

SUPPLEMENT - Integrating PrEP into Family Planning Services - A scoping review

Supplementary table 1: Details Search Strategy

| Name of data base | Search strategy | Number of records retrieved |
|-------------------|---|-----------------------------|
| MEDLINE | 1 (PrEP or preexposure prophylaxi* or pre-exposure prophylaxi*).mp. (4311) 2 Pre-Exposure Prophylaxis/ (1961) 3 1 or 2 (4311) 4 (family planning or contracept* or birth spac*).mp. (15827) 5 Family Planning Services/ (1741) 6 contraception/ or hormonal contraception/ or long-acting reversible contraception/ (2489) 7 ((sexual and reproductive) adj3 (health or healthcare)).mp. (2889) 8 Reproductive Health Services/ (602) 9 reproductive health/ or sexual health/ (2498) 10 exp HIV/ (16290) 11 exp HIV Infections/ (42748) 12 (hiv or hiv-1 or hiv-2 or human immunodeficiency virus*).mp. (91639) 13 or/4-12 (110132) 14 (wom?n or girl* or AGYW or adolescent* or youth).mp. (689470) 15 exp Women/ (4984) 16 Adolescent/ (307962) 17 14 or 15 or 16 (689470) 18 3 and 13 and 17 (1094) 19 limit 18 to (English language and yr="2012 -Current") (1081) | 1081 |
| EMBASE | 1 (PrEP or preexposure prophylaxi* or pre-exposure prophylaxi*).mp. (12854) 2 Pre-Exposure Prophylaxis/ (4392) 3 1 or 2 (12854) 4 (family planning or contracept* or birth spac*).mp. (165672) 5 family planning/ (40027) 6 contraception/ or hormonal contraception/ or long-acting reversible contraception/ (55412) 7 ((sexual and reproductive) adj3 (health or healthcare)).mp. (10082) 8 exp reproductive health/ (17489) 9 exp Human immunodeficiency virus/ (196001) 10 exp Human immunodeficiency virus infection/ (377192) 11 (hiv or hiv-1 or hiv-2 or human immunodeficiency virus*).mp. (502456) 12 or/4-11 (721124) | 556 |

| | | |
|-----------------------|---|------|
| | 13 (wom#n or girl* or AGYW or adolescent* or youth).mp. (3453070) | |
| | 14 female/ (9737405) | |
| | 15 adolescent/ (1663970) | |
| | 16 13 or 14 or 15 (10506992) | |
| | 17 3 and 12 and 15 (570) | |
| | 18 limit 17 to (English language and yr="2012 -Current") (556) | |
| Web of Science | # 1 (TS=(PrEP OR "preexposure prophylaxi*" OR "pre-exposure prophylaxi*")) AND LANGUAGE: (English) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=2012-2020 (6944) | 1696 |
| | # 2 (TS=(family planning OR contracept* OR birth spac*) AND LANGUAGE: (English) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=2012-2020 (42381) | |
| | # 3 (TS=Family Planning Services) AND LANGUAGE: (English) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=2012-2020 (5752) | |
| | # 4 (TS=reproductive healthcare) AND LANGUAGE: (English) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=2012-2020 (2813) | |
| | # 5 (TS=(HIV OR HIV infect*) AND LANGUAGE: (English) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=2012-2020 (148668) | |
| | # 6 (TS=(wom?n or girl* or AGYW or adolescent* or youth)) AND LANGUAGE: (English) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=2012-2020 (914740) | |
| | # 7 (#5 OR #4 OR #3 OR #2) AND LANGUAGE: (English) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=2012-2020 (190857) | |
| | # 8 (#7 AND #6 AND #1) AND LANGUAGE: (English) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=2012-2020 (1696) | |
| Global Health | 1 (PrEP or preexposure prophylaxi* or pre-exposure prophylaxi*).mp. (2503) | 612 |
| | 2 (family planning or contracept* or birth space*).mp. (19486) | |
| | 3 exp family planning/ (10370) | |
| | 4 contraceptives/ or contraception/ or injectable contraceptives/ or oral contraceptives/ (10561) | |
| | 5 ((sexual and reproductive) adj3 (health or healthcare)).mp. (3950) | |
| | 6 exp reproductive health/ (8451) | |
| | 7 exp sexual health/ (2938) | |
| | 8 exp human immunodeficiency viruses/ (179862) | |
| | 9 exp HIV infections/ (147094) | |
| | 10 (hiv or hiv-1 or hiv-2 or human immunodeficiency virus*).mp. (186902) | |
| | 11 or/2-10 (216594) | |
| | 12 (wom#n or girl* or AGYW or adolescent* or youth).mp. (454945) | |
| | 13 exp women/ (255165) | |
| | 14 exp adolescents/ (64805) | |
| | 15 12 or 13 or 14 (455041) | |
| | 16 1 and 11 and 15 (652) | |

