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# Sexual and reproductive health during Covid: a global systematic review of health system responses and service delivery adaptations

[hlconyers](#)<sup>1</sup><sup>1</sup>London School of Hygiene & Tropical Medicine, University of London

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protocol .

SRH innovations in COVID-19

 hlconyers

The COVID-19 pandemic is on-going and continues to challenge the delivery of SRH services across the globe. The impact has created imbalances in healthcare provision, disruptions of routine essential services and, in most settings, require redeployment of scarce healthcare personnel across SRH services. Additionally, health system disruptions such as supply chain and procurement challenges, distribution and lockdown restrictions have previously and continue to affect SRH service provision. The reduction in the access, use, quality of health services significantly and disproportionately affect populations in humanitarian settings, which makes MISP preparedness and comprehensive implementation even more challenging, specifically so a result of the COVID-19 pandemic. Adaptive and innovative solutions allow for healthcare systems and providers to continue to effectively deliver SRH services, maintaining a high standard of care.

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## Background

- 1 The COVID-19 pandemic is on-going and continues to challenge the delivery of SRH services across the globe. The impact has created imbalances in healthcare provision, disruptions of routine essential services and, in most settings, require redeployment of scarce healthcare personnel across SRH services. Additionally, health system disruptions such as supply chain and procurement challenges, distribution and lockdown restrictions have previously and continue to affect SRH service provision. The reduction in the access, use, quality of health services significantly and disproportionately affect populations in humanitarian settings, which makes MISP preparedness and comprehensive implementation even more challenging, specifically so as a result of the COVID-19 pandemic. Adaptive and innovative solutions allow for healthcare systems and providers to continue to effectively deliver SRH services, maintaining a high standard of care.

## Objectives

### 2 This protocol serves two main objectives.

1. To systematically review the existing literature to critically assess studies to better understand health system response, service delivery adaptations, and innovations for SRH service provision in general during the global COVID-19 pandemic.
1. To systematically review the existing literature to critically assess studies to better understand health system response, service delivery adaptations, and innovations for MISP services delivery in humanitarian settings during the global COVID-19 pandemic. Specifically, focusing on the following sub-objectives:
  1. How was the MISP impacted: what services continue to be provided what services seized
  2. For the services that continued: what kind of innovations took place, health systems adaptations, etc
  3. Why was it impacted this: logistics, supplies, health system changes, health care workforce changes, etc
  4. Draw conclusions on how much more time we need to invest in MISP preparedness and assessment

Overall, this review will help identify and share relevant practices, recommendations, adaptations, innovations of SRH services globally as well as draw conclusions on the needed investments to improve MISP preparedness and response in humanitarian settings, as a result of the COVID-19 pandemic.

## Search Locations

- 3 Peer reviewed article databases:
  1. PubMed
  2. EMBASE
  3. Scopus

4. Cochrane Library
5. CINAHL
6. [WHO COVID-19 Global database on coronavirus disease](#)

## Search Strategy and Terms

- 4 This study will build on a review previously completed by WHO staff, calling for adaptations to sexual, reproductive, maternal and newborn health care provision during the COVID-19 pandemic. We will start with an initial exhaustive list of search terms that capture 1) health services, and 2) the COVID-19 pandemic. All terms as well as our search strategy have been verified by a public health librarian at the University of North Carolina at Chapel Hill. After a first search on PubMed, we will narrow these terms to only those that select the most relevant articles. Conference abstracts will be included if relevant. Initial details of the protocol have been uploaded to Prospero and we plan to register with Protocols.io as well.

Search algorithm: 1) Health services, including needs for humanitarian settings and minimum initial service package (MISP) AND 2) COVID-19 health system response and service delivery adaptations constructs

A detailed table of initial search terms is shown below:

