



Photo: Emmanuel Attramah, PMI Impact Malaria

■ Annotated Bibliography

EFFECTS OF COVID-19 ON ESSENTIAL MNCHN/FP/RH CARE AND THE EMERGING RESPONSES

BACKGROUND

By March 2020, it was clear that the SARS-CoV-2 pandemic (COVID-19) would pose threats to access to and use of equitable, quality essential health care, as in previous outbreaks.¹ These threats could lead to poor health outcomes for women and children, particularly in low- and middle-income countries (LMICs).² In October 2020, we conducted a rapid evidence summary to inform MOMENTUM in identifying and addressing measurement and knowledge gaps needed to prevent, mitigate, and/or respond to drops in provision of and demand for essential equitable and quality

For more information

Please see the [webinar slide deck and recording](#) and [policy brief](#) that expand on the findings and recommendations uncovered in this rapid evidence summary.

maternal, newborn, and child health and nutrition, voluntary family planning, and reproductive health care (MNCHN/FP/RH). This summary included peer-reviewed articles and gray literature (including pre-print articles, website, and webinars) related to the effects of COVID-19 on MNCHN/FP/RH in LMICs released between April 1 and September 30, 2020. This annotated bibliography summarizes the findings from each of the resources included in the rapid evidence summary.

RESULTS

Evidence is rapidly emerging on the effects and health system responses related to MNCHN/FP/RH services during the COVID-19 pandemic in LMICs. The summary yielded 18 peer-reviewed articles, 4 pre-print articles, and 17 reports, websites, and webinars. Most studies were retrospective and observational, but 18 resources on responding strategies and adaptations were included. Most countries represented in the resources found were in Asia and Sub-Saharan Africa, with only one resource from Latin America included. The resources are organized here alphabetically and summarized with an overview of the objective, methodology, results, and key limitations. A summary of all resources can be found in Table 1.

The effects of COVID-19 on service provision, demand, and health and well-being varied. We found most evidence on effects was gathered from country-based informants, including through key informant interviews and webinars with country-level representation. There were fewer resources reporting on service provision and utilization as well as health and well-being outcomes from primary quantitative data gathered during the pandemic; however, many of the resources conducted secondary analyses of health management information system (HMIS) or administrative data. Fewer resources captured adaptations during the outbreak, with little to no data shared on the effects or impacts on the health system. There was also little evidence from the public health sector or from fragile or conflict-affected settings.

RESOURCES FOUND

1. **Abdela, Seid Getahun, Abel Balcha Berhanu, Leul Mesfin Ferede, and Johan van Griensven. August 2020. "Essential Healthcare Services in the Face of COVID-19 Prevention: Experiences from a Referral Hospital in Ethiopia." *Am J Trop Med Hyg* 103 (3): 1198–200. <https://doi.org/10.4269/ajtmh.20-0464>.**

Maternal

Newborn

Child

RH/FP

Other

Demand/Utilization

Ethiopia is currently implementing different preventive measures to interrupt the transmission of COVID-19. The study examined the early effect of these preventive measures on the delivery of essential health care (including reproductive, maternal, neonatal, child, and adolescent health services; major communicable diseases; noncommunicable diseases; surgical care; and emergency and critical care) in one hospital, looking at the number of essential health care visits over 8 weeks, 4 weeks before, and 4 weeks after the implementation of preventive measures. During the implementation of these measures, client caseloads decreased in all elements of essential health care. The decline was dramatic for family planning (98%), emergency surgery (77%), and follow up of chronic surgical conditions (70%). Authors concluded that understanding the reasons behind the decrease in patient visits is urgently needed to design ways of sustaining essential care. However, the study only captures one referral hospital. While the authors state the findings are likely to reflect the status in the entire region, as all hospitals were applying similar preventive actions, the findings may not be representative of the experiences across the country.

TABLE 1. SUMMARY OF FINDINGS

| Type of evidence | | Sub-Saharan Africa | | | | | | | | Asia | | | | | LAC | Middle East | | Global/ Multi-country |
|-----------------------------------|---|--------------------|----------|----------|----------|--------------|----------|--------------|----------|----------|------------|----------|----------|----------|----------|-------------|----------|--------------------------|
| | | Ethiopia | Ghana | Kenya | Malawi | Sierra Leone | Somalia | South Africa | Uganda | Zimbabwe | Bangladesh | China | India | Nepal | Pakistan | Guatemala | Jordan | |
| Peer reviewed article | | | | | | | | | | | | | | | | | | |
| Preprint article | | | | | | | | | | | | | | | | | | |
| Gray literature | | | | | | | | | | | | | | | | | | |
| Total resources | | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| Areas of focus | Maternal health | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| | Newborn health | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| | Child health | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| | Immunizations | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| | Nutrition | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| | Reproductive health/ family planning | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| | Gender-based violence | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| | Health systems strengthening | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| | Other | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| Effects on MNCH | Service provision | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| | Demand/utilization | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| | Health and wellbeing | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| Strategies and adaptations | MNCHN/RH/ FP-specific | | | | | | | | | | | | | | | | | |
| | National policy | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| | Facility-level | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| | Community-level | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| | Technology | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● |
| General HSS | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | ●●●●●●●● | |

Resources can include more than one area of focus, effect on MNCH, and strategy/adaptation.

Other areas of focus include mental health; HIV; other essential health services; and water, sanitation, and hygiene; these areas were explored in conjunction with other MNCHN/FP/RH outcomes.

RESOURCES BY COUNTRY (FIRST AUTHOR):

Ethiopia: Abdela; **Ghana:** Fofie, Sagoe-Moses; **Kenya:** Shikuku; **Malawi:** Likaka; **Sierra Leone:** Sesay; **Somalia:** UNFPA; **South Africa:** Adelekan, Nysulu, Siedner; **Uganda:** Mugerwa, MUCEMNCH; **Zimbabwe:** Matsungu, Tapera; **Bangladesh:** Hamadani, Joarder, Shamsul Haque; **China:** Li, Li, Liu, Ma, Wu, Wong; **India:** Vora; **Nepal:** KC, Shrestha; **Pakistan:** Chandir; **Guatemala:** Hernandez; **Jordan:** Alsharaydeh; **Turkey:** Durankus, Yuksel; **Global/Multi-Country:** Benova, GFF, GF, Hellowell, Holland, Semaan, Thomas, WHO

- Adelekan, Tsholofelo, Belete Mihretu, Witness Mapanga, Sithembile Nqeketo, Lawrence Chauke, Zuko Dwane, and Laurel Baldwin-Ragaven. July 2020. "Early Effects of the COVID-19 Pandemic on Family Planning Utilisation and Termination of Pregnancy Services in Gauteng, South Africa: March–April 2020." *Wits Journal of Clinical Medicine* 2 (2): 145-52. <https://journals.co.za/doi/pdf/10.18772/26180197.2020.v2n2a7>.**

RH/FP

Demand/Utilization

The objective of this study was to describe the effects of the COVID-19 pandemic on the utilization of family planning and termination of pregnancy care immediately following the March 15th lockdown in Gauteng Province, South Africa, and the subsequent declaration of a total national lockdown. Administrative data on clinical services utilization from routine information systems were analyzed for the two months preceding the lockdown and for five weeks following the enforcement of the lockdown and was compared to data on care utilization in the two prior years (April 1, 2018-April 30, 2020). Primary health care utilization headcounts across the province declined by nearly 500,000 visits following the lockdown period. Demand-driven family planning utilization patterns declined during the two months preceding the COVID-19 pandemic and further declined during the lockdown. A switch to less effective contraceptive methods was noted as a trend over the previous two years. Year-on-year comparisons from April 2018 to April 2020 indicated a consistent decline in the use of certain contraceptive technologies such as injectable methods and an increased use of oral contraceptive pills. This could be attributed to the bulk stock of oral contraceptive pills issued to facility pharmacies just before the lockdown or because health care workers might have wanted to minimize contact time with clients, and not specifically because of the pandemic. The authors noted that women of reproductive age must be able to exercise their reproductive choices to prevent unintended pregnancies and to reduce their risk of mortality, as a result of diminished access to reproductive health care. This review highlights the importance of monitoring the utilization of routine health care during outbreak situations to assess how care provision is compromised.

