

# Summary notes of the Technical Consultation on FP-OOPS estimates

**NIDI. Resource Flows Project on Family Planning. 2 April 2020**

## Background

Family Planning Out-of-Pocket (FP-OOPS) refers to household payments at the delivery point and when receiving Family Planning services or goods<sup>1</sup>. Family Planning (FP) goods represent mainly contraceptives and some contraceptives may involve a relatively small cost of consumables. Services refer to counselling and consultations, as well as surgery for sterilization (female and male) and procedures to insert and remove implants and IUDs. FP is linked to short-term methods, requiring periodic spending and resource availability of relatively low amounts. Long-acting contraception (LAC, notably sterilization, implants and IUD) involve an initial higher price. As per international standards, user transportation cost to obtain FP services and goods are not part of FP-OOPS. It also excludes spending to be reimbursed by other financing arrangement, which usually are insurance, employer or/and government. The reimbursed component is considered to be part of the reimbursing arrangement.

In 2019, it is estimated that around 190 million women<sup>(1)</sup> in the world want to avoid pregnancy and do not use any contraceptive method<sup>2</sup>. The reported main reasons are socio-cultural. Many countries have progressively offered free of charge contraceptives, mainly in public facilities and in some NGOs, which can be linked to certain products and contraceptive types. The lack of supply, difference in preferences and health and cultural reasons, may lead to FP OOPS in spite of availability of free provision choices. FP price policies have reduced drastically OOPS; a related monitoring is required to assess them and inform policy makers and analysts.

For international monitoring, main aggregates can be enough to assess advances. However, efficiency, effectiveness and equity at country level rely on detailed data availability for both program and health system management. The Netherlands Interdisciplinary Demographic Institute (NIDI) aims at providing FP data for program management by tracking FP expenditures since 1997 in light of ICPD<sup>3</sup> to be used for monitoring by UNFPA. With the experience gained, NIDI participated in the technical discussions and contributed to the Reproductive Health accounts guidelines released by WHO in 2009<sup>4</sup>.

Total OOPs (including FP) can be a barrier to Universal Health Coverage (UHC)<sup>5,(2)</sup>, especially when it is higher than 20% of total current health expenditure (CHE). When higher, it is associated with catastrophic spending and impoverishment. Within FP services, the financial barrier<sup>6</sup> linked to a high FP-OOPS is related to forgone use and the unmet need reported among low income women and adolescents<sup>7</sup>. Given the importance of this spending, it is specifically monitored in the Sustainable

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<sup>(1)</sup> In 2020 UNFPA has estimated that in 120 low- and middle-income countries the estimated number women not using contraception despite wanting to avoid pregnancy, reaches 232 million (United Nations Population Fund (2019). Costing the Three Transformative Results. 2020 New York, New York, page 18).

<sup>(2)</sup> Universal Health Coverage entails two main components: access to services and protection from financial hardship when using healthcare.

Development Goal (SDG) 3, aiming at ensuring healthy lives and promote well-being. Two SDG sub-goals are closely linked to FP-OOPS:

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning.

3.8 Achieve universal health coverage, including financial risk protection

Since 2018, national FP spending has been reported by WHO in its Global Health Expenditure Database (GHED)<sup>8</sup> (see Figure 1 and 2). Main indicators refer to Domestic General Government Expenditure on contraceptive management (Family Planning) as % of Domestic General Government Expenditure on Health (GGHE-D) and External sources of funding on contraceptive management (Family Planning) as % of External Health Expenditure (EXT). The number of participating countries, out of the 194 Member States, is increasing. The coverage is more extended among African countries. The reason of a partial monitoring is the challenge of its measurement.