| | | |
|-------------------------|---|-------------|
| | 17 limit 16 to (English language and yr="2012 -Current") (612) | |
| Cochrane Library | #1 (PrEP or "preexposure prophylaxi*" or "pre-exposure prophylaxi*"):ti,ab,kw (Word variations have been searched) (1752) | 1 |
| | #2 MeSH descriptor: [Pre-Exposure Prophylaxis] explode all trees (163) | |
| | #3 #1 or #2 (1752) | |
| | #4 ("family planning" or contracept* or birth spac*):ti,ab,kw (13440) | |
| | #5 MeSH descriptor: [Family Planning Services] explode all trees (215) | |
| | #6 MeSH descriptor: [Contraception] explode all trees (448) | |
| | #7 MeSH descriptor: [Reproductive Health Services] explode all trees (449) | |
| | #8 MeSH descriptor: [Sexual Health] explode all trees (38) | |
| | #9 MeSH descriptor: [HIV] explode all trees (3017) | |
| | #10 MeSH descriptor: [HIV Infections] explode all trees (12355) | |
| | #11 (hiv or hiv-1 or hiv-2 or human immunodeficiency virus*):ti,ab,kw (26578) | |
| | #12 #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 (39893) | |
| | #13 (wom?n or girl* or AGYW or adolescent* or youth):ti,ab,kw (273179) | |
| | #14 MeSH descriptor: [Women] explode all trees (604) | |
| | #15 MeSH descriptor: [Adolescent] explode all trees (102500) | |
| | #16 #13 or #14 or #15 (273179) | |
| | #17 #3 and #12 and #16 with Cochrane Library publication date from Aug 2012 to Aug 2020 (350) | |
| Google scholar | (Preexposure prophylaxis OR Pre-exposure prophylaxis OR PrEP) AND (women OR woman OR "adolescent girls and young women" OR AGYW OR girls OR youth)) AND ("family planning" OR contracept* OR birth spac* OR "sexual health" OR "reproductive health" OR HIV OR "human immunodeficiency virus" OR HIV-1 OR HIV-2) Limited to 2012-2020 | 380 |
| | TOTAL amount of articles retrieved from databases | 4326 |
| | TOTAL amount of articles after removing duplicates | 2651 |

Supplementary table 2 Inclusion Criteria

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|----------------------------|--|
| Inclusion criteria: | English language, all article types, all settings, including women and adolescent girls (10-19 years of age, rational: according to WHO definition of adolescence), relating to family planning services or care, key populations (e.g. sex worker, injecting drug users, trans women). |
| Exclusion criteria: | pregnant and postpartum women (rational: pregnant and postpartum women rarely attend family planning services), basic science (e.g. clinical or pharmacological research/ trials on PrEP efficacy, not containing PrEP as main intervention, studies that omit important details (e.g. title or author) or focus on other diseases than HIV. |

Supplementary table 3 Ongoing Studies

| Ongoing studies | | | | | |
|------------------------|---------------------|--|---------------------|---|-----------------------------------|
| # | Investigator | Title | Country | Study type | Protocol |
| A | Sales et al. | Pre-Exposure Prophylaxis Integration into Family Planning Services at Title X Clinics in the Southeastern United States: A Geographically-Targeted Mixed Methods Study (Phase 1 ATN 155) | US | A Geographically-Targeted Mixed Methods Study | Jmir Research Protocols 8(6): 10. |
| B | Celum et al. | A Cohort for Evaluation of Open-label PrEP Delivery Among Kenyan and South African Women: The POWER Cohort, study ID STUDY00000950 | Kenya, South Africa | Cohort study | NCT03490058 |
| C | Kohler et al. | Standardized Patient Encounters to Improve PrEP Counselling for Adolescent Girls and Young Women in Kenya (PrYA-SP) | Kenya | Behavioural: Clinician training intervention | NCT03875950 |

Supplementary table 4 Included Studies

| # | Author & Year | Title | Journal | Country | Article type/ Study type |
|--|--------------------------|---|------------------------|----------------|--|
| Low-and middle-income countries | | | | | |
| 1 | Gombe et al. (2020) | Key barriers and enablers associated with uptake and continuation of oral pre-exposure prophylaxis (PrEP) in the public sector in Zimbabwe: Qualitative perspectives of general population clients at high risk for HIV | PLoS One | Zimbabwe | Full article/ Qualitative study |
| 2 | Sila et al. (2020) | High Awareness, Yet Low Uptake, of Pre-Exposure Prophylaxis Among Adolescent | AIDS Patient Care STDS | Kenya | Full article/ Cross-sectional study conducted as follow-on study |