- Alsharaydeh, Ibrahim, Hasan Rawashdeh, Noura Saadeh, Basil Obeidat, and Nail Obeidat. May 2020. "Challenges and Solutions for Maternity and Gynecology Services during the COVID-19 Crisis in Jordan." *Int J Gynecol Obstet* 150 (2): 159–62. <https://dx.doi.org/10.1002/ijgo.13240>.**

RH/FP

Service Provision

Facility

This study described regional experiences and measures implemented to safely maintain obstetrics and gynecology care during the COVID-19 pandemic at King Abdullah University Hospital in Jordan. Policies and measures were implemented consistent with World Health Organization and other international recommendations and guidelines. With concerted effort and a multidisciplinary approach, most maternity and gynecology care were offered, and training and educational responsibilities were maintained. This goal was achieved through addressing the challenges and implementing selected measures at different levels to maintain care delivery and facilitate the training and teaching of trainees and medical students. Examples of such measures include laparoscopic procedures such as total laparoscopic hysterectomy were converted to an open approach and length of hospital stay was

shortened by utilizing telephone follow-up. The findings are based on the one hospital and not necessarily representative of effects or experiences across Jordan.

4. **Benova, Lenka. 2020. "Findings from the Recent 'Voices from the Frontline' Survey Documenting Experiences of Frontline Maternal and Newborn Healthcare Providers during COVID-19." Webinar 5: Health workers' perspectives. Delivering Quality Essential Maternal, Newborn and Child Health Services during COVID-19. Antwerp, Belgium. September 3, 2020. <http://www.qualityofcarenetwork.org/sites/default/files/2020-09/Dr%20Lenka%20Benova%20presentation.pdf>.**

Maternal

Service Provision

This webinar explored how COVID-19 has affected health workers' ability to deliver care, how they have adapted to the challenges, and how they are coping to deliver essential, quality MNCH care during the pandemic. The speaker shared findings from the recent "Voices from the Frontline" online survey, which documents experiences of frontline maternal and newborn health care providers during COVID-19 (see Semaan et al). The presenter shared findings from the survey related to preparedness, responses, experiences, and changes in care processes and use. The first round of respondents from March 24 to July 5, 2020 (13 languages) included nearly 1,500 respondents from 103 countries, and the second round from July 6 onwards (11 languages) includes over 1,000 respondents from 71 countries. The survey indicated that psychosocial issues facing health care workers are serious and should be addressed urgently. The webinar presented limited results and did not present differences in context; the survey is ongoing and further analysis would be required to propose actionable steps.

5. **Chandir, Subhash, Danya Arif Siddiqi, Mariam Mehmood, Hamidreza Setayesh, Muhammad Siddique, Amna Mirza, Riswana Soundardjee, et al. August 2020. "Impact of COVID-19 Pandemic Response on Uptake of Routine Immunizations in Sindh, Pakistan: An Analysis of Provincial Electronic Immunization Registry Data." *Vaccine* 38 (45): 7146–155. <https://doi.org/10.1016/j.vaccine.2020.08.019>.**

Maternal

Newborn

Child

Immunization

Demand/Utilization

This paper quantified the impact, spatial heterogeneity, and determinants for childhood immunizations of the 48 million who live in Sindh Province, Pakistan, before and early during the COVID-19 pandemic, when a lockdown was implemented. Researchers extracted individual immunization records from September 23, 2019 to July 11, 2020 from the provincial Electronic Immunization Registry and calculated the change in daily immunization numbers for each antigen by geographical area. Changes were analyzed by comparing a baseline (6 months preceding the lockdown) to the COVID-19 lockdown period. There was a 52.5% decline in the daily average total number of vaccinations administered during lockdown compared to baseline. The results showed that one out of two children in Sindh missed their routine vaccinations during the provincial COVID-19 lockdown. Authors concluded that the pool of un-immunized children was expanding during lockdown, leaving them susceptible to vaccine-preventable diseases. Higher maternal education, facility-based births, and early enrollment into the immunization program continued to show a positive association with immunization uptake, even during a challenging lockdown. The authors recommend tailored interventions to promote immunization visits and safe care delivery for all during the pandemic, even during a challenging lockdown.

6. Durankus, Ferit, and Erson Aksu. May 2020. "Effects of the COVID-19 Pandemic on Anxiety and Depressive Symptoms in Pregnant Women: A Preliminary Study." *J Matern Fetal Neonatal Med* 1–7. <https://dx.doi.org/10.1080/14767058.2020.1763946>.

Maternal

Other

Health & Wellbeing

The study investigated the effects of the COVID-19 pandemic on depression and anxiety in pregnant women. An anonymous survey for assessing depression and anxiety in pregnant women was designed, and a link to the online questionnaire sent to women who were receiving treatment at a private medical center. One of the researchers followed up with the 260 respondents who returned their questionnaires. Among the respondents, 35.4% (n = 92, case group) obtained scores higher than 13 on the Edinburgh Postpartum Depression Scale (EPDS). The comparison of the groups by years of education indicated statistically significant effects of COVID-19 on psychology, social isolation, and mean scores in the Beck Depression Inventory (BDI) and Beck Anxiety Inventory (BAI). These effects were more severe in the case group than in the control group. A regression analysis revealed BDI scores and the disease's psychological effects, as well as BAI scores and the illness's social isolation effects, exerted a statistically significant influence on the EPDS scores of the participants. Study findings showed that the COVID-19 era was correlated with higher scores on depression and anxiety and feelings of social isolation among pregnant women. Results also highlighted an urgent need to provide psychosocial support to pregnant women during the crisis, otherwise adverse events may occur during pregnancy affecting both mother and fetus. However, this interpretation is not without limitations. The survey was administered online, thus preventing a face-to-face evaluation of the participants, and furthermore, given the lack of a specific scale for COVID-19, the questionnaire was created based on knowledge regarding the pandemic and its psychological effects, and can thus be regarded as subjective.

7. Fofie, Chris. 2020. "Ghana: Referral and Transport Strategies for Maternal Services in the Context of COVID-19." *Delivering Quality Essential Maternal, Newborn and Child Health Services during COVID-19: Referrals and Maternal Complications*. July 9, 2020. <https://www.qualityofcarenetwork.org/webinars/series-4-webinar-3-referrals-and-maternal-complications>.

Maternal

Newborn

Service Provision

Demand/Utilization

Policy

Facility

Community

Technology

This presentation described the impact of the COVID-19 pandemic and its response on referral and transport strategies for maternal and newborn health care in Ghana. The presenter noted that at the time of the study, there were over 21,000 cases with 129 fatalities, as well as a drop in hospital attendance as a result of COVID-related policies, which limited availability of care to only urgent cases in some facilities. Demand side challenges were also described, with some clients reporting their concerns that it may be risky to seek care at health facilities out of fear of getting infected. Key strategies for the Ghana health system at the national level, facility level, as well as key technological innovations used were shared. Challenges of protocols and implementation of these strategies were explored.

8. **Global Financing Facility. “Emerging Findings and Policy Recommendations on COVID-19.” June 2020.** https://www.globalfinancingfacility.org/sites/gff_new/files/documents/GFF_GlobalCitizen_Brief_Digital.pdf.

Maternal

Child

Immunization

Demand/Utilization

This Global Financing Facility (GFF) brief reported emerging findings and provided policy recommendations during the COVID-19 pandemic. Beginning in late March/early April 2020, the GFF conducted monthly, rapid qualitative feedback surveys of its local staff in 36 partner countries to assess the effects the pandemic had on essential health and nutrition care for women, children, and adolescents. Results from three survey rounds showed increasing reports of significant disruptions in availability and use of essential lifesaving health and nutrition care. Essential health care was also affected by supply chain disruptions and challenges faced by providers to access financial resources, resulting in low-stocked clinics, low medicine supplies and inadequate availability of protective equipment. The brief highlights three approaches the GFF is taking to help its partner countries respond. These approaches are (1) helping countries protect, prioritize, and plan for continuation of essential health care for women and children, including sharing information and good practices in real time across countries; (2) strengthening frontline health care by providing advice and flexible financing to countries to adapt their health care delivery models, secure essential commodities, and protect their frontline health workers; and (3) addressing constraints in demand.