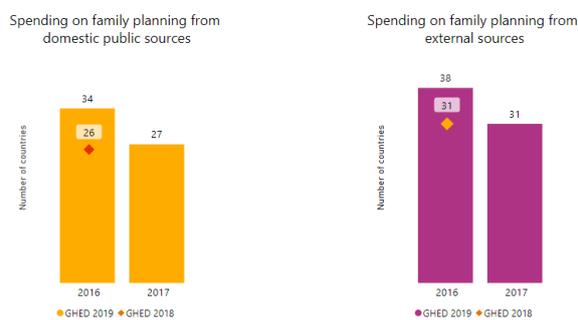


Figure 1: Total spending on FP (GHED 2018 and 2019)

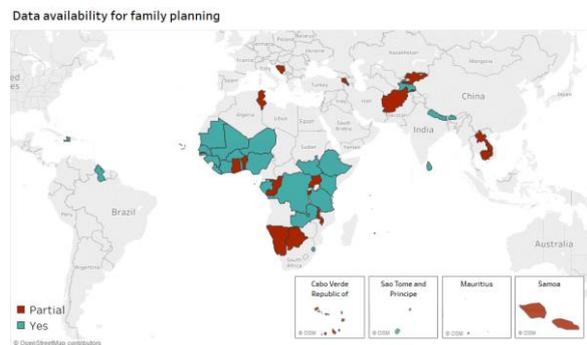


Figure 2: Country coverage of FP spending reported by GHED

In most countries, there are no direct records on FP-OOPS, and the detailed household surveys including all information per method are infrequent. WHO has generated a series of resource monitoring guidelines including those for Reproductive health, based on the previous international standard (SHA 1.0). With the emergence of the revised version of the standard (SHA2011), the measurement strategy has changed, and a focus on simultaneous measurement of spending by all causes of health system visits has been promoted. The result is expected to be more consistent, as the criteria would be compatible for all diseases/health conditions. However, in general, the framework does not provide many details on FP e.g. type of contraceptive. Too much detail for each of the diseases/conditions would overburden the estimates in the framework. In most cases, a specific estimation is performed.

Since 2014, NIDI has focused solely on FP within the Resource Flows (RF) project, to collect and analyse annual FP expenditure data within 69 Family Planning 2020 countries, among which are the 46 priority UNFPA (Supplies<sup>9</sup>) countries. In practice, the UNFPA-NIDI RF FP Project covers different institutions (government, NPIs, corporations, insurance) by means of a survey and estimates of FP-OOPS. In this process, NIDI has kept a close collaboration with FP2020 and Track 20. Data are used for monitoring and reporting on FP resources and for conducting evidence-based advocacy and resource mobilization for scaling up family planning service delivery. The survey is one of the sources used to report the government domestic expenditure indicator 12 of global monitoring through Family Planning 2020<sup>10</sup>.

As per our estimations, FP-OOPS is as important as governmental domestic FP spending. Results appear compatible with total OOPS analysis. The main component of OOPS is medicines and in the case of FP OOPS, contraceptives is also the largest share.

Several challenges need to be overcome on FP OOPS estimation. This report presents a summary of the technical discussion held in 2020 about the approach to estimate FPOOPS. The approach is described in *methods* and the identified *challenges* are highlighted including the proposed *solutions*. *Conclusions* and potential areas of research close the document.

## Method

UNFPA-NIDI RF FP Project collects national level data through questionnaires sent yearly to UNFPA country offices, usually with the support of consultants. The questionnaires are entered in the RF database and NIDI performs a quality control. A validation is generated by institution and then at country level. Results are presented in a report to UNFPA, shared through a newsletter with data providers and other agencies, as required (e.g. Institute for Health Metrics and Evaluation, IHEMS). A special mention merits FP2020 to which governmental spending on FP under an international monitoring is contributed.

Specifically for FPOOPS, requested information refers to “final consumer prices”, i.e. those charged to FP users, and “price related policies” such as subsidies and free of charge provision. These are usually set by government and by specific institutions.

Prices relate to contraceptive type and providing sector (government, private and non-profit institutions NPIs). Prices are expected to reflect the payments for modern contraceptive methods including the associated services and procedures e.g. insertion, removal and monitoring, as well as the administrative fees. Given the diversity of products and their packaging, the aim is to obtain at least those more frequently consumed products. The price associated to specific number of units in the packaging, allows to generate a unit price by contraceptive and related services. We request also to report the sources of information.

Price policies refer to any mechanism that contributes to establish a price, in such a way that increases the coverage of contraception in their target population considering needs, preferences, market choices and goals<sup>11</sup>. Information requested includes the mechanism of the policy, such as subsidies, price fixation, tariffs, as well as the environment of action or scope, such as the organisation and contraceptives and services involved, as well as the beneficiaries, or specific population groups benefitting of the policy.

