# The National Composite Index for Family Planning (NCIFP)

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Further, FP2020, through their Performance, Measurement, and Evidence (PME) and Rights and Empowerment (RE) Working Groups, provided technical oversight and guidance to the development of the NCIFP. We gratefully acknowledge the support provided by these partners.

## Want to learn more?

Explore the NCIFP data and downloand an interactive discussion guide at www.track20.org

# **Executive Summary**

A new survey has been completed of 90 developing countries<sup>1</sup> to measure levels and types of effort for a range of reproductive health indicators, termed the NCIFP (National Composite Index for Family Planning). It falls under the FP2020 initiative and was implemented as part of the latest (2014) round of the long running series, the National Family Planning Effort Index (FPE).

This report presents the main findings of the survey together with analyses to reduce the length of the questionnaire and to search for underlying factors imbedded in the NCIFP data. Most results reported here are for the reduced questionnaire, of 35 items, down from the 69 questions in the NCIFP survey itself. Of the 35 items some are drawn from the FPE and the others from the NCIFP original questionnaire.

The total score for the NCIFP is the average of the 35 individual scores for each country. They are organized under the five dimensions of Strategy, Data, Quality, Equity, and Accountability. The overall score, averaged over all countries (unweighted), is 53, or about half of the maximum possible (representing very strong effort on all criteria). For the five dimensions respectively the unweighted averages are 61, 52, 53, 57, and 39, so the range is considerable, with strategy scoring the highest, and accountability scoring the lowest, a 23-point gap.

Regions differ considerably: interestingly both Francophone and Anglophone sub-Saharan Africa score above the other regions on the total score, and come at or near the top on all five dimensions. Next, in order toward lower total scores, come Asia, Asia without China and India, Latin America, the Middle East/North Africa, and Eastern Europe and Central Asia. The total regional range is from 58 to 46. Note that the ranking is nearly the same with scores weighted by population.

Despite these average differences on the total score, the regions follow similar patterns across the 35 scores: they tend to move together, rising and dipping together, agreeing largely on which scores are ranked higher and which ones lower. This suggests a commonality in what programs find it easier and harder to do, inviting future research into these similarities.

In order to further explore the variation across countries and individual scores, detailed results are presented on each of the following:

- (a) Within each region, the ranking of all countries on the total score,
- (b) For each of the 35 scores, across all countries, the average deviation from the mean (varies from about 10% to nearly 25%)
- (c) Following (b), a ratio to show the average deviation divided by the mean, since in (b) a low mean restricts the amount of deviation possible (ratio varies from 0.14 to about 0.66)

Contraceptive use tends to be higher where the NCIFP total score is higher; this occurs within both the SSA and Non-SSA regions. As well, fertility levels tend to be lower where the total score is higher. While the gradients are in the right direction the correlations are rather modest, reflecting confounding influences. With the completion of a second round of the NCIFP it would be feasible to track changes within each country rather than relying on a cross-sectional approach.

A different analysis found that a higher score on the equity dimension is accompanied by a smaller gap between the poorest and richest wealth quintiles in contraceptive use. That is true for both the SSA countries and the non-SSA countries. Further analysis also explores the correlations between the NCIFP and the FP2020 Core Indicators.

Finally, a series of additional analyses are also included to provide a more indepth look at the results of the NCIFP, this includes a Principal Components analysis, a Clustering analysis, and an analysis of question response rates.

<sup>&</sup>lt;sup>1</sup> Results in this paper are for 89 countries, Tunesia was excluded from the analysis due to high non-response rates on the NCIFP questions.

#### Introduction

A new measure was developed to support FP2020 measurement efforts to capture key areas related to the enabling and policy environment, entitled "The National Composite Index for Family Planning (NCIFP)." The implementation of this questionnaire took advantage of the timing of the 8th cycle of the "Family Planning Program Effort Index" (FPE), planned for 2014. The NCIFP questionnaire was added at the end of the FPE questionnaire, so data were gathered on both instruments in all countries. The intention was to build on the standard FPE questions, adding items to capture areas not fully covered by the FPE; these pertained especially to issues related to rights, quality, and accountability.

Sixty-nine questions were added to the FPE questionnaire, under five topics: strategy, data, quality, equity, and accountability. These related both to having policies or systems/standards in place, and actual implementation of the policies and systems/standards. The process of producing the final list of questions was consultative and included many partners, such as FP2020 working groups (both the PME and RE), donors (USAID and UNFPA) and various implementation partners. It consisted of one in-person meeting that decided the main dimensions to be included in the questionnaire, as well as the subordinate topics to fall under each dimension. Development and approval of the final questions was done by email exchanges among the concerned agencies.

Funding for the fielding of the questionnaire was shared between USAID (through Health Policy Project, implemented by Futures Group) and the Bill and Melinda Gates Foundation (through Avenir Health). The countries in the study were divided between these two executing agencies; Futures Group was responsible for those countries in which USAID was especially active (30 countries), while Avenir Health was responsible for the remainder (60 countries). The development and analysis of the NCIFP results was conducted by Avenir Health's Track20 project, with funding from the Bill and Melinda Gates Foundation.

The study was directed to most developing countries starting with all those over 1 million population. Some in the former Soviet Union were included such as Ukraine, Moldova, and Romania, as well as the three Caucasus countries and the five Central Asia Republics. Exclusions included some that had basically discontinued their family planning programs and have very low fertility, such as Korea, Taiwan, Hong Kong, and Singapore, along with a few middle-income countries with very low fertility rates, and finally, those for whom persistent efforts to obtain replies did not succeed. Responses were obtained from countries accounting of 94% of the developing world, including the large Asian set of China, India, Bangladesh, Pakistan, and Indonesia that alone account for 62% of the total. A total of 90 countries participated, similar to the experience of past cycles of the FPE research. The following table shows the final list, by region<sup>2</sup>.

<sup>&</sup>lt;sup>2</sup> Results in this paper are for 89 countries, Tunesia was excluded from the analysis due to high non-response rates on the NCIFP questions

Table 1: Countries by Regional Grouping

Asia- presented with and without India and China (ASIA)	Latin America and the Caribbean (LAC)	Middle- East/North Africa (MENA)	Anglophone Sub-Saharan Africa (SSAF-A)	Francophone Sub-Saharan Africa (SSAF-F)	Eastern Europe and Central Asia (EECA)
		,	, ,	,	
Afghanistan	Bolivia	Algeria	Cameroon	Benin	Armenia
Bangladesh	Costa Rica	Egypt	Eritrea	Burundi	Azerbaijan
Cambodia	Dominican Republic	Iran	Ethiopia	Chad	Georgia
China	Ecuador	Iraq	Ghana	Congo	Kazakhstan
India	El Salvador	Jordan	Kenya	Cote d'Ivoire	Kyrgyzstan
Indonesia	Guatemala	Lebanon	Lesotho	DR Congo	Moldova
Malaysia	Haiti	Libya	Liberia	Guinea Bissau	Romania
Mongolia	Honduras	Morocco	Malawi	Madagascar	Russia
Myanmar	Jamaica	Oman	Mauritius	Mali	Tajikistan
Nepal	Mexico	Tunisia	Namibia	Mauritania	Turkmenistan
Pakistan	Nicaragua	Turkey	Nigeria	Mozambique	Ukraine
Papua New Guinea	Panama	Yemen	South Africa	Niger	Uzbekistan
Philippines	Paraguay		South Sudan	Rwanda	
Sri Lanka	Peru		Swaziland	Senegal	
Thailand	Trinidad & Tobago		Tanzania	Togo	
Timor-Leste			The Gambia		
Vietnam			Uganda		
			Zambia		
			Zimbabwe		

# Methodology

The study methodology was carried over from the system used in the 1999, 2004, and 2009 FPE cycles.<sup>3</sup> In each country a consultant was retained who was closely familiar with the national family planning program and also with persons who were knowledgeable about it and could gauge the effort levels of its various features. The consultant chose about 10-15 respondents, instructed them in the questionnaire, and followed up to obtain the replies. To obtain a variety of perspectives respondents were sought of four types: some working inside the program, some in local NGO organizations, some in local academic or research organizations, and some working as resident staff of international agencies.

Questionnaire replies were copied and forwarded to the Futures Group or to Avenir Health for data entry, with the tabular information returned to the consultant for possible use within the country. Data were entered in Excel, with checks for consistency with a second round of validations, and checks via the standard deviations of responses across respondents and across items. For questions asked on a scale (e.g. a 1-10 rating), a percentage of the maximum likelihood was calculated to standardize response across countries. The responses from each respondent in a country were averaged obtain a country score for each individual question. The total score, and scores for each domain are calculated from averaging across the individual questions. Analytic techniques included the usual cross-tabulation methods, graphical and regression approaches, and exploratory methods such as principal components analysis and cluster analysis. Both unweighted and weighted regional totals are presented; weighted totals are weighted by the number of women of reproductive age (15-49) in each country in 2015, based on the UN World Population Prospects (2012 Revision).

The questionnaire itself is appended; the first part is the standard FPE instrument; the second part is composed of the new NCIFP questions. This report focuses primarily on the NCIFP results, with a few comparisons to the FPE patterns.

#### **Revision of the Index**

After completing the implementation of the FPE and the added NCIFP questions, an initial NCIFP score was created for each country as a straight average of answers on all 69 questions for 73 countries with available data at the time of analysis. From this initial analysis, revisions to the NCIFP were made. A summary of the process is below; further details regarding changes made are documented later in this section. The sequence of steps was as follows:

- Scores were calculated based on the full set of 69 NCIFP questions (*original*)
- An initial analysis (original) was presented to PME WG at their London meeting (February 2015)
- Avenir Health/Track20 conducted the initial revision of the NCIFP scoring (version 1)
- Revised NCIFP (version 1) was circulated to PME and RE Working Group Members for review
- An in-person meeting was held to review and further revise the scoring (April 28<sup>th</sup> 2015)
- A revised NCIFP (version 2) was sent back to PME and RE Working Group Members for final review
- The final NCIFP scoring (*final version*) was agreed.

Regarding the original NCIFP scores, several observations led to the decision to try modifications. There was a weak relationship between the NCIFP and FPE scores across countries, the vast majority of countries scored higher on the NCIFP than the FPE, and scores were uniformly high across all key areas except accountability, which scored considerably lower. These initial results raised potential concerns about the validity of the index, and to what degree the 69 questions were capturing the intended concepts. The PME Working Group expressed a particular concern about the high score for the 'equity' dimension. In addition, 69 questions seemed to invite respondent fatigue.

Doi: 10.1363/3712511

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<sup>&</sup>lt;sup>3</sup> See Ross, J, and E. Smith, "Trends in National Family Planning Programs, 1999, 2004 and 2009. *Int'l Perspectives on Sexual and Reproductive Health*. 2011, 37(3): 125-133.

Further analysis supported these concerns, highlighting the following challenges:

- 1. **Strong correlation between questions**: analysis found numerous questions among the full set of 69 that were strongly correlated, indicating redundancy and less need for them all.
- 2. **Asking mostly yes/no questions**: Nearly all of the NCIFP questions were in a "yes" or "no" format, so the score for each question simply represented the percent of respondents who said yes. For some questions, a clear cut 'yes' or 'no' answer was hardly feasible, because the question asked about multiple issues, or the answer fell into an intermediate place between the two.
- 3. **Asking about multiple concepts in one question:** numerous questions asked about multiple, or compound items that could conflict, making it difficult for respondents to provide a single answer.
- 4. **Too many questions included**: The NCIFP in its full form included 69 individual questions; this compares to 31 questions in the FPE<sup>4</sup>. Two issues arise: (1) it will be difficult to repeat the questionnaire in the future, or add it again to another survey, given so many questions, and (2) computationally, including so many questions reduces the importance, or "influence," of each question since scores are based on averages. The redundancy among questions argued for a reduced set.

In order to address these issues, an initial revision to the list of NCIFP items was conducted. Because the questionnaire had already been fielded, any changes had to draw from the available responses to it and to the FPE. Future rounds however could revise the questionnaire with less length and other changes. The revision therefore focused on:

- 1. Removing questions that were highly correlated to others
- 2. Removing questions that did not seem to capture the intended topic area
- 3. Replacing yes/no questions with similar questions asked in the FPE on a 1-10 scale to allow finer nuances in responses.

The first revision was conducted by Track20, Avenir Health. The revision resulted in a set of 42 questions to be included, 33 from the original NCIFP questions and 9 from the FPE. This revision was then presented to a group of technical experts from FP2020's Performance, Monitoring and Evidence, and Rights and Empowerment Working Groups. This group reviewed the initial NCIFP revision (*version 1*), either accepting or rejecting each change, and suggested additional revisions. These included creating a single composite score to replace three questions with numerous subtopics — e.g. asking if the Government collects data among many sub-groups (youth, postpartum, rural, etc.). Other suggestions were to include certain FPE questions that seemed relevant to the NCIFP.

The final NCIFP includes 35 individual scores:

- 18 individual questions from the original NCIFP questionnaire
- 3 composite scores based on averages of individual questions from the original NCIFP questionnaire
  - o Does the government collect data to monitor special sub-groups?
  - o Are there policies in place to prevent discrimination towards special sub-groups?
  - o To what extent do service providers discriminate against special sub-groups?
- 12 individual questions from the FPE questionnaire
- 2 composite scores based on averages of individual questions from the FPE questionnaire
  - o Extent to which the entire population has ready access to LAPMs
  - o Extent to which the entire population has ready access to STMs

In the final version, the 35 individual scores fall across the five dimensions as follows:

- Strategy: 6 scores
- Data: 7 scores
- Quality: 12 scores

<sup>4</sup> A total of 49 questions are asked, but only 31 are included in the main FPE score.