9. **The Global Fund. “COVID-19 Impact on Health Product Supply: Assessment and Recommendations.” November 13, 2020.** https://www.theglobalfund.org/media/9440/psm_covid-19impactonsupplychainlogistics_report_en.pdf?u=637196033260000000.

HSS

Service Provision

General HSS

This assessment looked at the impact of the COVID-19 pandemic on global health product supply chains. The Global Fund works closely with suppliers, implementers, and partners to assess the impact on core health product supplies for Global Fund grants and provides recommendations for implementers on how to manage this impact and offer channels to ensure the continued flow of quality-assured health products through grant flexibilities and response mechanisms. This assessment noted the overall impact of COVID-19 on health product supply chains for Global Fund grants remains classified as moderate, with 21% of orders facing delays of more than 30 days, including 23% of orders in transit. The document concludes with actions taken by the Global Fund in six areas to assess and address procurement and supply chain risks. The six areas described with actions detailed are: conduct supply chain risk analysis; estimate the risk and impact; avoid the supply chain risk; strengthen collaborative relationships; ensure timely and transparent communication to avoid unnecessary panic and develop a contingency plan; and control the risk.

10. Hamadani, Jena Derakhshani, Mohammed Imrul Hasan, Andrew J Baldi, Sheikh Jamal Hossain, Shamima Shiraji, Mohammad Saiful Alam Bhuiyan, Syeda Fardina Mehrin, et al. August 2020. "Immediate Impact of Stay-at-Home Orders to Control COVID-19 Transmission on Socioeconomic Conditions, Food Insecurity, Mental Health, and Intimate Partner Violence in Bangladeshi Women and Their Families: An Interrupted Time Series." *The Lancet Global Health* 8:e1380-389 . [https://doi.org/10.1016/S2214-109X\(20\)30366-1](https://doi.org/10.1016/S2214-109X(20)30366-1).

Nutrition

GBV

Other

Health & Wellbeing

Stay-at-home orders (lockdowns) deployed in Bangladesh to control COVID-19 transmission might impair economic conditions and mental health and exacerbate the risks of food insecurity and intimate partner violence. Study authors looked at the immediate impact of COVID-19 lockdown orders on women and their families in rural Bangladesh. Between May 19 and June 18, 2020, the mothers of 3,016 children were randomly selected and invited to participate in the study, 2,424 of whom provided consent. Almost all (2,414 [99.9%, 95% CI 99.6–99.9] of 2,417) mothers were aware of, and adhering to, the stay-at-home advice. A reduction in paid work for the father or other family members were reported by 2,321 (96.0%, 95.2–96.7) of 2,417 mothers. Median monthly family income fell from US\$212 at baseline to \$59 during lockdown, and the proportion of families earning less than \$1.90 per day rose from five (0.2%, 0.0–0.5) of 2,422 to 992 (47.3%, 45.2–49.5) of 2,096 ($p < 0.0001$ comparing baseline with lockdown period). Before the pandemic, 136 (5.6%, 4.7–6.6) of 2,420 and 65 (2.7%, 2.1–3.4) of 2,420 families experienced moderate and severe food insecurity, respectively. This increased to 881 (36.5%, 34.5–38.4) of 2,417 and 371 (15.3%, 13.9–16.8) of 2,417 during the lockdown; the number of families experiencing any level of food insecurity increased by 51.7% (48.1–55.4; $p < 0.0001$). Mothers' depression and anxiety symptoms increased during the lockdown. Among women experiencing emotional or moderate physical violence, over half reported it had increased since the lockdown. The results indicated that COVID-19 lockdowns present significant economic, psychosocial, and physical risks to the well-being of women and their families across economic strata in rural Bangladesh. The authors conclude that beyond supporting only the most socioeconomically deprived, support is needed for all affected families during the lockdown. A geographically wider study might have ensured a broader sample of the country, and while the study setting is broadly similar to other LMIC settings, generalizability to urban settings like slums may be limited.

11. Hellowell, Mark, Andrew Myburgh, Mirja Channa Sjoblom, Srinivas Gurazada, and David Clarke. 2020. "How COVID-19 (Coronavirus) Affects Private Health Care Providers in Developing Countries." *World Bank Blogs*. June 10, 2020. <https://blogs.worldbank.org/health/how-covid-19-coronavirus-affects-private-health-care-providers-developing-countries>.

HSS

Service Provision

Demand/Utilization

This World Bank blog post examined how "flattening the curve" of COVID-19 cases has reduced the demand for health care and created new costs for the private sector in low- and middle-income countries. The post summarized findings from the main report, which includes data collected through a document review and key informant interviews from twelve countries. The findings indicate that challenges are particularly acute for small- and medium-sized health systems and groups, such as solo practitioners, small hospitals, labs, and pharmacies, some of which may not survive the crisis without

support. Blog authors concluded that governments need to be transparent about the details of state aid for health systems in their pursuit of better governance and oversight of the private sector.

12. **Hernandez, Sasha, Jessica B Oliveria, Concepcion Mendoza Sosof, Eleanor Lawrence, and Taraneh Shirazian.** July 2020. “Adapting Antenatal Care in a Rural LMIC during COVID-19: A Low Literacy Checklist to Mitigate Risk for Community Health Workers.” *Int J. Gynecol Obstet* 151(2):289-291. <https://dx.doi.org/10.1002/ijgo.13332>.

Maternal

Service Provision

Community

Saving Mothers Guatemala piloted an antenatal care (ANC) protocol aimed at safe antenatal care for low-literacy community health care workers during the COVID-19 pandemic. The checklist and accompanying training attempted to address barriers to uptake of ANC during the COVID-19 pandemic, which included fears among pregnant women about hosting health care workers in their homes for services and false information about how COVID-19 is transmitted. A total of eight traditional birth attendants skilled in ANC service provision were trained in the protocol that was adapted from WHO, CDC, ACOG, and Guatemalan national guidelines and applied to this low-resource setting in Guatemala. The article focused on a description of the intervention and reported only on training outputs.

13. **Holland, Sue.** 2020. “Facing the Pandemic in Partnership: How UK Aid Is Delivering Reproductive Choice during COVID-19.” *Marie Stopes International*. July 6, 2020. <https://www.mariestopes.org/the-spotlight-blog/2020/7/facing-the-pandemic-in-partnership-how-uk-aid-is-delivering-reproductive-choice-during-covid-19/>.

RH/FP

Service Provision

Policy

Technology

This blog post outlined how Marie Stopes International (MSI), through the UK Aid-funded global WISH program, works with frontline teams, and partners to adapt, innovate, and persevere to ensure delivery of health care to women and girls in challenging and restricted contexts. UK Aid supports MSI and WISH partners to deliver contraceptive services to women in remote, rural regions in West and Central Africa. In Nigeria, swift adaptations have allowed outreach teams and Marie Stopes Ladies (community-based providers) to continue to deliver and have supported 2,600 public health posts to keep their services going. Through March, April, and May, WISH-funded programs provided 93,000 women with a contraceptive method, preventing an estimated 53,000 unsafe abortions and 750 maternal deaths. Women have also been made aware of the safe services available, as well as their right to access them. For example, in Ghana, free sexual health advice and referrals have been provided over the phone, WhatsApp, and social media via contact centers. One of the key priorities has been to work with governments to define reproductive health as essential care. Similarly, the Nigeria program has worked collaboratively with the government at national and state levels since the pandemic began, partnering with governments to remove unnecessary regulatory restrictions and pilot innovative ways to provide services.

14. Joarder, Taufique, Muhammad Nahian Bin Khaled, and Shahaduz Zaman. 2020. "Health Systems Trust in the Time of Covid-19 Pandemic in Bangladesh: A Qualitative Exploration." *MedRxiv*, August, 2020.08.05.20157768. <https://doi.org/10.1101/2020.08.05.20157768>.