We have developed the consumption-method-price (CMP) model based on the Futures Institute proposal<sup>12</sup>. CMP has three steps to estimate FP-OOPS:

- 1) The number of annual contraceptive consumers is estimated by applying the share of women users per FP modern method to the number of all women in fertile age<sup>(3)</sup> in the country as estimated by UN<sup>13,14</sup>. The share of FP modern users per method is obtained from the Demographic and Health Survey (DHS)<sup>15</sup>, United Nations World Contraceptive Use<sup>16</sup> or Multiple Indicator Cluster Surveys (MICS<sup>17</sup>).
- 2) The units by method consumed are estimated as the number of users per method (as estimated in step 1), multiplied by the corresponding number of contraceptive units needed for a year of protection, which is estimated based on the Couple-Year-Protection (CYP) factor<sup>18</sup>. CYP is used in our process as follows: an average consumption of 120 condoms, 15 cycles of oral contraception and 4 injections (3-month effect) per year. Female sterilization, implants and IUD's have a longer than one-year effect.

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<sup>(3)</sup> In some countries only the number of users among in union/married women is available but often, both married and non-married women data are separated.

However, to access them, women must pay the full fee, thus this is fully accounted for in the year of consumption. If greater detail in information is available, the model can be adjusted accordingly.

3) The annual consumption by method is obtained by multiplying the price of a contraceptive unit including the associated services by the annual consumption by method (estimated in step 2). These are differentiated by the providing sector: public and private (NPI, for-profit). The UNFPA-NIDI survey requests data on prices per country, sector and method, as well as the price policies to consider them in the calculations, e.g. reduction or free of charge provision and its coverage<sup>19</sup>. The “source of methods” reported by DHS are the public and private sectors of the facilities, including pharmacies. We apply the price reduction or free of charge provision, when reported, to the corresponding public and/or private shares.

In a nutshell, the FP-OOPS model can be summarised as:

$$FP\ OOP = \sum_{k,m} P_{k,m} U_{k,m}$$

Where *FP OOP* equals the sum of the FP annual consumption per method, *k* being the type of provider, *m* the methods, *P* the price paid, and *U* the number of units consumed by users by method, which weight the annual payment in accordance to the distribution of users across settings.

## Data available on FP-OOPS

Several type of reports and records, aiming to provide information on FP and FPOOPS, are listed below:

**Health accounts** reports on yearly expenditure tracking, may involve specifically FP at an aggregated level and cross classifying financing, provision and services. A specific financing axis refers to household direct spending (OOPS). When available in detail, data may reflect FPOOPS involving the various providers and their related services: -- in pharmacies, as prescribed or over the counter contraceptive provision; -- in hospitals and ambulatory facilities, linked to curative services related to secondary effects, and the surgical interventions (i.e. sterilization, which can be combined with caesarean section or deliveries); -- in preventive facilities, mainly providing FP education, advise and counselling, providing and monitoring contraception; -- in FP programs involving technical and health system administrative units. An analysis of inputs relates to specific human resources; contraceptive acquisition and operational direct and complementary services, such as supply chain. FP also relates to a category in the International Classification of Diseases and conditions (ICD), as a reason to contact health systems. These reports are publicly available in WHO GHED<sup>20</sup>.

The RHSC's **Global Contraceptive Commodity Gap Analysis**<sup>21</sup> displays spending by sector and contraceptive type, users by contraceptive and subsidized prices. This information was available for 34 countries in 2019. These reports can feed the estimation model.

The UNFPA **Global Program to Enhance Reproductive Health Commodity Security Surveys**<sup>22</sup> contain complementary data from users and facilities, and aims to be performed in 20 countries per year. Results confirm that despite free provision policy, some facilities charge for FP contraception. This can be due to lack of availability of contraceptives, or perceived low quality of services in the public sector, resulting in users paying in private facilities to obtain them. This data can feed the CMP model.