| | | Girls and Young Women Within Family Planning Clinics in Kenya | | | |
|----|--------------------------------|--|----------------|---|---|
| 3 | Wanga et al. (2020) | Uptake and impact of facility-based HIV self-testing on PrEP delivery: a pilot study among young women in Kisumu, Kenya | J Int AIDS Soc | Kenya | Full article/ Implementation research study Cohort study |
| 4 | Were et al. (2020) | Oral pre-exposure prophylaxis (PrEP) and family planning (FP) integration to improve PrEP continuation among adolescent girls and young women (AGYW) in Kenya | J Int AIDS Soc | Kenya | Conference abstract/ no specifics provided |
| 5 | Beima-Sofie et al. (2019) | Implementation challenges and strategies in integration of PrEP into maternal and child health and family planning services: Experiences of frontline healthcare workers in Kenya | J Int AIDS Soc | Kenya | Conference presentation/ Qualitative study |
| 6 | Celum et al. (2019) | HIV pre-exposure prophylaxis for adolescent girls and young women in Africa: from efficacy trials to delivery | J Int AIDS Soc | Kenya, South Africa, Tanzania, Zimbabwe | Commentary Review/ Na |
| 7 | Hodges-Mameletzi et al. (2019) | Pre-Exposure Prophylaxis for HIV Prevention in Women: Current Status and Future Directions | Drugs | n/a | Narrative review/ Na |
| 8 | Mugwanya et al. (2019) | Integrating preexposure prophylaxis delivery in routine family planning clinics: A feasibility programmatic evaluation in Kenya | PLoS Medicine | Kenya | Full article/ Pilot open-label, "real-world" implementation study |
| 9 | Pintye et al. (2019) | Frequent detection of tenofovir-diphosphate among young Kenyan women in a real-world PrEP implementation program | J Int AIDS Soc | Kenya | Brief report/ Pilot open-label, "real-world" implementation study |
| 10 | Roberts et al. (2019) | The role of costing in the introduction and scale-up of HIV pre-exposure prophylaxis: evidence from integrating PrEP into routine maternal and child health and family planning clinics in western Kenya | J Int AIDS Soc | Kenya | Full article/ Costing study |
| 11 | Dunbar et al. (2018) | Understanding and measuring uptake and coverage of oral pre-exposure prophylaxis delivery among adolescent girls and young women in sub-Saharan Africa | Sex Health | DREAMS countries (Kenya, Lesotho, Malawi, | Full article/ Literature review |

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|------------------------------|------------------------------|---|------------------------------------|--|--|
| | | | | Mozambique, South Africa, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe) | |
| 12 | Gombe et al. (2018) | Integrating oral HIV pre-exposure prophylaxis (PrEP) in a public family planning facility and youth centre to inform national roll out in Zimbabwe | J Int AIDS Soc | Zimbabwe | Conference abstract/ Qualitative study |
| 13 | Mugwanya et al. (2018) | Uptake of PrEP within clinics providing integrated family planning and PrEP services: Results from a large implementation program in Kenya | J Int AIDS Soc | Kenya | Conference abstract/ Pilot open-label, "real-world" implementation study |
| 14 | Mugwanya et al. (2018) | One-month PrEP Continuation Among Adolescent Girls and Young Women in Routine Maternal Child Health and Family Planning Clinics | AIDS Res Hum Retroviruses | Kenya | Conference abstract/ Pilot open-label, "real-world" implementation study |
| 15 | Omollo et al. (2018) | PrEP delivery platforms: Are family planning clinics an option? | AIDS Res Hum Retroviruses | Kenya | Conference abstract/ Open-label prospective study |
| 16 | Rousseau-Jemwa et al. (2018) | A comparative study of risk among adolescent girls and young women who accept or decline PrEP uptake from a community-based mobile clinic | 22nd international AIDS conference | Kenya/ South Africa | Conference abstract/ Open label PrEP implementation study |
| High-income countries | | | | | |
| 17 | Brant et al. (2020) | Integrating HIV Pre-Exposure Prophylaxis into Family Planning Care: A RE-AIM Framework Evaluation | AIDS Patient Care STDS | USA, Washington DC | Full article/ Prospective cohort study |
| 18 | Calabrese et al. (2020) | Contraception as a Potential Gateway to Pre-Exposure Prophylaxis: US Women's Pre-Exposure Prophylaxis Modality Preferences Align with Their Birth Control Practices | AIDS Patient Care STDS | USA, Connecticut | Full article/ Cross-sectional study |