HSS

Service Provision

Demand/Utilization

Study authors explored how trust might be breached and what implications this may have in COVID-19 pandemic response by the Bangladesh health systems. The study was conducted during the pandemic, through seven online focus group discussions, with purposively selected mixed-gender groups of clinicians and non-clinicians (n=50). Data were analyzed using conventional content analysis methods. The common theme was the pervasive mistrust the participants expressed of the Bangladeshi health systems in its management of COVID-19 pandemic. In addition to the existing health systems weaknesses, other emerging themes became evident throughout the progression of the pandemic, namely, the lack of coordination challenges during the preparatory phase as well as the advanced stages of the pandemic. This—compounded by the health systems and political leadership failures—lead to opportunistic corruption and lack of regulations, which in turn resulted in low-quality, discriminatory, or no care at all. The authors concluded that health sector stewards should learn lessons from other countries, ensure multisectoral engagement involving the community and political forces, and empower the public health experts to organize and consolidate a concerted health systems effort in gaining trust in the short run, and building a resilient and responsive health system for the long term.

15. KC, Ashish, Rejina Gurung, Mary V Kinney, Avinash K Sunny, Md Moinuddin, Omkar Basnet, Prajwal Paudel, et al. August 2020. "Effect of the COVID-19 Pandemic Response on Intrapartum Care, Stillbirth, and Neonatal Mortality Outcomes in Nepal: A Prospective Observational Study." *The Lancet Global Health* 8(10):e1283-81. [https://doi.org/10.1016/S2214-109X\(20\)30345-4](https://doi.org/10.1016/S2214-109X(20)30345-4).

Newborn

Service Provision

Demand/Utilization

Health & Wellbeing

This prospective, observational study aimed to assess the number of institutional births, their outcomes (institutional stillbirth and neonatal mortality rate), and quality of intrapartum care before and during the national COVID-19 lockdown in Nepal. Data was collected for pregnant women enrolled in the SUSTAIN and REFINE studies between January 1 and May 30, 2020, from nine hospitals in Nepal. A countrywide lockdown was instituted on March 21, 2020, with directives to frontline health care providers to prepare for cases. Women at 22 weeks of gestation or more and whose fetal heart sound was heard at time of admission were eligible for inclusion. Regression analyses were used to assess changes in the number of institutional births, quality of care, and mortality before lockdown versus during lockdown. Of 22,907 eligible women, 21,763 were enrolled and 20,354 gave birth, and health worker performance was recorded for 10,543 births. From the beginning to the end of the study period, the mean weekly number of births decreased from 1261.1 births (SE 66.1) before lockdown to 651.4 births (49.9) during lockdown—a reduction of 52.4%. The institutional stillbirth rate increased from 14 per 1,000 total births before lockdown to 21 per 1,000 total births during lockdown (p=0.0002), and institutional neonatal mortality increased from 13 per 1,000 livebirths to 40 per 1,000 livebirths (p=0.0022). In terms of quality of care, intrapartum fetal heart rate monitoring decreased by 13.4% (-15.4 to -11.3; p<0.0001), and breastfeeding within 1 hour of birth decreased by 3.5% (-4.6 to -2.6; p=0.0032). The immediate newborn care practice of placing the baby skin-to-skin with their mother increased by 13.2% (12.1 to 14.5;

$p < 0.0001$), and health workers' hand hygiene practices during childbirth increased by 12.9% (11.8 to 13.9) during lockdown ($p < 0.0001$). The authors conclude that an urgent need exists to protect access to high-quality intrapartum care and prevent excess deaths for the most vulnerable health system users during this pandemic period.

16. Li, Guanjian, Dongdong Tang, Bing Song, Chao Wang, Shen Qunshan, Chuan Xu, Hao Geng, Huan Wu, Xiaojin He, and Yunxia Cao. August 2020. "Impact of the COVID-19 Pandemic on Partner Relationships and Sexual and Reproductive Health: Cross-Sectional, Online Survey Study." *J Med Internet Res* 22 (8): e20961–e20961. <https://dx.doi.org/10.2196/20961>.

Maternal

RH/FP

Other

Demand/Utilization

Health & Wellbeing

This study assessed the impact of COVID-19-related measures on partner relationships and sexual and reproductive health in China. From May 1 to 5, 2020, 3,500 young individuals across China were recruited through WeChat or Weibo to participate in a survey to obtain information on sexual and reproductive health. In total, 967 participants were included in the analysis. During the COVID-19 pandemic and related lockdown periods, 41% ($n=396$) experienced a decrease in sexual intercourse frequency, 20% ($n=192$) reported a decrease in alcohol drinking before or during sexual activities, and 31% ($n=298$) reported a deterioration in partner relationships. The logistic regression analysis indicated that the following influenced partner relationships (those in exclusive relationships): accommodations during the pandemic ($p=0.046$; odds ratio [OR] 0.59; 95% CI 0.30-0.86); exclusive relationship status (yes or no) ($p < 0.001$; OR 0.44; 95% CI 0.27-0.73); sexual desire ($p=0.02$; OR 2.01; 95% CI 1.38-2.97); and sexual satisfaction ($p < 0.001$; OR 1.92; 95% CI 1.54-2.50). COVID-19 also led to disruptions in reproductive health services such as prenatal and postnatal care, childbirth services, contraception availability, and the management of sexually transmitted infections (STI). The authors concluded that many young people have wide-ranging issues affecting their sexual and reproductive health since the COVID-19 pandemic, and strategies and guidelines are needed to safeguard their sexual and reproductive health.

17. Li, Min, Heng Yin, Zhichun Jin, Huan Zhang, Bingjie Leng, Yan Luo, and Yun Zhao. August 2020. "Impact of Wuhan Lockdown on the Indications of Cesarean Delivery and Newborn Weights during the Epidemic Period of COVID-19." *PLoS One* 15 (8): e0237420. <https://dx.doi.org/10.1371/journal.pone.0237420>.

Maternal

Newborn

Health & Wellbeing

In this retrospective study, researchers observed changes in the indications for cesarean delivery (CD) and the birth weights of newborns after the lockdown in Wuhan Province, China. A total of 3,432 pregnant women in their third trimester who gave birth in a hospital from January 23, 2019 to March 24, 2020 were selected as the observation group, while 7,159 pregnant women who gave birth from January 1, 2019 to January 22, 2020 were selected as the control group (control group was matched using propensity score matching). The difference in the overall rate of CD between the two groups was not statistically significant ($p < 0.05$). Among the indications for CD, CD on maternal request (CDMR), and fetal distress were also significantly more common in the observation group ($p < 0.05$) than the control group. Furthermore, we found the weight of newborns was significantly heavier in the observation group than in the control group when considering full-term or close-to-full-term births ($p < 0.05$). The results provide

useful information to management practices regarding pregnancy and childbirth after lockdown in other cities or countries, enabling better control of the rate of delivery by cesarean section due to cesarean delivery on maternal request, reducing fetal distress, and controlling newborn weight.

18. **Likaka, Andrew. 2020. “Health Workers’ Perspectives, Challenges and Solutions. Experience from Midwives in Malawi.” Webinar 5: Delivering Quality Essential Maternal, Newborn and Child Health Services during COVID-19. September 3, 2020.**

<http://www.qualityofcarenetwork.org/sites/default/files/2020-09/Dr%20Andrew%20Likaka%20presentation.pdf>.

Maternal

RH/FP

Service Provision

Demand/Utilization

Health & Wellbeing

Facility

Community

Part of a webinar series, this presentation explored health workers’ perspectives, including the experiences of midwives from Malawi and the strategies they used to overcome challenges in providing MNCH care during the COVID-19 pandemic. A Ministry of Health representative described challenges health workers confronted included inadequate policies and constantly changing guidelines and protocols. Newly recruited health personnel faced challenges obtaining the necessary skills to carry out expected roles and responsibilities. Stigma and discrimination of HCWs led to the isolation of infected health workers or contacts working in treatment centers for COVID-19. HCWs adapted by practicing social distancing and wearing face masks and using more innovative technologies to recruit additional health care workers. In addition, the Ministry of Health has focused on strengthening the capacity of health workers and recognizing and rewarding their efforts.