**Track20 Family Planning Spending Assessment (FPSA)**<sup>23</sup> reports aim at tracking the flow of resources and expenditures for the implementation of family planning programming in a country. They may contain an estimation of FP OOPS. Currently 9 country reports are available, not all of them with FPOOPS.

**PMA2020**<sup>24</sup> aims to conduct surveys in 10 countries every 6-12 months, through recruited and repeatedly trained women around selected enumeration areas, using smartphones. These surveys focus on user responses, including fees paid.

**DHS** optional module on spending includes payments by users covering specific contraceptives by method and source<sup>25</sup>. When available, the prices by method and source can be used in the model. Unfortunately, this DHS module is seldom generated and repeated, some methods are partially reported and some results may not reach representativity.

**USAID and MEASURE Evaluation**<sup>26</sup> have performed contraceptive market analysis (Total Market Approach, TMA) at country level including a thorough data collection through documents, questionnaires and retail audits, to obtain detailed information on size, accessibility, equity, sustainability of market. E.g. the financial barrier in Uganda was estimated to be 1% of total non-users in 2016<sup>27</sup>. These studies generate information on subsidies and average prices, but are not often performed.

**Contraceptive market data**, notably from central pharmacies and external trade records (imports and exports) from customs reports and retail sales of national production, and procurement of contraceptives, can reach a level of detail as required and be regularly updated. Macro data can help to establish a market estimate considering national production + imports – exports. Caution is required as they often reflect wholesale or ex-factory prices, which do not represent OOPS paid, neither contain detail by provider. However, they are useful, as aggregates, to set a minimum expenditure level and can support the analysis and validation of the estimated level or trend through domestic production and trade figures.

**Prices by contraceptive** are obtained frequently from small samples by convenience<sup>28</sup> from pharmacies and other private healthcare providers. Governmental prices are usually provided by Ministries of Health (MoH).

## Main challenges on data availability

Although the method relies in widely available secondary data sources, for some countries full or partial components may be scarce or inexistent. Thus the outcome depends on how well the consultant succeeds in identifying the appropriate data sources and focal points and accessing this information.

DHS is the best source for users by method information, or “method mix” [The percent distribution of contraceptive users by method in a defined period] in the country as well as the “sources of methods” [the specific type of facility by public/private sector providing the method]. DHS has a wide coverage and usually it is repeated periodically. However, DHS is not always available and not often performed in all countries. The use of methods reported by UN and MICS (Multiple Indicator Cluster Surveys) do not distinguish users among unmarried/married for a specific monitoring, while DHS in most cases does. The outdated surveys affect the estimations based on “method mix” as well, as the “sources of methods”. An associated problem is that not all methods are represented within the reports.

Contraceptive products and prices are highly diversified and vary widely among countries and within countries (e.g. related to national production, importing practices and price control). Each sector varies in prices. Most countries lack records of average (median) prices by product and their specific payments made by households. Access to the amount of contraceptive services and the related payments received by health service providers, may be difficult.

The records of the number of services provided are often reported by programs and in the statistical reports of activities of the health systems organizations.

Provider vs user surveys.

As the main source of payments refers to the provider (including pharmacies), some user payments may not be reported. This becomes important when for any reason the official subsidies are not made fully operational. Also, when no price is expected to be charged, an 'administrative fee' can still be required. Registers on the extent of compliance of the free provision by the Law may be captured in several surveys but are often lacking. In some countries, informal payments may also exist but can only be captured through specific surveys.

Joint product valuation.

When a caesarean section or delivery is attended and contraception is also offered, the separate cost of contraceptive methods applied may not be easily identified. Another important joint use, involves the differentiation of condoms for HIV prevention and contraception: a usual practice is that condoms are linked to the program associated, HIV or FP. This can be challenging, notably when condoms are acquired at a retailer and paid by households. As much as possible, when the primary objective is HIV protection, this should be the accounting category, and can additionally be reported as a "below the line item" in FP, as a secondary purpose.

Users without records

Users are not only married or in union, and in some countries no information exists on unmarried users, even in DHS. Only when specific studies on FP are available, details on the number of unmarried/not in union users, as well as a detailed method mix by country and whether the CYP factor varies, are known. Also important, the source of method for unmarried women can differ and adjustments may be required on prices and consequently on OOPS profiles. A largely missing information refers in particular to early adolescents (10-14 years), as DHS begins at 15 years.