• Equity: 5 scores

Accountability: 5 scores

The following table shows the NCIFP scores by dimension from each of the revisions; the overall average score reduced from 61 to 53, with declines seen across all five dimensions.

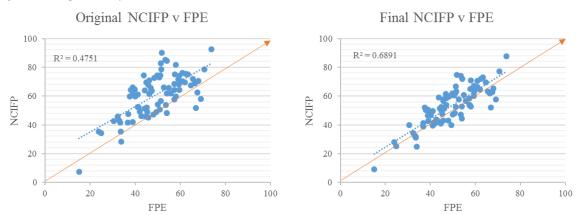
Table 2 Comparison of Scores: Original, Revised (version 1), and Final Scores, by Dimension: Percent of the Maximum

Score (averages for all countries, unweighted)

	Strategy	Data	Quality	Equity	Accountability	Total
Final NCIFP	61.3	51.9	52.6	57.4	38.8	52.7
Revised (v1)	61.3	53.2	48.5	62.7	38.8	53.6
Full set of 69	64.8	59.8	58.4	66.0	45.9	59.9

Further, as seen in the figures below, the final NCIFP also shows a cleaner relationship with the FPE (higher R value), and has many more countries scoring similarly, i.e. close to the line of equality. This is only partly because a higher proportion of NCIFP questions are taken from the FPE in the final version than in the original.

Figure 1 Comparison of the FPE and NCIFP in Two Versions



Based on the inputs from the technical working group, and on the various comparisons of the original, the revised (v1), and the final versions of the sets of questions, it was agreed to use the final version for all subsequent analyses.

Full details of the evolution of the NCIFP instrument appear in **Annex 1**. It lists 83 items: all 69 items in the original NCIFP questionnaire, plus 14 items selected from the FPE questionnaire. These are in the order of the five dimensions, with codes to show which items were retained in the revised and final revisions. In the final column there are 49 "y" entries for yes, but three groupings are each collapsed to summary measures, for a net reduction of 14, leaving 35 surviving items. Of the 35, 14 are those selected from the FPE questionnaire and 21 come from the original NCIFP questionnaire (including the three summary measures that replace numerous detailed items).

The three summary items first (1) collapse the 7 'yes" items in Question 2a of the NCIFP questionnaire, to use their average value in the analyses done here; the next (2) collapses the 5 "yes" items in Question 4a, and the last (3) collapses the 5 'yes" items in 4b. The 17 are replaced by the 3 summary items, for our analyses of the 35 final list.

**Annex 2** gives the final set of 35 questions. **Annex 3** contains the original FPE and NCIFP Questionnaire administered to all countries.

#### **Results**

# Summary of global and regional results

This section presents the results for the final list of 35 items, as described in the previous section. Results are shown by dimension (strategy, data, quality, equity, accountability), as well as by individual scores. Figure 2 provides an overview, comparing unweighted and weighted scores; the weighted scores take into account the number of women of reproductive age (WRA) living in each country.

Performance as an all-country average is at about half of the maximum score. The total score unweighted was 52.7 as in Table 1, and the weighted score is slightly above (54). Overall, the strategy dimension scored the highest, and accountability scored the lowest. The equity dimension was quite close to the strategy one; the other two for data and quality fell at intermediate levels.

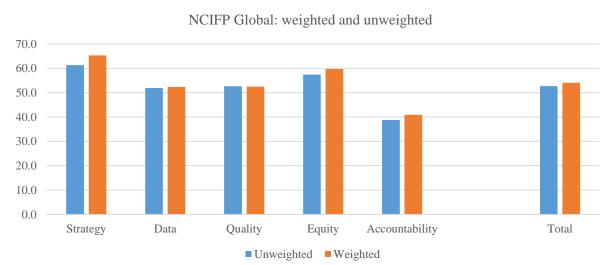


Figure 2 Global scores by domain (weighted and unweighted)

Regional differences, by dimension, are displayed in Figure 3 and Figure 4. To clarify regional patterns we show Asia first as a whole, and again without India and China. Sub-Saharan Africa is divided by Anglophone and Francophone (SSA-A and SSA-F). The former USSR countries are kept separate (*a later section discusses them in relation to the other regions*).

A surprise was that the Sub-Saharan African countries scored the highest, as shown in the rightmost total bars. Their superiority is most pronounced in the strategy and data dimensions. However, when weighted by the population of women of reproductive age<sup>5</sup> (Figure 4) the differences in the total bars are less pronounced, with Asia scoring nearly as well. All further regional analysis is based on weighted values to represent full populations rather than the average country.

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<sup>&</sup>lt;sup>5</sup> Based on UN World Population Prospects (2012 Revision) population of women of reproductive age (15-49) in 2015.

NCIFP by Region and Dimension (unweighted)

80.0

70.0

60.0

40.0

30.0

20.0

Equity

Accountability

■ Asia ■ Asia ex India and China ■ LAC ■ MENA ■ EECA

Figure 3 NCIFP by Region and Dimension, Unweighted

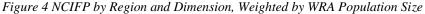
Data

SSAF-A

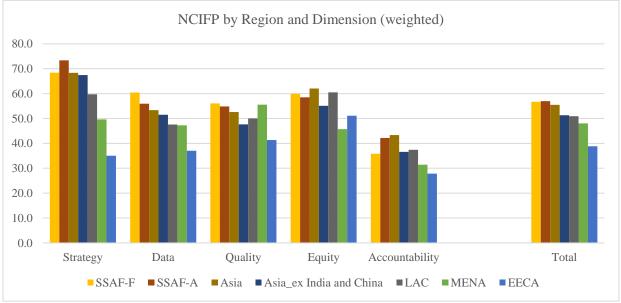
0.0

Strategy

SSAF-F



Quality



#### Patterns for the 35 Individual Scores by Region (weighted)

Figure 5 seems complex, but note how the regional lines rise and dip together, reflecting common forces at work internationally. Effort levels are not random from one region (or country) to another. Instead, programs find it easier to exert strong efforts for some of the 35 features than for others.

For all regions except MENA and EECA, the highest score across the 35 NCIFP scores was for the very first score- "Does the National Family Planning Action Plan include defined objectives over a 5-to-10-year period, including quantitative targets"- suggested that this was the easiest effort to achieve. In MENA, the highest score was achieved on the quality question- "Are indicators for quality of care collected and used for public sector

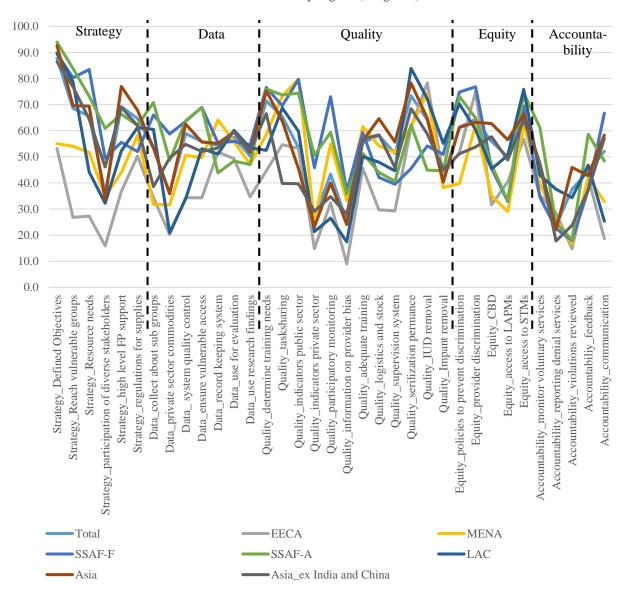
Total

family planning services?", while in EECA, the highest score was on the quality question- "Extent to which the entire population has ready and easy access to IUD removal."

There was less consistency in terms of the lowest scores by region; the following list shows the NCIFP individual score for which each region had the lowest average (across the 35 scores):

- EEAC and LAC: Does government collect information related to informed choice and provider bias?
- Asia (including and excluding India and China): Does the government have mechanisms in place for reporting instances of denial of services on non-medical grounds (age, marital status, ability to pay), or coercion (including inappropriate use of incentives to clients or providers)?
- MENA, SSAF-F, and SSAF-A: Are violations reviewed on a regular basis? (related to the above accountability question on reporting of service denial)

Figure 5 Individual NCIFP Scores According to Region, weighted by WRA Population Size NCIFP by region (weighted)



Another way to see regional differences, for the most and least agreement, is by the gaps in Figure 5 between the lines for any score. A large gap identifies a large difference among the regions. The greatest difference between the highest and lowest scores appears in a question in the Strategy dimension: "Does the National Family Planning Action plan include objectives to reach the poorest and most vulnerable groups with quality FP information and services." EECA scored the lowest at 26.8, compared to SSA-A, the highest at 83.8; creating a 57-point gap between the highest and lowest scores. The individual NCIFP score on which regions scored the closest was in the Data dimension on the question: "Extent to which program statistics, national surveys, and small studies are used by specialized staff to report on program operations and measure progress." On this question there was only a 11.8 point spread—from 48.4 in SSAS-A to 60.2 in LAC.

Across the 35 individual NCIFP scores, the EECA most often scored the lowest (19 times) followed by Asia ex India and China (5 times). The region's most often scoring the highest were SSAF-A (10 times), SSAF-F (9 times), and ASIA (7 times).

# **Country Variation**

Variation across regions in each score is shown above in Figure 5, but within each region countries vary greatly. Figure 6 shows how they do so in the total score. Note that a focus on the total score is quite different from the focus in Figure 5, which delineates effort levels among the individual scores. Those disparities are disguised within the total score.

Figure 6 shows the span of total values is the largest in SSAF-F (63 points), where scores range from 25 in Mauritania to 88 in Rwanda (highest of all countries). MENA also shows a very large range- partly driven by an extremely low score in Libya (9), compared with a decently high score in Morocco (68) giving a span of 59 points.

Figure 7 gives another way of looking at country variations, this time for each of the 35 scores. It presents the average variation around the mean for each score, to identify scores on which countries agree the most and the least. Questions with especially low and high deviations (disagreements) appear in Figure 7 by green (lowest 5) and red shading (highest 5). The average deviation ranged from 9.9 (on the Equity score regarding provider discrimination), to a high of 24.1 (on the Data score related collecting data from the private sector). There are numerous scores with high deviations in the quality dimension, but high deviations appear also in the other dimensions except less so in the equity dimension.

Figure 8 builds on this to correct for the size of the mean, since variations cannot be large when the mean is very low. The Figure divides the average deviation in Figure 7 by the mean as an adjustment for the smaller variations seen on questions with low mean scores. Again green shading identifies the lowest 5 and red shading the highest 5. Compared to the pattern in Figure 7 only one score remains in the lowest 5, and three scores remain in the highest 5. Six new scores at the top or bottom are highlighted now, including two scores in accountability that take high values, and one score in strategy that takes a low value.

Figure 6 Total Scores by Country and Region

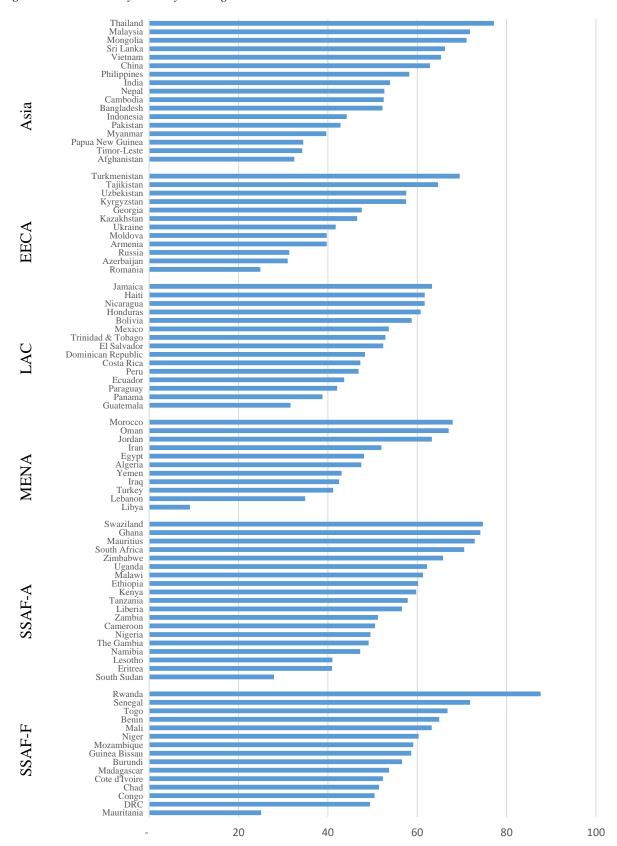


Figure 7 Average deviation from mean across all countries (red = highest 5, green = lowest 5)