19. **Liu, X, M Chen, Y Wang, L Sun, J Zhang, Y Shi, J Wang, et al. June 2020. “Prenatal Anxiety and Obstetric Decisions among Pregnant Women in Wuhan and Chongqing during the COVID-19 Outbreak: A Cross-Sectional Study.” *BJOG* 127 (10): 1229–40. <https://dx.doi.org/10.1111/1471-0528.16381>.**

Maternal

Other

Demand/Utilization

Health & Wellbeing

This cross-sectional study investigated the mental status of pregnant women and determined their obstetric decisions during the COVID-19 outbreak in two cities in China—Wuhan (epicenter) and Chongqing (a less affected city). Demographic, pregnancy, and epidemic information was collected from 1,947 pregnant women, along with their attitudes towards COVID-19 (using a self-constructed five-point scale). The Self-Rating Anxiety Scale (SAS) was used to assess anxiety status. Obstetric decision-making was also evaluated. Differences were observed between cities in some background characteristics, and women's attitudes towards COVID-19 in Wuhan were more extreme. More women in Wuhan felt anxious (24.5 versus 10.4%). Factors that influenced anxiety also included household income, subjective symptom, and attitudes. Overall, obstetric decisions also revealed city-based differences; these decisions mainly concerned hospital preference, time of prenatal care or delivery, mode of delivery and infant feeding. In parallel, decision-making changed about key care elements: preferences for online consultation, cesarean section, bottle feeding and postnatal rest at home increased. Online consultation was requested by more than 70% of the participants, with a higher proportion in Wuhan (75.4 versus 69.5%). Absolute differences could be found between the two cities in hospital preference during this

period. Of pregnant women in Wuhan, 41.9% reported refusal to go to any hospital recently, compared with 27.7% in Chongqing. Questionnaire responses revealed a general trust in previous (53.0%) and specialized (29.0%) hospitals among mothers, although differences existed in the proportion of that trust between cities ($p < 0.0001$). The authors concluded that special support is essential for pregnant mothers during epidemics.

20. Ma, Xiaolu, Jiajun Zhu, and Lizhong Du. May 2020. "Neonatal Management During the Coronavirus Disease (COVID-19) Outbreak: The Chinese Experience." *NeoReviews* 21 (5): e293–97.

<https://doi.org/10.1542/neo.21-5-e293>.

Newborn

Demand/Utilization

Health & Wellbeing

Technology

This review focused on perspectives and recommendations from Chinese pediatric and neonatal societies based on published information about managing neonatal complications during the start of the 2019-2020 COVID-19 outbreak in China. The atypical clinical presentation and two potential modes of transmission of COVID-19 infections in neonates (i.e., maternal-fetal or maternal-neonatal) have led to diagnostic and management challenges. To avoid frequent outpatient visits and reduce unnecessary readmissions during the COVID-19 pandemic, a novel online program for the routine follow-up hospital visits of discharged newborns was launched. Using a smartphone application and a color calibration card, parents monitor their child's transcutaneous bilirubin (TCB) level and meet with the pediatric provider remotely to receive advice. The authors concluded that the home-based strategy of follow-up is feasible and effective for neonates with ABO hemolysis after discharge during a period of mass quarantine. Some of the steps of this approach are currently being validated for use in clinical practice.

21. Makerere University Centre of Excellence for Maternal Newborn & Child Health. 2020. "How Ugandan District of Pallisa Saved Her Mothers during the COVID-19 Lockdown." August 5, 2020.

https://www.mnh.musph.ac.ug/MNH_NEWS/how-the-ugandan-district-of-pallisa-saved-her-mothers-during-the-covid-19-lockdown/.

Maternal

Service Provision

Community

This blog covered how maternal mortality in Uganda was affected during the COVID-19 lockdown. The Eastern Uganda district of Pallisa partners with Makerere University School of Public Health (MakSPH) on several maternal and newborn health implementation research projects. At the start of the lockdown, ten vehicles were made available in the district in response to a presidential mandate. The availability of vehicles allowed the district to set up an ambulance system and publicized key contact telephone numbers. COVID-19 teams publicized the availability of the emergency transport, as well as shared information that services were still operational. Available vehicles resulted in 850 people being transported during the 3-month lockdown, including 300 pregnant women; there was one maternal death during the period, attributed to late decision-making to seek care. The authors note that minimal investment in operational infrastructure made it possible to save pregnant women and other critically sick people by offering them transport to health facilities.

22. Matsungo, Tonderayi M., and Prosper Chopera. September 2020. "Effect of the COVID-19-induced Lockdown on Nutrition, Health and Lifestyle Patterns among Adults in Zimbabwe." *BMJ Nutrition, Prevention & Health* 3(2)205-212. doi: [10.1136/bmjnph-2020-000124](https://doi.org/10.1136/bmjnph-2020-000124).

Immunization

Nutrition

Service Provision

Health & Wellbeing

This study investigated the impact of a COVID-19 lockdown in Zimbabwe on nutrition, physical activity, alcohol consumption, and smoking among Zimbabweans age 18 years and older. A cross-sectional online survey was conducted using a structured questionnaire to collect information on demographics, food system dimensions, diet and physical activity patterns, stress and anxiety, body image perceptions, lifestyle behaviors like smoking, alcohol intake, screen time, and ease of access to health care. The lockdown period was associated with reported increase in food prices, decrease in dietary diversification, elevated stress, and disrupted diet and consumption patterns. The 507 participants were mostly female (63.0%) between 31-40 years (48.1%) and had tertiary education (91.3%). The lockdown resulted in increase in food prices (94.8%) and decrease in availability of nutritious foods (64%). Most (62.5%) of the participants reported a reduction in their physical activity levels. The prevalence of Generalized Anxiety Disorder (GAD) was 40.4% and mostly affecting females [63.5%, $p=0.909$], 31-40 years age group (49.6%, $p=0.886$). Based on the BMI-based Silhouette Matching Test (BMI-SMT) 44.5% gained weight, 24.3% lost weight and 31.2% did not have weight change. The paired samples t-test showed there was a significant increase in perceived body weight ($p<0.001$). More than half (59.6%) reported having difficulties getting medicinal drugs and 37.8% had difficulty accessing growth monitoring services. There were low levels of physical activity and perceived weight gained during the lockdown period, thus increasing the risk of being overweight and obese.

23. Mugerwa, Yvonne. 2020. "Referral Transport for Maternal Complications during COVID." *Quality of Care Webinar: Delivering Quality Essential Maternal, Newborn and Child Health Services during COVID-19: Referrals and Maternal Complications*. July 9, 2020.

<http://www.qualityofcarenetwork.org/webinars/recording-and-materials-delivering-quality-essential-maternal-newborn-and-child-health>. .

Maternal

Service Provision

Demand/Utilization

Policy

Facility

Technology

The webinar presented were findings from the Kampala Slum (MaNe) Project in Uganda, a three-year USAID-funded implementation research effort that tested innovative approaches to address the demand and supply side barriers affecting care seeking, effective referral and transport challenges and provision of quality care for the urban poor. It was implemented by Population Services International (PSI) in partnership with Kampala Capital City Authority (municipal government) to sustain/continue successful elements. Strategies and challenges of this partnership were discussed under the key objectives, which included harnessing the public and private facility mix to provide quality and affordable maternal and newborn care to the urban poor, to strengthen referral linkages between public and private health facilities for maternal and newborn health care, and to educate mothers, caretakers of newborns, and spouses about appropriate actions on what care to seek and from where.

24. Nyasulu, Juliet, and Himani Pandya. July 2020. "The Effects of Coronavirus Disease 2019 Pandemic on the South African Health System: A Call to Maintain Essential Health Services." *Afr J Prim Health Care Fam Med* 12 (1): e1–5. <https://dx.doi.org/10.4102/phcfm.v12i1.2480>.

