WEB-BASED POLL SURVEY TO ASSESS IMPACT OF COVID-19 ON RMNCAH&N SERVIES: PERCEPTIONS OF KEY INFORMATIONS

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Summary

The coronavirus (SARS-COV-2) was declared a pandemic on 11 March 2020 by the World Health Organization. Since then there has been rapid increase in number of infected persons globally reaching 9 million confirmed cases. The response to the pandemic and COVID-19 itself are both affecting the provision and utilization of reproductive, maternal, newborn, child health, adolescent health & nutrition (RMNCAH&N) services. Initial modeling done by researchers shows: with smallest reduction in coverage (9·8–18·5%) and wasting increasing by 10 % an estimated additional 2030 maternal deaths and 42,420 deaths per month; with great reduction in coverage (39·3–51·9%) and wasting increasing by 50% an additional 9450 maternal deaths and 192 830 child deaths per month. As of June 22, 2020, the cumulative number of confirmed cases in Pakistan has reached 181,088 with 7,458 recovered and 2590 deaths. Mathematical models indicate that large service disruptions in Pakistan have the potential to leave 5,424,900 children without oral antibiotics for pneumonia, 5,441,800 children without DPT vaccinations, 980,400 women without access to facility-based deliveries, and 4,021,800 fewer women receiving family planning services (1). Researchers and development partners can play an important role in providing support for maintaining essential RMNCAH&N services in Pakistan. The aims of this survey were to conduct a rapid situation assessment through an online survey method; and to explore the impact of COVID-19 outbreak on disruption RMNCAH&N services, and related health systems response in Pakistan. Impact was evaluated based on the perceptions of key informants working in RMNCAH&N. The web-based survey found immunization, wellness checks and family planning services were selected by most of respondents as being disrupted during the pandemic. Antenatal care service was considered to be highly disrupted due to COVID-19. The main reasons for disruption were due to lockdown restriction and mobility issues. Health system response to dealing with the situation was telemedicine and communication for awareness raising. Regarding nutrition services, Vitamin A supplementation and early detection and treatment of child wasting (SAM) were perceived as services disrupted. High level of disruption (median=4) for early detection and treatment of child wasting (SAM). Reasons for disruption of these services were similar to those of RMNCAH. However, responses varied for nutrition services in which outreach and communication for awareness were the two main strategies adopted by the health system. Both supply side and demand side approaches will be required to ensure continuation of quality RMNCAH&N services in Pakistan.

Acknowledgment

Introduction

The coronavirus (SARS-COV-2) was declared a pandemic on 11 March 2020 by the World Health Organization. Since then there has been rapid increase in number of infected persons globally reaching 9 million confirmed cases (2). Public health interventions such as social distancing, awareness raising, and isolation of infected persons are being used by many countries to control the pandemic (3). The response to the COVID-19 pandemic and COVID-19 are both affecting the provision and utilization of reproductive, maternal, newborn, child health, adolescent health & nutrition (RMNCAH&N) services. Initial modeling done by researchers shows: with smallest reduction in coverage (9·8–18·5%) and wasting increasing by 10 % an estimated additional 2030 maternal deaths and 42,420 deaths per month; with great reduction in coverage (39·3–51·9%) and wasting increasing by 50% an additional 9450 maternal deaths and 192 830 child deaths per month (4). These deaths would represent a 9·8–44·7% increase in under-5 child deaths per month, and an 8·3–38·6% increase in maternal deaths per month, across the 118 countries (4). However, these estimates do not incorporate country specific data. Country-specific information can help deepen the understanding of national decision makers to consider RMNCAH&N services while making response strategies.

As of June 22, 2020, the cumulative number of confirmed cases in Pakistan has reached 181,088 with 7,458 recovered and 2590 deaths. Response to pandemic by the country has shifted from a full lockdown to now "Smart Lockdown"(5). In which, mandatory use of mask and gloves, strict SOPs, monitoring, are some of the strategies adopted to deal with situation. However, the implementation of these measures is another challenge. The maternal, newborn and child health situation in Pakistan is far from desired and is considered a high burden country (6). The pandemic and country response threaten to disrupt the provision of essential services due to barriers to the supply and demand of RMNACH&N services. Mathematical models indicate that large service disruptions in Pakistan have the potential to leave 5,424,900 children without oral antibiotics for pneumonia, 5,441,800 children without DPT vaccinations, 980,400 women without access to facility-based deliveries, and 4,021,800 fewer women receiving family planning services (1). As a result of disruptions in all essential services, both maternal and child mortality in Pakistan could increase by 22 percent over the next year (1). Therefore, to avoid preventable maternal and

newborn losses, maintaining essential health services need to be part of Pakistan's response to the COVID-19 pandemic.