## Potential Solutions

In some cases, type of contraception can vary in a short period, thus it is recommended to use the most recent source (by priority: DHS, MICS, UN). In few cases, different national surveys may include this information but a specific research effort is required to identify them. However, when no updated method mix is available, the easier assumption is to consider that no major change has happened since the most recent one. Recommended periodicity may change by country. Ideally an updated information system is advisable.

When a recent DHS is lacking, the source of methods can be obtained from other surveys and activity reports of the providers, by organization. In absence of other sources, the most recent DHS report can be used, assuming it is still representative of the current country situation. However, the sources can change also relatively fast in some cases.

The lack of source of methods can be partial, only for some methods. In this case, the assumption is made that a similar source covers contraceptives, grouped as whether an additional procedure is [or not] required. This means that the same source is assumed for IUD=implant=female sterilization while a similar assumption is made for Pill=Injections.

A total absence of method source is filled assuming that the share of OOPS in FP is similar to the one in total health. Thus, the assumption is that the share of household payments for contraception in the private sector, is equivalent to the share of payments by households in total health care consumption: % private FP OOPS = Share of total OOPS as displayed in WHO GHED. The complementary part is assumed to be public provision. This assumption is to be partially tested with the cases in which data for both procedures exist.

Searching a representative “average price” per method at country level without a specific study is challenging given the huge diversity of products and prices. Many similar products coexist for each type of contraceptive. In the response to the UNFPA-NIDI survey, countries often collect data from few pharmacies and other private and public providers and list them.

When available, it is suggested to use the module on prices in DHS or the TMA results. At NIDI, the average reported price is applied. Ideally, a weighted average would be used but it requires data on the extent of sales by specific product/price, which is not always easy to obtain. An improvement of the estimation could involve the inclusion of levels of lower and higher thresholds, to reduce the potential under/over valuation of estimates.

An important verification or alternative approach would be to estimate the size of the market using production and domestic and international trade in order to triangulate the totals among the various distributional channels and their trend. At aggregate level this is highly feasible. Agencies where data may be obtained from, include Central Bank, Customs Office, the Chamber of Commerce, Chamber of pharmaceutical industry, etc. A specific analysis by type of contraceptive would require much more detailed information, which might be difficult to access, but might be available from agencies such as IQVIA<sup>29</sup>. User surveys could help to improve the estimation of contraceptive market. Ideally, the estimates should be consistent on financing, provision & consumption.

Searching alternative data sources is important. Some countries have Household surveys on consumption that can be useful to estimate an average price per method. In an Uruguayan survey (ENGIH 2016-2017) questions are included, on each item purchased the previous month: quantity, expenditure (including how it was paid), and the destination, which could be another household). So, based on this information it is possible to estimate unit prices and the related consumption. However, the only method with a specific category is condoms. All hormonal contraceptives are aggregated. Ideally, detailed information is needed. The database and results of the Uruguayan survey is publicly available<sup>30</sup>. The expenditure categories are:

- 06112010 Contraceptive pills, contraceptive patch
- 06112020 Other contraceptives, intra uterine device (IUD), and others
- 06112030 Condoms

Building indices on sales trends might be used as proxies to estimate consumption in between household surveys. Prices can be estimated by the statistical offices (although the lack in detail can also be a problem). The quantity can be handled through production and imports using information on national accounts and other secondary sources.

Regarding the reduced and free of charge policies, it is important to keep in mind that sectors can be interlinked. In Uruguay private facilities might be partly financed by public resources (in the sense of mandatory revenues), while public services might charge a fee to the user. So, public providers is not the same as public resources, and the same with “private” resources. In Uruguay, private providers account for 43% of national health spending; 75% of their revenues come from the social insurance scheme.

Given the increasing need of estimates on unmarried women, more data is expected to be progressively available. More DHS reports display now either separate married/unmarried women or a total women/married women method mix. The opportunity to estimate both separately or alternatively an averaged total, when no detailed unmarried estimate exists, is preferred over the exclusion of data on unmarried women. The procedure is basically the same, and in most cases no specific detail exists on the method source in DHS, nor for CYP for married and unmarried women. However, specific and complete data is required notably for an improved adolescent OOPS measurement. A proposal of the questions to introduce in surveys would be important to ensure that a more appropriate and detailed information is made available. The surveys should address the fact that not necessarily all household members have the information of each of them regarding contraception. A refinement of the measurement can be discussed with specialists on adolescent health.