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|----|-------------------------|---|----------------------------------|-------------------|---|
| 19 | Fields et al. (2020) | Understanding Opportunities to Discuss HIV Prep in Contraceptive Counselling Services Provided to Adolescent Women | J Adolesc Health | USA | Conference poster/ Secondary analysis study |
| 20 | Johnson et al. (2020) | Awareness and Intent to Use Pre-exposure Prophylaxis (PrEP) Among African American Women in a Family Planning Clinic | J Racial Ethn Health Disparities | USA | Full article, Cross-sectional study |
| 21 | O'Connell et al. (2020) | The Impact of HIV Pre-Exposure Prophylaxis (PrEP) Counselling on PrEP Knowledge and Attitudes among Women Seeking Family Planning Care | J Womens Health | USA, Philadelphia | Full article, Cross-sectional study Survey |
| 22 | O'Malley et al. (2020) | Intimate Partner Violence, HIV Pre-Exposure Prophylaxis (PrEP) Acceptability, and Attitudes About Use: Perspectives of Women Seeking Care at a Family Planning Clinic | AIDS Behav | USA, Pittsburgh | Full article, Mixed-methods study |
| 23 | Sales et al. (2020) | Where can Southern girls go for prep? Examining the PrEP-providing practices of Title-X funded family planning clinics across the Southern US | J Adolesc Health | USA | Abstract/ Explanatory, sequential mixed-methods study |
| 24 | Unger et al. (2020) | Providing Pre-exposure Prophylaxis in Family Planning Centers: A Survey of Provider Knowledge and Attitudes | J Assoc Nurses AIDS Care | USA | Full article/ Cross-sectional study |
| 25 | Carley et al. (2019) | Interest in Pre-exposure Prophylaxis (PrEP) for HIV is Limited Among Women in a General Obstetrics & Gynaecology Setting | AIDS Behav | USA, Louisiana | Full article/ Cross-sectional study |
| 26 | Sales et al. (2019) | Impact of PrEP Training for Family Planning Providers on HIV Prevention Counselling and Patient Interest in PrEP in Atlanta, Georgia | J Acquir Immune Defic Syndr | USA, Atlanta | Full article/ Implementation study |
| 27 | Sales et al. (2019) | Patient recommendations for PrEP information dissemination at family planning clinics in Atlanta, Georgia | Contraception | USA, Atlanta | Full article/ Cross-sectional study |
| 28 | Calabrese et al. (2018) | HIV Pre-Exposure Prophylaxis Stigma as a Multidimensional Barrier to Uptake Among Women Who Attend Planned Parenthood | J Acquir Immune Defic Syndr | USA, Connecticut | Full article/ Cross-sectional study |
| 29 | Haider et al. (2018) | Examining knowledge of and attitudes toward preexposure prophylaxis (PrEP) among HIV-vulnerable women in a Chicago-based family planning clinic | Contraception | USA, Chicago | Abstract/ Mixed-methods study |

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|----|-------------------------|--|---------------------------|--------------------------|--|
| 30 | Koren et al. (2018) | HIV Pre-Exposure Prophylaxis and Women: Survey of the Knowledge, Attitudes, and Beliefs in an Urban Obstetrics/Gynaecology Clinic | AIDS Patient Care STDS | USA, Philadelphia | Full article/ Cross-sectional study Survey |
| 31 | Pollock et al. (2018) | Role of Preexposure Prophylaxis in the Reproductive Health of Women at Risk for Human Immunodeficiency Virus Infection | Obstet Gynecol | USA | Current commentary/ Na |
| 32 | Scott et al. (2018) | Knowledge and acceptability of HIV preexposure prophylaxis (PrEP) among women presenting for family planning services in a high-prevalence community | Contraception | USA, Washington DC | Abstract/ Cross-sectional study |
| 33 | Seidman et al. (2018) | Family planning providers' role in offering PrEP to women | Contraception | USA | Review article/ Na |
| 34 | Garfinkel et al. (2017) | Predictors of HIV-related risk perception and PrEP acceptability among young adult female family planning patients | AIDS Care | USA, Baltimore City | Full article/ Cross-sectional study |
| 35 | Sanders et al. (2017) | Integration of prep in an academic adolescent clinic & impact of prep use on sexually transmitted infection (STI) rates | Sex Transm Infect | USA, Baltimore City | Abstract/ No specifics provided |
| 36 | Seidman et al. (2016) | United States family planning providers' knowledge of and attitudes towards preexposure prophylaxis for HIV prevention: a national survey | Contraception | USA | Full article/ Cross-sectional study |
| 37 | Seidman et al. (2016) | Women's Knowledge of, Interest in, and Eligibility for HIV Pre-exposure Prophylaxis at Family Planning Clinics in Northern California | AIDS Res Hum Retroviruses | USA, Northern California | Meeting abstract/ Cross-sectional study |
| 38 | Seidman et al. (2016) | Integrating Preexposure Prophylaxis for Human Immunodeficiency Virus Prevention Into Women's Health Care in the United States | Obstet Gynecol | USA, | Commentary/ Na |

Na/ not applicable

Figure a: PRISMA flowchart

