

Capturing family planning data through population-based household surveys: A systematic review of World Fertility Survey, Contraceptive Prevalence Survey, Reproductive Health Survey, Demographic and Health Survey, PMA2020 Survey questionnaires

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Background

World Fertility Surveys, Contraceptive Prevalence Surveys, Reproductive Health Surveys, Demographic and Health Surveys, PMA2020 Surveys—for more than 40 years, the international family planning (FP) community has invested in and consumed data collected through population-based household surveys. These data have provided a wealth of key information, including contraceptive prevalence, unmet need, demand satisfied, and more. Family planning is once again gaining prominence—through the auspices of FP2020, the Ouagadougou Partnership, and the Sustainable Development Goals—and the time is ripe for taking stock of FP information needs and data sources. As a starting point for this endeavor, we examine the history of FP measurement via household surveys, focusing on understanding the universe of FP data captured, the rationale for modifications to the survey instruments, and what we have lost and gained over the years as a result of such changes.

Our study objectives are to: 1) document the questions employed for FP data collection via five large-scale household surveys—World Fertility Surveys (WFS), Contraceptive Prevalence Surveys (CPS), Reproductive Health Surveys (RHS), Demographic and Health Surveys (DHS), and PMA2020 surveys; 2) document changes to those questions and sets of questions, as well as the rationale for those changes; and 3) identify directions for enhancing FP measurement in population-based household surveys. We will start by providing a brief history of each of the survey platforms.

Methods

We examined core women’s questionnaires to document questions employed for FP data collection in WFS (1979 core), CPS (1978 core, Thailand), RHS (2008 core, Jamaica), DHS (1984-current, Phases 1-6), and PMA2020 (2013 core, Ghana), identify questions that were unique to a specific survey or timeframe, and identify questions that remained relatively constant across instruments. We will also undertake a literature review to identify how data from “unique” questions were used and analyzed in peer reviewed literature and document these data’s contribution or lack thereof. Thereafter, we will conduct qualitative interviews with WFS, CPS, RHS, DHS, and PMA2020 survey experts and major stakeholders to understand the history behind questionnaire development and modification, including why questions were added, dropped, or revised. We will also solicit their suggestions for future questionnaire development and improvement.

Expected Findings

There are many commonalities and several important differences between FP data collected through all five survey platforms, including data collected through all six phases of the DHS Program (1984-present). In terms of commonalities, all programs collected data on current use of contraception; current use of contraception by method; ever use of contraception; current method source (place); knowledge of where to get FP methods; and reasons for not using contraception (Table X, forthcoming). All surveys but the CPS collected information about future intention to use FP. All surveys but PMA2020 collected information on knowledge of specific contraceptive methods. A number of surveys collected

information about cost (Table 1), though the type of information collected varied greatly across platforms and between DHS phases.

Especially striking is the number of differences between platforms as well as between the six DHS phases. Three DHS phases (3-5), focused more heavily on attitudes towards FP than any other surveys, incorporating questions about partner communication, husband's attitudes, respondent's attitudes, and more. Meanwhile, DHS Phases 4-6 and PMA2020 incorporated a full set of questions about knowledge of side effects that had previously been omitted. Unlike all other surveys, one DHS phase (Phase 3), incorporated a number of questions about the respondent's perception of breastfeeding as a method of contraception. Similarly, only the RHS platform collected information about clinic hours and convenient clinic service times; and only the WFS platform collected data on intention to return to the respondent's last FP service delivery point. Across all five platforms and all six DHS phases, a number of "why" questions were asked (Table 2) and subsequently dropped or modified with one exception—reasons for not using contraception, the response codes for which were modified over time.

Through questionnaire changes over time, we also observe changes in service delivery, methods available, and programmatic areas of focus. For example, in DHS Phase 3 and after, questions about visits from a field worker were introduced, highlighting the field's increased focus on community-based service delivery. The progression of contraceptive knowledge questions over time highlights the increasing availability of certain methods—addition of knowledge questions on injectables and emergency contraception, for example—and decreasing availability of others—omission of knowledge questions on contraceptive sponge, for example. Additionally, the fluctuating emphasis on different barriers to contraceptive access—collection of data on distance to service delivery point in early surveys and contraceptive decision-making power in later surveys, for example—speaks to the FP field's perceptions about the key drivers of contraceptive uptake. And the seemingly cyclical inclusion, exclusion, and inclusion of questions on preferred method reflects the increasing, decreasing, increasing emphasis on contraceptive choice.

