Couple-Years of Protection

Updates, Insights, and Recommendations

The webinar will begin shortly

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Live French translation is available.
Click "Interpretation" in the meeting controls to access it.

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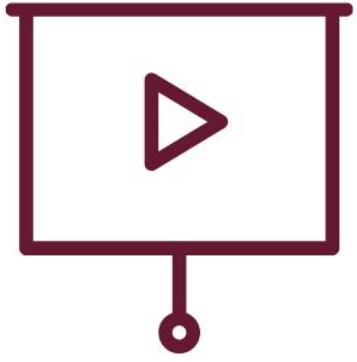
Use the Q&A tool to ask questions at any time.



Slides and a recording of this webinar will be available after the event

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Revised Couple Year Protection (CYP) Indicator Webinar

Opening Remarks by Ellen H. Starbird, Director of the Office of Population and Reproductive Health, USAID

Webinar Objectives:

- The objectives for this webinar are to update key stakeholders about the new CYP conversion factors, to reinforce guidance on the appropriate data sources and use of the CYP indicator, and to discuss and encourage country dissemination

CYP Overview

- CYP is the estimated protection provided by family planning methods during a one-year period
- It is calculated by multiplying the number of units distributed (for sale or for free) to clients over 12 months by a conversion factor that quantifies the duration of contraceptive protection provided per unit distributed and per procedure
- The CYPs for each method are then summed over all methods to obtain a total CYP figure
- CYP conversion factors are available on the USAID website: https://www.usaid.gov/global-health/health-areas/family-planning/couple-years-protection-cyp

Example

Over 12 months:
Condoms: 200,000 units distributed
Cu-IUDs: 1,000 units distributed

- 200,000 X 0.00833 = 1,666
- 1,0000 X 4.6 = 4,600

TOTAL CYP = 6,266

CYP Overview

- CYP measures the estimated protection provided by family planning based on the volume of contraceptive method distribution to clients to help monitor health system performance and track trends and progress over time

- This indicator has several advantages:
    - It can be calculated from data routinely collected through programs or projects, and thus minimizes the data collection burden
    - These data can be obtained from all the different service delivery mechanisms (clinics, community-based distributors, social/commercial marketing)
    - The CYP calculation is relatively simple to do; and
    - CYP allows programs to compare the contraceptive coverage provided by different FP methods

Disseminate to your network and country partners

- There are substantial recent changes for specific method conversion factors that could impact project and country CYPs

- It is important to disseminate this revision to your family planning network and country partners who use CYP to monitor progress

CYP Conversion Factors

Tabitha Sripipatana, Deputy Division Chief
Research, Technology and Utilization Division in PRH, USAID

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Conversion Factor Background

Resource: "**Updated Couple Years of Protection: Literature Review, Guidance for Updating Existing Methods, and Adding New Methods**"

The CYP for each contraceptive method is calculated by multiplying the number of units distributed to clients over 12 months by a conversion factor that quantifies the duration of contraceptive protection per each unit distributed

Conversion Factor

What characteristics are included? Data has evolved over the years and includes different characteristics for different methods, as appropriate:

- Use effectiveness (All methods)
- Duration of use (long acting and permanent methods + FAMS)
- Coital frequency (condoms, spermicides, EC)
- Consistency of use (condoms, spermicides)
- Wastage when product discarded prior to use (pills condoms and spermicides)
- Overlapping coverage (all methods) (Removed in 2011)

Sharing the CYP Update

- Webinar recording & slides will be made available to attendees. These materials can be broadly disseminated to partners.
- Updated Couple-Years of Protection brief, available from both USAID and FHI 360 websites, expands on webinar content

Updating Couple-Years of Protection: Review Process & Method-Specific Updates

Presented by:

Elena Lebetkin, Senior Research Associate, FHI 360

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Outline

1. Describe the process to determine when and whether to update the USAID-endorsed CYP website
2. Share the available evidence and new CYPs on the five methods determined to need update

Credit: Jessica Scranton, FHI 360

How to determine if CYP change is needed

Have any of the following occurred?