Average deviation from mean across all countries

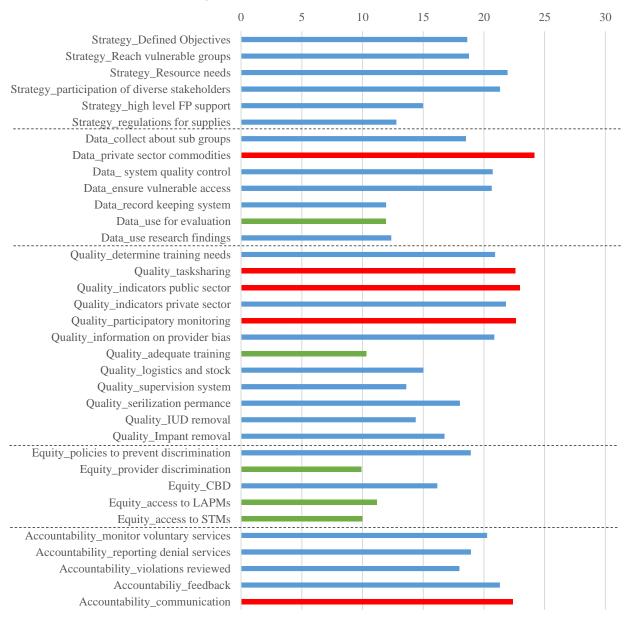
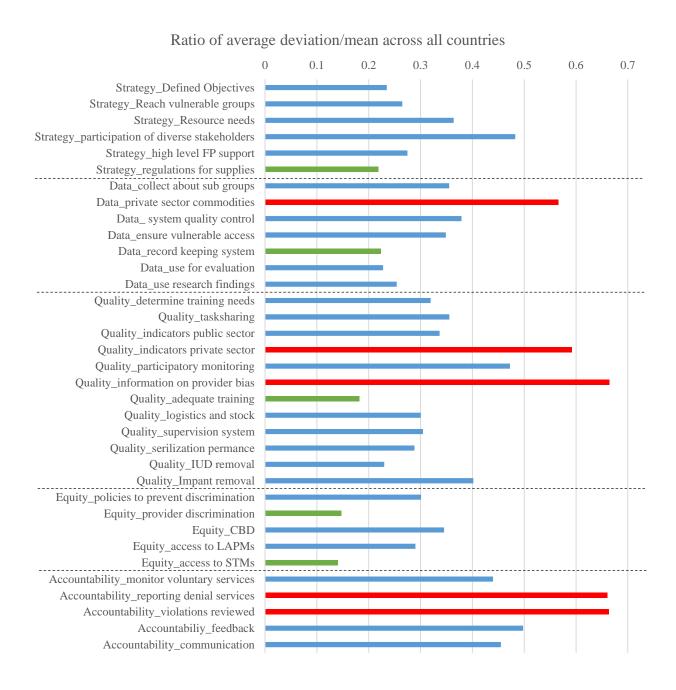


Figure 8 Ratio of average deviation to mean score across all countries (red = highest 5, green = lowest 5)



# **Special Analysis**

Next we look at key issues such as fertility and contraceptive use, combining the NCIFP results with external data sources to provide a deeper understanding of the results.

# Are Contraceptive Use and Fertility Related to the NCIFP Total Score?

This question is explored here cross-sectionally; ideally it would be examined over time within individual countries, but that is not possible with only one NCIFP survey. Data for these analyses are drawn from the latest DHS surveys in StatCompiler of ICF International, from the UN Compilation of national surveys, and from the UN estimates of fertility rates (UNPD Population Prospects 2012 Revision).

For both the SSA and Non-SSA regions, contraceptive use is positively related to the total score. (There are 34 countries in SSA, 55 in Non-SSA.) Results appear in Figure 9 and Figure 10.

- The slopes are substantial for both the CPR (Figure 9) and the mCPR (Figure 10): a ten point increase in the total score is accompanied by a 6 point increase in the CPR in SSA and a 2 point increase in the Non-SSA region. For the mCPR the same figures are 6 points and 4 points for the SSA and Non-SSA regions respectively.
- However, the relationships are not close: the R2 values are small (however equivalent "r" values are the square roots, hence 0.14, 0.41, 0.34, and 0.42 reading from top to bottom in the two charts).
- Especially, note that while the SSA cluster for contraception (Y-Axis) lies well below the Non-SSA one, the two regions are very similar in the patterns for the total score (X-Axis). In advance of seeing the results we would have expected scores in SSA to be worse than elsewhere. The similarity is something of a puzzle, since SSA has weaker infrastructures and ranks below other regions on many indicators. It also ranks below other regions on the FPE Score.

Figure 9 Total NCIFP score and CPR by region

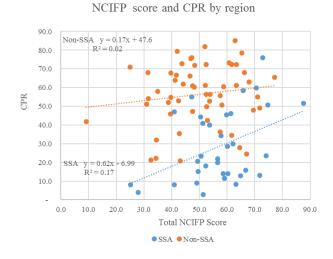
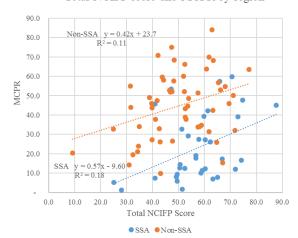


Figure 10 Total NCIFP score and mCPR by region
Total NCIFP score and MCPR by region



The following two tables give the "r" correlations for the total score and the five component scores with the TFR, CPR, and mCPR. These use the same 34 countries for SSA and 55 countries for Non-SSA as above. The relationships between the NCIFP scores and the TFR are cross-sectional, and the TFR estimates are from surveys of past dates; also the TFR is age-insensitive whereas the scores are targeted to the population at large. Nevertheless higher scores are generally accompanied by lower fertility rates.

**SSA countries**: fertility correlates negatively, as expected, for the total and all of the component scores, at about (0.20) with little variation. Also as expected, both the CPR and mCPR correlate positively and substantially, again with little variation, ranging from about 0.30 to about 0.40.

The Non-SSA countries show much different patterns for fertility and the CPR, but not for the mCPR. *Fertility* now correlates much less, near zero, with the total and the first three components, but about the same with the other two (equity and accountability). The CPR shows low correlations, mostly from 0.13 to 0.15, far below the larger values for the SSA countries. But the mCPR correlations run close to those for the SSA countries. It is a puzzle why the CPR values would be different and so much smaller. Traditional methods play different roles in the two regions; they depart more from modern use in the Non-SSA region, with irregular patterns that do not follow the effort scores.

Table 3 SSA Correlation Matrix

Table 4 Non-SSA Correlation Matrix

	TFR	CPR	mCPR		TFR	CPR	mCPR
Total Score	(0.21)	0.41	0.42	Total Score	(0.05)	0.14	0.34
Strategy	(0.14)	0.46	0.44	Strategy	0.03	0.13	0.30
Data	(0.18)	0.33	0.34	Data	0.01	0.14	0.36
Quality	(0.19)	0.42	0.37	Quality	(0.01)	0.13	0.31
Equity	(0.18)	0.36	0.37	Equity	(0.18)	0.15	0.35
Accountability	(0.23)	0.27	0.38	Accountability	(0.20)	0.09	0.18

#### How does the NCIFP equity dimension relate to other measures of equity?

One new area measured by the NCIFP is the dimension of equity. While the NCIFP is not the full answer to the challenge of measuring equity, it provides a new measurement to understand the perception of equity in countries. In order to better understand how well this dimension captures equity, we compare it to another measure of equity- the gap between modern contraceptive use by the poorest and richest women in a country. Here this gap is measured by the ratio of use by the two wealth quintiles: a ratio of 1 means there is the same level of use, a ratio less than one means the mCPR among the poorest is lower than among the richest, and, a ratio greater than one means mCPR among the poorest is greater than among the richest<sup>6</sup>.

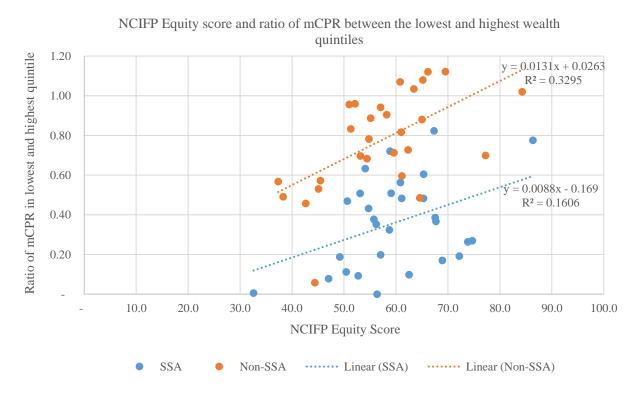
Figure 11 shows the positive relationship between the two equity measures, separately for the two regional groups. The line for the SSA countries falls below that for the Non-SSA countries because the use ratios are generally worse there, with larger gaps in mCPR between the poor and the rich. However, both lines show that an improvement in the NCIFP Equity score is accompanied by an improvement in the ratio for use.

There is substantial variation within both regions, and some SSA countries do better on the ratio of mCPR use than some Non-SSA countries. But the pattern is clear, that in general a higher score on the equity dimension is accompanied by a smaller gap between the poorest and richest wealth quintile in contraceptive use. Where the

<sup>&</sup>lt;sup>6</sup> Data were taken from the most recent DHS survey in each country that was also part of the NCIFP study. A total of 57 countries (29 SSA and 28 Non-SSA) were included in this analysis, based on survey data ranging from 1996 to 2014.

NCIFP equity score is high, the mCPR ratio between the poorest and wealthiest quintiles is better. That provides some reassurance that the Equity score helps to capture equity in the real world of contraceptive use.

Figure 11 NCIFP Equity score and ratio of mCPR in the lowest and highest wealth quintile



#### **Analysis of Response Rates**

The response rate for the original 68 questions<sup>7</sup> varied, both by question and by country. With 68 questions and 89 countries there were 6052 cells in the main table, and the mean response rate was 81.2 percent. Looking at the mean response rate across all questions for each individual country, we have 89 means to consider. Again the average was 81.2%, ranging from 48.0% to 99.3%. Reversing that, to look at the mean across all countries for each individual question, we have 68 means to consider, averaging again 81.2%, with a range from 67.9% to 89.3%.

Certain questions were somewhat harder for respondents to answer than others. The 10 questions with the worst response rates were as follows. Note that four were toward the end of the questionnaire, in the 60s out of the 68, regarding Accountability. Five of these were retained in the final group of 35 items.

Table 5 Questions with highest non-resonse rates

Included in		Mean Response
final NCIFP?	Question	Rate
No	Are policies in place to prevent discimination towards other margnizliased goups?	67.8
No	Are there structures in place to address quality of public sector FP services, particularly mystery clients?	69.3
No	Are violations investigated?	72.9
Yes	Does the government collect any information related to provider bias?	75.5
Yes	Are there structures in place for participatory monitoring or community/facility quality improvement activities	75.7
Yes	Are violations revised on a regular basis?	75.8
No	Are family planning standard operating procedures in line with the latest WHO medical guidelines and are these standards used for proposed changes in program strategies or operation's?	76.1
No	Are religious groups represented in national coordinating bodies?	76.6
Yes	Does the government have mechanisms in place for reporting instances of denial of services on non-medical grounds (age, marital status, ability to pay), or coercion (including inappropriate use of incentives to clients or providers)?	76.7
Yes	Are policies in place to prevent discimination based on wealth status?	76.8

However, by another measure things look better. Looking at each question in turn, we counted how many countries showed a response rate at or below 50% (an arbitrary but useful rule). The result was unexpected, i.e. that no questions stood out as exceptionally troublesome. Looking at all questions, the range was low: on average only 5.9 (mean) countries fit that rule (median 5.0), with a range between 2 and 14 countries across the 68 questions.

Two understandable exceptions were 17 countries below 50% for the "mystery client" question, which was probably obscure to many respondents, and 21 countries for the "other" item in the first Equity dimension; these two outliers are omitted in the table below.

-

<sup>&</sup>lt;sup>7</sup> One question was removed from analysis because there were no responses in any countries- this was a sub-category of 'other' in a question about collecting data on sub-groups.

How do different rules change the picture? The rule of 50% appears in the table below, along with stricter rules from 60% through 100%. With a 60% rule, more countries have poor records: an average of 11 countries show response rates below that level across the 68 questions. As expected, in the final column all 89 countries show response rates at or below 100% on every question. In between, the number of countries falling below the cut-off level increases, not quite linearly. The shape of the pattern appears in the chart below.

Table 6 No. of Countries with Low Response Rates by Different Cut-Off Rules.

	RULE					
	50	60	70	80	90	100
Median	5.0	11.0	20.0	38.5	55.5	89.0
Mean	5.9	12.2	21.2	38.3	55.6	89.0
Range: Min	2	2	7	17	38	89
Max	14	25	39	54	74	89

Returning to the first approach, to see which questions ranked best or worst, here are the 10 questions with the best response rates. Nearly all are in the Equity Dimension, a very interesting outcome. Seven of these were retained in the final group of 35 items.

Table 7 Questions with the lowest non-response rates

		Mean
Included in		Response
final NCIFP?	Question	Rate
yes	To what extent do service providers discriminate based on HIV status?	85.3
Yes	Does the national family planning action plan include Defined objectives over a 5–to 10–year period, including quantitative targets?	85.6
Yes	To what extent do service providers discriminate based on wealth status?	85.7
Yes	Does the government collect data to monitor coverage, quality, unmet need, and use of FP services among youth?	85.7
Yes	To what extent do service providers discriminate against post- abortion clients?	86.4
No	To what extent do service providers discriminate against rural populations?	87.9
No	To what extent do service providers discriminate against unmarried youth?	88.3
No	To what extent do service providers discriminate against postpartum women?	88.3
Yes	To what extent do service providers discriminate against unmarried women?	88.4
Yes	To what extent do service providers discriminate against youth?	89.3

## Mean Response Rates by Country Rather than by Question

**Top Response Rates:** For each country the mean response rate across all 68 questions was calculated. The ten best-scoring countries follow. Three are in sub-Saharan Africa (although Mauritius is hardly typical of SSA); two are Central Asia Republics; two are former USSR members; and the other three are from three different regions. This scatter tells little – most likely the response rate rests primarily upon the follow-up work of the country manager and upon a wise selection of respondents.