With regard to our literature review, we expect to find underutilization in peer reviewed literature of one-off questions, like those breastfeeding as contraception questions incorporated in DHS Phase 3, and heavy reliance in the literature on data collected through questions that have varied little over time, like reasons for not using. We expect to learn from qualitative interviews the rationale for questionnaire changes, recognizing that some questions were dropped because of limited use and because of the growth in other topic areas that forced prioritization. For a few questions, we expect to learn that they are worth exploring again, (re)analyzing, and potentially reincorporating into household-based surveys like DHS or PMA2020. Such topics could include questions about service satisfaction, interest in permanent methods, and description of problems experienced with current method. Key informants who helped to implement each of the five survey platforms will provide data to inform not only the history of questionnaire development and revision, but suggestions for future directions.

Table 1. Measuring contraceptive cost.

FP Cost				
WFS (1979 core)	CPS (Thailand core)	RHS (Jamaica core)	DHS (Phases 1-6)	PMA2020 (Ghana core)
324. How much do you think XXX may cost there?	210. How much does XXX cost there? 221. How much does (did) XXX cost you there?	537. Do you or your partner pay for the contraceptive method you use now?	Phase 1. 316. How much does a packet (cycle) of pills cost you? Phase 2. 320. How much does a packet (cycle) of pills cost you? Phase 3. 317. How much does a packet (cycle) of pills cost you? Phase 5. 315. The last time you obtained XX method, how much did you pay in total, including the cost of the method and any consultation you may have had? Phase 5. 318. How much did you (or your husband) pay in total for the sterilization, including any consultation you (he) may have had?	33. In the last 12 months, have you paid any fees for family planning services (including the most recent/current method)? How much did you pay? (Q34)

