b>POOR</b> = (0 - 4)
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- Criteria drawn from the following sources:

Benova, L., Moller, A. B., Hill, K., Vaz, L. M., Morgan, A., Hanson, C., ... & Moran, A. C. (2020). [What is meant by validity in maternal and newborn health measurement? A conceptual framework for understanding indicator validation.](#) *PLoS one*, 15(5), e0233969.

Bhattacharjee, A. (2012). Scale reliability and validity. In *Social science research: Principles, methods, and practices*. University of South Florida.

Marlow, S., Bisbey, T., Lacerenza, C., & Salas, E. (2018). [Performance measures for health care teams: A review.](#) *Small Group Research*, 49(3), 306–356.

Terwee, C. B., Bot, S. D., de Boer, M. R., van der Windt, D. A., Knol, D. L., Dekker, J., ... de Vet, H. C. (2007). [Quality criteria were proposed for measurement properties of health status questionnaires.](#) *Journal of Clinical Epidemiology*, 60(1), 34–42.



# Overview of Measures, continued

Additional worksheets:

- PCC domain definitions and reference:
  - Eight PCC domains as defined by Sudhinaraset et al. (2017)
- Quality assessment definitions and references:
  - Construct validity
  - Criterion validity
  - Reliability criteria
  - Generalizability
- Table legend:
  - Provides the field names, response options, and scoring rubric for the quality assessment fields



Findings of Scoping Review

# Short List of Core EOC Measures Across SRMNCAH

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# “Good” Quality Open Access Measures: Child Health

CHILD HEALTH							
<i>Child Hospital Consumer Assessment of Healthcare Providers and Systems (Child HCAHPS), as reported in <a href="#">Hu et al. (2021)</a></i>							
Data Collection Method		Measure Description		Data Analysis Method	LMICs Included		Total Quality Score
Facility-based online exit survey , administered on day of discharge before leaving inpatient facility		62-item survey with various response options (binary, scales, open-ended questions)		Quantitative	China		11
PCC Domains Measured							
Dignity	Autonomy	Privacy/ Confidentiality	Communication	Social Support	Supportive Care	Trust	Health Facility Environment

# “Good” Quality Open Access Measures: Family Planning/ Reproductive Health

FAMILY PLANNING/REPRODUCTIVE HEALTH							
<i>Quality of Contraceptive Counseling (QCC) scale, as reported in Holt et al. (2019)</i>							
Data Collection Method		Measure Description		Data Analysis Method	LMICs Included		Total Quality Score
Facility-based survey, administered in outpatient clinics		22-item survey; responses captured on a 4-point Likert scale		Quantitative	Mexico		9
PCC Domains Measured							
Dignity	Autonomy	Privacy/ Confidentiality	Communication	Social Support	Supportive Care	Trust	Health Facility Environment
<i>QCC-10 (short version of Quality of Contraceptive Counseling scale), as reported in Holt et al. (2023)</i>							
Data Collection Method		Measure Description		Data Analysis Method	LMICs Included		Total Quality Score
Facility-based survey, administered in outpatient clinics		10-item survey; responses captured on a 4-point scale		Quantitative	Ethiopia, India, Mexico		10
PCC Domains Measured							
Dignity	Autonomy	Privacy/ Confidentiality	Communication	Social Support	Supportive Care	Trust	Health Facility Environment
<i>Quality of Family Planning Counselling (QFPC) measure, as reported in Dey et al. (2021)</i>							
Data Collection Method		Measure Description		Data Analysis Method	LMICs Included		Total Quality Score
Facility-based survey, administered in outpatient clinics		13-item survey with binary response options (yes/no)		Quantitative	India		9
PCC Domains Measured							
Dignity	Autonomy	Privacy/ Confidentiality	Communication	Social Support	Supportive Care	Trust	Health Facility Environment