Table 8 Countries with the highest response rates

Ten Best Scoring Countries	Mean Response Rate	Rank for Best Score
Kazakhstan	96	80
South Sudan	97	81
Moldova	97	82
Uganda	98	83
Ecuador	98	84
Ukraine	99	85
Kyrgyz Republic	99	86
Georgia	99	87
Libya	99	88
Mauritius	99	89

**Lowest response rates:** The ten countries with the lowest response rates are as follows. Interestingly, six of the ten are in sub-Saharan Africa, and two are in Latin America. None are in Asia. One is a Central Asia Republic and one in the Middle East. Again, little can be concluded about country determinants of the response rate.

Table 9 Countries with the lowest response rates

Ten Worst Scoring Countries	Mean Response Rate	Rank for Worst Score
Turkmenistan	48	1
Namibia	50	2
Senegal	51	3
Congo	58	4
Costa Rica	58	5
Guinea Bissau	59	6
Oman	61	7
Cameroon	62	8
Jamaica	63	9
Nigeria	65	10

**Another approach** is to ask how many times a low response percentage occurred. Still using the 50% rule, 246 of the 6052 cells in the full table showed a response rate below 50%. Here are the worst country cases:

Cameroon	20	Namibia	44
Congo	19	Senegal	23
Jamaica	11	Turkmenistan	28
Lebanon	11		

Many such cells fell under the Data dimension, partly because it contained 34 of the 68 questions, exactly half. But usually the troublesome cells were concentrated in particular parts of the questionnaire. For example:

Country	Issue/notes
Cameroon	mainly in the second Equity dimension
Congo	9 of the Data items
Jamaica	8 of the Data items
Lebanon	most in the Strategy dimension, with a mere 7% response rate (from just one of
	the 14 respondents
Namibia	8 of 9 of the first Equity dimension, and most of the Strategy and Data items
Senegal	6 of the 8 Accountability items and numerous Data items
T 1 ' 4	

Turkmenistan 8 of 9 in the first Equity dimension; others were in the Data dimension

To illustrate, Cameroon had 20 of the 68 questions with responses below 50%. Namibia was the extreme case with 44 such cells, or two-thirds of the 68 questions.

# **Response Patterns by Regions**

A broader look at response rates is by regional averages. There are differences, but the reasons are speculative. Francophone countries in sub-Saharan Africa are worst, far below the Anglophone countries, which are near the top. Asia and EECA do best, with Latin America and the Middle East in the middle. Would the lower response rates in Francophone countries have any relation to their rather high average effort scores?

Table 10 Mean Response Rates by Region

	Mean Response Rates
Asia	85.4
EECA	84.9
LAC	79.9
MENA	79.8
SSAF-A	82.1
SSAF-F	74.4
TOTAL	81.2

To summarize, this look at all 68 NCIFP questions gives an average response rate of 81.2%. A rather large range exists, of 11 points among the regions, 67.9% to 89.3% among questions, and 48.0% to 99.3% among countries. An interesting gap of 7.7 points appeared between the two sub-Saharan Africa regions, with the Francophone region at 74.4% and the Anglophone region at 82.1%. If, as suggested above, the response rates depended heavily upon the skills of the country managers and a wise selection of respondents, these might be reviewed in the next round of the study. And, as asked above, could there be a connection between the low Francophone response rates and its unexpectedly high average for the scores themselves? That is, if it is only a subset of respondents who take the trouble to complete the questionnaire, are they biased toward favorable assessments?

This analysis focuses on response rates for the questions that were retained as part of the final NCIFP's 35 individual scores, 14 of which come from the FPE questions and 21 from the NCIFP questions. Response rates between the two sources differ greatly. By averaging across all countries the mean response level is obtained for each item. In the chart below the FPE items are to the right, and average a remarkable 96%. The 21 NCIFP items, to the left, averaging 79%, 17 points lower.

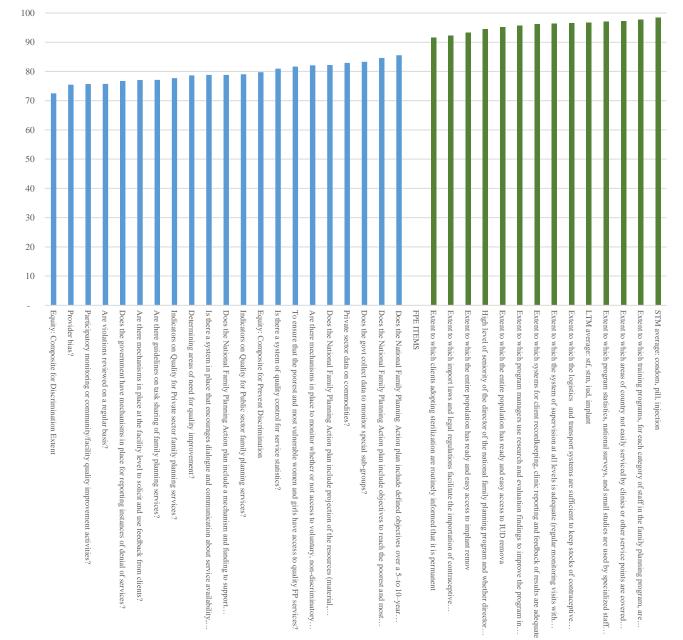


Figure 12 Mean Response Rates for 35 NCIFP Measures, split by original source (NCIFP or FPE)

Possible reasons for the different response rates between the FPE and NCIFP questions include:

- Fatigue: the NCIFP items came after the respondent had already dealt with the many FPE items. The sheer numbers of the NCIFP items (68) may have hurt.
- Ambiguity: Some items seemed vague or too general, or contained compound queries, making it hard to decide.
- Clarity: the main block of FPE items had a simple 10 point scale in a friendly format, and was the same through most of the instrument. But the NCIFP formats were crowded and mixed.
- Knowledge demands: More of the NCIFP items required close familiarity or knowledge to be answered.
- Future: the next round will contain 35, not 69 items, and most probably will not include the FPE section. The format can be improved, and the questions simplified.

# **Country Variations**

Two tables follow to provide more detailed information by country. The data are the same in both tables, but for convenient referencing the first one is alphabetical while the second is by the size of the rate. The second table makes it easy to identify the 10 best and 10 worst countries, as shown in the analysis of the 68 items in the preceding section.

Table 11 Response Rates for Final List of 35 Items: alphabetical

	Mean Response Rate		Mean Response Rate		Mean Response Rate
Afghanistan	78	Indonesia	96	Pakistan	89
Algeria	82	Iran	76	Panama	84
Armenia	80	Iraq	89	Papua New Guinea	96
Azerbaijan	87	Jamaica	66	Paraguay	79
Bangladesh	92	Jordan	80	Peru	81
Benin	82	Kazakhstan	99	Philippines	69
Bolivia	88	Kenya	96	Romania	87
Burundi	90	Kyrgyz Republic	98	Russia	80
Cambodia	93	Lebanon	74	Rwanda	86
Cameroon	72	Lesotho	89	Senegal	66
Chad	84	Liberia	88	South Africa	91
China	93	Libya	98	South Sudan	95
Congo	71	Madagascar	79	Sri Lanka	91
Costa Rica	73	Malawi	81	Swaziland	73
Cote d'Ivoire	78	Malaysia	77	Tajikistan	94
Dominican	94	Mali	85	Tanzania	91
Republic		Mauritania	91	Thailand	86
DRC	85	Mauritius	99	The Gambia	87
Ecuador	98	México	92	Timor-Leste	91
Egypt	93	Moldova	97	Togo	85
El Salvador	87	Mongolia	96	Trinidad & Tobago	82
Eritrea	88	Morocco	96	Turkey	82
Ethiopia	85	Mozambique	81	Turkmenistan	60
Georgia	99	Myanmar	87	Uganda	98
Ghana	85	Namibia	66	Ukraine	99
Guatemala	98	Nepal	90	Uzbekistan	86
Guinea Bissau	71	Nicaragua	91	Vietnam	99
Haiti	82	Niger	92	Yemen	89
Honduras	80	Nigeria	77	Zambia	86
India	88	Oman	67	Zimbabwe	92

Table 12 Response Rates for Final list of 35 scores: By rate (lowest to highest)

	Mean Response Rate		Mean Response Rate		Mean Response Rate
Turkmenistan	60	Turkey	82	Tanzania	91
Senegal	66	Panama	84	Sri Lanka	91
Namibia	66	Chad	84	South Africa	91
Jamaica	66	DRC	85	Niger	92
Oman	67	Mali	85	Zimbabwe	92
Philippines	69	Ethiopia	85	Bangladesh	92
Congo	71	Ghana	85	México	92
Guinea Bissau	71	Togo	85	China	93
Cameroon	72	Zambia	86	Cambodia	93
Costa Rica	73	Rwanda	86	Egypt	93
Swaziland	73	Thailand	86	Dominican	94
Lebanon	74	Uzbekistan	86	Republic	94
Iran	76	El Salvador	87	Tajikistan	
Nigeria	77	Romania	87	South Sudan	95
Malaysia	77	Azerbaijan	87	Indonesia	96
Cote d'Ivoire	78	The Gambia	87	Kenya	96
Afghanistan	78	Myanmar	87	Mongolia	96
Madagascar	79	India	88	Papua New Guinea	96
Paraguay	79	Bolivia	88	Morocco	96
Honduras	80	Eritrea	88	Moldova	97
Russia	80	Liberia	88	Uganda	98
Armenia	80	Lesotho	89	Ecuador	98
Jordan	80	Pakistan	89	Guatemala	98
Malawi	81	Yemen	89	Kyrgyz Republic	98
Peru	81	Iraq	89	Libya	98
Mozambique	81	Nepal	90	Vietnam	99
Haiti	82	Burundi	90	Kazakhstan	99
Trinidad & Tobago	82	Mauritania	91	Ukraine	99
Benin	82	Nicaragua	91	Georgia	99
Algeria	82	Timor-Leste	91	Mauritius	99

#### Conclusion

This analysis has shown that there are considerable variations in response rates by question and by country. These results are helpful for thinking about changes or updates to the next round of the NCIFP by highlighting questions that respondents might have found particularly difficult to answer. Further, the results may be impacted, especially for countries and questions with particularly high non-response rates, thus this should be taken into consideration when interpreting the findings in this report.

#### **Correlation Analysis between NCIFP and FP2020 Core Indicators**

This analysis is focused on relationships between the 17 FP2020 Core Indicators (as published in the FP2020 Measurement Annex 2015) and the 35 NCIFP scores. It begins with a correlation matrix that gives the "r" values for each pair of variables, showing all those above 0.50 in red. This analysis helps to identify clusters of variables that move together --- either positively or negatively.

A substantial correlation simply means that countries that are low on one variable are low another one, and if high on one are high on the other. Causality may or may not be involved; whatever the causes are they are common to both variables.

Only a few of the 17 Core indicators can be part of this first analysis, since several give absolute numbers, e.g. numbers of pregnancies averted, where country size interferes. Several others are available for only 24 countries, and these are examined in a separate section below. The only surviving indicators for most countries are the first 5 in the correlation matrix displayed below:

- 1. mCPR
- 2. Unmet Need (married)
- 3. Percent of Demand Satisfied (married)
- 4. Percent of Method Mix due to LAPM (long-acting and permanent methods)
- 5. Percent of Method Mix due to Traditional Methods (last 2 indicators are taken from Indicator 9).

The last two indicators are somewhat useful but relate to the method mix, not to the percent of MWRA using a method. So the percent of the mix due to traditional methods can be, and often is, high where the CPR is low.

In addition to these limitations, only 54 countries have data on the five variables above and also on the 35 NCIFP scores. Of these 54, 29 are in sub-Saharan Africa.

The following sections discuss first, intercorrelations among the five core indicators, then intercorrelations among the 35 NCIFP scores, then intercorrelations that cross the two groups of indicators and finally a section based on just 24 countries that offer data on additional variables.

## I. Intercorrelations Among the Five Core Indicators (based on 54 countries)

The results below are not surprising given the relationships between these indicators. Column 1 shows first that where contraceptive use is greater, with a higher mCPR, unmet need is reduced and more of total demand is satisfied. The mCPR is higher where long term methods tend to dominate the mix, and lower where traditional methods dominate.

Table 13 correlation matrix, with cells having "r" values above 0.50 in red

	mCPR	Unmet need	% demand satisfied	% mix LAPM	% mix Trad
mCPR					
Unmet need	(.69)				
% demand satisfied	.93	(.75)			_
% mix LAPM	.38	(.37)	.45		
% mix Trad	(.41)	.57	(.53)	(.29)	

In column 2, unmet need is less where more demand is satisfied and long term methods are more important, and it is more in countries where use is mainly traditional methods (in such countries the total CPR is often quite low).