Table 2. Respondent's Reasons Why and Why Not

	331. Why is it that you will not go back there in the future? <open ended response>
WFS (1979 core)	333. Why is it that you decided not to <use contraception>? <open ended response>
	216. Could you tell me why you do not have any <pills> in the house now? <open ended response>
CPS (Thailand core)	222. What is your main reason for not using a family planning method? <open ended response>
	543. What is the most important reason why you do not use your preferred method? <doctor will not prescribe it; cost; not available/difficult access/unreliable source; source too far away; don't know how/where to obtain it; husband/partner objects to it' religious reasons; fear of side effects; still thinking about it/has not made up her mind; difficult to use; fear of surgery; other, specify; don't know>
	526. Are you satisfied with the sterilization operation? Why not? <had severe side effects from operation; operation has caused complications; decreased sexual enjoyment; desires more children because child(ren) died; would like another child; husband/partner treats her differently; has different husband/partner; now she thinks sterilization is morally wrong; other, specify; does not know>
	553. What is the main reason why you think you cannot get pregnant? <does not have a partner/no sexual relations; respondent currently is breastfeeding/postpartum; pelvic inflammatory disease; hormonal dysfunction; hysterectomy; premenopause/menopause; ovarian cysts/dysfunction; both tubes removed or obstructed; did not succeed to get pregnant in the last two years; partner is infertile; currently uses a method (go back and correct section); other, specify; does not know; refuses to answer.
	554. Why are you and your partner not using a method to prevent pregnancy? <no sexual relations; health/medical reasons; postpartum/breastfeeding; respondent opposes contraceptives; partner opposes; partner wants her to become pregnant; health concerns; fear of side effects; sources far away; lack of knowledge of methods; lack of knowledge of a source; lack of access/too far; can't afford cost; health care provider/pharmacist won't give them; religion against; fatalistic; other, specify; not sure>
	564. Why would you not be interested in this operation? <health risks/fear of side effects; fear of operation; thinking about it; plans for her/partner to have sterilization soon; too young; too old; not sexually active/no partner; partner opposes; might want another child; lack of information about the method or where to obtain it; medical facility too far away; cost/lack of money to pay for it; doctor refused to do the operation/adviced against it; religious reasons; prefers or uses other contraceptive methods; other, specify; does not know>
RHS (Jamaica core)	
	Phase 1. 305. In your opinion, what is the main problem, if any, in using XXX method? <not effective; husband disapproves; health concerns; access/availability; costs too much; inconvenient to use; method permanent; other, specify; none; don't know>
	Phase 1. 320. Was there anything you particularly disliked about the services you received there? If yes, what? <wait too long; staff too discourteous; services expensive; desired method unavailable; other, specify; no complaints>
	Phase 1. 325. What is the main problem you experienced <using current method>? <method failed; husband disapproved; health concerns; access/availability; cost too much; inconvenient to use; other, specify; DK>
	Phase 1. 332. (follows in contraceptive calendar for phases 2-6) What was the main reason you stopped using (method before current) then? <method failed; husband disapproved; health concerns; access/availability; cost too much; inconvenient to use; infrequent sex; to use permanent method; fatalistic; other, specify; DK>
DHS Phase 1	Phase 1. 523. What is the main reason that you are not using a method? <lack of knowledge; opposed; husband disapproves; health concerns; access/availability; costs too much; inconvenient to use; infrequent sex; fatalistic; religion; postpartum/breastfeeding; menopausal/subfecund; other, specify; DK>
	Phase 2. 340. What is the main reason you do not intend to use a method? <wants children; lack of knowledge; partner opposed; costs too much; side effects; health concerns; hard to get methods; religion; opposed to FP; fatalistic; other people opposed; infrequent sex; difficult to get pregnant; menopausal/had hysterectomy; inconvenient; not married; other, specify; DK>
	Phase 2. 326. What is the main reason that you decided to use <current method> rather than some other method of family planning? <recommendation of FP worker; recommendation of family/friend; side effects of other methods; convenience; access/availability; cost; wanted permanent method; husband preferred; wanted more effective method; other, specify; DK>
	Phase 2. 328. What is the main problem? <husband disapproves; side effects; health concerns; access/availability; cost; inconvenient to use; sterilized, wants children; other, specify; DK>
DHS Phase 2	Phase 2. 609. Why do you regret the operation? <respondent wants another child; partner wants another child; side effects; child died; other, specify>
	Phase 3. 320. Why do you regret the operation? <respondent wants another child; partner wants another child; side effects; child died; other, specify>
	Phase 3. 330. People select the place where they want to get family planning services for various reasons. What was the main reason you went to <PLACE MENTIONED> instead of some other place you know about? <closer to home; closer to market/work; availability of transport; staff more competent/friendly; cleaner facility; offers more privacy; shorter waiting time; longer hours of operation; use other services at the facility; lower cost/cheaper; wanted anonymity; other, specify; DK>
	Phase 3. 331. What is the main reason you are not using a method of contraception to avoid pregnancy? <not married; not having sex; infrequent sex; menopausal/hysterectomy; subfecund/infecund; postpartum/breastfeeding; wants (more) children; pregnant; respondent opposed; husband opposed; others opposed; religious prohibition; knows no method; knows no source; health concerns; fear of side effects; lack of access/too far; costs too much; inconvenient to use; interferes with body's normal processes; other, specify; DK>
DHS Phase 3	610. SIMILAR-- What is the main reason you think you will never use a method? <same choices as above>
	Phase 4. 607. Can you tell me why you are not using a method to prevent pregnancy? <not married; not having sex; infrequent sex; menopausal/hysterectomy; subfecund/infecund; postpartum amenorrheic; breastfeeding; fatalistic; respondent opposed; husband/partner opposed; others opposed; religious prohibition; knows no method; knows no source; fear of side effects; health concerns; lack of access/too far; costs too much; inconvenient to use; interferes with body's normal processes; other; DK>
DHS Phase 4	612. SIMILAR-- What is the main reason you think you will not use a contraceptive method in the future? <same choices as above>
	Phase 5. 707. Can you tell me why you are not using a method to prevent pregnancy? <not married; not having sex; infrequent sex; menopausal/hysterectomy; subfecund/infecund; postpartum amenorrheic; breastfeeding; fatalistic; respondent opposed; husband/partner opposed; others opposed; religious prohibition; knows no method; knows no source; fear of side effects; health concerns; lack of access/too far; costs too much; inconvenient to use; interferes with body's normal processes; other; DK>
DHS Phase 5	711. SIMILAR-- What is the main reason you think you will not use a contraceptive method in the future? <same choices as above>
	Phase 6. 709. Can you tell me the main reason why you are not using a method to prevent pregnancy? <not married; not having sex; infrequent sex; menopausal/hysterectomy; can't get pregnant; not menstruated since last birth; breastfeeding; up to God/fatalistic; respondent opposed; husband/partner opposed; others opposed; religious prohibition; knows no method; knows no source; side effects/health concerns; lack of access/too far; costs too much; preferred method not available; inconvenient to use; interferes with body's normal processes; other; DK>
DHS Phase 6	
	43. Can you tell me the main reason why you are not using a method to prevent pregnancy? <not married; not having sex/infrequent sex; menopausal/hysterectomy; subfecund/infecund; not menstruated since last birth; breastfeeding; husband away for multiple days; up to God/fatalistic; respondent opposed; husband opposed; others opposed; religious prohibition; knows no method; knows no source; health concerns; fear of side effects; lack of access/too far; costs too much; preferred method not available; inconvenient to use; interferes with body's processes; other; DK>
PMA2020 (Ghana core)	

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