1. Method is new or newly available in LMICs
2. Labeled duration of use has been changed by a regulatory body
3. Presentation of method has been changed (e.g. instructions for use or change in quantity of product in package changed)

How to update CYP

1. **New / Newly Available**

New CYP Needed

Use past approaches of calculating CYP of related products to inform new method CYP

2. **Labeled Duration of Use Change**

Updated CYP Needed

Use past approaches of calculating CYP for method to inform updated CYP

3. **Presentation Change**

Change is Significant

(e.g. A change in the number of pills per pack)

Updated CYP Needed

Use past approaches of calculating CYP of related products to inform updated CYP

Methods Requiring Update

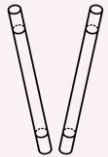
1 New / Newly Available

Caya Diaphragm

Levonorgestrel 1.5mg for Pericoital Use
(Pericoital Contraception)

2 Labeled Duration of Use Change

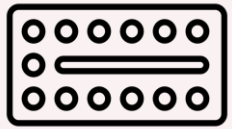
Levoplant*



Hormonal IUD

3 Presentation Change

USAID-Supplied Progestin-Only Pills (POPs)
(35 Pill Pack)



*Levoplant previously called Sino-Implant (II)

Diaphragm: Literature Review

Fitted Diaphragms
(multiple sizes)

- In 2000, assigned **1 CYP** which was "an educated guess" based on "**no empirical data available**"[1]
- 2001 study in Colombia, Philippines, and Turkey estimated **57.2% 12-month** continuation rate[2]

Caya Diaphragm
(single size)

- Study by ECCO Project in Niger, estimated **84% 6-month** continuation rate[3]

[1] Stover J, Bertrand JT, Shelton JD. Empirically based conversion factors for calculating couple-years of protection. Eval Rev. 2000;24(1):3-46.
[2] Bulut A, Ortayli N, Ringheim K, Cottingham J, Farley TM, Peregoudov A, et al. Assessing the acceptability, service delivery requirements, and use-effectiveness of the diaphragm in Colombia, Philippines, and Turkey. Contraception. 2001;63(5):267-75.
[3] Jackson A, Angel A, Bagourmé A-RM, Boubacar M, Maazou A, Issoufa H, et al. A New Contraceptive Diaphragm in Niamey, Niger: A Mixed Methods Study on Acceptability, Use, and Programmatic Considerations. Global Health: Science and Practice. 2022;10(1):e2100532.

Diaphragm: Updated CYP

Data for Caya diaphragm are sparse and largely consistent with previous estimate for fitted diaphragms.

Recommendation: Revert to Prior Estimate of 1 CYP per Diaphragm*

*Applies to fitted and Caya diaphragms

1 CYP per Diaphragm

Pericoital Contraception: Literature Review

In response to recent research findings and increased off-label use of emergency contraception for pericoital use, including as new method

Study	Average monthly use	Effectiveness
Festin et. al. [4] (n=303)	4.85	92.9
Camber Collective Ghana study^ (n=837)	1.72	97.9
Weighted average	**2.5**	**96.6**

[4] Festin MP, Bahamondes L, Nguyen TM, Habib N, Thamkhantho M, Singh K, et al. A prospective, open-label, single arm, multicentre study to evaluate efficacy, safety and acceptability of pericoital oral contraception using levonorgestrel 1.5 mg. Hum Reprod. 2016;31(3):530-40.

^ results not yet published

Pericoital Contraception: Updated CYP

Adapt approach for calculating CYP of oral contraceptive pills

number required (biological) / effectiveness = CYP

(2.5 pills per month x 12 months) / 96.6% = **31 pills per CYP**

Data are sparse and CYP is crude estimate

Recommendation: Simplify Estimate to 30 Pills per CYP

30 Pills per CYP

(0.033 CYP per Pill)

Levoplant: Literature Review

1994: Initially registered as a **4-year** product*

2017: WHO prequalified as a **3-year** product based on results of study showing significantly higher pregnancy rate in 4th year of use[5]

Currently: Globally registered as a **3-year** product

Credit: Jessica Scranton, FHI 360

* Initial registration in China

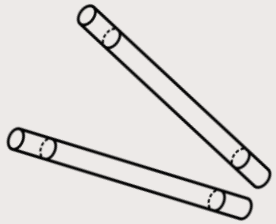
[5] Steiner MJ, Brache V, Taylor D, Callahan R, Halpern V, Jorge A, et al. Randomized trial to evaluate contraceptive efficacy, safety and acceptability of a two-rod contraceptive implant over 4 years in the Dominican Republic. Contracept X. 2019;1:100006.

