



EMERGE Report

Household Decision-Making and Contraceptive Use: Measurement and a Review of Evidence

Edwin Elizabeth Thomas | Melody Nazarbegian | Sarah Averbach | Nandita Bhan | Anita Raj

Background and Objective:

We reviewed published papers on household decision-making and contraceptive use to understand both how this form of decision-making is measured and what types of household decision-making are associated with contraceptive use. Our recent review of studies on contraceptive decision-making and contraceptive use found that joint decision-making between couples, and not just women's involvement in decision-making, is a particularly strong predictor of contraceptive use (1). These findings highlight that men's support for family planning is important, but offer less clarity regarding women's agency, in part because social norms continue to hold women responsible for contraceptive use. Analysis of women's involvement in household decision-making – for issues such as purchasing, health care utilization, and mobility - may offer a more meaningful indicator that provides insight into women's agency and its association with contraceptive use.

Methods:

From June to August 2021, we undertook a review of the peer-reviewed published literature on quantitative measures of decision-making that were associated with contraceptive use, using the following databases: PubMed, Google Scholar, and Embase. We additionally asked global family planning research experts for their recommendations of papers in this field. We restricted all reviews to papers published in professional journals from January 2011 to June 2021. Two researchers trained on systematic reviews of the literature conducted these database reviews and assessed titles and abstracts as a first level of identification of relevant papers. Subsequently, the researchers reviewed the full text of selected papers to identify those with quantitative measures of decision-making and analysis of the association between contraceptive decision-making and contraceptive use. All papers also were required to be available in English and to include a minimum of 200 female participants in the study. Of these 77 papers that were identified based on the review search, we found 49 papers that focused on household decision-making. Of these, we removed nine papers that included items of contraceptive or fertility decision-making, as we

included these papers in our prior review of studies on contraceptive decision-making and contraceptive use (1). We removed an additional nine papers that lacked information on the items and/or variable construction of the household decision-making measures. We also removed two papers that used variables that were inclusive of but not limited to household decision-making, as we could not tease out the associations between household decision-making and contraceptive use from these findings. Our final analysis included 29 papers with detailed information on measures of household decision-making and quantitative analysis of household decision-making and contraceptive use. We analyzed these 29 papers to characterize them by the sample and survey sampling design, the household decision-making measures and variable construction, the nature of the household decision-making variable (i.e., areas of decision-making focus, such as economic or healthcare), measures of contraceptive outcomes, and demonstrated associations between household decision-making and contraceptive use (36), and demonstrated associations between household decision-making and contraceptive use (36).

Results:

Most of the papers in our review (25 out of 29) relied on the DHS household decision-making measure (2), which asks women who makes decisions on four dimensions a) spending of earnings [both husband/partner and woman's], b) women's healthcare, c) major household purchases and d) visits to family/relatives. Despite no limitations on country inclusion in our search, all papers involved data from low- and middle-income countries (LMICs) representing mostly Africa and South Asia – correlating to where DHS is administered.

Based on our review, we were able to categorize papers into one of the following mutually exclusive categories:

- DHS Measure- Economic, Mobility, and Healthcare Decision-Making (n=17; 58.6%)
- Household Decision-Making on Healthcare (n=7; 24.2%)
- Household Decision-Making including Decisions on Care of Children (n=2; 6.9%)
- Household Decision-Making including Meal Planning (n=2; 6.9%)
- Modified DHS Measure - Economic and Mobility Decision-Making (n=1; 3.5%)

DHS Measure: Economic, Mobility, and Healthcare Decision-Making. The majority of papers fell into this category, using three to six item measures that assessed participants' decision-making on a) household purchases [economic], b) obtaining healthcare for self or child [health], and c) visits to family/relatives [mobility]; some additionally included items on spending of earnings (both husband/partner and woman's) [economic]. Responses assessed whether women made decisions jointly with the husband or alone versus their exclusion from decision-making, with higher scores indicating greater involvement of women. Studies with nationally and sub-nationally representative samples of rural and urban women of childbearing age, largely married women, from Egypt, Bangladesh, and across sub-Saharan Africa have found that women's involvement with household decision-making is associated with the use of modern contraceptives (3-12). Research from Ghana additionally shows that it is associated with contraceptive intent and met demand for contraceptives (10, 13). Specific to long-acting reversible contraceptives (LARCs), a study in Egypt found greater female involvement in household decisions increases the use of LARCs (14), and a study from Ethiopia with LARC users found it is associated with a lower hazard of 12-month discontinuation (15). Importantly, this research does not offer clarity regarding differences between joint versus women-only decision-making, but studies that did consider these differences yielded mixed findings. Studies from Cambodia and Bangladesh found that joint decision-making was associated with higher odds of modern contraceptive use than was women-only decision-making (16-18) and male-only decision-making (19).

Studies in Bangladesh with young married women also found that those reporting male-only compared to female-only decision-making were more likely to use modern contraceptives (17, 18), but a Bangladesh study with women 15-49 years and their husbands found that male-only decision-making, assessed with a spousal concordance variable, was associated with higher unmet need (19).

Modified DHS Measure: Healthcare Decision-Making. All papers assessing effects of healthcare decision-making on contraceptive use and unmet need used DHS data. Five of the seven papers used a single question for decision-making: "Who usually makes decisions about healthcare for yourself?" Responses options included: the woman, male partner/husband, joint, or someone else. Authors categorized responses as women-involved or not involved, or as joint versus women-only versus other decision-making. Research from Nigeria and Senegal indicate that female involvement, sole or joint, in decision-making regarding their own health care was associated with met need for spacing and limiting contraceptive use (21, 22). Differences between sole versus joint decision-making on healthcare yield more mixed findings. One study analyzing countries across sub-Saharan Africa shows that women reporting sole versus joint decision-making on their healthcare are more likely to report unmet need (23). However, a study from Nigeria indicates that women reporting sole versus joint decision-making were more likely to use contraceptives (24), and a study from Mozambique found that when partner alone decides about women's healthcare, contraceptive use is less likely than in contexts where joint decision-making occurs (25). These findings, together, may suggest that women-only decision-making regarding their healthcare may allow for contraceptive use more easily than joint

decision-making. Furthermore, joint decision-making may facilitate contraceptive use more than male-only decision-making control over women's healthcare. Additional studies assessed final decision-making control over healthcare. A study from Tanzania found no association between women-only or joint final decision making over women's healthcare and couple's use of contraceptives (26). However, a study from Bangladesh, which assessed final decision-making over children's health care, the only measure we found that focused on children's health care, did find significant associations. Here, joint and husband-only decision-making on child healthcare was associated with a decreased risk of unmet contraceptive need (27).

Household Decision-Making including Decisions on Care of Children [excluding healthcare]. Two papers focused on childcare decision-making. A study from Pakistan asked about decision-making related to children's education, marriage, and boy children going abroad, as well as purchasing and women's employment. As with the prior measures, responses included women alone, husband alone, jointly, or someone else. Authors constructed a scale with higher scores for women-involved decision-making, and this decision-making was associated with intent to use contraception (28). A study from Indonesia included the most comprehensive measure regarding economic and time use decision-making used across studies, asking about major and small household purchases including those related to children's clothing, child education, and time use. As with the prior measure, household decision-making focused on women's engagement showed an association with contraceptive use (29).

Household Decision-Making including Meal Planning. Only one paper focused solely on the combination of economic and mobility decision-making; this study was from Bangladesh and again used nationally representative DHS data, but in this case with couples (20). Using a three-item assessment on women-only decision-making compared to joint decision-making and other decision-making involvement regarding major and minor household purchases and visiting family, researchers assessed couples' concordance on decision-making responses. For couples reporting concordance that males hold decision-making control across items, contraceptive use was less likely. No other response categorizations were associated with contraceptive use.

Modified DHS Measure: Economic and Mobility Decision-Making. Only one paper focused solely on the combination of economic and mobility decision-making; this study was from Bangladesh and again used nationally representative DHS data, but in this case with couples (20). Using a three-item assessment on women-only decision-making compared to joint decision-making and other decision-making involvement regarding major and minor household purchases and visiting family, researchers assessed couples' concordance on decision-making responses. For couples reporting concordance that males hold decision-making control across items, contraceptive use was less likely. No other response categorizations were associated with contraceptive use.