Regarding the concept of Family Planning, it may be important to include separate from contraceptives abortion and fertility treatment. Abortion, e.g. is legal in Uruguay since 2012, so it is performed within the health system and covered by the insurance, but in case it is not legal, it would be purely OOPS funded. Fertility treatment (assisted reproductive technology) e.g. in Uruguay it involves cost-sharing (OOPS and public resources, coming from tax revenues), but when not covered by insurance, it is purely OOPS.

## Discussion and conclusions

**The need for an approach.** FP spending represents a low share in CHE, and FPOOPS is still a smaller aggregate, but nonetheless, strategic to cover the basic right of access to contraception. Thus, it is only a small amount that allows to assist essential FP policies. Ideally, a continuous stepwise monitoring can lead to an improved estimation process and hopefully an increase on resources leading to a better sustained UHC.

**Integration of the health statistical system.** The approach presented here provides a conceptually and methodologically plausible indicative level of FP OOPS. The “consumption-method-price” model is simple and affordable, based on widely available secondary sources, which leads to low cost and low burden estimates. The approach can be applied in any country, and hence allows cross-national comparisons. The CMP model has compatibility, comparability and complementarity of results with main resource tracking initiatives, giving opportunity to reach a level of detail, usually not proposed in many studies. It is important that the producers of the data are well informed of statistics available in the country to feed the model with the best information possible and that the results are also made publicly available.

**Identifying and solving challenges.** The same as with other information data sources, the quality of the estimates can be improved with practice and the idea is to establish an information system that can provide updated and reliable data inputs for reliable analysis. Sharing experiences can help to improve comparisons in time and internationally. Specifically, for the more challenging components, such as price information and its variation within countries. The analyst can be informed and identify better practices on potential data to be used and where to obtain it. The international cooperation for the appropriate use of the statistical resources available is also expected, e.g. in institutional reports and databases available in Statistical Offices. Specifically, to better know the market of contraceptive products and the market of contraceptive services. Services by type, providers, prices, users and coverage, to name some components.

Can the results contribute to an improvement of HA? In principle yes. For a more comprehensive integration, as HA deals with complete resource flows, extra detail on the type of financing, provision and use is useful, e.g. services provided in ambulatory units, hospitals, Family planning centers, etc. Moreover, the HA aggregates can provide an opportunity to test the plausibility of the estimates.

How can this data be of greater use for international monitoring? Measurement is important to see how appropriate allocation to these services and the level is of currently spent resources, so that future adjustments in allocation can be monitored. Also, the availability of this small aggregate can allow to link it to the figures on access.

## Contributors

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<sup>8</sup> WHO GHED <https://apps.who.int/nha/database/ViewData/Indicators/en>

<sup>9</sup> UNFPA Supplies is the United Nations Population Fund's thematic programme dedicated to expanding access to family planning. UNFPA Supplies supports countries with the greatest needs, helping them to strengthen their supply chains so that women and adolescent girls can access a choice of contraceptives no matter where they live. The programme has a particular focus on 46 countries, in addition to providing support for reproductive health services in humanitarian crises. <https://www.unfpa.org/unfpa-supplies>

<sup>10</sup> [www.familyplanning2020.org](http://www.familyplanning2020.org)

<sup>11</sup> Korachais C, Macouillard E, and Meessen B. How User Fees Influence Contraception in Low and Middle Income Countries: A Systematic Review. *Stud Fam Plann.* 2016 Dec; 47(4): 341–356.

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<sup>26</sup> MEASURE Evaluation is an agency linked to USAID

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<sup>29</sup> formerly Quintiles and IMS Health, Inc. <https://www.iqvia.com/insights/points-of-view>

<sup>30</sup> <http://www.ine.gub.uy/web/guest/encuesta-de-gastos-e-ingresos-de-los-hogares-2016>