HSS

Service Provision

General HSS

The purpose of this article was to explore the effects of COVID-19 on the South African health system. The World Health Organization (WHO) health systems framework was applied to assess the effects and propose solutions to address the gaps in service delivery. The analysis focused on the human immunodeficiency virus (HIV) program and the expanded program on immunization (EPI). The results point to direct impact on the health system, negatively affecting its functionality. Results also suggest that depletion of resources to curb the emergency is eminent. Challenges uncovered include diversions of health workforce, suspension of services, reduced health-seeking behavior, unavailability of supplies, deterioration in data monitoring and funding crunches. The authors advocate for close collaboration between essential health care and COVID-19 teams to identify priorities, restructure essential health care to accommodate physical distancing, promote task shifting at primary level, optimize the use of mobile/web-based technologies for care delivery, training, and monitoring and involve private sector and non-health departments to increase management capacity.

25. Sagoe-Moses, Isabella. 2020. "Strategies to Maintain Provision of Child Health Services in Ghana During COVID-19 Pandemic." *Country Knowledge Exchange Series: Continuity of Maternal, Newborn, and Child Health, Family Planning, and Reproductive Health Care in the Time of COVID-19*. Hosted by USAID's MOMENTUM Country and Global Leadership. July 23, 2020. https://www.jhpiego.org/wp-content/uploads/2020/07/COVID-19-Country-Knowledge-Exchange-Series_Webinar23July.pdf.

Maternal

Immunization

Service Provision

Demand/Utilization

Policy

Facility

Community

Technology

This webinar outlined some of the COVID-19 control measures implemented in Ghana that helped maintain provision of child health care. Presented were some of the COVID-19 control measures implemented, the impact of the pandemic on immunization, actions, and modifications to provide an enabling environment for service delivery, and strategies to maintain demand for service. Data from coverage of maternal and child health services show that the number of mothers delivering and registering for ANC and postnatal care services decreased in 2020, and almost 33,000 (11%) of children remained unvaccinated. Modifications and strategies adopted to maintain the demand for health care included the provision of personal protective equipment (PPE), the implementation of safety measures at facilities for providers and clients, as well as advocacy and public education with specific key messages for maternal and child health. Strategies that strengthened the enabling environment included the increased use of information technology for information sharing and supervision to improve quality of care, and scheduled and last mile delivery for essential medicines, vaccines, and supplies.

26. Semaan, Aline, Constance Audet, Elise Huysmans, Bosede Afolabi, Bouchra Assarag, Aduragbemi Banke-Thomas, Hannah Blencowe, et al. June 2020. "Voices from the Frontline: Findings from a Thematic Analysis of a Rapid Online Global Survey of Maternal and Newborn Health Professionals Facing the COVID-19 Pandemic." *BMJ Global Health* 5:e002967. <https://doi.org/10.1136/bmjgh-2020-002967>.

Maternal

Newborn

Service Provision

Demand/Utilization

A global, cross-sectional study of maternal and newborn health professionals was conducted via an online survey disseminated through professional networks and social media in 12 languages. Information was collected between March 24 and April 10, 2020 on respondents' background, preparedness for and response to COVID-19 and their experience during the pandemic. An optional module sought information on adaptations to 17 care processes. Descriptive statistics and qualitative thematic analysis were used to analyze responses, disaggregating by LMICs and high-income countries. Globally, 90% of respondents (n=714) reported somewhat or substantially higher levels of stress. Only one-third reported receiving training on COVID-19 from their facilities; nearly all had searched for information themselves. Half of respondents from LMICs reported receiving guidelines for care provision. There was a widespread perception of reduced use of routine maternity care and preparedness to provide care to patients; only 61% perceived that patients' questions were adequately answered at the facilities. Substantial knowledge gaps exist in guidance on management of maternity cases with or without COVID-19.

27. Sesay, Tom. 2020. "Maintaining Child Health and Immunisation Services in the Context of COVID-19 in Sierra Leone." Country Knowledge Exchange Series: Continuity of Maternal, Newborn, and Child Health, Family Planning, and Reproductive Health Care in the Time of COVID-19. Hosted by USAID's MOMENTUM Country and Global Leadership. July 24, 2020. https://www.jhpiego.org/wp-content/uploads/2020/07/COVID-19-Country-Knowledge-Exchange-Series_Webinar23July.pdf.

Child

Immunization

Service Provision

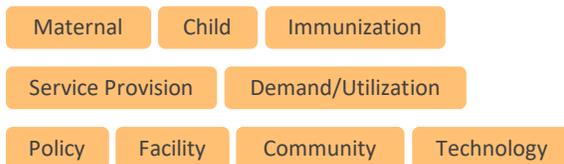
Demand/Utilization

Facility

Community

The presentation outlined the impact of COVID -19 on pediatric admissions and immunizations and the measures taken to maintain child health care and immunizations in Sierra Leone. As of July 13, 2020, 1,642 total confirmed cases were reported in 16 districts, with 1,175 recoveries. Due to the low prevalence of COVID-19, both fixed and outreach sites vaccinations continued despite reduced utilization and hesitancy in some communities, and monitoring remained ongoing. Immunizations decreased by 17% between March and April 2020, although the source of data was not specified in the presentation. A proposal (awaiting approval from Gavi) was developed to scale up and maintain vaccinations as the COVID-19 pandemic continued and would involve enhanced community engagement and outreach programs with marked reduction in vaccinations. Measures taken to ensure continuity of services included enforcing social distancing, developing guides and job aides, and building capacity for staff and case management of COVID-19.

28. Shamsul Haque, Mohammed. 2020. “Bangladesh Health Sector Response for COVID-19 Pandemic to Mitigate Disruptions of Child Health and Immunization Services.” Country Knowledge Exchange Series: Continuity of Maternal, Newborn, and Child Health, Family Planning, and Reproductive Health Care in the Time of COVID-19. Hosted by USAID’s MOMENTUM Country and Global Leadership. July 23, 2020. https://www.jhpiego.org/wp-content/uploads/2020/07/COVID-19-Country-Knowledge-Exchange-Series_Webinar23July.pdf.



This presentation looked at the magnitude of disruption of essential child health care and immunizations due to COVID-19 in Bangladesh, particularly in care delivery systems. DHIS-2 data from the EPI directorate of the Directorate General of Health Services (DGHS) showed that in April 2020, immunization decreased, with 9% fixed center and 38% outreach immunization postponed. Authorities reported a decrease in facility ICMI care seeking (68%) for patients under five overall, and for pneumonia (71%), and diarrheal diseases (72%), in particular. To restore this disruption, authorities have periodically monitored coverage data to identify and follow-up with low coverage areas; despite the lockdown, authorities report that they have ensured an uninterrupted supply chain of chain of vaccines and medicine.

29. Shikuku, Duncan, Irene Nyaoke, Sylvia Gichuru, Onesmus Maina, Martin Eyinda, Pamela Godia, Lucy Nyaga, Charles Ameh, and Duncan N Shikuku. 2020. “Early Indirect Impact of COVID-19 Pandemic on Utilization and Outcomes of Reproductive, Maternal, Newborn, Child and Adolescent Health Services in Kenya.” MedRxiv, September, 2020.09.09.20191247. <https://doi.org/10.1101/2020.09.09.20191247>.



The objective of this pre-print article was to determine the initial impact of COVID-19 pandemic on reproductive, maternal, newborn, child, and adolescent health (RMNCAH) care in Kenya. Data for the first four months (March-June) of the pandemic and the equivalent period in 2019 were extracted from Kenya’s Health Information System. Two-sample tests of proportions for hospital attendance for select RMNCAH care between the two periods were computed. There were no differences in monthly mean (\pm SD) attendance between March-June 2019 versus 2020 for antenatal care (400,191.2 \pm 12,700.0 vs 384,697.3 \pm 20,838.6), hospital births (98,713.0 \pm 4,117.0 vs 99,634.5 \pm 3,215.5), family planning attendance (431,930.5 \pm 19,059.9 vs 448,168.3 \pm 31,559.8), post-abortion care (3,206.5 \pm 111.7 vs 448,168.3 \pm 31,559.8) and pentavalent 1 immunization (114,701.0 \pm 3,701.1 vs 110,915.8 \pm 7,209.4), $p > 0.05$. However, there were increasing trends for adolescent pregnancy rate, significant increases in FP utilization among young people (25.7% to 27.0%), injectable (short-term) FP method uptake (58.2% to 62.3%), cesarean section rate (14.6% to 15.8%), adolescent maternal deaths (6.2% to 10.9%) and stillbirths (0.9% to 1.0%) with a reduction in implants (long-term) uptake (16.5% to 13.0%) ($p < 0.05$). No significant change in maternal mortality ratio between the two periods (96.6 vs 105.8/100,000 live births, $p = 0.1023$) although the trend was increasing. COVID-19 may have contributed to increased adolescent pregnancy, adolescent maternal death, and stillbirth rates in Kenya. The authors caution that if this trend persists, recent gains achieved in maternal and perinatal health in Kenya will be lost. With uncertainty around the duration of the

pandemic, strategies to mitigate against catastrophic indirect maternal health outcomes are urgently needed.