Column 3 shows again the tendency for satisfaction of demand to accompany greater reliance on long term methods, and not to accompany greater relative reliance on traditional methods.

Finally, column 4 gives the negative relationship between dominance of long term methods and that of traditional methods. Again, that pertains to the mix, not to total levels of use.

## II. Intercorrelations Among the 35 NCIFP Scores (based on 54 countries)

A full correlation analysis was done to look at the intercorrelations among the 35 scores. Several clusters of high correlation were found, suggesting areas where results are highly related.

For example, the following 4 for scores as a cluster are highly intercorrelated, as shown in the table below.

- No. 7: Does the government collect data to monitor special sub-groups?
- No. 8: Does the government collect data from the private sector on commodities?
- No. 9: Is there a system of quality control for service statistics?
- No. 10: Are data used to adjust plans to ensure that the poorest and most vulnerable women and girls have access to quality FP services?

Table 14 Corelation between NCIFP Individual Scores 7-10

	7	8	9	10
7				
8	.68			
9	.66	.71		
10	.68	.62	.72	

A similar table could be shown for other clusters, but they are very numerous and the titles are quite cumbersome for a clear presentation. However, other such correlated clusters are present within the NCIFP individual scores. The key focus follows, to look at the relationships between two of the 17 Core Indicators (mCPR and unmet need) and selected NCIFP scores.

#### III. Intercorrelations Among Two FP2020 Core Indicators and the 35 NCIFP scores

First, this section examines the relationships of the mCPR and unmet need with certain NCIFP individual scores. It would be possible later to do the same for the other three Core Indicators shown in Part I.

The best way to examine the patterns appears in the following chart. Each dot compares the size of the correlation of the mCPR with one of the 35 NCIFP Individual Scores (X-axis), in comparison with the size of the correlation of unmet need with the same NCIFP score (Y-axis). The inverse pattern is quite sharp: nearly all of the mCPR correlations are positive, lying to the right, while most of the unmet need correlations are negative, falling below the zero line. Almost all dots are in the lower right quadrant. This is a key result – overall correlations on summary indicators can be in the expected directions due simply to a few extreme cases, but in fact we find that *most individual NCIFP scores give results in the expected directions*.

Why would that be? The mCPR should track with the NCIFP scores that measure good programming. And second, those same measures should tend to reduce unmet need. It turns out that for most of the 35 NCIFP scores (each dot), better readings on the indicator correlate with a higher mCPR and a lower unmet need level. This gives some reassurance that helps to offset the small sizes of many of the correlations.

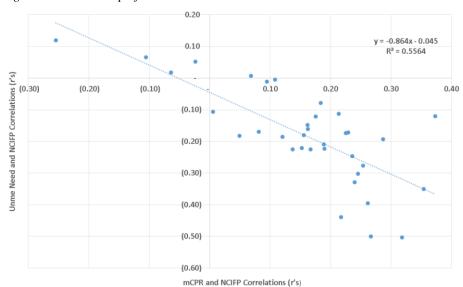


Figure 13 Relationship of Unmet Need Correlations and mCPR Correlations

The actual "r" values appear in the following table, for both mCPR and for unmet need. They are listed in order according to the size of the mCPR values. Note that most of the mCPR values are positive while most of the unmet need ones are negative, as displayed in the chart.

Table 15 Correlation of NCIFP Individual Scores with mCPR and Unmet Need (ordered by correlation with mCPR)

			"r" with
NCIFP		"r" with	unmet
Item No.	Full name of item	mCPR	need
13	Extent research and evaluation findings are used to improve the program	0.37	-0.12
14	Are FP SOP in line with WHO and used for determining areas of need for quality improvement?	0.35	-0.35
31	Are there mechanisms to monitor voluntary, non-discriminatory FP information and services is being achieved?	0.32	-0.5
27	To what extent do service providers discriminate against special sub-groups?	0.29	-0.19
34	Are there mechanisms in place at the facility level to solicit and use feedback from clients?	0.27	-0.5
32	Does the government have mechanisms in place for reporting instances of denial of services?	0.26	-0.4
15	Are there guidelines on task sharing of family planning services?	0.25	-0.28
7	Does the government collect data to monitor special sub-groups?*	0.25	-0.3
33	Are violations reviewed on a regular basis?	0.24	-0.33
10	Are data used to ensure that the poorest and most vulnerable women have access to quality FP services?	0.24	-0.25
12	Extent to which program statistics, national surveys, and small studies are used	0.23	-0.17
9	Is there a system of quality control for service statistics?	0.22	-0.17
35	Is there a system in place that encourages dialogue about service availability, accessibility, acceptability & quality?	0.22	-0.44
3	Does the National Family Planning Action plan include projection of the resources required?	0.21	-0.11

23	Extent to which clients adopting sterilization are routinely informed that it is permanent?	0.19	-0.22
20	Extent to which training programs are adequate	0.19	-0.21
4	Does the plan include a mechanism & funding to support meaningful participation of diverse stakeholders?	0.18	-0.08
11	Extent to which systems for client recordkeeping, clinic reporting and feedback of results are adequate	0.18	-0.12
24	Extent to which the entire population has ready and easy access to IUD removal	0.17	-0.23
19	Does government collect information related to informed choice and provider bias?	0.16	-0.16
26	Are there policies in place to prevent discrimination towards special subgroups?	0.16	-0.15
17	Are indicators for quality of care collected and used for private sector family planning services?	0.16	-0.18
18	Structures in place to address quality, including participatory monitoring or facility quality improvement?	0.15	-0.22
16	Are indicators for quality of care collected and used for public sector family planning services?	0.14	-0.23
6	Extent to which import laws and legal regulations facilitate the importation of contraceptive supplies	0.12	-0.19
1	Does the National Family Planning Action plan include defined objectives?	0.11	0
2	Does the National Family Planning Action plan include objectives to reach the poorest and most vulnerable groups?	0.09	-0.01
25	Extent to which the entire population has ready and easy access to implant removal	0.08	-0.17
8	Does the government collect data from the private sector on commodities?	0.07	0.01
30	Extent to which the entire population has ready access to STMs*	0.05	-0.18
29	Extent to which the entire population has ready access to LAPMs*	0.01	-0.11
28	Extent to which areas of country not easily serviced by clinics or other service points are covered by CBD	-0.02	0.05
5	High level of seniority of the director of the national family planning program	-0.06	0.02
22	Extent to which the system of supervision at all levels is adequate	-0.11	0.07
21	Extent to which the logistics and transport systems are sufficient to keep stocks of contraceptive supplies	-0.25	0.12

#### **Regression Test**

As a further test of the relationship of the mCPR to the NCIFP scores, a regression equation was used with the mCPR as the dependent variable and the top 16 NCIFP scores in the table above as predictors. The results were:

Multiple R	0.55
R Squared	0.31
Adjusted R Squared	.01

The adjusted R Squared is very low, due to the large number of predictors. It declines when an additional term increases the R Squared value **less** than would be expected by chance (and rises if **more**). In fact most of the predictors were at or near the chance level, with large "p" values for all except one at 0.05 (the first indicator in the table above --- for management's use of research and evaluation findings to guide the program).

Therefore the equation was repeated with only the top 5 predictors, which gave a larger adjusted R Square. Again, the top predictor in the table above was the only one with an appreciable "p" value (0.06), but overall, 19% of variation in the mCPR is "explained."

Multiple R 0.52 R Squared 0.27 Adjusted R Squared .19

#### Conclusion

Overall, these results indicate that the NCIFP scores do correlate with higher levels of contraceptive use and lower levels of unmet need. Many of the correlations are small, but most are in the expected direction, and they help to sort out which of the 35 indicators are most closely related to the outcome measures. Further tests can be run to replace the mCPR or unmet need with demand satisfied, or the proportion of the mCPR due to long term vs. short term methods. In addition, the set of 24 countries for which other data are available can be studied more extensively that it is in the following section.

# Special Analyses: Principal Components Analysis and Clustering Analysis<sup>8</sup>

Even though the original NCIFP questionnaire of 69 items was reduced to 35 items (primarily by inspection of the close correlations among some items), it is possible that even the 35 items can reflect a few underlying themes. This was explored by a principal components analysis (PCA), closely related to factor analysis. The technique is quite technical, but basically it looks for commonalities among the questions, to detect those with similar patterns that may reveal underlying structures, or components. Each component identified is created to capture an entirely separate structure.

The first component generated by the PCA analysis explained 37% of the variance across all countries, and the second component explained almost 10%. Other components were quite minor. These results indicate that the 35 questionnaire items tend to measure two different features of effort. The original intent in developing the questionnaire was to measure the concept of "program effort," and the results suggest that there are two clusters of questions that get at somewhat different types of effort. However the set of questions under each component contains considerable diversity, making the interpretations somewhat unclear.

For the first component several questions pertain to the use of information to improve program performance. Notable ones follow which originated in the FPE questionnaire, due perhaps to their reliance on the 10 point scale rather than the "yes/no" type.

- Management's use of evaluation findings: Extent to which program managers use research and evaluation findings to improve the program
- Evaluation: Extent to which program statistics, national surveys, and small studies are used by specialized staff to report on program operations and measure progress.
- Record keeping: Extent to which systems for client recordkeeping, clinic reporting and feedback of results are adequate.

Other questions tie in to actual performance implementation: Examples:

- Supervision system: Extent to which the system of supervision at all levels is adequate (regular monitoring visits with corrective or supportive action).
- Logistics and transport: Extent to which the logistics and transport systems are sufficient to keep stocks of contraceptive supplies and related equipment available at all service points.
- Training program: Extent to which training programs, for each category of staff in the family planning program, are adequate to provide personnel with information and skills necessary to carry out their jobs effectively.

**The second component** is created by the software to be quite different, to be uncorrelated with the first one. It accounts for only 10% of country variations, and there is less cohesion in the questions that relate to it. Some pertain to program attention to the interests of clients in various ways. Examples:

- Are there mechanisms in place at the facility level to solicit and use feedback from clients?
- Does government collect information related to informed choice and provider bias?

<sup>8</sup> We express thanks to our colleague Bill Winfrey for conducting these analyses in STATA. This analysis was done on an early data set for the NCIFP, some changes were made to the final data set (adding countries, correcting data entry issues).

<sup>&</sup>lt;sup>9</sup> The PCA method is mostly used as a tool in exploratory data analysis and for making predictive models. Its operation can be thought of as revealing the internal structure of the data in a way that best explains the variance in the data. The number of principal components is less than or equal to the number of original variables. The first principal component accounts for as much of the variability in the data as possible, and each succeeding component in turn accounts for the highest variability possibility, with the constraint that it is uncorrelated with the preceding components. --- Adapted from Wikipedia "Principal Component Analysis."

- Are indicators for quality of care collected and used for private sector family planning services? (Similar question for public services)
- Others pertain to whether people in general have access to services
- Extent to which the entire population has ready access to STMs
- Extent to which the entire population has ready access to LAPMs
- Community-based distribution (CBD): Extent to which areas of country not easily serviced by clinics or other service points are covered by CBD programs ...
- These examples are suggestive of underlying themes among the 35 questions, even though the focus within each component is somewhat diffuse.

#### Clustering

A further step was to explore whether countries fall into separate groups with regard to the component values. Clustering software <sup>10</sup> automatically groups countries into subsets that are especially low, and high, on the Component scores. Then it is possible to look for similarities among the countries that fall into each group, whether by regions or in other ways. We therefore ran an analysis using the first two components of the PCA to create four clusters of countries. <sup>11</sup> The clusters and their member countries follow (only five regions are shown, to avoid small numbers in the cells). In terms of sheer numbers, the clusters are about even, at 20-23 each except for 11 in the second cluster (Table 16 and

Table 17). The largest cell is for the 17 sub-Saharan countries in the first cluster.

Table 16 Countries listed by cluster and region

Cluster Number							
	1	2	3	4	Count		
Asia							
T of im A	Philippines	Myanmar Papua New Guinea Timor-Leste	Bangladesh India Indonesia Nepal Pakistan	China  Malaysia  Mongolia  Sri Lanka  Thailand  Vietnam	15		
Latin A			C . D:	TT 1	12		
	Bolivia Haiti	Guatemala Panama	Costa Rica Ecuador El Salvador Mexico Paraguay Peru	Honduras Jamaica Nicaragua	13		
Middle East/N. Africa							
			Algeria Egypt	Jordan Morocco	8		

Cluster analysis groups a set of objects into subsets so that members in the same subset ("a cluster") are especially similar to each other, and different on average from other subsets. It is used in data explorations, or mining, and is a common technique for statistical data analysis in many fields. ---Adapted from Wikipedia "Cluster Analysis."

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<sup>&</sup>lt;sup>11</sup> We are grateful to Bill Winfrey for performing both the component and the cluster analyses.