Researchers and development partners can play a key role in providing support for maintaining of essential RMNCAH&N services in Pakistan. By conducting qualitative and quantitative studies researchers can help enhance the understanding of a situation and provide evidence-based recommendations for policy and practice to tackle the situation. Development partners are supporting Government of Pakistan in multiple ways to deal with the COVID-19 situation. The aim of this report is to share the finding of an online survey conducted through a collaboration between an academician/researcher from Health Services Academy (HSA) and the Health Section UNICEF Pakistan. The aims of the study were to: conduct a rapid situation assessment through an online survey method; and to explore the impact of COVID-19 outbreak on disruption RMNCAH&N services and the related responses in Pakistan. Impact was evaluated based on the perceptions of key informants working in RMNCAH&N. It is envisaged that the findings from this report will be primarily used for advocacy purpose.

Methodology

This was a web-based poll survey with to explore key informants' perceptions in a particular time interval. The first form was filled on 15 May 2020 and last form was filled on 20 May 2020. A structured questionnaire was created by adapting UNICEF's COVID-19 monthly survey, which was provided by the health section UNICEF Pakistan. Survey questions were of different types: multiple-choice questions, dichotomous questions, Likert scale questions, and open-ended questions. There were 4 parts to the questionnaire: personal information, disruption of RMNACH&N services due to COVID-19, reasons for disruptions, and health systems response. A pre-test was done with 30 individuals working within UNICEF, the tool was then modified in light of the suggestions. There data was excluded from the final report. The sample/respondents chosen for this survey was centered on their professional aspect i.e. working in RMNCAH&N. Snowball sampling technique was utilized to identify participants. UNICEF health specialist shared the questionnaire via emails to individuals working in different organizations with focus on the subject matter. Checkbox online survey software by Checkbox Survey Inc was used to implement the survey. In addition, this software featured real-time analysis that generated results

in forms of pie charts, bar graphs and descriptive tables. As this was not a full fledge research therefore ethical clearance for this survey was not obtained. However, informed consent was made obligatory for all the respondents. There are many benefits of conducting an online survey such as faster medium to reach target audience, real-time analysis, saves time and money, and in today's context less chance of being exposed to Coronavirus. However, there are many limitations such as low response rate, data reliability and limited access to population who don't use computer and internet. Keeping in view both, the strengths and imitations of the research design, and the prevailing pandemic situation in the country this methodology was embraced.

Box 1 Types of RMNCAH&N services with abbreviations

RMNCAH services	Nutrition services

• Antenatal check-ups (ANC)
• Post-natal care (PNC)
• Obstetric care (OBC)
• Immunization (IMM)
• Emergency Obstetrics care (EOBC)
• Family planning (FP)
• Malaria treatment or ITN distribution (ITN)
• Essential Newborn care (ENC)
• Wellness checks for children and/or adults (growth monitoring, routine visits, vaccinations) (WELL)
• Post-abortion care (PAC)
• Adolescent health (AH)
	• Protection and promotion of
	  ○ breastfeeding services (IYCF 1)
	  ○ and complementary feeding (IYCF 2)
	• Vitamin A supplementation campaign (VITA)
	• Deworming prophylaxis (DP)
	• Home fortification with multiple micronutrient powders for children under-five (HFMMP)
	• Nutrition programs for school-going children (NPP)
	  ○ school feeding, take home rations
	• Maternal nutrition services (MNS)
	• Early detection and treatment of child wasting
	  ○ Moderate Acute malnutrition (MAM)
	  ○ Sever Acute Malnutrition without complication (SAM)
	  ○ Severe Acute Malnutrition with complication (SAMC)

Results

The section entails the outcomes of the online survey. A total of 118 agreed to the consent and 2 did not agree. However, the participants had option to skip some question therefore in some place the number doesn't total to 118. According to table 1 most of the participants (54.8%) were over the age of 45 years. Most of the respondents were females (58.5%). Type of organization respondents belong to was mostly from government (38.9%). Newborn health was the area of work for most (22.8%). The respondent came from 70 different organizations working in Pakistan on RMNCAH&N.