Discussion:

Household decision-making has long been an area of study in family planning using DHS data; 86% of our papers rely on DHS data predominantly from sub-Saharan Africa and South Asia. Focus on this issue is declining, as evidenced by the fact that 28 of 29 papers (96.5%) were published five or more years ago; this may be attributable to saturation of learnings derived from this field using the same or very similar measures across LMIC contexts. Nonetheless, this work offers important insights. First, household decision-making measures typically cover multiple areas including major and minor household purchases, income generation and control over money, control over time, control over healthcare use for self and children, control over mobility and visits with family, and control over domestic labor including cooking and childcare. Notably, some of these issues are gender role stereotypic for women (e.g., childcare), but even here, we see that some women do not have decision-making control despite bearing greater burden for the work. These findings highlight the importance of household decision-making, particularly in light of greater household burdens under the pandemic (32).

We also find that women's engagement in household decision-making is associated with contraceptive use and met need for contraceptives, for both limiting and spacing contraceptives across national LMIC contexts. Less clear are findings regarding joint versus women-only decision-making. Indications are that joint decision-making is supportive of contraceptive use, but women-only and men-only control appears to impede contraceptive use.

However, some findings indicate that associations with unmet need vary by setting and population. We need more research to understand these divergent associations based on categorization of decision-making to emphasize joint versus women-solely versus men-solely decision-making for outcomes of unmet need, and possibly based on age categorization as well. Improved understanding of this issue can offer important insights into women's reproductive choice and agency (33).

In sum, our findings reveal multiple takeaways for family planning researchers and programmers. Firstly, the review and our analyses of data from India shows how different household decision-making is from contraceptive and fertility decision-making. For instance, it is highly unlikely that a young married woman will be involved in big decision purchases but may be more involved in small daily household purchases or intimate decisions around contraceptive use. With that lens of intrahousehold positionality in mind, standard household decision-making measures used in the field provide sufficient insights on contraceptive use patterns for family planning programs. However, to achieve the realities of 'gender-equitable' societies, family planning programs would need to evaluate learnings for female-focused programming and consider male engagement to build on the learnings on joint decision-making. This may mean a more nuanced take on program components centered on male engagement that would enable greater decision-making power for women, as well as moving beyond the DHS measure to innovate and update measures based on recent learnings on various spheres of relationship dynamics and women's positionality in the household rooted in a women's agency framework (34). Lastly, these findings contribute to a growing clarion call to the field of family planning to reimagine what our positive outcomes can look like, beyond fertility rates (33, 35).

APPENDIX

Our searches resulted in the following papers by database:

- *Our search with PubMed used the following terms: (((("decision-making") and ("family planning")) and ("contracep")) and (survey) and yielded 261 abstracts published in the past 10 years. Of these, 53 articles met our inclusion criteria.*

- *Our search with Google Scholar used the following terms: "decision-making" and "family planning" or "contracep" and "survey" and yielded 16,900 hits. From these, we identified 12 abstracts that met the study criteria. Of these, 8 papers overlapped with the PubMed search results, yielding four new papers from this search.*
- *Our search with Embase used the following search terms: (('decision-making'/exp or 'decision-making') and ('family planning'/exp or 'family planning') OR 'contracep') and ('survey'/exp or 'survey'), yielding 341 abstracts. From these, we identified only three new papers.*
- *We also found 17 additional papers based on expert recommendations.*

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EMERGE, Center on Gender Equity and Health
9500 Gilman Drive
La Jolla, CA 92093-0507
Phone: (858) 246-0066

Resources

- For resources on measurement of gender equity in family planning: <https://emerge.ucsd.edu/gem-fp/>
- To view the brief on the measurement of contraceptive decision-making: <https://emerge.ucsd.edu/wp-content/uploads/2021/09/contraceptive-dm-brief-2.pdf>



geh@ucsd.edu



@GEH_UCSD



edwin.gehindia@gmail.com



@EMERGE_GEH

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APPENDIX OF MEASURES

1. DHS Measure - Economic, Mobility, and Healthcare Decision-Making (n=17; 58.6%)

Authors, Citation	Sample, Recruitment, Regions, Year of Data Collection	Decision-Making Variables and Construction	Contraceptive Outcomes	Key Findings with Statistical Results
OlaOlorun FM, Hindin MJ. Having a say matters: influence of decision-making power on contraceptive use among Nigerian women ages 35-49 years. PLoS One. 2014;9(6):e98702.	Year of Data Collection: 2008 Region: Nigeria (Rural and Urban regions) Sample: (n=4,827) Women aged 35-49 years in need of contraception Recruitment: Household, DHS dual-stage stratified sampling	DHS Household (Healthcare, Mobility, Economic) Decision-Making (Combined Index) Survey Questions and Response Options: 1) Who usually decides how the money you earn will be used? 2) Who usually decides how your husband's/partner's earnings will be used? 3) Who usually makes decisions about health care for yourself? 4) Who usually makes decisions about making major household purchases? 5) Who usually makes decisions about making purchases for daily household needs? 6) Who usually makes decisions about visits to your family or relatives? <i>- Respondent, Husband/Partner, Respondent and Husband/Partner Jointly, Someone else, Other</i> Categorization: Household Decision-Making Power Score - (0) Respondent/partner had no earnings, (1) Respondent/partner had earnings but respondent had no say in how they were spent, (2) Respondent had a say in how her earnings or that of her husband/ partner were spent (items 1&2); (0) Respondent had no say in the decision, (1) Respondent had say in the decision. Score stratified into High, Middle, and Low [Reference] Tertiles.	Variable: Current Modern Contraceptive Use Survey Questions and Response Options: 1) Are you currently doing something or using any method to delay or avoid getting pregnant? - Yes/No 2) (If using current method of contraception) Which method are you using? - Female sterilization, Male sterilization, IUDs, Injectables, Implants, Pill, Condom, Female Condom, Diaphragm, Foam/Jelly, LAM, Rhythm, Withdrawal, Other Categorization: Current User / Not Currently Using Modern contraceptives defined as - Sterilization, IUDs, Implants, OCPs, Condoms, Injectables, Emergency contraceptive pills, Diaphragm, Foam/Jelly	Outcome: Current Modern Contraceptive Use Association with DM: <i>Highest Tertile</i> - [AOR=1.70, 95% CI (1.31, 2.21), p<0.001] Key Finding: Women with the highest tertile score of household decision-making power had an increased likelihood of current modern contraceptive use (vs. those in the lowest tertile).

<p>AlSumri HH. A National Study: the Effect of Egyptian Married Women's Decision-Making Autonomy on the use of Modern Family Planning Methods. <i>Afr J Reprod Health.</i> 2015;19(4):68-77.</p>	<p>Year of Data Collection: 2008 Region: Egypt (Rural and Urban regions) Sample: (n=13,734) Ever-married women, aged 18-49 years Recruitment: Household, DHS stratified dual-stage sampling</p>	<p>DHS Household (Healthcare, Mobility, Economic) Decision-Making (Combined Index)</p> <p>Survey Questions and Response Options: 1) Who usually makes decisions about healthcare for yourself? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i> 2) Who usually makes decisions about making major household purchases? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 3) Who usually makes decisions about making purchases for daily household needs? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 4) Who usually makes decisions about visits to your family or relatives? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 5) Who usually decides how your husband/partner's earnings will be used? - <i>Respondent, Husband/partner, Respondent and husband/partner jointly, Husband/partner has no earnings, Other</i></p> <p>Categorization: Respondent alone or jointly (+1 Point) / Husband or Others (0 points); Score for Women's Autonomy scaled 0-5. Stratified as Low (<2) [Reference], Intermediate (2-3), or High (>3) Autonomy.</p>	<p>Variable: Current Modern Contraceptive Use</p> <p>Survey Questions and Response Options: Not specified. 1) Are you currently doing something or using any method to delay or avoid getting pregnant? - <i>Yes/No</i> 2) (If using current method of contraception) Which method are you using? - <i>Female sterilization, Male sterilization, IUDs, Injectables, Implants, Pill, Condom, Female Condom, Diaphragm, Foam/Jelly, LAM, Rhythm, Withdrawal, Other</i></p> <p>Categorization: Use of modern method / No modern method (If participant is not using a contraceptive method or is using a traditional method.)</p>	<p>Outcome: Current Modern Contraceptive Use</p> <p>Association with DM: <i>Intermediate</i> - [AOR=1.19, 95% CI (1.04, 1.35)] <i>High</i> - [AOR=1.32, 95% CI (1.18, 1.49)] p<0.001</p> <p>Key Finding: Women with high or intermediate autonomy had an increased likelihood of using modern contraception.</p>
<p>Viswan SP, Ravindran TKS, Kandala NB, Petzold MG, Fonn S. Sexual autonomy and contraceptive use among women in Nigeria: findings from the Demographic and Health Survey data. <i>Int J Womens Health.</i> 2017;9:581-90.</p>	<p>Year of Data Collection: 2008 and 2013 Region: Nigeria (Rural and Urban regions) Sample: (n=27,274 in 2013; n=23,954 in 2008) Women aged 15-49 years Recruitment: Household, DHS stratified dual-stage sampling</p>	<p>DHS Household (Healthcare, Mobility, Economic) Decision-Making (Combined Index)</p> <p>Survey Questions and Response Options: 1) Who usually makes decisions about healthcare for yourself? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i> 2) Who usually makes decisions about making major household purchases? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 3) Who usually makes decisions about visits to your family or relatives? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 4) Who usually decides how your husband/partner's earnings will be used? - <i>Respondent, Husband/partner, Respondent and husband/partner jointly, Husband/partner has no earnings, Other</i></p> <p>Categorization: Responses - (Female) Has role in decision / Has no role in decision Index - High Household Decision-Making Autonomy / Low Household Decision-Making Autonomy [Used as reference group.]</p>	<p>Variable: Current Modern Contraceptive Use</p> <p>Survey Questions and Response Options: 1) Are you currently doing something or using any method to delay or avoid getting pregnant? - <i>Yes/No</i> 2) (If using current method of contraception) Which method are you using? - <i>Female sterilization, Male sterilization, IUDs, Injectables, Implants, Pill, Condom, Female Condom, Diaphragm, Foam/Jelly, LAM, Rhythm, Withdrawal, Other</i></p> <p>Categorization: User of any modern contraceptive method / Not using any modern method</p>	<p>Outcome: Current Modern Contraceptive Use</p> <p>Association with DM: <i>High household decision-making autonomy (2008)</i> - [OR = 1.322, 95% CI (1.170, 1.493)] <i>High household decision-making autonomy (2013)</i> - [OR = 1.688, 95% CI (1.514, 1.881)]</p> <p>Key Finding: High household decision-making autonomy was associated with a higher chance of modern contraceptive use.</p>