	Iran	
	Iraq	
	Turkey	
	Yemen	

Cluster Number (table continued)

ı	1 4		(table continued)	1	
	1	2	3	4	Count
Sub-Sal	haran Africa				
	Benin Cameroon Chad Congo Cote d'Ivoire DR Congo Guinea Bissau Kenya Liberia Madagascar Malawi Mali Mozambique Namibia Niger Tanzania Uganda	Lesotho Mauritania	Eritrea The Gambia Zambia	Burundi Ethiopia Ghana Mauritius Rwanda Senegal Swaziland Zimbabwe	30
Former	· USSR				
		Armenia Azerbaijan Romania Ukraine	Georgia Kazakhstan Moldova	Kyrgyzstan Tajikistan Uzbekistan	10
Total	20	11	23	22	76

Table 17 Number of countries in each Region by cluster

**Cluster Number** Total Asia Latin Am. Middle East/N. Africa Sub-Saharan Africa Former USSR All regions 

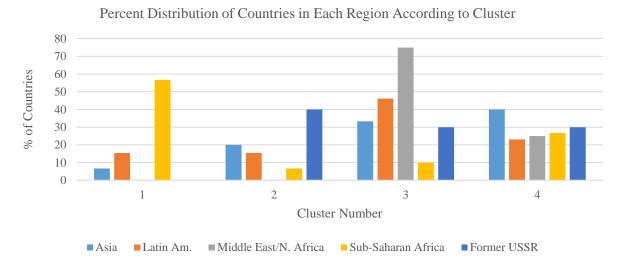
**Do the clusters differ according to region?** Cluster 1 is composed heavily of sub-Saharan African members but it has 30 countries in the sample, more than any other region. On the other hand the Middle East/North Africa has only 8 members, but nearly all are in the third cluster. So to standardize the number of countries Table 18 gives each region in effect the same number of countries by percentagizing the rows.

Table 18 Percent distribution of countries in each region by cluster

	Cluster Number				
	1	2	3	4	Total
Asia	7	20	33	40	100
Latin Am.	15	15	46	23	100
Middle East/N. Africa	-	-	75	25	100
Sub-Saharan Africa	57	7	10	27	100
Former USSR	-	40	30	30	100
All regions	26	14	30	29	100

This says that if a country is in sub-Saharan Africa it is most likely to fall in the first cluster, and secondarily in the fourth one. Regions do differ considerably: Asia favors the fourth cluster, then the third one. Figure 12 displays the data in Table 7 to show these differences.

Figure 14 Percent distribution of countries in each region by cluster



Note that Clusters 1 to 3 have very irregular regional patterns. The first is favored by sub-Saharan Africa only; the second is favored especially by the former USSR countries, the third mainly by the Middle East/North Africa but also somewhat by Asia and Latin America. The fourth cluster receives fairly even interest by the various regions.

Apart from the sharp regional differences it is somewhat difficult to capture the essential differences between the clusters. Roughly, countries in cluster 1 may be making efforts to mobilize information and effort, but have poor performance on access to LAPMs. Cluster 2 may reflect less effort currently to organize strong programs but LAPMs are moderately available. Cluster 3 is more likely to have LAPMs

widely available, but many programs are not strong. Cluster 4 is characterized more by stronger programs and LAPMs access. However some countries in each cluster depart from these traits.

The clusters are created to separate countries according to high and low values on the Component scores. In the following table the average score for Component 1 varies from -.566 to 4.01, and for Component 2 from -1.12 to 1.91. The negative values indicate that the countries scored poorly; for example the countries in the second cluster have the lowest scores, on Component 1, at -5.66. They do somewhat better, at 0.27 on Component 2. The best score, of 4.01, appears in the fourth cluster, for Component 1.

Finally, how well does scoring on a Component match the total NCIFP score or contraceptive use? In general, not well. Moreover, contraceptive use does not closely follow the total NCIFP score: the lowest effort score, at 37% in cluster two, accompanies a CPR of 46%, while a high effort score, of 58% in cluster 1, goes with a CPR of merely 29%. The two CPR levels in clusters 3 and 4 are similar while the effort scores differ considerably (Table 19).

Table 19 Scores for Components, Effort and Contraceptive use by Cluster

	Cluster Number					
	1	2	3	4		
Component 1	0.65	-5.66	-1.69	4.01		
Component 2	1.91	0.27	-1.12	-0.70		
Total effort score	57.66	37.38	48.52	67.05		
MCPR	21.59	32.41	44.20	45.99		
CPR	29.34	45.91	55.35	53.94		

Note that the emergence of a component only indicates that several questions are closely allied; it does not necessarily mean that this group of questions is highly correlated to any outcome variable like contraceptive use.

## **Conclusion**

The National Composite Index for Family Planning (NCIFP) represents a new and innovative measurement tool to help capture the enabling environment in which family planning programs are implemented. The NCIFP measures both the existence of policies and program implementation, and uses 35 individual scores organized under the five dimensions of strategy, data, quality, equity, and accountability.

This report documents the process undertaken to create this modified version of the original NCIFP. In the future, further refinements may be made to the NCIFP questionnaire to improve the results, for example changing some questions from a yes/no response to a 10-point scale. However, making such changes would mean that future versions would not be fully comparable to the one presented here.

Results in this report are presented globally, by region, and by country. All three can inform policy judgments and resource allocations. Especially at the country level, the scores can identify areas for potential improvements in program implementation. The experiences of high-scoring countries can be suggestive for how low-scoring countries can improve; and this may well differ depending on the particular score or dimension.

The analyses here highlight the rather large variations in key scores according to regions, and by country within regions. Average levels also vary; for example the accountability dimension generally scored the lowest, while the strategy dimension scored the highest. Surprisingly, sub-Saharan Africa scored above the other regions. Preliminary work to discover determinants of score variations were inconclusive.

In the reverse direction, to use the scores as determinants of various outcomes, analyses found higher contraceptive use and lower fertility rates where the scores were higher. The advanced techniques of Principal Components Analysis and Clustering Analysis looked at underlying relationships across the individual scores.

The NCIFP is the first comprehensive measure to cover important topics like those related to equity and accountability, going beyond some of the measures in the "FPE" (the Family Planning Program Effort Index). While there is room for further improvement and refinement of the NCIFP, these initial results tell an important story about how to focus on these new areas and how improvements may be made.

Finally, while providing a useful tool, the NCIFP is not the only approach needed to understand the five dimensions of strategy, data, quality, equity, and accountability. The NCFIP provides one perspective, further work is needed to develop complementary measures in these areas.

# **Annex 1: Evolution of the new NCIFP questionnaire**

This annex lists 83 items: all 69 items in the original NCIFP questionnaire, plus 14 items selected from the FPE questionnaire. These are in the order of the five dimensions, with codes to show which items were retained in the revised and final revisions. In the final column there are 49 "y" entries for yes, but three groupings are each collapsed to summary measures, for a net reduction of 14, leaving 35 surviving items. Of the 35, 14 are those selected from the FPE questionnaire and 21 come from the original NCIFP questionnaire (including the three summary measures that replace numerous detailed items).

The three summary items first (1) collapse the 7 'yes" items in Question 2a of the NCIFP questionnaire, to use their average value in the analyses done here; the next (2) collapses the 5 "yes" items in Question 4a, and the last (3) collapses the 5 'yes" items in 4b. The 17 are replaced by the 3 summary items, for our analyses of the 35 final list.

#### NCIFP Questionnaire and revisions (y = include, n = exclude)

Survey Source	NCIFP Dimension	Question	Revision v1)	Final	Notes
NCIFP	Strategy	Does the National Family Planning Action			
NCIFP	Strategy	Defined objectives over a 5–to 10–year period, including quantitative targets?	у	у	
NCIFP	Strategy	Objectives to reach the poorest and most vulnerable groups with quality FP information and services	у	У	
NCIFP	Strategy	• Subnational objectives (examples: region, urban/rural, income groups, etc.)?	n	n	Sub-groups covered elsewhere; question too broad.
NCIFP	Strategy	A clear strategy for attaining these objectives, including the role of both the public and private sectors?	n	n	Private sector covered elsewhere, highly correlated with data use questions
NCIFP	Strategy	Projection of the resources     (material, human and financial)     required to implement the     strategy, as well as sets forth a     plan to secure the resources?	у	у	
NCIFP	Strategy	A contraceptive commodity plan that ensures that contraceptive requirements are projected annually and that a range of method choices?	n	n	Use FPE question instead
NCIFP	Strategy	An M&E framework?	n	n	Highly correlated with data use questions

NCIFP	Strategy	A mechanism and funding to support meaningful participation of diverse stakeholders?	у	у	
FPE	Strategy	Level of program leadership High level of seniority of the director of the national family planning program and whether director reports to a high level of government	у	у	Added from FPE
FPE	Strategy	Import laws and legal regulations Extent to which import laws and legal regulations facilitate the importation of contraceptive supplies or extent to which contraceptives are manufactured locally	у	У	Added from FPE
NCIFP	Data	Does the government collect data to monitouse of FP services among the following populating composite score based on average as	oulation	subg	roups (note: turned into
NCIFP	Data	Youth?	n	у	Initially removed for correlation, added back
NCIFP	Data	Unmarried women?	n	у	Initially removed for correlation, added back
NCIFP	Data	Unmarried youth?	y	У	
NCIFP	Data	• Postpartum women?	y	у	
NCIFP	Data	Wealth status?	у	У	
NCIFP	Data	Rural populations?	n	n	High correlation, generally high responses compared with other subgroups.
NCIFP	Data	<ul><li>Post abortion clients?</li></ul>	y	y	
NCIFP	Data	HIV Status?	y	y	
NCIFP	Data	• Other?	n	n	No responses for this sub-group
NCIFP	Data	Does the government collect data from the private sector on number of clients?	n	n	High correlation, commodity question seen as more important
NCIFP	Data	Does the government collect data from the private sector on commodities?	у	у	
NCIFP	Data	Are government service statistic data reviewed and analyzed for program evaluation at least annually?	n	n	Answers high use FPE question instead
NCIFP	Data	Is there a system of quality control for service statistics?	у	y	

NCIFP	Data	Is government collected data available for external use?	n	n	Answers high, does got really address issues
NCIFP	Data	Are data used to adjust national plans in ord	der to:	•	
NCIFP	Data	To review targets on an annual basis?	n	n	correlation, use FPE
NCIFP	Data	• To adjust strategies for improving access?	n	n	correlation, use FPE
NCIFP	Data	To define training needs for providers?	у	n	Removed in final revision, training covered later under quality
NCIFP	Data	• To improve quality of care?	n	n	asked later under quality
NCIFP	Data	To ensure that the poorest and most vulnerable women and girls have access to quality FP services?	у	У	
FPE	Data	Record keeping: Extent to which systems for client recordkeeping, clinic reporting and feedback of results are adequate	у	Y	Added from FPE
FPE	Data	Evaluation: Extent to which program statistics, national surveys, and small studies are used by specialized staff to report on program operations and measure progress	у	Y	Added from FPE
FPE	Data	Management's use of evaluation findings: Extent to which program managers use research and evaluation findings to improve the program in ways suggested by findings	у	У	Added from FPE
NCIFP	Quality	Are family planning standard operating promedical guidelines and are these standards			ne with the latest WHO
NCIFP	Quality	Staff and facility performance appraisal?	n	n	correlation
NCIFP	Quality	Determining areas of need for quality improvement?	у	у	
NCIFP	Quality	Proposed changes in program strategies or operation's?	n	n	correlation with data
NCIFP	Quality	Are there guidelines on task sharing of family planning services?	у	у	
NCIFP	Quality	Are there specific indicators for quality of government to monitor coverage, quality, a			collected and used by the
NCIFP	Quality	<ul> <li>Public sector family planning services?</li> </ul>	у	у	
NCIFP	Quality	• Private sector family planning services?	у	у	

NCIFP	Quality	Are there structures in place to address quaparticularly	lity of p	oublic	sector FP services,
NCIFP	Quality	Trainings for providers on rights of clients to full, free, and informed choice (voluntarism, non-discrimination policies, third-party authorization, etc.)?	n	n	Removed, too many components asked in one question.
NCIFP	Quality	Refresher trainings?	n	n	correlation, and use FPE
NCIFP	Quality	Supervision structures?	n	n	correlation, and use FPE
NCIFP	Quality	Mystery clients?	у	n	Removed in final revision, had very low scores; but felt not having mystery clients should not stand out as strong negative in scores.
NCIFP	Quality	<ul> <li>Participatory monitoring or community/facility quality improvement activities?</li> </ul>	у	у	
NCIFP	Quality	Does the government collect any informati	on relat	ed to	informed choice?
NCIFP	Quality	Availability of different types of contraceptives at different levels of facilities?	n	n	correlation
NCIFP	Quality	Content of counseling?	n	n	correlation
NCIFP	Quality	Provider bias?	у	у	
NCIFP	Quality	Provider training needs?	n	n	correlation
FPE	Quality	Training program: Extent to which training programs, for each category of staff in the family planning program, are adequate to provide personnel with information and skills necessary to carry out their jobs effectively	у	у	Added from FPE.
FPE	Quality	Logistics and transport: Extent to which the logistics and transport systems are sufficient to keep stocks of contraceptive supplies and related equipment available at all service points, at all times and at all levels (central, provincial, local)	у	у	Added from FPE.
FPE	Quality	Supervision system: Extent to which the system of supervision at all levels is adequate (regular monitoring visits with corrective or supportive action)	У	у	Added from FPE.
FPE	Quality	Sterilization permanence: Extent to which clients adopting sterilization are routinely informed that it is permanent?	n	у	Added from FPE.