# “Good” Quality Open Access Measures: Maternal and Newborn Health

MATERNAL AND NEWBORN HEALTH							
<b><i>Person-Centered Maternity Care (PCMC) scale, as reported in Afulani et al. (2017)</i></b>							
See also: Afulani, Aborigo, et al. (2019); Afulani, Diamond-Smith, et al. (2018); Afulani, Phillips, et al. (2019); Afulani, Sayi, et al. (2018); Getahun et al. (2022); Hameed et al. (2023); Hughes et al. (2022); Kapula et al. (2023); Montagu et al. (2020); Montagu et al. (2019); Ogbuabor & Nwankwor (2021); Oluoch-Aridi et al. (2021); Özşahin et al. (2021); Rishard et al. (2021); <a href="#">Sudhinaraset et al. (2019)</a> ; <a href="#">Sudhinaraset et al. (2020)</a> ; <a href="#">Sudhinaraset et al. (2023)</a> ; Zhong et al. (2023)							
Data Collection Method	Measure Description			Data Analysis Method	LMICs Included		Total Quality Score
Client survey, administered in private spaces in health facilities or in homes of respondents	30-item scale; responses captured on a 4-point (0–3) scale with an additional "not-applicable" response option			Quantitative	Ethiopia, Ghana, India, Kenya, Malawi, Nigeria, Pakistan, Sri Lanka, Turkey		10
<b>PCC Domains Measured</b>							
Dignity	Autonomy	Privacy/ Confidentiality	Communication	Social Support	Supportive Care	Trust	Health Facility Environment
<b><i>Short Person-Centered Maternity Care (Short PCMC) scale, as reported in Afulani, Feeser, et al. (2019)</i></b>							
Data Collection Method	Measure Description			Data Analysis Method	LMICs Included		Total Quality Score
Facility-based survey, conducted in health facilities	30-item scale; responses captured on a 4-point (0–3) scale with an additional "not-applicable" response option			Quantitative	Ethiopia, Ghana, India, Kenya, Malawi, Nigeria, Pakistan, Sri Lanka, Turkey		10
<b>PCC Domains Measured</b>							
Dignity	Autonomy	Privacy/ Confidentiality	Communication	Social Support	Supportive Care	Trust	Health Facility Environment

# “Good” Quality Open Access Measures: Maternal and Newborn Health

<i>Quality of Respectful Maternity Care Questionnaire in Iran (QRMQI), as reported in Taavoni et al. (2018)</i>							
Data Collection Method		Measure Description			Data Analysis Method	LMICs Included	Total Quality Score
Facility-based survey, administered in postpartum care clinics in health centers		59-item survey; responses captured on a 4-point scale			Quantitative	Iran	10
PCC Domains Measured							
Dignity	Autonomy	Privacy/ Confidentiality	Communication	Social Support	Supportive Care	Trust	Health Facility Environment
<i>Respectful Maternity Care questionnaire, as reported in Abebe &amp; Mmusi-Phetoe (2022)</i>							
Data Collection Method		Measure Description			Data Analysis Method	LMICs Included	Total Quality Score
Facility-based survey, administered at postpartum health clinics at health centers		Composite index with 6 items to measure effective communication, 6 items to measure supportive care, and 6 items to measure dignified care; coded Y=1, N=0; additive score with 75% cut-off point for respectful maternity care			Quantitative and qualitative	Ethiopia	9
PCC Domains Measured							
Dignity	Autonomy	Privacy/ Confidentiality	Communication	Social Support	Supportive Care	Trust	Health Facility Environment

# “Good” Quality Open Access Measures: Maternal and Newborn Health

<i>Respectful Maternity Care scale and Childbirth Experience questionnaire, as reported in Hajizadeh et al. (2020)</i>							
Data Collection Method		Measure Description			Data Analysis Method	LMICs Included	Total Quality Score
Facility-based survey, conducted in the postpartum unit of maternity hospital and in the community (households)		Respectful Maternity Care scale: 15-item survey; responses captured on a 5-point Likert scale  Childbirth Experience questionnaire: 22-item questionnaire; responses for 19 items captured on a 4-point scale; 3 items use visual assessment			Quantitative	Iran	9
PCC Domains Measured							
Dignity	Autonomy	Privacy/ Confidentiality	Communication	Social Support	Supportive Care	Trust	Health Facility Environment
<i>Women’s Perceptions of RMC (WP-RMC) questionnaire and qualitative interview guide, as reported in Patabendige et al. (2021)</i> See also: <a href="#">Ayoubi et al. (2020)</a>							
Data Collection Method		Measure Description			Data Analysis Method	LMICs Included	Total Quality Score
Facility-based survey, self-administered to patients in hospital postpartum unit, and in-depth interview conducted in a quiet place in the hospital postpartum unit		Questionnaire: 18-item survey; responses for 15 items captured on a 5-point Likert scale; 3 items assessed on an 11-point (0–10) scale  Qualitative interview guide: 12 open-ended questions with additional probes			Quantitative and qualitative	Sri Lanka	9
PCC Domains Measured							
Dignity	Autonomy	Privacy/ Confidentiality	Communication	Social Support	Supportive Care	Trust	Health Facility Environment