Samari G. Women's empowerment and short- and long-acting contraceptive method use in Egypt. <i>Cult Health Sex</i> . 2018;20(4):458-73.	Year of Data Collection: 2005, 2008, and 2014 Region: Egypt (Rural and Urban regions) Sample: (n=47,545) Married women during childbearing years Recruitment: Household, DHS stratified dual-stage sampling	DHS Household (Healthcare, Mobility, Economic) Decision-Making (Combined Indices) Survey Questions and Response Options: 1) Who usually makes decisions about healthcare for yourself? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i> 2) Who usually makes decisions about making major household purchases? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 3) Who usually makes decisions about visits to your family or relatives? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 4) Who usually decides how the money you earn will be used? - <i>Respondent, Husband/partner, Respondent and husband/partner jointly, Other</i> 5) Who usually decides how your husband/partner's earnings will be used? - <i>Respondent, Husband/partner, Respondent and husband/partner jointly, Husband/partner has no earnings, Other</i> Categorization: a) Count of Household Decision-Making: Number of decisions made by the wife - Summed and scored 0-4 b) Joint Household Decision-Making: Number of decisions made jointly - Summed and scored 0-4	Variable: Contraceptive Method (Use of LARC) Survey Questions and Response Options: 1) Are you currently doing something or using any method to delay or avoid getting pregnant? - <i>Yes/No</i> 2) (If using current method of contraception) Which method are you using? - <i>Female sterilization, Male sterilization, IUDs, Injectables, Implants, Pill, Condom, Female Condom, Diaphragm, Foam/Jelly, LAM, Rhythm, Withdrawal, Other modern method, Other traditional method</i> Categorization: 0 = No Method - No method, Abstinence, Withdrawal, or LAM 1 = Short Acting Method - Pill, Injections, Condoms, or Diaphragm/Foam/Jelly 2 = Long Acting Reversible Method (LARC) - IUD or Implant	Outcome: Contraceptive Method (Use of LARC) vs. No Method Association with DM: <i>Count of Household Decision-Making</i> - [RRR: 1.12 (0.013), p<0.001] <i>Joint Household Decision-Making</i> - [RRR: 1.11 (0.014), p<0.001] Key Finding: Greater female involvement in household decisions increases the odds of LARC use.
Yaya S, Uthman OA, Ekholuenetale M, Bishwajit G. Women empowerment as an enabling factor of contraceptive use in sub-Saharan Africa: a multilevel analysis of cross-sectional surveys of 32 countries. <i>Reprod Health</i> . 2018;15(1):214.	Year of Data Collection: 2008-2016 Region: Sub-Saharan Africa - Angola, Benin, Burkina Faso, Burundi, Cameroon, Chad, Comoros, Congo, Congo DR, Cote d'Ivoire, Ethiopia, Gabon, Gambia, Ghana, Guinea, Kenya, Lesotho, Liberia, Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Togo, Uganda, Zambia, Zimbabwe (Rural and Urban regions in each country) Sample: (n=474,622) Women aged 15-49 years Recruitment: Household, DHS stratified dual-stage sampling	DHS Household (Healthcare, Mobility, Economic) Decision-Making (Combined Index) Survey Questions and Response Options: 1) Who usually makes decisions about healthcare for yourself? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i> 2) Who usually makes decisions about making major household purchases? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 3) Who usually makes decisions about visits to your family or relatives? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 4) Who usually decides how your husband/partner's earnings will be used? - <i>Respondent, Husband/partner, Respondent and husband/partner jointly, Husband/partner has no earnings, Other</i> Categorization: Stratified as Low, Medium, or High decision-making power.	Variable: Lifetime Contraceptive Use Survey Questions and Response Options: Ever used anything or tried to delay or avoid getting pregnant? - <i>Yes, used outside calendar, Yes, used in calendar, No</i> Categorization: Contraceptive user (Yes, used outside calendar or Yes, used in calendar) / Contraceptive non-user (No)	Outcome: Lifetime Contraceptive Use Association with DM: <i>High Decision-Making Power</i> - [OR = 1.23, 95% CI (1.18, 1.29)] Key Finding: High decision-making power was associated with an increased chance of having ever used contraceptives.

<p>Lai SL, Tey NP. Contraceptive use in Cambodia: does household decision-making power matter? Cult Health Sex. 2020;22(7):778-93.</p>	<p>Year of Data Collection: 2005, 2010, 2014 Region: Cambodia (Rural and Urban regions) Sample: (n=10,309 - 2005; 11,536 - 2010; 11,668 - 2014) Currently married women aged 15-49 years Recruitment: Household, DHS dual-stage stratified sampling</p>	<p>DHS Household (Healthcare, Mobility, Economic) Decision-Making (Combined Indices)</p> <p>Survey Questions and Response Options: 1) Who usually makes decisions about healthcare for yourself? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i> 2) Who usually makes decisions about making large household purchases? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 3) Who usually makes decisions about visits to your family or relatives? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 4) Who usually decides how the money you earn will be used? - <i>Respondent, Husband/partner, Respondent and husband/partner jointly, Other</i> 5) Who usually decides how your husband/partner's earnings will be used? - <i>Respondent, Husband/partner, Respondent and husband/partner jointly, Husband/partner has no earnings, Other</i></p> <p>Categorization: Women alone / Husbands / Both Two Indices - 1) Number of decisions made by women alone (Respondent as sole decision-maker score), 2) Number of decisions made jointly (Respondent as joint decision-maker score).</p>	<p>Variable: Current Use of Contraception</p> <p>Survey Questions and Response Options: Are you currently doing something or using any method to delay or avoid getting pregnant? - <i>Yes/No</i></p> <p>Categorization: Use / Non-Use</p>	<p>Outcome: Current Use of Contraception</p> <p>Association with DM: <i>Respondent as sole decision-maker score</i> - [OR=0.93, 95% CI (0.90, 0.96), p<0.001] <i>Respondent as joint decision-maker score</i> - [OR=1.08, 95% CI (1.04, 1.11), p<0.001]</p> <p>Key Finding: Women making household decisions alone were less likely to be using contraception, while women making joint household decisions were more likely to be using contraception.</p>
<p>Blackstone SR. Women's Empowerment, Household Status, and Contraception Use in Ghana. J Biosoc Sci. 2017;49(4):423-34.</p>	<p>Year of Data Collection: 2014 Region: Ghana (216 Urban and 211 Rural regions) Sample: (n=1828) Women aged 15-49 years Recruitment: Household, DHS stratified dual-stage sampling</p>	<p>DHS Household (Healthcare, Mobility, Economic) Decision-Making (Combined Index)</p> <p>Survey Questions and Response Options: Are you (female) involved in decision-making in the following areas: 1) Healthcare, 2) Major household purchases, 3) Daily household purchases, 4) Spending your own earnings, 5) Visiting relatives? - <i>Yes/No</i></p> <p>Categorization: Composite Index - <i>Number of Household Decisions</i> (Scale 0-5)</p>	<p>Variables: a) Current Contraceptive Use b) Unmet Need for Contraception</p> <p>Survey Questions and Response Options: 1) Report all methods of contraception currently in use. 2) Do you have an unmet need for contraception? - <i>Yes/No</i></p> <p>Categorization: Current Contraceptive Use: 1 = Yes (Any reported method), 0 = No Unmet Need for Contraception: 1 = Yes, 0 = No</p>	<p>Outcome a) Contraceptive Use</p> <p>Association with DM: <i>Number of Household Decisions</i> - [β = 0.149; p<0.001]</p> <p>Outcome b) Unmet Need for Contraception</p> <p>Association with DM: <i>Number of Household Decisions</i> - [β = -0.012 ; p<0.05]</p> <p>Key Finding: Female involvement in decision-making is positively associated with contraceptive use and negatively associated with unmet need for contraceptive use.</p>