Levoplant: Updated CYP

Apply same approach used to calculate 3-year implant* CYP

Recommendation: 2.5 CYP per 3-Year Implant

* 3-year implants include ImplanonNXT/Implanon and Levoplant



2.5 CYP per Implant

Hormonal IUD: Literature Review

- US FDA extended duration of use from 5 to 7 years for Mirena in 2021*
- Approvals with national drug regulatory authorities in LMICs will be updated accordingly in coming years

*anticipate same for Liletta in near future.

Continuation rate data from non-regulatory studies (post-2011 CYP update)

Study	1-year		2-year		3-year	
	Hormonal IUD	Copper IUD	Hormonal IUD	Copper IUD	Hormonal IUD	Copper IUD
Diedrich, et. al[6]; O'Niel-Callahan, et. al[7]; Peipert, et. al[8] (CHOICE study, US)	88%	84%	79%	77%	70%	70%
Brunie, et. al.[9] (LEAP study, Zambia & Nigeria)	95%	89%	-	-	-	-
Zhao, et. al[10] (China)	93%	-	-	-	-	-
Rowe, et. al[11] (9 countries, 56% from China)	84%	90%	62%	80%	48%	69%

[6] Diedrich JT, Zhao Q, Madden T, Secura GM, Peipert JF. Three-year continuation of reversible contraception. Am J Obstet Gynecol. 2015;213(5):662.e1-8.
[7] O'Neil-Callahan M, Peipert JF, Zhao Q, Madden T, Secura G. Twenty-four-month continuation of reversible contraception. Obstet Gynecol. 2013;122(5):1083-91.
[8] Peipert JF, Zhao Q, Allsworth JE, Petrosky E, Madden T, Eisenberg D, et al. Continuation and satisfaction of reversible contraception. Obstet Gynecol. 2011;117(5):1105-13.
[9] Brunie A, Stankevitz K, Nwala AA, Nqumayo M, Chen M, Danna K, Afolabi K, Rademacher KH. Expanding long-acting contraceptive options: a prospective cohort study of the hormonal intrauterine device, copper intrauterine device, and implants in Nigeria and Zambia. Lancet Glob Health. 2021 Aug 30:S2214-109X(21)00318-1. doi: 10.1016/S2214-109X(21)00318-1.
[10] Zhao S, Deng J, Wang Y, Bi S, Wang X, Qin W, et al. Experience and levels of satisfaction with the levonorgestrel-releasing intrauterine system in China: a prospective multicenter survey. Patient Prefer Adherence. 2014;8:1449-55.
[11] Rowe P, Farley T, Peregoudov A, Piaggio G, Boccard S, Landoulsi S, et al. Safety and efficacy in parous women of a 52-mg levonorgestrel-medicated intrauterine device: a 7-year randomized comparative study with the TCu380A. Contraception. 2016;93(6):498-506.

Hormonal IUD: Updated CYP

Considerations:

- Previous CYP calculation used modeled copper IUD continuation curve to calculate CYP
- Based on recent data, hormonal IUDs have a higher continuation rate than Copper IUDs
- Continuation rates are similar to contraceptive implants

Use modeled continuation curve for implants, rather than copper IUDs to calculate CYP for hormonal IUD

Recommendation: Increase CYP Factor to 4.8 per Device

4.8 CYP per Insertion

USAID-Supplied POPs: Background

USAID previously procured **28-day packs** of POPs

Now exclusively procuring **35-day packs** of POPs

Credit: Jessica Scranton, FHI 360

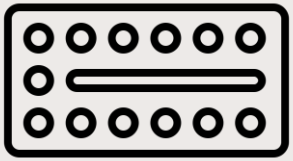
USAID-Supplied POPs: Updated CYP

Use 28-pill pack approach updated for 35 pill-pack

number required (biological) / effectiveness = CYP

(365 days per year / 35 pills per pack) / 93% = **11.18 Cycles per CYP**

Recommendation: Round to 12 Cycles per CYP for simplicity and suspected wastage



12 Cycles per CYP

(0.0833 CYP per Cycle)

Updated CYP Summary

Method	CYP
Sterilization	10 CYP per procedure Globally (13 CYP per procedure India, Nepal, Bangladesh)
IUD	Copper IUD: 4.6 CYP per insertion **Hormonal IUD: 4.8 CYP per insertion**
Implants	3- year (Implanon/ ImplanonNXT, **Levoplant): 2.5 CYP per implant** 5-year (Jadelle): 3.8 CYP per implant
Injectables	DMPA: 4 doses per CYP Noristerat: 6 doses per CYP Cyclofem: 13 doses per CYP
Pills	Combined oral contraceptives (COCs): 15 cycles per CYP **Progestin-only pills (POPs) (blister packs of 35 pills): 12 cycles per CYP**