FPE	Quality	IUD Removal: Extent to which the entire population has ready and easy access to	n	у	Added from FPE.
		IUD removal			
FPE	Quality	Implant Removal: Extent to which the entire population has ready and easy access to implant removal	n	y	Added from FPE.
NCIFP	Equity	Are there policies /strategies in place to pre	vent dis	scrimi	nation towards (note:
		turned into single composite score based or			
NCIFP	Equity	• Youth?	n	у	Initially removed for correlation, added back
NCIFP	Equity	Unmarried women?	n	у	Initially removed for correlation, added back
NCIFP	Equity	Unmarried youth?	у	n	Removed, because covered by the 2 above.
NCIFP	Equity	Postpartum women?	n	n	correlation
NCIFP	Equity	• Wealth status?	у	у	
NCIFP	Equity	Rural populations?	n	n	correlation
NCIFP	Equity	Postabortion clients?	у	у	
NCIFP	Equity	HIV status?	у	у	
NCIFP	Equity	Other marginalized groups?	n	n	Correlation; broad category
NCIFP	Equity	To what extent do service providers discrin below? Use a score of 1 to illustrate minim show widespread discrimination (note: turn on average across sub-groups)	al discr	minat	tion and a score of 10 to
NCIFP	Equity	• Youth?	n	у	Initially removed for correlation, added back
NCIFP	Equity	Unmarried women?	n	у	Initially removed for correlation, added back
NCIFP	Equity	Unmarried youth?	у	n	Removed, because covered by the 2 above.
NCIFP	Equity	<ul><li>Postpartum women?</li></ul>	n	n	correlation
NCIFP	Equity	Wealth status?	у	у	
NCIFP	Equity	Rural populations?	n	n	correlation
NCIFP	Equity	Postabortion clients?	у	у	
NCIFP	Equity	HIV status?	у	у	
NCIFP	Equity	Other marginalized groups?	n	n	correlation
FPE	Equity	Community-based distribution (CBD) Extent to which areas of country not easily serviced by clinics or other service points are covered by CBD programs for	у	У	Added from FPE.

		distribution of contraceptives (especially rural areas)			
FPE	Equity	Extent to which the entire population has ready access to LAPMs (composite score based on average of access to sterilization, IUD, implant)	n	у	Added from FPE
FPE	Equity	Extent to which the entire population has ready access to STMs (composite score based on average of access to condom, pill, injections)	n	У	Added from FPE
NCIFP	Accountability	Are there mechanisms in place at the national, subnational, and facility level to monitor whether or not access to voluntary, non-discriminatory FP information and services is being achieved?	У	У	
NCIFP	Accountability	Does the government have mechanisms in place for reporting instances of denial of services on non-medical grounds (age, marital status, ability to pay), or coercion (including inappropriate use of incentives to clients or providers)?	У	у	
NCIFP	Accountability	Are violations reviewed on a regular basis?	у	у	
NCIFP	Accountability	Are violations investigated?	n	n	People say not reviewed, but investigated.
NCIFP	Accountability	Are there mechanisms in place at the facility level to solicit and use feedback from clients?	у	у	
NCIFP	Accountability	Are the following groups represented in nat	tional c	oordii	nating bodies
NCIFP	Accountability	Commercial/Private Sector?	n	n	Asked under strategy
NCIFP	Accountability	Religious Groups?	n	n	Asked under strategy
NCIFP	Accountability	Other Civil Society Groups?	n	n	Asked under strategy
NCIFP	Accountability	Is there a system in place that encourages dialogue and communication between users and service providers/health officials about service availability, accessibility, acceptability and quality?	у	у	

# Annex 2. Final set of 35 NCIFP Scores by Dimension

		<b>Notes-</b> if from FPE, or if composite of
Dimension	Question	multiple questions
Strategy	Does the National Family Planning Action plan include defined	manipre questions
ou acegy	objectives over a 5–to 10–year period, including quantitative targets?	
Strategy	Does the National Family Planning Action plan include objectives to	
<i>8</i> <b>v</b>	reach the poorest and most vulnerable groups with quality FP	
	information and services	
Strategy	Does the National Family Planning Action plan include projection of	
	the resources (material, human and financial) required to implement	
	the strategy, as well as sets forth a plan to secure the resources?	
Strategy	Does the National Family Planning Action plan include a mechanism	
	and funding to support meaningful participation of diverse	
CI I	stakeholders?	E EDE
Strategy	Level of program leadership High level of seniority of the director of	From FPE
	the national family planning program and whether director reports to a	
Strategy	high level of government Import laws and legal regulations Extent to which import laws and	From FPE
Strategy	legal regulations facilitate the importation of contraceptive supplies or	TIOIIITIE
	extent to which contraceptives are manufactured locally	
Data	Does the government collect data to monitor special sub-groups?	Average of: youth,
		unmarried women,
		unmarried youth,
		postpartum women,
		wealth status, post-
		abortion clients, HIV
Data	Does the government collect data from the private sector on	status
Data	commodities?	
Data	Is there a system of quality control for service statistics?	
Data	Are data used to\ ensure that the poorest and most vulnerable women	
Duu	and girls have access to quality FP services?	
Data	Record keeping Extent to which systems for client recordkeeping,	From FPE
	clinic reporting and feedback of results are adequate	
Data	Evaluation Extent to which program statistics, national surveys, and	From FPE
	small studies are used by specialized staff to report on program	
	operations and measure progress	
Data	Management's use of evaluation findings Extent to which program	From FPE
	managers use research and evaluation findings to improve the program	
~	in ways suggested by findings	
Quality	Are FP SOP in line with WHO and used for determining areas of need	
O1!4	for quality improvement?	
Quality	Are there guidelines on task sharing of family planning services?	
Quality	Are indicators for quality of care collected and used for public sector family planning services?	
Quality	Are indicators for quality of care collected and used for private sector family planning services?	
Quality	Are there structures in place to address quality, including participatory	
	monitoring or community/facility quality improvement activities?	
Quality	Does government collect information related to informed choice and provider bias?	

Quality	Training program Extent to which training programs, for each category of staff in the family planning program, are adequate to provide personnel with information and skills necessary to carry out their jobs effectively	From FPE
Quality	Logistics and transport Extent to which the logistics and transport systems are sufficient to keep stocks of contraceptive supplies and related equipment available at all service points, at all times and at all levels (central, provincial, local)	From FPE
Quality	Supervision system Extent to which the system of supervision at all levels is adequate (regular monitoring visits with corrective or supportive action)	From FPE
Quality	Sterilization permanence Extent to which clients adopting sterilization are routinely informed that it is permanent?	From FPE
Quality	IUD Removal Extent to which the entire population has ready and easy access to IUD removal	From FPE
Quality	Implant Removal Extent to which the entire population has ready and easy access to implant removal	From FPE
Equity	Are there policies in place to prevent discrimination towards special sub-groups?	Average of: youth, unmarried women, wealth status, post- abortion clients, HIV status
Equity	To what extent do service providers discriminate against special subgroups?	Average of: youth, unmarried women, wealth status, post- abortion clients, HIV status
Equity	Community-based distribution (CBD) Extent to which areas of country not easily serviced by clinics or other service points are covered by CBD programs for distribution of contraceptives (especially rural areas)	From FPE
Equity	Extent to which the entire population has ready access to LAPMs	From FPE; average of access to sterilization, IUD, implant
Equity	Extent to which the entire population has ready access to STMs	From FPE; average of access to condom, pill, injections
Accounta bility	Are there mechanisms in place at the national, subnational, and facility level to monitor whether or not access to voluntary, non-discriminatory FP information and services is being achieved?	
Accounta bility	Does the government have mechanisms in place for reporting instances of denial of services on non-medical grounds (age, marital status, ability to pay), or coercion (including inappropriate use of incentives to clients or providers)?	
Accounta bility	Are violations reviewed on a regular basis?	
Accounta bility	Are there mechanisms in place at the facility level to solicit and use feedback from clients?	
Accounta bility	Is there a system in place that encourages dialogue and communication between users and service providers/health officials about service availability, acceptability, acceptability and quality?	

# **Annex 3 Full Questionnaire for both FPE and NCIFP**

# IINTERNATIONAL FAMILY PLANNING PROGRAM STUDY

--2014 CYCLE—

\_\_\_\_\_

Country

Conducted By
Futures Group
And

Avenir Health

#### **QUESTIONNAIRE**

#### INTERNATIONAL FAMILY PLANNING PROGRAM STUDY

#### CHARACTERISTICS AND STRENGTH OF EFFORT

- This questionnaire is intended to provide internationally comparable information for nearly 85 countries. It concerns large-scale family planning programs, and it will update previous investigations of the characteristics and strength of these programs.
- Throughout this questionnaire we refer to "the family planning program." In most countries there is only one large-scale program, and usually it operates under government auspices. The focus is on the national picture of family planning activities. If these are merged with maternal and child health activities please focus on the family planning aspects.
- The 2014 version of the questionnaire has 2 main parts:
  - Questions about family planning program efforts, including policy and stage-setting
    activities, services and service-related activities, record-keeping and evaluation,
    availability and accessibility of methods, reversal of long-term methods (LTM) and longacting and permanent methods (LAPM), and the justification for the family planning
    program.
  - Questions for the National Composite Index for Family Planning (NCIFP) which
    includes the contents of the country's family planning plan or strategy, government
    collection of data to monitor the program's progress and accomplishments, data use for
    decision-making, quality of care guidelines, choice, equity, and accountability.
- Do not respond for pilot projects or small service networks. The focus is at the national level.
- Please do not complete questions for which you lack information other respondents in your country may handle those. Please confer with other individuals as you wish, and answer the items simply in your personal capacity, giving your own best judgment. All responses are entirely confidential.
- Thank you for your assistance with this study. In return, please note that you can obtain without cost a variety of software programs. These are on the web at www.futuresgroup.com (go to "Resources" then to "Software.") and www.avenirhealth.org (go to "Software.")

FOR THE SURVEY ADMINISTRATOR (Skip if self-administering survey)
Hello, and welcome to the 2014 Family Planning Effort Score (FPES) questionnaire. Please read the above guidelines and sign below indicating that you have read and understand the directions and explained them to the respondent.
Does the respondent agree to participate? Y N
Signature of survey administrator: Date:
INFORMED CONSENT
Hello, and welcome to the 2014 Family Planning Effort Score (FPES) questionnaire. The 2014 FPES study is being conducted by Futures Group. The FPES estimates the strength of national family planning programs, and is measured in over 80 countries around the world. The FPES provide a unique time series about FP policies and environment; they have been measured approximately every five years since 1979. It measures four different dimensions of an FP program: policies, services, evaluation, and method access. The scores are used by researchers around the world as a way of estimating programmatic strength. The current round of FPES will also provide the measurement of the policy-enabling environment for FP2020.
The questionnaire is confidential and you will not be identified by name, position or institution in any reports or analyses of the results. No identifying information will be shared beyond the research team. Completion of this questionnaire is voluntary and you can choose not to answer any individual question or all of the questions. You can stop at any time. However, we hope that you will participate in this questionnaire since your views are important.
Will you participate in this study? Y N
At this time, do you have any questions about the questionnaire? Y N
This study is funded by USAID and the Bill and Melinda Gates Foundation

To give a summary picture of program effort, please rate the following items. Score each item from 1 to 10, where 1 represents non-existent or very weak effort and 10 represents extremely strong effort. Try to answer each item; omit it only if you lack information.

ans wer each nem, c	1= Non-existent to 10= Extremely strong										
Component	Description	1	2	3	4	5	6	7	8	9	10
	POLICY AND STAGE	E-SE	ΓΤΙΝ	G AC	TIVI	TIES					
Policy on fertility reduction and family planning	Extent to which government policy stresses family planning for fertility reduction over health reasons or is simply neutral or opposed.	1	2	3	4	5	6	7	8	9	10
Statement by leaders	Extent to which the head of government, as well as other officials, speak publicly and favorably about family planning at least once or twice a year	1	2	3	4	5	6	7	8	9	10
Level of program leadership	High level of seniority of the director of the national family planning program and whether director reports to a high level of government	1	2	3	4	5	6	7	8	9	10
Policy on age at marriage	Extent to which legal age at marriage for females is set at 18 years or higher and is enforced	1	2	3	4	5	6	7	8	9	10
Import laws and legal regulations	Extent to which import laws and legal regulations facilitate the importation of contraceptive supplies or extent to which contraceptives are manufactured locally	1	2	3	4	5	6	7	8	9	10

Advertising of contraceptives allowed	Extent of freedom from restrictions on advertising of contraceptives in the mass media	1	2	3	4	5	6	7	8	9	10
Involvement of other ministries and public agencies	Extent to which other ministries and government agencies assist with family planning activities (e.g., delivery of supplies, services, information, education) or other population activities	1	2	3	4	5	6	7	8	9	10
Percent of incountry funding of family planning budget	Extent to which total family planning/population budget is derived from incountry sources (e.g., 1 for 10 percent, 5 for 50 percent, 10 for 100 percent)	1	2	3	4	5	6	7	8	9	10
	SERVICE AND SERVIC	E DI	ET A T	ren /	CTT	(/ITI	FC				
Involvement of private-sector agencies and groups	Extent to which private- sector agencies and groups assist with family planning or other population activities	1	2	3	4	5	6	7	8	9	10
Civil bureaucracy involved	Extent to which the civil bureaucracy of the government is used to ensure that program directives are carried out, and whether its senior officials take responsibility for program directives being carried out	1	2	3	4	5	6	7	8	9	10
Community- based distribution (CBD)	Extent to which areas of country not easily serviced by clinics or other service points are covered by CBD programs for distribution of contraceptives (especially rural areas)	1	2	3	4	5	6	7	8	9	10