<p>Fekadu GA, Omigbodun AO, Roberts OA, Yalew AW. Factors associated with early long-acting reversible contraceptives discontinuation in Ethiopia: evidence from the 2016 Ethiopian demographic and health survey. Arch Public Health. 2020;78:36.</p>	<p>Year of Data Collection: 2016 Region: Ethiopia (Rural and Urban Regions) Sample: (n=1,385) Women aged 15-49 years having episodes of LARC during the study timeframe Recruitment: Household, DHS stratified dual-stage sampling</p>	<p>DHS Household (Healthcare, Mobility, Economic) Decision-Making (Combined Index)</p> <p>Survey Questions and Response Options: 1) Who usually makes decisions about healthcare for yourself? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i> 2) Who usually makes decisions about making large household purchases? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 3) Who usually makes decisions about visits to your family or relatives? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i></p> <p>Categorization: Alone or Jointly (+1 Point) / Otherwise (0) Summed score out of 3: (0-1 = Not Participated [Reference]; 2 = Partially Participated; 3 = Fully Participated)</p>	<p>Variable: Duration of Risk Period Leading to Contraceptive Discontinuation (12 Month)</p> <p>Survey Questions and Response Options: Not specified.</p> <p>Categorization: Discontinuation of LARC was defined as stopping use of IUD or Implant.</p>	<p>Outcome: Duration of Risk Period Leading to Contraceptive Discontinuation (12 Month)</p> <p>Association with DM: <i>Partially Participated</i> - [AHR=0.53, 95% CI (0.37, 0.77), p<0.001] <i>Fully Participated</i> - [AHR=0.54, 95% CI (0.40, 0.73), p<0.001]</p> <p>Key Finding: Women partially or fully participating in household decisions were found to have a lower hazard of 12-Month LARC discontinuation.</p>
<p>Zegeye B, Ahinkorah BO, Idriss-Wheeler D, Olorunsaiye CZ, Adjei NK, Yaya S. Modern contraceptive utilization and its associated factors among married women in Senegal: a multilevel analysis. BMC Public Health. 2021;21(1):231.</p>	<p>Year of Data Collection: 2017 Region: Senegal (Rural and Urban regions) Sample: (n=11,394) Married women aged 15-49 Recruitment: Household, DHS dual-stage stratified sampling</p>	<p>DHS Household (Healthcare, Mobility, Economic) Decision-Making (Combined Index)</p> <p>Survey Questions and Response Options: 1) Who usually makes decisions about healthcare for yourself? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i> 2) Who usually makes decisions about making large household purchases? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 3) Who usually makes decisions about visits to your family or relatives? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i></p> <p>Categorization: No Decision-Making (Husband/partner-alone or Other) / Decision-Making 1 (Respondent-alone or Jointly with Husband in 2 categories) / Decision-Making 2 (Respondent-alone or Jointly with Husband in 3 categories)</p>	<p>Variable: Modern Contraceptive Use</p> <p>Survey Questions and Response Options: Which contraceptive methods do you use?</p> <p>Categorization: Modern contraceptive method user / Non-modern contraceptive user (Traditional or No method)</p>	<p>Outcome: Modern Contraceptive Use</p> <p>Association with DM: <i>Decision-Making 1</i> - [AOR=1.18, 95% CI (1.04, 1.33), p<0.01] <i>Decision-Making 2</i> - [AOR=1.20, 95% CI (1.02, 1.41), p<0.05]</p> <p>Key Finding: Women's involvement in household decision-making was associated with an increased odds of modern contraceptive use.</p>

Atiglo DY, Codjoe SNA. Meeting women's demand for contraceptives in Ghana: Does autonomy matter? Women Health. 2019;59(4):347-63.	<p>Year of Data Collection: 2014</p> <p>Region: Ghana (Rural and Urban regions)</p> <p>Sample: (n=2,017)</p> <p>Married/cohabiting women aged 14-49 years</p> <p>Recruitment: Household, DHS stratified dual-stage sampling</p>	<p>DHS Household (Healthcare, Mobility, Economic) Decision-Making (Combined Index)</p> <p>Survey Questions and Response Options:</p> <p>1) Who usually makes decisions about healthcare for yourself? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i></p> <p>2) Who usually makes decisions about making major household purchases? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i></p> <p>3) Who usually makes decisions about visits to your family or relatives? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i></p> <p>4) Who usually decides how the money you earn will be used? - <i>Respondent, Husband/partner, Respondent and husband/partner jointly, Other</i></p> <p>5) Who usually decides how your husband/partner's earnings will be used? - <i>Respondent, Husband/partner, Respondent and husband/partner jointly, Husband/partner has no earnings, Other</i></p> <p>Categorization: Respondent Not Involved / Joint Decision / Respondent Alone Involved Stratified as Low (0-2 Decisions) [Reference], Moderate (3-4 Decisions), High (5 Decisions) Decision-Making Autonomy.</p>	<p>Variable: Contraceptive Demand</p> <p>Survey Questions and Response Options: Not Specified.</p> <p>Categorization: Unmet Demand / No Intention to Use / Met Demand</p> <p>Met Demand defined as use of any contraceptive method.</p>	<p>Outcome 1: Contraceptive Demand (Met Demand vs. Unmet Demand)</p> <p>Association with DM: Household decision-making was not significantly associated.</p> <p>Outcome 2: Contraceptive Demand (No Intention for Use vs. Unmet Demand)</p> <p>Association with DM: <i>Intermediate Household Decision-Making Autonomy</i> - [OR = 0.613, 95% CI (0.424, 0.884), p<0.01] <i>High Household Decision-Making Autonomy</i> - [OR = 0.519, 95% CI (1.256, 2.592), p<0.01]</p> <p>Outcome 3: Contraceptive Demand (Met Demand vs. No Intention)</p> <p>Association with DM: <i>Intermediate Household Decision-Making Autonomy</i> - [OR = 1.614, 95% CI (1.200, 2.171), p<0.001] <i>High Household Decision-Making Autonomy</i> - [OR = 1.805, 95% CI (0.424, 0.884), p<0.001]</p> <p>Key Finding: Women with high or intermediate household decision-making autonomy had a greater likelihood of met demand for contraceptives, compared to those with no intention to use contraceptives. Also, women in these categories were less likely to not intend to use contraceptives, compared to having an unmet demand.</p>
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<p>Asaolu IO, Okafor CT, Ehiri JC, Dreifuss HM, Ehiri JE. Association between Measures of Women's Empowerment and Use of Modern Contraceptives: An Analysis of Nigeria's Demographic and Health Surveys. Front Public Health. 2016;4:293.</p>	<p>Year of Data Collection: 2003, 2008, and 2013 Region: Nigeria (Rural and Urban regions) Sample: (n=35,633) Married/cohabiting women with desire to have children within 2 years after time of survey, undecided on fertility timing, and no desire for more children Recruitment: Household, DHS stratified dual-stage sampling</p>	<p>DHS Household (Healthcare, Mobility, Economic) Decision-Making</p> <p>Survey Questions and Response Options: 1) Who usually makes decisions about healthcare for yourself (Respondent's healthcare)? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i> 2) Who usually makes decisions about making large household purchases? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 3) Who usually makes decisions about visits to your family or relatives? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i></p> <p>Categorization: Self or Joint Decision / Others</p>	<p>Variable: Contraceptive Use</p> <p>Survey Questions and Response Options: 1) Are you currently doing something or using any method to delay or avoid getting pregnant? - Yes/No 2) (If using current method of contraception) Which method are you using? - Female sterilization, Male sterilization, IUDs, Injectables, Implants, Pill, Condom, Female Condom, Diaphragm, Foam/Jelly, LAM, Rhythm, Withdrawal, Other</p> <p>Categorization: Modern Contraceptive Method / Traditional, Folkloric, or No Use</p> <p>Modern contraceptives defined as - Sterilization, IUDs, Implants, OCPs, Condoms, Injectables, Emergency contraceptive pills, Patches, Diaphragms and Cervical caps, Spermicidal agents (gels, foams, creams, suppositories, etc.), Vaginal rings, and Sponge</p>	<p>Outcome: Contraceptive Use (Modern)</p> <p>Association with DM: <i>Decision to visit family/relatives : Self or Joint</i> - [2013; AOR = 1.58, 95% CI (1.36, 1.83), p<0.001] <i>Healthcare Decision : Self or Joint</i> - [2008; AOR = 1.20, 95% CI (1.04, 1.39), p<0.05], [2013; AOR = 1.39, 95% CI (1.22, 1.59), p<0.001] <i>Large Household Purchase Decision : Self or Joint</i> - [2008; AOR = 1.15, 95% CI (1.01, 1.31), p<0.05], [2013; AOR = 1.60, 95% CI (1.40, 1.83), p<0.001]</p> <p>Key Finding: Women involved in decision making on mobility (visits to family/relatives), their own healthcare, and large household purchases were more likely to use modern contraceptives.</p>
<p>Wado YD. Women's autonomy and reproductive health-care-seeking behavior in Ethiopia. Women Health. 2018;58(7):729-43.</p>	<p>Year of Data Collection: 2011 Region: Ethiopia (Rural and Urban regions) Sample: (n= 9,106) Married women aged 15-49 years Recruitment: Household, DHS dual-stage stratified sampling</p>	<p>DHS Household (Healthcare, Mobility, Economic) Decision-Making (Combined Index)</p> <p>Survey Questions and Response Options: Who in your family makes decision about (1) Healthcare for yourself, (2) Making large household purchases, and (3) Visits to family and/or relatives?</p> <p>Categorization: a) Respondent / Husband or Partner / Respondent and Husband or Partner Jointly / Someone Else / Respondent and Someone Else Jointly b) Further categorized as - Wife had any say in decision (Alone or Joint) / Wife had no say in decision</p> <p>Composite index - Groups women as: 1) Had any say in all three household decisions / 2) No say in one or more decisions</p>	<p>Variable: Modern Contraceptive Use</p> <p>Survey Questions and Response Options: 1) Are you using contraception? - Yes/No 2) If so, which methods are you using?</p> <p>Categorization: Using Modern Contraceptive / Not Using Modern Contraceptive</p>	<p>Outcome: Modern Contraceptive Use</p> <p>Association with DM: <i>Had any say in three household decisions</i> - [AOR=1.37, 95% CI (1.17,1.61), p<0.05]</p> <p>Key Finding: Women participating in household decisions had a higher odds of using modern contraceptives.</p>