Table 1 Personal Information of the respondents

Questions	Categories	Numbers responded	Percentage
Age group			
	25-34 years	17	17.9
	35-44 years	35	26.3
	45-55 years	26	27.4
	55 years of older	26	27.4
Sex			
	Male	55	41.5
	Female	39	58.5
Type of organisation			
	Government	37	38.9
	Non-Government Organization	25	26.3
	Private sector	10	10.5
	Donor Agency	9	9.5
	Humanitarian Agency	5	5.3
	Other	9	9.5
Area of work			
	Reproductive Health	39	14.6
	Maternal Health	50	18.7
	Newborn Health	61	22.8
	Nutrition	50	18.7
	Family planning	28	10.5
	Adolescent Health	27	10.1
	Other	12	4.5

Respondents were asked to select at least 3 services that they perceived to be disrupted due to COVID-19. From figure 1, immunization was selected by 74 (12.8%) respondents as service being most disrupted. Followed by wellness checks for children and/or adults (growth monitoring, routine visits, vaccinations) by 72 respondents. Only 28 (4.8%) choose malaria treatment or insect treated net (ITN) distribution as services being disrupted due the pandemic.

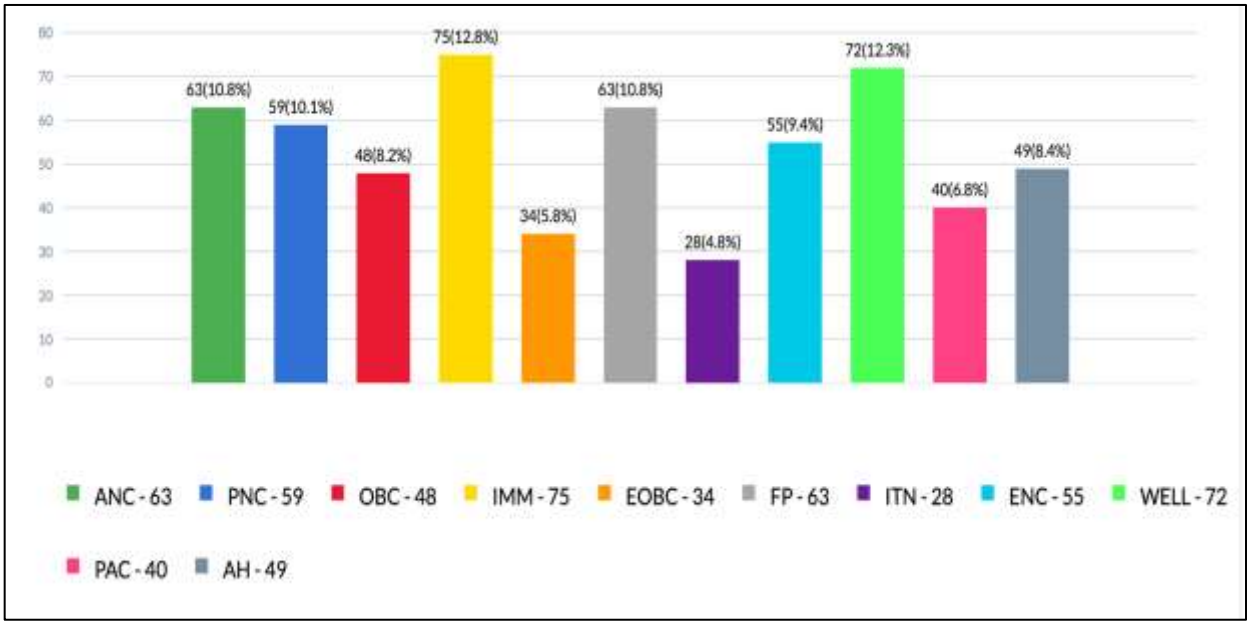

Figure 1 Disruptions of RMNCAH&N due to COVID-19 *according to the key informants*

Follow-up questions (figure 2) were asked from the respondent on level of disruption for RMNCAH services. Level of disruption ranged from very low disruption to very high disruption. Antenatal care services were considered by many (61) as a service with high disruption (media = 4). Family planning, adolescent health, and post-abortion care services were perceived to be disrupted between moderate to high level (median=3.5). Rest 5/11 of the services were considered to be moderately (median=3) disrupted due to COVID-19 pandemic.