# “Good” Quality Open Access Measures: General Medicine

GENERAL MEDICINE							
<i>Communication Assessment Tool (CAT), as reported in Goba et al. (2019)</i>							
Data Collection Method		Measure Description			Data Analysis Method	LMICs Included	Total Quality Score
Facility based survey, administered in various in-patient facility settings		15-item survey, responses captured on a 5-point Likert scale; via hospital-based survey			Quantitative	Ethiopia	9
PCC Domains Measured							
Dignity	Autonomy	Privacy/ Confidentiality	Communication	Social Support	Supportive Care	Trust	Health Facility Environment
<i>Schwartz Center Compassionate Care Scale, as reported in Zeray et al. (2021)</i>							
Data Collection Method		Measure Description			Data Analysis Method	LMICs Included	Total Quality Score
Facility based survey, administered in in-patient oncology units		12-item survey, responses captured on a ten-point scale; via hospital-based survey			Quantitative	Ethiopia	10
PCC Domains Measured							
Dignity	Autonomy	Privacy/ Confidentiality	Communication	Social Support	Supportive Care	Trust	Health Facility Environment



# Top Scoring Measures

By far, the largest category of measures are in the maternal and newborn health type of care:

- N = 65
- Range (0–11)

Score	Number of Measures
11	N = 1
10	N = 19
9	N = 5

- Twenty-two (24%) of the highest scoring tools across all types of care are based off the PCMC scale developed by Afulani, Sudhinaraset, Montagu, et al. at UCSF, or the authors adapted the PCMC scale to other settings or types of care.

# Lowest Scoring Types of Care

- Adolescent health: n = 2 (scores: 1, 1)
- Newborn health only: n = 2 (scores: 2, 4)
- Sexual health/STIs: n = 2 (scores: 1, 4)

# Coverage by Type of Care

- Adolescent health: n = 2
- Child health: n = 4
- Family Planning/Reproductive Health: n = 12
- General medicine: n = 20
- Maternal health only: n = 8
- Maternal and newborn health: n = 65
- Newborn health only: n = 2
- Sexual health/STIs: n = 2

# PCC Domain Coverage

- Autonomy = 71% (79/111)
- Dignity = 81% (90/111)
- Privacy/confidentiality = 42% (47/111)
- Communication = 88% (98/111)
- Social support = 35% (39/111)
- Supportive care = 90% (100/111)
- Trust = 40% (45/111)
- Health system environment = 50% (56/111)

# LMIC Coverage

- Argentina
- Benin
- Brazil
- Burkina Faso
- Chad
- China\* (7)
- Colombia
- DRC
- El Salvador
- Eritrea
- Ethiopia\* (18)
- Ghana\* (9)
- Guatemala
- Indonesia
- India\* (15)
- Iran\* (5)
- Iraq
- Jordan
- Kenya\* (20)
- LAC (generic)
- Liberia
- LMIC (generic)
- Malawi\* (6)
- Malaysia
- Mexico
- Mozambique
- Nepal
- Niger
- Nigeria
- Pakistan
- Papua New Guinea
- Rwanda
- Senegal
- South Africa
- Sri Lanka
- Tanzania
- Turkey
- Uganda
- Vietnam
- Zambia

# Gaps

- Certain types of care do not have any high-scoring tools: newborn, adolescent, sexual health/STIs.
- Certain PCC domains are underrepresented in available EOC tools: privacy/confidentiality, social support, and trust (\*NB: discrimination is not included in the Sudhinaraset framework for PCC).
- Our search uncovered no tools already formulated for routine monitoring (e.g., HMIS).
  - To use for routine facility-level monitoring, the data collected from these tools need to be reformulated into facility-level indicators, for example by assigning threshold or cut-off values and monitoring the proportion of client encounters in a facility that meet that target within a specified period.
- Validation of qualitative instruments is not common/not often reported.

# References for Short List of Core EOC Measures

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