<p>Whidden C, Keita Y, Treleaven E, Beckerman J, Johnson A, Cissé A, et al. Women's empowerment, intrahousehold influences, and health system design on modern contraceptive use in rural Mali: a multilevel analysis of cross-sectional survey data. <i>Reprod Health</i>. 2021;18(1):55.</p>	<p>Year of Data Collection: 2016-2017 Region: Bankass District, Mali (Rural) Sample: (n=14,032) Women aged 15-49 years Recruitment: Household</p>	<p>Household (Healthcare, Mobility, Economic) Decision-Making (Combined Index)</p> <p>Survey Questions and Response Options: Who makes decisions regarding - 1) Own healthcare, 2) Visiting your relatives, 3) Household purchasing?</p> <p>Categorization: Women has any involvement in household decision-making (Independent or Joint) / No involvement in household decision-making</p>	<p>Variable: Modern Contraceptive Use</p> <p>Survey Questions and Response Options: Not specified.</p> <p>Categorization: Modern Contraceptive Use / No Modern Contraceptive Use</p> <p>Modern contraceptives defined as - Female and male sterilization, Female and male condoms, IUD, Implant, Injectable, Contraceptive, OCP, Diaphragm, Foam/spermicidal jelly, LAM, and Standard days method</p>	<p>Outcome: Modern Contraceptive Use</p> <p>Association with DM: <i>Women has any involvement in household decision-making</i> - [AOR=1.29, 95% CI (1.04, 1.60), p=0.019]</p> <p>Key Finding: Women involved in household decision-making in any capacity were more likely to use modern contraceptives than those not involved in household decision-making.</p>
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<p>Rahman MM, Mostofa MG, Hoque MA. Women's household decision-making autonomy and contraceptive behavior among Bangladeshi women. Sex Reprod Healthc. 2014;5(1):9-15.</p>	<p>Year of Data Collection: 2007 Region: Bangladesh (Rural and Urban regions) Sample: (n=8,456) Currently married, non-pregnant women aged 15-40 years Recruitment: Household, DHS dual-stage stratified sampling</p>	<p>DHS Household (Healthcare, Mobility, Economic, Child Healthcare) Decision-Making (Combined Index)</p> <p>Survey Questions and Response Options: Who makes decisions in the (respondent's) household about: 1) Obtaining health care, 2) Large household purchases, 3) Household purchases for daily needs, 4) Visits to family or relatives, and 5) Child health care? - <i>Respondent alone, Respondent and husband/partner, Respondent and another person, Husband/Partner alone, Someone else, Other</i></p> <p>Categorization: Respondent alone, Respondent and husband/partner, and Respondent and another person assigned a score of 1 (Decision Taken). All others assigned 0. Summed score results in a Household Decision-Making Autonomy Scale from 0-5.</p>	<p>Variable 1: Current Contraceptive Use</p> <p>Variable 2: Future Intention to Use Contraception</p> <p>Survey Questions and Response Options: 1) Are you and your wife using any method to delay or avoid pregnancy at this time? - <i>Yes/No</i>, 2) Not specified.</p> <p>Categorization: Yes / No</p>	<p>Outcome 1: Current Contraceptive Use</p> <p>Association with DM: <i>1 Decision Taken</i> - [OR=1.45, 95% CI (1.15, 1.81), p<0.01] <i>2 Decisions Taken</i> - [OR=1.40, 95% CI (1.15, 1.70), p<0.01] <i>4 Decisions Taken</i> - [OR=1.40, 95% CI (1.21, 1.61), p<0.001] <i>5 Decisions Taken</i> - [OR=1.90, 95% CI (1.43, 1.89), p<0.001] <i>3 not significantly associated.</i></p> <p>Outcome 2: Future Intention to Use Contraception</p> <p>Association with DM: <i>5 Decisions Taken</i> - [OR=1.50, 95% CI (1.19, 1.89), p<0.01] <i>Remainder not significantly associated.</i></p> <p>Key Finding: Women involved in greater quantities of household decisions had a greater likelihood of current contraceptive use as well as future intent to use contraception.</p>
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Uddin J, Pulok MH, Sabah MN. Correlates of unmet need for contraception in Bangladesh: does couples' concordance in household decision making matter? Contraception. 2016;94(1):18-26.	<p>Year of Data Collection: 2007</p> <p>Region: Bangladesh (Rural and Urban regions)</p> <p>Sample: (n=3,336)</p> <p>Married women aged 15-49 years</p> <p>Recruitment: Household, DHS dual-stage stratified sampling</p>	<p>DHS Concordance on Household Decision-Making (Healthcare, Mobility, Economic, Child Healthcare)</p> <p>Survey Questions and Response Options: 1) Who usually makes decisions about your child's health care?, 2) Who usually makes decisions about making major household purchases?, 3) Who usually makes decisions about making purchases for daily household needs?, 4) Who usually makes decisions about visits to your family or relatives? - <i>Respondent, Husband/Partner, Respondent and Husband/Partner Jointly, Someone else, Other</i></p> <p>Categorization: 1) Wife only, 2) Husband only, 3) Jointly, 4) Other</p> <p>If couples' responses were discordant - categorized as "Disagree" / If couples' responses were concordant - categorized as "Agree".</p>	<p>Variable: Unmet Need for Contraception</p> <p>Survey Questions and Response Options: Series of questions (comprising an algorithm for determining unmet need) centered on: Do you desire to terminate or postpone childbearing?</p> <p>Categorization: Any Unmet Need (Limiting and/or Spacing) / No Unmet Need</p>	<p>Outcome: Unmet Need for Contraception</p> <p>Association with DM: (<i>Child Healthcare Decisions</i>) <i>Agree - Husband Only</i> - [OR=1.45, 95% CI (1.25, 2.82), p<0.01] (<i>Major Household Purchase Decisions</i>) <i>Agree - Other</i> - [OR=2.57, 95% CI (1.19, 5.54), p<0.05] (<i>Decisions to Visit Family</i>) <i>Agree - Husband Only</i> - [OR=1.98, 95% CI (0.98, 4.00), p<0.1] (<i>Decisions to Visit Family</i>) <i>Agree - Other</i> - [OR=2.37, 95% CI (0.95,5.91), p<0.1]</p> <p>No significant findings with discordant responses or other household decision-making categories.</p> <p>Key Finding: Couples concordantly reporting that husbands-only made decisions on child healthcare and visits to family, as well as those concordantly reporting that others made decisions on major household purchases and visits to family, had a higher odds of unmet need for contraception.</p>
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<p>Islam AZ, Rahman M, Mostofa MG.</p> <p>Association between contraceptive use and socio-demographic factors of young fecund women in Bangladesh. Sex Reprod Healthc. 2017;13:1-7.</p>	<p>Year of Data Collection: 2011</p> <p>Region: Bangladesh (Rural and Urban regions)</p> <p>Sample: (n=3744) Fecund women under 25 years old</p> <p>Recruitment: Household, DHS stratified dual-stage sampling</p>	<p>DHS Household (Healthcare, Child Healthcare, Mobility, Economic) Decision-Making</p> <p>Survey Questions and Response Options:</p> <p>1) Who usually makes decisions about healthcare for yourself (<u>Respondent's healthcare</u>)? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i></p> <p>2) Who has the final say on <u>child healthcare</u>? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i></p> <p>3) Who usually makes decisions about making major <u>household purchases</u>? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i></p> <p>4) Who usually makes decisions about <u>visits to your family or relatives</u>? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i></p> <p>Categorization: Same as response categories. Respondent alone was used as the reference category.</p>	<p>Variable: Contraceptive Use</p> <p>Survey Questions and Response Options:</p> <p>1) Are you currently doing something or using any method to delay or avoid getting pregnant? - <i>Yes/No</i></p> <p>2) (If using current method of contraception) Which method are you using? - <i>Female sterilization, Male sterilization, IUDs, Injectables, Implants, Pill, Condom, Female Condom, Diaphragm, Foam/Jelly, LAM, Rhythm, Withdrawal, Other modern method, Other traditional method</i></p> <p>Categorization: Binary</p> <p>a) Any type Contraceptive Use - Modern or Traditional methods</p> <p>b) No Use</p>	<p>Outcome: Contraceptive Use</p> <p>Association with DM:</p> <p>(1) <u>Respondent's healthcare Respondent and husband jointly</u> - [OR=3.108; 95% CI (2.225, 4.341), p<0.0001]</p> <p>Husband alone - [OR=2.813; 95% CI (1.98, 3.960), p<0.0001]</p> <p>(2) <u>Child healthcare Respondent and husband jointly</u> - [OR=3.049; 95% CI (2.165, 4.294), p<0.0001]</p> <p>Husband alone - [OR=2.459; 95% CI (1.675, 3.610), p<0.0001]</p> <p>Key Finding: Joint involvement in decision-making on healthcare increased likelihood of modern contraceptive use, as well as husband-only involvement, compared to wife-only involvement.</p>
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Islam AZ. Factors affecting modern contraceptive use among fecund young women in Bangladesh: does couples' joint participation in household decision making matter? Reprod Health. 2018;15(1):112.	Year of Data Collection: 2011 Region: Bangladesh (Rural and Urban regions) Sample: (n=3507) Ever married women aged 15-29 years Recruitment: Household, DHS stratified dual-stage sampling	DHS Household (Healthcare, Child Healthcare, Mobility) Decision-Making Survey Questions and Response Options: 1) Who usually makes decisions about healthcare for yourself (<u>Respondent's healthcare</u>)? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i> 2) Who has the final say on <u>child healthcare</u> ? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i> 3) Who usually makes decisions about <u>visits to your family or relatives</u> ? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> Categorization: Same as response categories. Respondent alone was used as the reference category.	Variable: Modern Contraceptive Use Survey Questions and Response Options: 1) Are you currently doing something or using any method to delay or avoid getting pregnant? - <i>Yes/No</i> 2) (If using current method of contraception) Which method are you using? - <i>Female sterilization, Male sterilization, IUDs, Injectables, Implants, Pill, Condom, Female Condom, Diaphragm, Foam/Jelly, LAM, Rhythm, Withdrawal, Other modern method, Other traditional method</i> Categorization: Binary a) Any type of Modern Contraceptive Use - Pills, Condoms, IUDs, Injections, and Implants b) No Use	Outcome: Modern Contraceptive Use Association with DM: (1) <u>Respondent's healthcare</u> <i>Respondent and husband jointly</i> - [OR=2.761; 95% CI (1.925, 3.960), p < 0.001] Husband alone - [OR=2.698; 95% CI (1.875, 3.885), p<0.001] (2) <u>Child healthcare</u> <i>Respondent and husband jointly</i> - [OR=2.616; 95% CI (1.808, 3.786), p<0.001] Husband alone - [OR=2.164; 95% CI (1.430, 3.277), p<0.001] (3) <u>Visits to family or relatives</u> <i>Respondent and husband jointly</i> - [OR=1.830; 95% CI (1.176, 2.849), p=0.007] Key Finding: Joint involvement in decision-making on wife's healthcare increased likelihood of modern contraceptive use, as well as husband-only involvement, compared to wife-only involvement.
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2. Household Decision-Making on Healthcare (n=7; 24.2%)