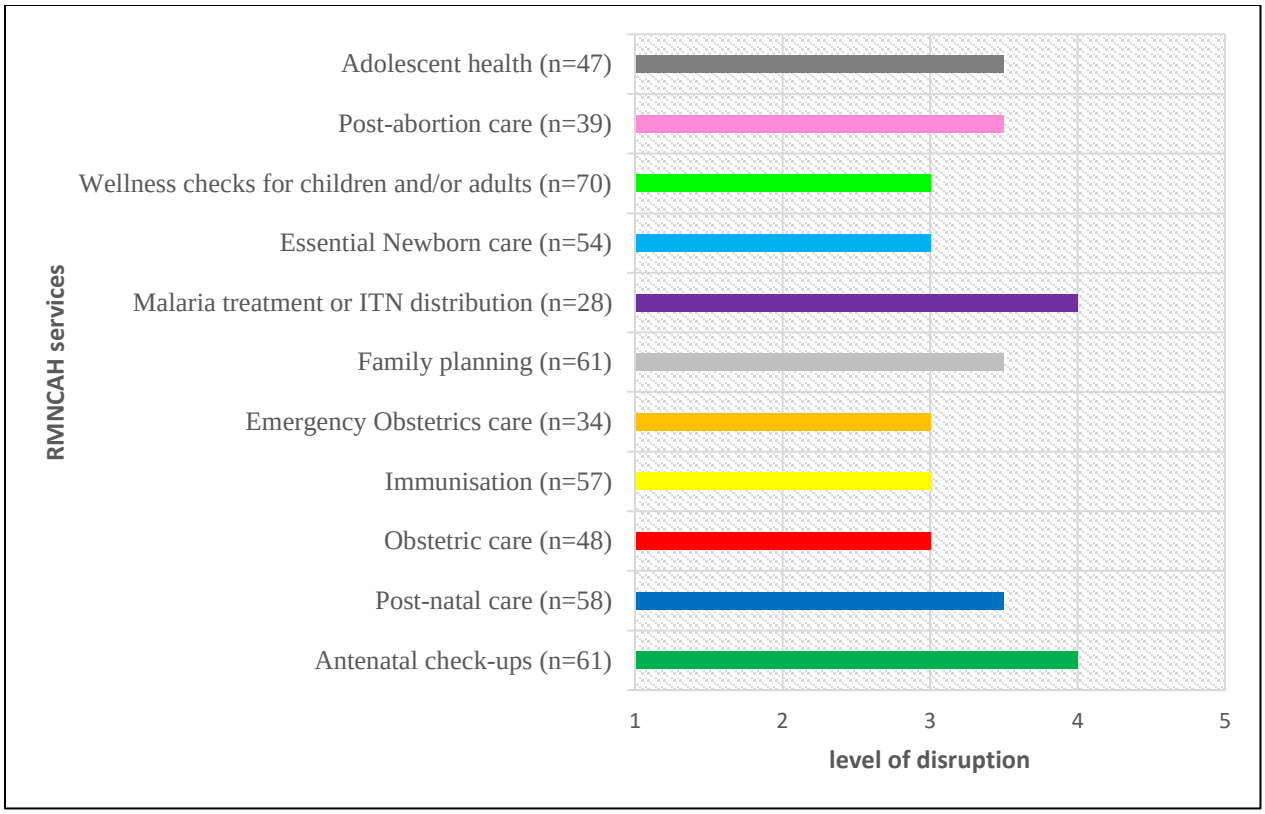

Figure 2 RMNCH services median for level of disruption (Median of 1=very low disruption; 2=low disruption; 3=moderate disruption;4 =high disruption; 5=very high disruption) according to the key informants

The respondents were asked to selected reasons for disruption of above-mentioned services. There was mix of opinions. However, as this survey was done during the countrywide lockdown phase. Therefore, unsurprisingly many selected supply-side reasons like closure of services (23.9%), lockdown restrictions (25.2%), and unavailability of supplies (7.4%). In addition, other reasons predominantly selected were related to demand side and behavioral aspects of health services utilization and infection preventions. These reasons were reduction in demand due to fear if infection (13.9), and personal gaps (12.9%). Suspension of health promotion activities like community engagement/communication for behavior change was selected by 35 (11.3%).