30. Shrestha, Abha. 2020. "Challenges in Delivering Obstetric Cases Amidst COVID-19 in Nepal." Webinar 5: Health Workers' Perspectives, Challenges and Solutions. Delivering Quality Essential Maternal, Newborn and Child Health Services during COVID-19. September 3, 2020. <https://www.youtube.com/watch?v=kfJ4XZ9VjGk&feature=youtu.be>.

HSS

Service Provision

General HSS

This webinar explored how COVID-19 has affected health workers' ability to deliver care, adapt to challenges, and how they have coped to deliver essential, quality MNCH care during the pandemic. An expert from Nepal presented the experience of health workers delivering obstetric care in a hospital in Kathmandu with a dedicated COVID-19 wing. Highlighted were concerns reported by health workers which included fear of infection of COVID-19 while providing care and not only the need for PPE, but also for training on how to properly use the PPE provided. Additionally, many health workers worried about the risk of transmitting COVID-19 to their families and reported experiencing severe psychological distress due to this fear. Clear institutional strategies were recommended for management of exposed and infected health workers and that treatment support should be readily available. The presenter concluded by calling on policy makers to support health personnel by providing the needed PPE and training.

31. Siedner, Mark J., John D. Kraemer, Mark J. Meyer, Guy Harling, Thobeka Mngomezulu, Patrick Gabela, Siphphelo Dlamini, et al. 2020. "Access to Primary Healthcare during Lockdown Measures for COVID-19 in Rural South Africa: A Longitudinal Cohort Study." *MedRxiv*, May, 2020.05.15.20103226. <https://doi.org/10.1101/2020.05.15.20103226>.¹

Maternal

Child

RH/FP

Other

Demand/Utilization

This prospective study sought to assess whether implementation of the nationwide lockdown (shelter-in-place) order in South Africa affected ambulatory clinic visitation in rural Kwa-Zulu Natal (KZN). Data were analyzed from the Africa Health Research Institute Health and Demographic Surveillance System, which included prospective data capture of clinic visits at eleven primary health care clinics in northern KwaZulu-Natal. A total of 36,291 individuals made 55,545 clinic visits during the observation period. An interrupted time series analysis with regression discontinuity methods was done to estimate changes in outpatient clinic visitation from 60 days before through 35 days after the lockdown period. Results indicated no change in total clinic visits/clinic/day from prior to and during the lockdown (-6.9 visits/clinic/day, 95%CI -17.4, 3.7) or trends in clinic visitation over time during the lockdown period (-0.2, 95%CI -3.4, 3.1). A reduction in child health care visits was detected at the lockdown (-7.2 visits/clinic/day, 95%CI -9.2, -5.3), which was seen in both children <1 and 1 to 5 years. A significant

¹ This article was published in *BMJ Open* in November 2020 (doi: 10.1136/bmjopen-2020-043763).

increase in HIV visits was found immediately after the lockdown (8.4 visits/clinic/day, 95%CI 2.4, 14.4). No other differences in clinic visitation were found for perinatal care and family planning, non-communicable diseases, or among adult men and women. The authors concluded that the ambulatory health care system was largely resilient during the national-wide lockdown order, based on clinic visitation numbers. A major exception was child health care visitation, which declined immediately after the lockdown but began to normalize in the weeks thereafter.

32. Tapera, Talent. 2020. “Potential and Actual Implications: Adolescent Sexual and Reproductive Health (SRH) and Rights in Africa: Country Perspective: Zimbabwe.” IUSSP Webinar Series: The COVID-19 Pandemic and Sexual & Reproductive Health in Africa. August 31, 2020.

<https://iussp.org/sites/default/files/Talent%20Tapera%20Presentation%20Covid19%20%26%20SRH%20in%20Zimbabwe.pdf>.

GBV

Demand/Utilization

Community

Technology

This presentation explored the implications of the COVID-19 crisis within Zimbabwe and how it has negatively impacted access to sexual and reproductive health for adolescent girls and young women. The number of calls to the national gender-based violence (GBV) hotline increased, estimating that incidence of GBV had risen by 70%. Also reported was reduced access to contraceptive services, menstrual hygiene products and STI/HIV services, among others, but a source for the findings was not presented. The presenter recommended the national and local health authorities to list sexual and reproductive health care as essential to ensure access to non-discriminatory, adolescent-friendly, gender-responsive sexual and reproductive health information and care.

33. Thomas, Jonathan. 2020. “Alliance for Inclusive and Nutritious Food Processing: Adaptations to COVID-19.” Webinar. Safeguarding Progress Towards Improved Nutrition during the COVID-19 Pandemic: USAID Partner Experiences. August 13, 2020.

[https://www.advancingnutrition.org/sites/default/files/2020-08/Alliance for Inclusive and Nutritious Food Processing.pdf](https://www.advancingnutrition.org/sites/default/files/2020-08/Alliance%20for%20Inclusive%20and%20Nutritious%20Food%20Processing.pdf).

Nutrition

Service Provision

General HSS

The webinar explored leveraging private sector technical assistance to share know-how, build competitiveness of nutritious food processors, surveying over 100 African processors in five east African countries, including Ethiopia, Malawi, Kenya, Tanzania, and Zambia. It shares challenges and adaptations for remote support and the increasing opportunity for smallholder farmer supply and base of pyramid distribution of nutritious products. Researchers identified four main challenge areas reported by food processors including workforce, marketing, sales and distribution, supply chain and access to finance. Examples of adaptations offered to mitigate these challenges include provision of reliable health information to maintain a healthy workforce, increased support to digital marketing, advising on local sourcing options and negotiation with lenders to restructure debt and institute payment holidays.

34. United Nations Population Fund. 2020. "GBV/FGM Rapid Assessment Report: In the Context of COVID-19 Pandemic in Somalia." July 2020. https://somalia.unfpa.org/sites/default/files/pub-pdf/gbv_fgm_rapid_assessment_report_31july2020.pdf.

GBV

Service Provision

Health & Wellbeing

This report summarized results of a country-wide field assessment to generate data and information on the impact of COVID-19 on GBV and female genital mutilation (FGM) incidents and GBV service provision. The assessment also explored around COVID-19 and stigmatization, access to health services for women and adolescent girls and the impact of COVID-19 on schooling for adolescents' boys and girls. The assessment included key informant interviews and semi-structured questionnaires with service providers and key community stakeholders. Some of the critical data results shared indicate that COVID-19 is leading to circumstances which increase the risk of exposure for women and girls to higher levels of both GBV and FGM in Somalia. Measures to contain the spread of the pandemic, including lockdowns, school disruptions, present opportunities for girls to be subjected to FGM with ample healing time. These measures restrict women's ability to engage in livelihood activities thereby reducing family incomes, which has contributed to increasing tensions and intimate partner violence in households and families.

35. Vora, Kranti Suresh, Shahin Saiyed, and Senthilkumar Natesan. July 2020. "Impact of COVID-19 on Family Planning Services in India." *Sex Reprod Health Matters* 28 (1): 1785378. <https://dx.doi.org/10.1080/26410397.2020.1785378>.