Authors, Citation	Sample, Recruitment, Regions, Year of Data Collection	Decision-Making Variables and Construction	Contraceptive Outcomes	Key Findings with Statistical Results

Ahinkorah BO. Predictors of unmet need for contraception among adolescent girls and young women in selected high fertility countries in sub-Saharan Africa: A multilevel mixed effects analysis. PLoS One. 2020;15(8):e0236352.	Year of Data Collection: 2010-2018 Region: Sub-Saharan Africa - Uganda, Nigeria, Niger, Mozambique, Mali, Gambia, Chad, Burundi, Burkina Faso, Angola (Rural and Urban regions in each country) Sample: (n=24,898) AGYW married or cohabiting with a partner Recruitment: Household, DHS stratified dual-stage sampling	DHS Healthcare Decision-Making Survey Questions and Response Options: Who usually makes decisions about health care for yourself? - <i>Respondent, Husband/partner, Respondent and husband/partner jointly, Someone else, Other</i> Categorization: Respondent Alone / Respondent and Others	Variable: Unmet Need for Contraception Survey Questions and Response Options: Discussion of unmet need for contraception to obtain the following responses - <i>Never had sex, Unmet need for spacing, Unmet need for limiting, Using for spacing, Using for limiting, No unmet need, Not married and no sex in last 30 days, or Infecund/menopausal</i> Categorization: Binary 0 = No unmet need (No unmet need, Using contraception for spacing or limiting) 1 = Unmet need (Unmet need for spacing or limiting)	Outcome: Unmet Need for Contraception Association with DM: <i>Respondent Alone</i> - [AOR = 1.10; 95% CI (1.01, 1.21)] Key Finding: Female-alone decision-making predicted poorer contraceptive use outcomes than joint decision-making.
Sougou NM, Bassoum O, Faye A, Leye MMM. Women's autonomy in health decision-making and its effect on access to family planning services in Senegal in 2017: a propensity score analysis. BMC Public Health. 2020;20(1):872.	Year of Data Collection: 2017 Region: Senegal (Rural and Urban regions) Sample: (n=8,865) Women aged 15-49 years Recruitment: Household, DHS dual-stage stratified sampling	DHS Healthcare Decision-Making Survey Questions and Response Options: Who usually makes decisions about healthcare for yourself? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i> Categorization: Has Autonomy Over Decision-Making for Health / Does Not Have Autonomy Over Decision-Making for Health	Variable 1: Current Contraceptive Use Variable 2: Unmet Need for Contraception Survey Questions and Response Options: Not specified. Categorization: 1) Currently Uses a Contraceptive / Does Not Use a Contraceptive Method 2) Existence of Unmet Need for Contraception / No Unmet Need for Contraception	Outcome 1: Current Contraceptive Use Association with DM: No significant difference. Outcome 2: Unmet Need for Contraception Association with DM: <i>Autonomy Over Decision-Making for Health</i> - 14.43% decrease, p<0.05 Key Finding: Women with autonomy over their own healthcare decisions had reduced prevalence of unmet need for contraception, compared to those without autonomy over their own healthcare decisions.
Lamidi EO. State variations in women's socioeconomic status and use of modern contraceptives in Nigeria. PLoS One. 2015;10(8):e0135172.	Year of Data Collection: 2013 Region: Nigeria (Rural and Urban regions) Sample: (n=18,910) Sexually active married/cohabiting women Recruitment: Household, DHS dual-stage stratified sampling	DHS Healthcare Decision-Making Survey Questions and Response Options: Who usually makes decisions about healthcare for yourself? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i> Categorization: Women alone / Jointly with partner	Variable: Current Use of Modern Contraception Survey Questions and Response Options: 1) Are you currently doing something or using any method to delay or avoid getting pregnant? - <i>Yes/No</i> 2) (If using current method of contraception) Which method are you using? - <i>Female sterilization, Male sterilization, IUDs, Injectables, Implants, Pill, Condom, Female Condom, Diaphragm, Foam/Jelly, LAM, Rhythm, Withdrawal, Other modern method, Other traditional method</i> Categorization: Use / Non-Use Modern contraceptives defined as - Female	Outcome: Current Use of Modern Contraception Association with DM: <i>Woman alone</i> - [OR=1.02, p<0.01] Key Finding: Women making their own healthcare decisions had an increased odds of using modern contraception.