Social marketing	Extent of coverage of the country by a social marketing program (subsidized contraceptive sales at low cost in commercial sector, especially in urban areas)	1	2	3	4	5	6	7	8	9	10
Postpartum program	Extent to which all new mothers in the country receive postpartum family planning assistance.	1	2	3	4	5	6	7	8	9	10
Home-visiting workers	Extent of coverage of population by workers whose primary task is to visit (rural) women in their homes to talk about family planning and MCH	1	2	3	4	5	6	7	8	9	10
Administrative structure	Extent to which administrative structure and staff at national, provincial and county levels are adequate to implement the family planning program	1	2	3	4	5	6	7	8	9	10
Training program	Extent to which training programs, for each category of staff in the family planning program, are adequate to provide personnel with information and skills necessary to carry out their jobs effectively	1	2	3	4	5	6	7	8	9	10
Personnel carry out assigned tasks	Extent to which all categories of family planning program staff (administrative, medical, paramedical, field) carry out assigned tasks effectively	1	2	3	4	5	6	7	8	9	10

		1= Non existent to 10= Extremely strong										
Component	Description	1	2	3	4	5	6	7	8	9	10	
Logistics and transport	Extent to which the logistics and transport systems are sufficient to keep stocks of contraceptive supplies and related equipment available at all service points, at all times and at all levels (central, provincial, local)	1	2	3	4	5	6	7	8	9	10	
Supervision system	Extent to which the system of supervision at all levels is adequate (regular monitoring visits with corrective or supportive action)	1	2	3	4	5	6	7	8	9	10	
Mass media for IEC	Frequency and extent of coverage of mass media messages that provide population with information on family planning and service sites	1	2	3	4	5	6	7	8	9	10	
Incentives and disincentives	Extent to which monetary or other incentives are used to encourage the adoption of family planning	1	2	3	4	5	6	7	8	9	10	

		1= Non existent to 10= Extremely strong											
Component	Description	1	2	3	4	5	6	7	8	9	10		
	RECORD KEEPING	G AN	D EV	ALU	ATIO	N							
Record keeping	Extent to which systems for client recordkeeping, clinic reporting and feedback of results are adequate	1	2	3	4	5	6	7	8	9	10		
Evaluation	Extent to which program statistics, national surveys, and small studies are used by specialized staff to report on program operations and measure progress	1	2	3	4	5	6	7	8	9	10		
Management's use of evaluation findings	Extent to which program managers use research and evaluation findings to improve the program in ways suggested by findings	1	2	3	4	5	6	7	8	9	10		

AVAILABILITY	AND ACCESSIBILITY OF I	MET	HOD	S AN	ND SI	UPPL	LIES				
IUDs	Extent to which entire population has ready and easy access to IUDs	1	2	3	4	5	6	7	8	9	10
Pills	Extent to which entire population has ready and easy access to pills	1	2	3	4	5	6	7	8	9	10

		1=	Non	existe	nt to	10= l	Extreme	elys	stron	g	
Component	Description	1	2	3	4	5	6	7	8	9	10
Injectables	Extent to which entire population has ready and easy access to injectables	1	2	3	4	5	6	7	8	9	10
Female sterilization	Extent to which entire population has ready access to voluntary sterilization services for women	1	2	3	4	5	6	7	8	9	10
Male sterilization	Extent to which entire population has ready access to voluntary sterilization services for men	1	2	3	4	5	6	7	8	9	10
Condoms	Extent to which entire population has ready and easy access to condoms	1	2	3	4	5	6	7	8	9	10
Implants	Extent to which entire population has ready and easy access to implants	1	2	3	4	5	6	7	8	9	10
Emergency	Extent to which entire population has ready and easy access to emergency contraception	1	2	3	4	5	6	7	8	9	10
Contraception  Abortion	Extent to which entire population has ready and easy access to safe abortion or menstrual regulation (regardless of legal status)	1	2	3	4	5	6	7	8	9	10

### LTM and LAPM REVERSAL

\*LTM: Long-term methods

LAPM: Long-acting and permanent methods Reversal: Removing an IUD or Implant, or the idea that sterilization is permanent

1= Non ex	xistent to	o 10= Extre	emely stro	ng										
1	2	3	4	5		6			7	8	9		10	
Sterilizatio permanenc	n	Extent to wadopting stroutinely in	erilization nformed th	1	2	3	4	4	5 6	7	8	9	10	
IUD Remo	oval	Extent to w population easy access removal	1	2	3	4		5 6	7	8	9	10		
Implant Removal		Extent to w population easy access removal	has ready	and	1	2	3	4	4	5 6	7	8	9	10

Please rate the general quality of family planning services. (Good quality includes a focus on client needs, with counseling, full information, wide method choice, and safe clinical procedures.)	1	2	3	4	5	6	7	8	9	10
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# FAMILY PLANNING JUSTIFICATION

How important is each of the following as a current justification for the national family planning program? (1 means negligible importance; 10 means great importance).

Reduce rate of population growth	1	2	3	4	5	6	7	8	9	10
Enhance economic development	1	2	3	4	5	6	7	8	9	10
Help women and men avoid unwanted births	1	2	3	4	5	6	7	8	9	10
Improve women's health	1	2	3	4	5	6	7	8	9	10
Improve child health	1	2	3	4	5	6	7	8	9	10
Reduce unmarried adolescent childbearing	1	2	3	4	5	6	7	8	9	10

Reduce unmet need for contraceptive services 1 2 3 4 5 6 7 8 9 10
---

## SPECIAL POPULATIONS

To what extent does the family planning program give particular emphasis to special populations? (1 means negligible emphasis; 10 means great emphasis)

1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
	1	1 2 1 2	1 2 3 1 2 3	1 2 3 4 1 2 3 4	1 2 3 4 5 1 2 3 4 5	1       2       3       4       5       6         1       2       3       4       5       6         1       2       3       4       5       6	1       2       3       4       5       6       7         1       2       3       4       5       6       7         1       2       3       4       5       6       7	1       2       3       4       5       6       7       8         1       2       3       4       5       6       7       8         1       2       3       4       5       6       7       8	1       2       3       4       5       6       7       8       9         1       2       3       4       5       6       7       8       9         1       2       3       4       5       6       7       8       9

# NEXT SECTION OF QUESTIONNAIRE

# **Questions for National Composite Index for Family Planning (NCIFP)**

This section of questions pertains to the content of the country's family planning program or the FP strategic plan and its implementation, focusing on choice, quality, equity and accountability. Please note that your country may have a distinct and separate national FP strategic plan or the FP action plan may be part of the national reproductive health plan or strategy. Please also note that many of the questions below are first stated in broad terms then they branch out into specific items comprising the question. Please respond yes or no to each specific item asked in each question. Skip the question or item only if you do not know the answer.

#### Are

eas t	or inclu	sion:
1.	Does th	ne national family planning action plan include:
	a.	Defined objectives over a 5–to 10–year period, including quantitative targets?
		YesNo
	b.	Objectives to reach the poorest and most vulnerable groups with quality FP information
		and services (including identification and removal of legal, regulatory, policy, and
		financial barriers to access)?YesNo
	c.	Subnational objectives (examples: region, urban/rural, income groups, etc.)?
		YesNo
	d.	Clear strategy for attaining these objectives, including the role of both the public and private sectors? Yes No
	e.	Projection of the resources (material, human and financial) required to implement the
	C.	strategy, as well as sets forth a plan to secure the resources? Yes No
	f.	Contraceptive commodity plan that ensures that contraceptive requirements are projected
		annually and that a range of method choices are reliably available to all clients in all
		facilities, whether urban/rural, public/private, fixed and mobile? Yes No
	g.	M&E framework (An M&E framework usually refers to a table that describes the
		indicators that are used to measure the FP program's progress and accomplishments, who
		is responsible for collecting and reporting the information, what tools will be used to
		collect the data and report them, and when reports should be submitted? Yes
		No
	h.	
		(including women, youth, marginalized groups, civil society) in policy formulation and program design and oversight? Yes No
		program design and oversignt? res No
2.	Use of	data to make programmatic decisions
	a.	
		FP services among the following population subgroups:
		i. Youth?YesNo
		ii. Unmarried women? Yes No
		iii. Unmarried youth? Yes No
		iv. Postpartum women?YesNo
		v. Wealth status?YesNo
		vi. Rural populations? Yes No vii. Postabortion clients? Yes No
		vii. Postabortion clients? Yes No viii. HIV status? Yes No
		ix. Other, please specify
		in. Onler, preuse specify

	b.		ne government collect data from the private sector on:
		1. ::	Number of clients?YesNo
			Commodities?YesNo
	C.		vernment service statistic data reviewed and analyzed for program evaluation at
	d		nnually? Yes No e a system of quality control for service statistics? Yes No
			ta collected by the government available for external use? Yes Yes Yes
	е.	No	a confected by the government available for external use? res
	f.		ta used to adjust national plans in order to:
	1.		
		1. ;;	To review targets on an annual basis? Yes No To adjust strategies for improving access? Yes No
		11. iii	To define training needs for providers? Yes No
		iv.	To improve quality of care?YesNo
			To ensure that the poorest and most vulnerable women and girls have access to
		٧.	quality FP services? Yes No
3.	Quality	of Care	e Guidelines and Procedures
٥.			mily planning standard operating procedures in line with the latest WHO medical
	u.		nes and are these standards used for:
			Staff and facility performance appraisal? Yes No
		ii	Determining areas of need for quality improvement? Yes No
			Proposed changes in program strategies or operation's? Yes No
	h		ere guidelines on task sharing of family planning services? Yes No
			ere specific indicators for quality of care that are collected and used by the
	٠.		ment to monitor coverage, quality, and equity of:
		i.	Public sector family planning services Yes No
		ii.	Public sector family planning services Yes No Private sector family planning services? Yes No
	d.	Are the	ere structures in place to address quality of public sector FP services, particularly:
			Trainings for providers on rights of clients to full, free, and informed choice
			(voluntarism, non-discrimination policies, third-party authorization, etc.)?
			Yes No
		ii.	Refresher trainings? Yes No
			Supervision structures? Yes No
		iv.	Mystery clients?YesNo
			Participatory monitoring or community/facility quality improvement activities?  Yes No
	e		ne government collect any information related to informed choice?
	C.		Availability of different types of contraceptives at different levels of facilities?
		1.	Yes No
		ii.	
			Provider bias? Yes No
			Provider training needs?YesNo
4.	Fauity	and disc	crimination
т.	a.		ere policies /strategies in place to prevent discrimination towards:
	a.		Youth? Yes No
		ii.	Unmarried women?YesNo
			Unmarried youth? Yes No
			Postpartum women? Yes No
			Wealth status?YesNo
			Rural populations? Yes No
		٧1.	

					viii.	HIV st	tatus?	clients? alized g	Y	es es Yes	No				
		1	Э.	sco	ore o		lustrate					nst each core of 10			low? Use a
		1		2	i.	Youth 3	?	5	6	7	8	9	10		
		1		2	ii.	Unmar 3	rried w 4	omen?	6	7	8	9	10		
		1		2	iii.	Unmar 3	rried yo 4	outh? 5	6	7	8	9	10		
		1		2	iv.	Postpa 3	rtum v 4	vomen?	6	7	8	9	10		
1		2		3	v.	Wealtl	n status 5	s? 6	7	8	9	10			
					vi.	Rural	popula 2		4	5	6	7	8	9	10
		vii. 1	Po	osta 2	abort	ion clie 3	nts?	5	6	7	8	9	10		
		1		2	vii.	HIV st	tatus?	5	6	7	8	9	10		
		1		2	viii.	Other 3	margin 4	alized g	roups?	7	8	9	10		
	5.	1	a. o.	Ar who be ser (in No Ar	re the nether ing a pes the rvice acludate of the rvice re vice re vic	er or not achieved ne gover as on not ing inap	nanism access 1? Y rnment n-medi ppropri review	s in place to volumes have more cal groundate use of the cal grou	ntary, no No echanism nds (age of incent regular b	on-discri ns in pla , marita ives to c	minator ace for real status, clients or Yes	y FP information of the provider of the provider	rmation instances pay), or	and ser s of deni r coercio	ial of

e.	Are there m	iechanisms in p	lace at the	tacility leve	el to solic	it and use feed	back from
	clients?		Yes	No			
f.	Are the foll	owing groups re	epresented	l in national	coordina	ting bodies?	
	i. Coı	mmercial/Privat	e Sector	Yes	No		
	ii. Rel	igious Groups		Yes	No		
	iii. Oth	er Civil Society	Groups	Yes	No		
g.	Is there a system in place that encourages dialogue and communication between users						
	and service providers/health officials about service availability, accessibility,						
	acceptability & quality? (The system for dialogue and communication can include						
	interviews after clinic visits, regular community forums, joint quality improvement						
	systems, or other interactive sessions.)						
		_YesN	lo .				

Final Questions:
Name
Job Title
Sector (for example, private, public, international, NGO, donor, academic, etc.):
Gender M F Other
Have you filled out the FPE Survey before? Yes No
If you have, please indicate which years' you filled out 1972 1982 1989 1994 1999 2004 2009
We would like to disseminate the results to you when they are finalized. Please list an email address where we can reach you:
Please note here any contraceptive methods not listed in this questionnaire that are growing in importance in your country or national family planning program.
You were invited to work with other individuals if you wished.
How long have you been closely acquainted with the national family planning program? year
During most of this time, what has your relationship been to the program?
Any final comments or suggestions?