Impacts of COVID-19 on Provision and Utilization of Health and Nutrition Services in Uttar Pradesh, India: Insights From Phone Surveys and Administrative Data

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**Objectives:** The COVID-19 pandemic has significant potential implications for health systems, but little primary evidence is available on effects on health and nutrition services. We aimed to examine changes in service provision and utilization during the pandemic in Uttar Pradesh, India and identify positive adaptations to service delivery.

**Methods:** We conducted longitudinal surveys with frontline workers (FLW, n = 313) and mothers of children < 2 years (n = 659) in December 2019 (in-person) and July 2020 (by phone). We also interviewed block-level managers and obtained administrative data. We examined changes in service provision and utilization using Wilcoxon matched-pairs signed-rank tests.

**Results:** Compared to pre-pandemic, service provision reduced substantially during lockdown (83–98 percentage points, pp), except

for home visits and take-home-rations ( $\sim$ 30%). Most FLWs (68–90%) resumed service provision in July 2020, except for immunization and hot-cooked meals (< 10%). Administrative data showed similar patterns of disruption and resumption. FLW fears, increased workload, inadequate personal protective equipment (PPE), and manpower shortages challenged service delivery. Key adaptations made to provide services included: delivering services to beneficiary homes ( $\sim$ 40–90%), social distancing (80%), using PPE (40–50%), and telephones for communication ( $\sim$ 20%). On the demand side, service utilization also reduced substantially (40–80pp) during the lockdown, but about half of mothers received home visits and food supplementation. Utilization for most services did not improve after the lockdown, bearing challenges of limited travel (30%), non-availability of services (26%), fear of catching virus when leaving the house (22%) or meeting service providers (14%).

**Conclusions:** COVID-19 affected the provision and use of health and nutrition services despite efforts at service restoration and adaptations. Strengthening logistics support, capacity enhancement, performance management, and demand creation are needed to improve service provision and utilization during and post-COVID-19.

**Funding Sources:** Bill & Melinda Gates Foundation through POSHAN, led by International Food Policy Research Institute; and Alive & Thrive, led by FHI Solutions.