			sterilization, IUDs, Implants, OCPs, Condoms, Injectables, Diaphragm, Foam/Jelly, LAM	
Mboane R, Bhatta MP. Influence of a husband's healthcare decision making role on a woman's intention to use contraceptives among Mozambican women. <i>Reprod Health</i> . 2015;12:36.	Year of Data Collection: 2011 Region: Mozambique (Rural and Urban regions) Sample: (n=7,022) Women aged 15-49 years Recruitment: Household, DHS stratified dual-stage sampling	DHS Healthcare Decision-Making Survey Questions and Response Options: Who usually makes decisions about healthcare for yourself? - <i>Respondent, Husband/partner, Respondent and husband/partner jointly, Someone else, Other</i> Categorization: Respondent alone or jointly / Husband or partner alone	Variable: Woman's Future Intention to Use Modern Contraceptives Survey Questions and Response Options: Are you thinking about using any contraceptive method to delay or avoid getting pregnant in the future? - <i>Plan to use the methods within the next 12 months, Plan to use the methods in the future with no time specified, Unsure about use, Does not intend to use the methods</i> Categorization: a) Intended to use the methods in the future b) Did not intend to use the methods (Those who were unsure were excluded.)	Outcome: Woman's Future Intention to Use Modern Contraceptives Association with DM: <i>Husband or partner alone</i> - [AOR=0.81; 95% CI (0.73,0.89)] Key Finding: Women whose husband/partner alone made decisions about her healthcare were less likely to intend to use contraceptives.
Anasel MG, Haisma H. Variation in contraceptive prevalence rates in Tanzania: A multilevel analysis of individual and regional determinants. <i>Sex Reprod Healthc</i> . 2020;25:100517.	Year of Data Collection: 2010 Region: Tanzania (Rural and Urban regions) Sample: (n=1,148) Women aged 15-49 years, and their husbands Recruitment: Household, DHS stratified dual-stage sampling	DHS Healthcare Decision-Making Survey Questions and Response Options: Final say on own health? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i> Categorization: Respondent Alone / Respondent and Partner / Husband Alone or Someone Else	Variable: Contraceptive Use Survey Questions and Response Options: Questions Not Specified. - <i>Non-User, User of Natural Methods, User of Permanent Methods, and User of Temporary Methods</i> Categorization: User / Non-User	Outcome: Contraceptive Use Association with DM: <i>Final Say on Own Health</i> - No significant association. Key Finding: There was no significant association between a woman's ability to make final decisions on her own health and her contraceptive use.
Islam AZ, Mostofa MG, Islam MA. Factors affecting unmet need for contraception among currently married fecund young women in Bangladesh. <i>Eur J Contracept Reprod</i>	Year of Data Collection: 2011 Region: Bangladesh (Rural and Urban regions) Sample: (n=4,982) Currently married fecund women aged 13-24 years Recruitment: Household, DHS stratified multistage cluster sampling	DHS Decision-Making on Child Healthcare Survey Questions and Response Options: Who has the final say on decisions regarding child healthcare? - <i>Respondent, Respondent and Husband Jointly, Husband/Partner, Someone else, Other</i>	Variable: Demand for Contraception Survey Questions and Response Options: Not specified. Categorization: 1) Met Need for Contraception [Reference], 2) Unmet Need for Contraception, 3) No Demand for Contraception	Outcome 1: Demand for Contraception (Unmet need for contraception) Association with DM: Respondent and Husband Jointly - [RRR: 0.341, 95% CI (0.250, 0.464), p<0.001] Husband - [RRR: 0.438, 95% CI (0.312, 0.616), p<0.001] Respondent (Wife-only) was not significantly associated.

Health Care. 2016;21(6):443-8.		Categorization: Same as response options. [Reference = Other]	"Women, who were using contraceptives during the survey, were considered as having met need for contraception and those women, who neither use any contraceptive nor want to limit or to postpone birth, were considered to have no demand for contraception."	<p>Outcome 2: Demand for Contraception (No demand for contraception)</p> <p>Association with DM: <i>Respondent</i> - [RRR: 0.551, 95% CI (0.387, 0.784), p<0.01] <i>Respondent and Husband Jointly</i> - [RRR: 0.397, 95% CI (0.311, 0.507), p<0.001] <i>Husband</i> - [RRR: 0.472, 95% CI (0.356, 0.625), p<0.001] <i>Someone else</i> - [RRR: 0.689, 95% CI (0.507, 0.935), p<0.05]</p> <p>Key Finding: Joint and husband-only decision-making on child healthcare was associated with a decreased risk of unmet contraceptive need.</p>
Austin A. Unmet contraceptive need among married Nigerian women: an examination of trends and drivers. Contraception. 2015;91(1):31-8.	<p>Year of Data Collection: 2003, 2008, and 2013 Region: Nigeria (Rural and Urban regions) Sample: (n=54,873) Married women Recruitment: Household, DHS stratified dual-stage sampling</p>	<p>DHS Healthcare Decision-Making</p> <p>Survey Questions and Response Options: Who usually makes decisions about healthcare for yourself? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Other</i></p> <p>Categorization: Woman Involved in Decisions on Her Health / Woman Not Involved [Reference]</p>	<p>Variable: Unmet Contraceptive Need</p> <p>Survey Questions and Response Options: Not Specified.</p> <p>Categorization: Unmet Need / No Unmet Need</p> <p>Unmet Contraceptive Need defined as a) unmet need for spacing childbirth or b) for limiting fertility.</p>	<p>Outcome 1: Unmet Contraceptive Need (Spacing)</p> <p>Association with DM: <i>Woman involved in decisions on her health</i> - [AOR = 0.85, 95% CI (0.79, 0.92), p<0.001]</p> <p>Outcome 2: Unmet Contraceptive Need (Limiting)</p> <p>Association with DM: <i>Woman involved in decisions on her health</i> - [AOR = 1.07, 95% CI (0.96, 1.19), p<0.001]</p> <p>Key Finding: Women involved in decisions on their own health had a lower likelihood of having unmet contraceptive need for spacing childbirth.</p>

3. Household Decision-Making including Decisions on Care of Children (n=2; 6.9%)

Authors, Citation	Sample, Recruitment, Regions, Year of Data Collection	Decision-Making Variables and Construction	Contraceptive Outcomes	Key Findings with Statistical Results