### 1. Health Services

Construct	Search Terms
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Reproductive health	reproductive health services, reproductive medicine, maternal health services, breastfeeding, breast fed, breastfed, wet nursing, milk sharing, lactating, breast milk, breast pumping, antenatal, ante-natal, prenatal care, prenatal, pre-natal, prenatal education, gest*, pregnancies, parturitions, birth, births, childbirth, childbirths, obstetric labor, obstetric delivery, obstetric deliveries, postpartum period, puerperium, post-partum, perinatal care, perinatal, pari-ntal, maternity, spontaneous abortion, induced abortion, pregnancy termination, termination of pregnancy, postabortion, early pregnancy loss, early pregnancy losses, miscarriage, miscarriages, stillbrith, stillbirths, stillborn, cesarean sections, abdominal deliveries, cesarian section, caesarean sections, abdominal delivery, c-section, c-sections, postcesarean section, eclampsia, preeclampsia, premature births, preterm birth. preterm births, premature obstetric labor, preterm labor, premature labor, birth attendant, birth attendants, midwife, midwives, midwifery, premature birth, pre-eclampsia, eclampsia, cesarean section, fetal death, mifepristone, abortion*, postpartum, postnatal care, obstetric*, parturition, pregnancy, lactation, breast feeding, reproductive health
Sexual health	sexually transmitted infection, sexually transmitted infections, venereal disease, venereal diseases, chlamydia infections, chlamydia, herpes genitalis, genital herpes, genital wart*, HIV infections, HIV, human immunodeficiency virus, human immunodeficiency viruses, AIDS virus, AIDS viruses, acquired immune deficiency syndrome, acquired immunodeficiency syndrome, acquired immuno-deficiency syndrome, acquired immuno-deficiency syndromes, acquired immunodeficiency syndromes, AIDS, sexual activity, sexual activities, sexual behaviour, sexual behaviours, celibacy, protected sex, unprotected sex, high-risk sex, unprotected intercourse, condomless sex, urinary tract infection, assisted reproductive techniques, assisted reproductive technique, assisted reproductive technologies, assisted reproductive technologies, breast neoplasms, breast cancer, breast cancers, ovarian neoplasms, ovarian neoplasm, ovary neoplasm, ovary cancer, ovary cancers, ovarian cancer, ovarian cancers, cancer of ovary, cancer of the ovary, endometrial neoplasm, endometrial carcinoma, endometrial carcinomas, endometrial cancer, endometrial cancers, endometrium cancer, cancer of the endometrium, carcinoma of endometrium, endometrium carcinoma, endometrium carcinomas, cancer of endometrium, endometrium cancers, hysterectomies, testicular neoplasm, testicular tumors, testis neoplasm, testis neoplasms, testicular tumor, cancer of testis, testis cancer, testis cancers, cancer of the testes, cancer of the testis, testicular cancer, testicular cancers, prostate neoplasms, prostate neoplasm, prostatic neoplasm, prostate cancer, prostate cancers, cancer of the prostate, prostatic cancer, prostatic cancers, cancer of the prostate, sex education, menstruation, prostatic neoplasms, testicular neoplasms, hysterectomy, endometrial neoplasms, infertility, post-exposure prophylaxis,, sexuality, pre-exposure prophylaxis, urinary tract infections, unsafe sex, sexual abstinence, sexual behavior, sexual health, syphilis, gonorrhea, sexually transmitted diseases

Gender	sex offenses, rape, spouse abuse, domestic violence, intimate partner violence, gender-based violence, sex workers, sex work, sex worker, prostitut*, commercial sex, sex industry, sex industries, intimate partner violence, partner abuse, wife abuse, sex offense, sexual assault, sexual assaults, sexual violence, sexual violences, sexual abuse, sexual abuses, violence against women and girls, gender affirming care, child marriage, child marriages, hormones, estrogen, testosterone
Family planning	family planning, family planning services, contraception, contraceptive agents, inhibition of fertilization, fertilization inhibition, fertility control, birth control, intrauterine device, female contraceptive devices, coiled spring, coiled springs, vaginal sponge, vaginal sponges, vaginal ring, vaginal rings, vaginal shield, vaginal shields, cervical cap, cervical caps, vaginal diaphragm, vaginal diaphragms, progestogen-only pill, progestogen-only pills, progestin-only pills, progestin-only pill, mini pill, mini pills, morning-after pill, morning-after pills, referral pathway, referral pathways, condom, condoms, intrauterine devices, contraceptive*, contraception
Search terms specific to service utilisation	access, quality of care, health care quality, quality of healthcare, healthcare quality, health services accessibility, patient acceptance of health care, sustained use, access to care
Humanitarian concepts	
Humanitarian	humanitarian, relief work, relief works, natural disasters, disasters, disaster, catastrophe, catastrophic, avalanche, avalanches, cyclone, cyclones, hurricanes, hurricane, tropical storm, tropical storms, typhoon, typhoons, droughts, drought, earthquake, earthquakes, flood, flooding, flooded, landslide, land slide, land slides, rockslides, rockslide, mudslide, mudslides, mud slide, mud slides, tidal wave, tornado, wildfire, wildland fires, brush fires, brush fire, forest fire, forest fires, wild fires, wild fire, tsunami, volcanic eruption, volcanic ash, volcanic gases, armed conflict, war, wars, conflict*, war zone, war zones, invasion, invasions, incursion, insurrection, coup, crisis, crises, mass casualty incidents, mass casualties, mass casualty, mass fatalities, mass fatality, refugee, asylum seeker, asylum seekers, displaced person, displaced persons, transients and migrants, transient, transients, migrant, migrants, squatter, squatters, evacuee, evacuees, human security, food supplies, emergency, emergencies, food supply, food assistance, refugees, warfare, armed conflict, volcanic eruptions, tsunamis, wildfires, tornadoes, tidal waves, landslides, floods, cyclonic storms
MISP (brief)	minimum initial service package, minimum initial services package, minimum initial service packages, minimum initial services packages