Method	CYP
Condoms	120 units per CYP
Emergency Contraception (EC)	20 doses per CYP
Lactational Amenorrhea Method (LAM)	0.25 CYP per user
Standard Days Method (SDM)	1.5 CYP per trained adopter
Diaphragm	**1 CYP per diaphragm**
LNG 1.5mg for pericoital use	**30 pills per CYP**
Hormonal patch	15 cycles per year
Vaginal ring	15 cycles per year
Vaginal Foaming Tablets (VFT)	120 units per CYP

Collaborators and Thanks

- Elena Lebetkin, MPH, FHI 360
- Markus J. Steiner, PhD, FHI 360
- Emily Sonneveldt, PhD, Avenir Health
- Fatou Jallow, PhD, National Cancer Institute
- Amani Selim, MA, USAID
- Bamikale Feyisetan, PhD, USAID
- Maggwa Baker Ndugga, MD, MPH, USAID
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Credit: Jessica Scranton, FHI 360

Couple Year Protection: What else was updated?

Amani Selim, Senior M&E Advisor
Policy Evaluation and Communications Division in PRH, USAID

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What else was updated

- Definition
- Source of CYP data
- Proxy indicators

The Definition

Definition:

The estimated protection provided by family planning (FP) **methods** during a one-year period, based upon the volume of all contraceptives sold or distributed free of charge to clients during that period. **This includes permanent methods, such as sterilization, and the lactational amenorrhea method (LAM).**

The CYP for each contraceptive method is calculated by multiplying the quantity of each method distributed **to clients** by its conversion factor, to yield an estimate of the duration of contraceptive protection provided per unit of that method. The CYPs for each method are then summed over all methods to obtain a total CYP figure for the reporting period.

DATA SOURCE:

- Data collected from Family Planning programs that provide FP methods and services to clients

- *Data on **actual distribution to clients**, not volume of contraceptives procured and/or distributed to facilities or storage sites*. Source of the data may be facility level service statistics or health management information system (HMIS), DHIS2, and/or IP reporting.

- Supply chain data related to FP commodities in warehouse facilities or FP stock delivered to, or in storage at, health facilities should not be used to calculate this indicator. **The calculation of CYP is based on FP services and products provided to clients.** If this information is not available, a proxy indicator may be used to measure the volume and/or value of FP commodities for reporting purposes.

Proxy Indicators

- CYP calculations are based on the volume of contraceptives distributed to clients who will presumably use them, not on those delivered to facilities where they may remain unused in cartons or on shelves.

- In some projects such as social marketing, it may be difficult or impossible to monitor the exact numbers of contraceptives reaching the hands of clients. In these cases, for reporting purposes, a proxy indicator may be calculated based on the volume of contraceptives delivered to the retailers that are selling the contraceptives to clients.

- If a proxy indicator is calculated using data from logistics management information systems (LMIS), warehouse supply or delivery, stock-on-hand, or similar sources, those preparing the report should state that it is a proxy and provide details on the data source to the users of the information.

Resources:

- USAID CYP page: https://www.usaid.gov/global-health/health-areas/family-planning/couple-years-protection-cyp
- Data for Impact (D4I): FP/RH indicator database https://www.data4impactproject.org/prh/family-planning/fp/couple-years-of-protection-cyp/
- Steiner MJ, Sonneveldt E, Lebetkin E, and Jallow F. Updating Couple Years of Protection: Literature Review, Guidance for Updating Existing Methods, and Adding New Methods. FHI 360, Avenir Health, and USAID. January 2022. https://www.fhi360.org/resource/updated-couple-years-protection-literature-review-guidance-updating-existing-methods-and

Thanks to ….

PRH staff: Wezi Munthali, Shawn Malarcher, Bamikale Feyisetan, Baker Maggwa, and Smita Gaith

Data for Impact: Janine Barden O'Fallon and Bridgit Adamou

National Cancer Institute: Fatou Jallow

Q&A

Thank you!

For questions on the **Indicator Reference Sheet**, including definitions, rationale or source of data, please contact Bridgit Adamou from the D4I project at *adamou@email.unc.edu* and/or Amani Selim at *aselim@usaid.gov*

For questions on the **CYP Conversion Factor Calculations**, please contact Tabitha Sripipatana at *tsripipatana@usaid.gov*

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