Hamid S, Stephenson R, Rubenson B. Marriage decision making, spousal communication, and reproductive health among married youth in Pakistan. Glob Health Action. 2011;4:5079.	Year of Data Collection: 2001-2002 Region: Pakistan (Nationally representative adolescent and youth sample) Sample: (n=1,803) Married women aged 15-24 years Recruitment: Households, Two-staged stratified sampling (rural and urban primary sampling units) via Population Council	Household (Economic and Children) Decision-Making Beliefs/Perceptions (Combined Index) Survey Questions and Response Options: Who should be responsible for the following decisions: 1) Spending household earnings, 2) Schooling of boys and girls, 3) Women working for an income, 4) Whether boys should be allowed to go abroad, and 5) Marriage of children? Categorization: Scored 0-15, where 0 is assigned to decisions made by the woman only (Lower score indicates greater involvement in decision-making).	Variable 1: Current Use of Contraceptives Variable 2: Intention to Use Contraceptives in the Future Survey Questions and Response Options: Not specified. Categorization: Binary (Yes/No)	Outcome 1: Current Use of Contraceptives Association with DM: <i>Decision-making index</i> - No statistically significant association. Outcome 2: Intention to Use Contraceptives in the Future Association with DM: <i>Decision-making index</i> - [OR=0.93; 95% CI (0.89, 0.98), p<0.05] Key Finding: Greater female involvement in household/marital decision-making increases the likelihood of intention to use contraceptives in the future.
Fogarty MJ. Impacts of Contraception on Women's Decision-Making Agency in Indonesia. 1 ed: Undergraduate Economic Review; 2018.	Year of Data Collection: 1997, 2000, and 2007 Region: Indonesia (Urban and Rural regions) Sample: (n=6,663 observations) Women aged 19-50 who identify as 1) The head of the household or 2) The spouse of the head of the household Recruitment: Household, Sample data collected via the Indonesian Family Life Survey (IFLS)	Household (Meal Planning, Economic, Clothing, Children, Familial Support, Socializing, Work) Decision-Making (Combined Index) Survey Questions and Response Options: Who makes decisions about (list all individuals who have input): a) Choice of food eaten at home, b) Routine purchases for household items such as cleaning supplies, c) Your clothes, d) Your spouse's clothes, e) Your children's clothes, f) Your children's education, g) Your children's health, h) Large expensive purchases for the household, i) Giving money to your family, j) Giving money to your spouse's family, k) Gifts for parties/weddings, l) Money for monthly arisan (savings lottery), m) Money for monthly savings, n) Time the husband spends socializing, o) Time the wife spends socializing, p) Whether you and your spouse work? - <i>Head of household, Spouse, Parents, Siblings, Others</i> Categorization: Summation +1 each Woman-only decision, +0.5 each Joint decision, and 0 for lack of female involvement in the decision.	Variable 1: Current Use of Contraception Variable 2: Use of a Modern Contraceptive Survey Questions and Response Options: Current method of contraception - <i>Pill, Injection (Monthly), Injection (Bi-monthly), Injection (Quarterly), Intravaginal ring, Condom, IUD, Implant, Female sterilization, Male sterilization, Rhythm/calendar, Coitus interruptus, Traditional herbs, Traditional massage, Female condom, Other</i> Categorization: 1) Use of any form of contraceptive (1) / Non-user (0) 2) Use of modern contraceptive (1) / Non-user (0) Modern contraceptives defined as - Pill, Injections, Intravaginal ring, IUD, Implant, Female and Male sterilization	Outcome 1: Current Use of Contraception Association with DM: <i>Decision Sum</i> - [Coefficient=0.976 (0.129), p<0.01], Gain of involvement in 2 additional decisions. Household decision-making sum was higher by 0.41 in women Using any form of contraceptive vs. Non-Users (p<0.01). Outcome 2: Use of a Modern Contraceptive Association with DM: <i>Decision Sum</i> - [Z-Score 0.246 (0.034), p<0.01] Key Finding: Women who have higher household decision-making agency are more likely to report current contraceptive use

4. Household Decision-Making including Meal Planning (n=2; 6.9%)

Authors, Citation	Sample, Recruitment, Regions, Year of Data Collection	Decision-Making Variables and Construction	Contraceptive Outcomes	Key Findings with Statistical Results
Mutumba M, Wekesa E, Stephenson R. Community influences on modern contraceptive use among young women in low and middle-income countries: a cross-sectional multi-country analysis. BMC Public Health. 2018;18(1):430.	Year of Data Collection: 2008-2016 Region: 52 LMICs (Rural and Urban Regions) Sample: (n=471) Women aged 15-24 Recruitment: Household, DHS stratified dual-stage sampling	DHS Household (Healthcare, Mobility, Economic, Meal Planning) Decision-Making (Combined Index) Survey Questions and Response Options: Who has the final say in: 1) Respondent's own healthcare, 2) Making large purchases, 3) Household purchases for daily needs, 4) Visits to family or relatives, 5) Food cooked daily? Categorization: 5-item scale based on respondent's final say in each category (Scored 0-5)	Variable: Modern Contraceptive Use Survey Questions and Response Options: 1) Are you currently doing something or using any method to delay or avoid getting pregnant? - <i>Yes/No</i> 2) (If using current method of contraception) Which method are you using? - <i>Female sterilization, Male sterilization, IUDs, Injectables, Implants, Pill, Condom, Female Condom, Diaphragm, Foam/Jelly, LAM, Rhythm, Withdrawal, Other modern method, Other traditional method</i> Categorization: Use of modern contraceptives/ No use of modern contraceptives Modern contraceptives defined as - OCPs, Injectables, Implants, Male or female condoms, Male or female sterilization, Foam, Jelly	Outcome: Modern Contraceptive Use Association with DM: <i>Mean Household Decision-Making Autonomy Score</i> - [AOR=1.020; 95% CI (1.01, 1.03)] Key Finding: Greater decision-making autonomy is associated with an increased likelihood of using a modern contraceptive.
Reed MN. Reproductive transitions and women's status in Indian households. Popul Stud (Camb). 2021:1-17.	Year of Data Collection: 2011-2012 Region: India (1,504 Villages and 971 Urban blocks - Nationally representative sample) Sample: (n=19,263) Women aged 15-49, have been married Recruitment: Households, Indian Human Development Survey (IHDS), Stratified random sampling	Household (Meal Planning and Economic) Decision-Making Survey Questions and Response Options: 1a) Please tell me who in your family decides the following things: What to cook on a daily basis, 2) Whether to buy an expensive item such as a TV or fridge? - <i>Respondent, Husband, Senior Male, Senior Female, Others, N/A or No one</i> 1b) Who has the most say in the following: 1) What to cook on a daily basis, 2) Whether to buy an expensive item such as a TV or fridge? - <i>Respondent, Husband, Senior Male, Senior Female, Others, N/A or No one</i> 3) Do you yourself have any cash in hand to spend on household expenditures? - <i>Yes/No</i> Categorization: Responses indicating that the wife has the "Most Say" in Cooking decisions and Large purchases, Participated	Variable: Adoption of Permanent Contraception Survey Questions and Response Options: [If using contraception] Which method are you using? - <i>Oral pill, IUD, Diaphragm/Jelly, Injectable, Condom, Female sterilization, Male sterilization, Periodic abstinence, Withdrawal, Hysterectomy, Others</i> Categorization: Uses Permanent Contraception (tubal ligation or hysterectomy) / Not using permanent contraception	Outcome: Adoption of Permanent Contraception Association with DM: <i>Most say (Female) in Cooking decisions</i> - [OR = 1.26; 95% CI (1.05, 1.50), p<0.05] <i>Participates in Large purchase decisions</i> - [OR = 1.17; 95% CI (1.00, 1.38), p<0.1] <i>Most say in Large purchases or Access to household cash</i> - no statistically significant association with permanent contraception. Key Finding: Female influence in some household decisions is associated with an increased odds of permanent contraceptive uptake.

		in Large purchases, or has Access to cash for household expenses were used for analyses.		
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5. Modified DHS Measure - Economic and Mobility Decision-Making (n=1; 3.5%)

Authors, Citation	Sample, Recruitment, Regions, Year of Data Collection	Decision-Making Variables and Construction	Contraceptive Outcomes	Key Findings with Statistical Results
Uddin J, Hossin MZ, Pulok MH. Couple's concordance and discordance in household decision-making and married women's use of modern contraceptives in Bangladesh. BMC Womens Health. 2017;17(1):107.	Year of Data Collection: 2007 Region: Bangladesh (Rural and Urban regions) Sample: (n=3,336) Married couples Recruitment: Household, DHS stratified dual-stage sampling	DHS Concordance on Household (Economic and Mobility) Decision-Making (Combined Index) Survey Questions and Response Options: 1) Who usually makes decisions about making major household purchases? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 2) Who usually makes decisions about making purchases for daily household needs? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> 3) Who usually makes decisions about visits to your family or relatives? - <i>Respondent, Husband/Partner, Respondent and Husband/partner jointly, Someone else, Other</i> Categorization: 1) Wife-only, 2) Husband-only, 3) Joint, 4) Other Responses cross-tabulated to determine spouse concordance. [Joint decision-making category used as reference value.]	Variable: Current Modern Contraceptive Use Survey Questions and Response Options: 1) Are you currently doing something or using any method to delay or avoid getting pregnant? - <i>Yes/No</i> 2) (If using current method of contraception) Which method are you using? - <i>Female sterilization, Male sterilization, IUDs, Injectables, Implants, Pill, Condom, Female Condom, Diaphragm, Foam/Jelly, LAM, Rhythm, Withdrawal, Other</i> Categorization: User of any modern contraceptive method / Not using any modern method Modern contraceptives defined as - OCPs, Injectables, Implants, Male or female condoms, Male or female sterilization	Outcome: Current Modern Contraceptive Use Association with DM: <i>Husband-only</i> - [OR = 0.49; 95% CI (0.28, 0.85)] Wife-only decisions were not significantly associated with contraceptive use outcomes. Key Finding: Husband-only decisions in all three decision categories were associated with lower odds of contraceptive use than joint decision-making.