## 1. COVID-19 (January 2020 – present)

Construct	Search Terms
COVID-19	COVID19, COVID-19, COVID-19 serotherapy, COVID-19 serotherapy, COVID-19 nucleic acid testing, COVID-19 serological testing, COVID-19 testing, SARS-CoV-2, severe acute respiratory syndrome coronavirus 2, NCOV, 2019 NCOV, coronavirus, COV2020/01/01 - 3000/12/31

## 1. Health system response and service delivery adaptations (January 2020 – present)

Construct	Search Terms
Health system disruption	supply chain, supply chains, logistics, logistic, procurement, inventory management, inventory control, forecasting, forecast, forecasts, production planning, disruption*, sourcing, stock-out, stockout, medication
Adaptation/innovation	digital service*, digital program*, implement*, innovat*, adapt*, modif*, decentral*, community-based, utilization, utilisation, uptake, program*, service*, telemedicine, telehealth, ehealth, e-health, mhealth, m-health, mobile-health, mobile applications, mobile-app*, mobile-based, mobile-device*, mobile-technolog*, mobile-intervention*, web-based, web-application*, web-intervention*, web-program*, internet-based-intervention, internet-based, internet-application*, internet-program*, online, online-systems, telephone, telephone*, phone*, smartphone, smartphone*, smart-phone*, cell-phone, cell-phone*, cellphone*, mobile-phone*, cellular-phone*, smartwatch*, smart-watch*, text-messaging, text-messag*, texting, electronic-mail, e-mail*, email*, electronic-messag*, teletherapy, computer-assisted therapy, teleconsulation, remote-consultation, remote-consultation*, web-based, short-message-service

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### Inclusion and Exclusion criteria

- 5 Inclusion criteria:** Studies will be selected if they meet the following inclusion criteria:
- Sexual health and/or reproductive health provision are the main focus of the study.
  - Innovations and adaptations of SRH services in response to challenges arising due to the

COVID-19 pandemic are explained in the study.

- The study was published in the English, French or Spanish language.
- The study took place between January 2020 and the end date of our search.
- Studies with primary data.
- Studies that reference COVID-19 pandemic directly in the abstract and title.

**Exclusion criteria:** Studies will be excluded if they meet the following exclusion criteria:

- The study describes a health system response/service delivery adaptation not related to the COVID-19 pandemic.
- The study describes a health system response/service delivery adaptation to service provision outside of SRH thematic areas.
- Commentaries, expert opinions, editorials, and studies that do not include primary data.
- No mention of COVID-19 in abstract or title.

#### Data Screening and Extraction Plan

- 6 We will use a PRISMA checklist to describe and manage the review process. Covidence will be used to manage the data screening, organising the workflow among five screeners. Each publication will be approved by two reviewers in order to be included. For any publications that are disputed, one of the authors will resolve the dispute. Thematic analysis will be used to capture adaptations and innovations to SRH services in response to challenges arising from the COVID-19 pandemic. Articles that meet inclusion after full text screening will be categorized based on type of service delivery adaptation/health system response and SRH thematic areas. A data extraction form will be developed to standardize the retrieval of information. The author team also conduct a critical appraisal among articles that have undergone data extraction. GRADE and GRADE-CERQual will be used to assess the quality of the evidence for the quantitative and qualitative syntheses.

- 6.1 Managing Identified Resources: All references will be collated into one reference manager (EndNote), where any duplicate entries will be removed.

#### Strengths

- 7 This systematic review allows for a comprehensive look at the available literature of a new and developing topic. It will allow us to guide and inform decision-making in SRH care even as COVID-19-related challenges continue to arise around the globe. We will also be able to identify gaps in the literature and point to future research opportunities. Our search will not be limited by region nor by income, allowing for a full picture of the global situation

#### Limitations

- 8 Only studies published in the English, French and Spanish language will be included in the final study selection, thereby possibly excluding relevant data and information. It is likely that successful innovations will be published compared to unsuccessful innovations, which may limit some learning from the adaptations captured by our search. It is possible that results will indicate a skew towards publications from high income countries; however, we are hopeful that the scope of our search will adjust for this publication bias. Additionally, although we are

including abstracts in our search, the exclusion of grey literature in conjunction with the recent onset of the pandemic may limit the inclusion of some SRH innovations due to the length of publishing time.

## References

- 9 1. Hussein J. COVID-19: What implications for sexual and reproductive health and rights globally? : Taylor & Francis; 2020.
2. Iyengar, K. P., et al. (2020). "Impact of the coronavirus pandemic on the supply chain in healthcare." *British Journal of Healthcare Management* 26(6): 1-4.
3. Benova, L, Huysmans, E, and Portela, A (2021) Rapid scoping review of measures taken to maintain the provision and the use of essential services for MNCAAH (maternal, newborn, child, adolescent and older person's health) V.2. *Protocols.io*. Accessed Dec 1, 2021.
4. Moher, D., et al. (2009). "Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement." *PLOS Medicine* 6(7): e1000097.
5. Lewin, S., et al. (2018). "Applying GRADE-CERQual to qualitative evidence synthesis findings: introduction to the series." *Implementation Science* 13(1): 2.