RH/FP

Service Provision

Demand/Utilization

This article presented data to demonstrate the impact of the COVID-19 pandemic on family planning care provision in India, where the unmet need for family planning is already high. COVID-19 has exacerbated the situation by reducing access. A fundamental consideration underlying the data available is that the number of public sector facilities reporting routine health management information system (HMIS) data fell between December 2019 and March 2020 all over India: by 32% from district hospitals that provide secondary health care and specialist services; and by 14% from primary level health facilities near the community. These disruptions to health care service data reporting may be due to these facilities having to provide COVID-related care, and field workers being deployed to community health facilities. Nevertheless, the HMIS data that are available show that provision of preventive services such as family planning has reduced. The numbers of injectable contraception first doses given have decreased by 36% (66,112 doses given in December 2019 and 42,639 given in March 2020), while IUD insertion has shown a 21% decrease (260,615 in December and 205,395 in March) in the same period. Distribution of combined oral pill cycles and condom pieces were similarly reduced by 15% and 23%, respectively. A comprehensive, rights-based health system response to address family planning care provision during pandemic is the need of the hour for India to avoid unwanted pregnancies and prevent additional mortality and morbidity of women.

36. Wong, Li Ping, Qun hong Wu, Xi Chen, Zhuo Chen, Haridah Alias, Mingwang Shen, Jing cen Hu, Shiwei Duan, Jin jie Zhang, and Liyuan Han. 2020. "The Role of Institutional Trust in Preventive and Treatment-Seeking Behaviors during the 2019 Novel Coronavirus (2019-NCoV) Outbreak among Residents in Hubei, China." *MedRxiv*, February, 2020.02.15.20023333. <https://doi.org/10.1101/2020.02.15.20023333>.

HSS

Demand/Utilization

This preprint study investigated the influence of institutional trust on public responses to COVID-19. An anonymous Internet-based, cross-sectional survey using snowball sampling techniques was administered to adults 18 years and over currently residing or working in Hubei province, where Wuhan is the capital city. A total of 4,245 participants were included in the analysis. The level of trust in information provision and preventive instructions, individual preventive behaviors and treatment-seeking behaviors were queried. Study results suggest that institutional trust is an important factor influencing adequate preventive behavior and seeking formal medical care during an outbreak. The authors also underscore the importance of outreach to reach individuals with poor adherence to preventive measures and who are reluctant to seek treatment at formal health locations.

37. World Health Organization. 2020. *Pulse Survey on Continuity of Essential Health Services during the COVID-19 Pandemic. Interim Report. August 27, 2020.* https://www.who.int/publications/i/item/WHO-2019-nCoV-EHS_continuity-survey-2020.1.

Maternal

Newborn

Child

Immunization

RH/FP

Other

Service Provision

Demand / Utilization

Facility

This survey on the continuity of essential health care during the COVID-19 pandemic aimed to gain initial insight from country key informants into the impact of the COVID-19 pandemic on essential health care across the life course. WHO conducted a key informant survey among ministry of health officials in five WHO regions between May and July 2020 to assess the impact of the COVID-19 pandemic on up to 25 essential health services in countries. Questionnaires were sent to 159 countries and 105 responses were received (66% response rate). 80% of the 105 responding countries had established packages of essential health services prior to the pandemic and 66% of these countries had already identified a core set of services to be maintained during the COVID-19 pandemic. In general, disruptions of essential health services were reported by nearly all countries, and more so in lower-income than higher-income countries. The great majority of service disruptions were partial, which was defined as a change of 5–50% in service provision or use. Severe/complete disruptions were defined as a change of more than 50% in service provision or use. All services were affected, including essential services for communicable diseases, noncommunicable diseases, mental health, reproductive, maternal, newborn, child and adolescent health, and nutrition services. Emergency services were the least disrupted, although 16 countries reported disruptions across all emergency services. The most severely affected service delivery platforms were mobile services, often suspended by government, and campaigns, for example as used for malaria prevention or immunization. Countries have responded to the adverse effects on essential health services in multiple ways, most commonly through triage of health services, telemedicine deployment to replace in-person consultations (more common in high-income countries), and changes in

dispensing approaches for medicines. Eighty countries indicated priorities and technical assistance needs, including guidance and support in adapting strategies to maintain essential health services, assuring essential supplies, strengthening the health workforce, implementing adequate infection prevention and control capacities, risk communication, monitoring, and telemedicine.

38. Wu, Huailiang, Weiwei Sun, Xinyu Huang, Shinning Yu, Hao Wang, Xiaoyu Bi, Jie Sheng, et al. July 2020. "Online Antenatal Care during the COVID-19 Pandemic: Opportunities and Challenges." *J Med Internet Res* 22 (7): e19916. <https://dx.doi.org/10.2196/19916>.

Maternal

Service Provision

Demand/Utilization

Technology

The high infection risk of COVID-19 in hospitals is particularly problematic for recently-delivered mothers and pregnant women who require professional antenatal care. Researchers performed a web-based survey among Chinese pregnant women via a national online platform (Banmi National Online Maternity School) to investigate their self-protection behaviors and attitudes toward antenatal care during the pandemic. A total of 983 Chinese pregnant women completed the questionnaire, and more than 80% were found to have taken self-protection actions, such as wearing a face mask, handwashing, and home quarantine, to avoid being infected with COVID-19. The findings indicate that about 20% of respondents were afraid of any type of consultation at a hospital, while over 40% feared in-hospital antenatal visits. Moreover, more than half considered or decided to cancel their in-hospital antenatal care visits and postponed their appointments. These behaviors and attitudes indicate that pregnant women were anxious and worried about potential infection in the hospital environment. Considering the dilemma and the fear of some other unknowns from hospital visits, online antenatal care might be a preferable choice for pregnant women during this pandemic. It can reduce unnecessary hospital visits and limit potential risks of infection among this vulnerable group during the COVID-19 pandemic. While there are some challenges in online antenatal care, such as concerns regarding reliability of online gestational information, study authors recommend close collaboration between hospitals and institutes to improve the quality of online programs.

39. Yuksel, Bahar, and Faruk Ozgor. May 2020. "Effect of the COVID-19 Pandemic on Female Sexual Behavior." *Int J Gynaecol Obstet* 150 (1): 98–102. <https://dx.doi.org/10.1002/ijgo.13193>.

RH/FP

Other

Health & Wellbeing

This observational study used previously collected data from two studies on female incontinence (February 1, 2018–September 30, 2019) to evaluate the effect of the COVID-19 pandemic on female sexual behavior in women in Turkey. This study compared the frequency of sexual intercourse, desire for pregnancy, Female Sexual Function Index (FSFI) score, contraception type, and presence of vaginal infection during a period of the pandemic (March 11 to April 12, 2020) with the 6–12 months prior to the pandemic. Married patients who were older than 18 years and not menopausal were included as participants. Participants were surveyed by telephone. Average frequency of sexual intercourse was significantly increased during the pandemic compared with 6–12 months prior (2.4 vs 1.9, $p=0.001$). Before the pandemic, 19 (32.7%) participants desired to become pregnant, whereas during

the pandemic it had decreased to 3 (5.1%) (p=0.001). Conversely, use of contraception during the pandemic significantly decreased among participants compared with prior (24 vs 10, p=0.004). Menstrual disorders were more common during the pandemic than before (27.6% vs 12.1%, p=0.008). Participants had significantly better FSFI scores before the pandemic compared with scores during the pandemic (20.52 vs 17.56, p=0.001). The study concluded sexual desire and frequency of intercourse significantly increased during the COVID-19 pandemic, whereas quality of sexual life significantly decreased. The pandemic is associated with decreased desire for pregnancy, decreased female contraception, and increased menstrual disorders. However, the study did not take into account changes in male sexual behavior which could impact female sexual behavior and was completed via telephone communication due to transportation restrictions. The number of participants in the study group was relatively small, although using the power analysis reduced the effect of this limitation.

References

1. Stammer, Emily, Lisa Hirschhorn, Katherine Semrau, and Lara Vaz. July 2020. *Rapid Evidence Summary: Lessons for COVID 19: Impact of Prior Disease Outbreaks on Maternal, Newborn, and Child Health, Voluntary Family Planning, and Reproductive Health Services*. Washington, DC: USAID MOMENTUM.
2. Elston, James, Chris Cartwright, Patricia Ndumbi, and John Wright. February 2017. The health impact of the 2014-15 Ebola outbreak. *Public Health* 143: 60-70. doi: 10.1016/j.puhe.2016.10.020.

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