Table 2 Top reasons for disruption of RMNCAH services according to key informants

Reasons	**Number**	**Pecentage**
Closure of services/facilities/postponement of services	69	23.9
Lockdown restricts users' mobility, transportation	78	25.2
Services fees increase	1	0.3
Lack of income to pays	15	4.8
Personnel gaps (due to sickness, mobility restriction, fear, other)	40	12.9
Unavailability of key supplies at service point	23	7.4
Reduction in demand due to fear of infection	43	13.9
Infrastructure deterioration	3	1.0
Suspension of community engagement/communication for behaviour change	35	11.3
Other	3	1.0

Many countries during the pandemic have devised ways to deal with outbreak while mantiating essential health services. The health system of Pakistan is also using different strategies to coup with the situion. According to the key informants (table 3), who respondes to the webbased survey, cited communication for awarness raising (24.1%) and use of telemedicine (24.1%) as the main health system response during the COVID-19 pandemic. Other types of responses incudes psychosocial outreach services (17.5), community engagement for sustaining behaviors (16.7%), and psychosocial support services (14.0%)

Table 3 Health systems response to ensure continuity of MNCH services according to key informants

Responses	**Number**	**Pecentage**
Psychosocial support services	36	14.0
Outreach/ mobile services	45	17.5
Community engagement for sustaining behaviors	43	16.7
Communication for awareness raising	62	24.1
Use of telemedicine/ digital technologies for service delivery and/or counseling	62	24.1
Other	4	1.6
None of the Above/Do not	5	1.9

In an open-ended question, key informants were asked for recommendations on what could be some of the health system responses to ensure continuity of RMNCAH services in the COVID-19 pandemic. Demand side recommendations included awareness raising, community engagement and advocacy. Supply side recommendations were ensuring supplies, use of different services delivery modalities, community-based services, effective implementation and human resource.

Advocacy in terms of informing disaster management units of the government on importance of continuation of RH and FP services. As well as, informing regulatory bodies to ensure that private sector hospitals are providing appropriate care to patients. Finally, advocating to policy makers for sufficient resources allocation to health systems and focus on RMNCAH issues alongside COVID-19. Awareness raising at community level on COVID-19 and RMNCAH by using various mediums: for alleviating fear to encourage communities to continue accessing services; for nutrition messages; to guide communities on COVID and FP/RH. Community engagement and mobilization for continuation of services.

According to the key informant's health system responses to the situations ranged for ensuring supplies to effective implementations. Ensuring supplies such as essential commodities for services delivery, Personal Protective Equipment's (PPE) for health care workers, Infection Prevention Control (IPC) related supplies. Strengthening of primary health care, and community-based services such as home bases newborn care etc. Integration of RMNCAH services was a repeating theme. Outreach and telemedicine were also frequently recommended as potential services delivery platforms for continuation of services. Another important theme was effective implementation of ongoing strategies. Such as, effective use of national and international guidelines/SOPs on services provision in context of COVID-19. Recommendation on properly trained health workforce, who are reoriented to deal with current situation, and support by the health systems.

More details on themes, sub-themes and supporting quotes are given in box 2.

Box 2 Thematic analysis of the open-ended question on key information recommendation for continuation of RMNCAH services

Major themes			
A. Supply side reccomendations		B. Demand side reccomendations	
Sub-themes	Supporting quotes	Sub-themes	Supporting quotes
Ensuring supplies	*"Then (after training), availability of PPEs (according to needs), availability of hand washing/sanitizing facilities at health facilities for longer duration."* *"Provision of appropriate PPEs to all front line health workers"* *"Since tertiary care system seems over burdened with COVID-19 cases, primary and secondary health care system should be better equipped with RMNCAH services as it would ensure continuity of care to the most vulnerable i.e. maternal and child."* *"Communication, advocacy, use of PPEs, provion of uninterrupted supply of commodities for public, monitoring & Evaluation and supportive supervision"*	Advocacy	*"FP should be listed in essential health services; PDMA/NDMA to be sensitized on FP/RH and have clear guidelines in disaster management to continue with this service"* *"An eye should also be kept on the hospitals especially private who may ignore COVID-19 patients, mishandled those, deny correct diagnosis, do not inform authorities and relatives as well or may deny treatment knowing the covid positive status of the patient"* *"Allocation of resources for community health program for PNC, home-based newborn car",* *"Communication, advocacy, use of PPEs, provion of uninterrupted supply of commodities for public, monitoring & Evaluation and supportive supervision"* *"Investing more in health systems"* *"Focus mostly on RMNCAH services rather than COVID-19".*
Services delivery modalities	*"restoration of PHC should be some leading initiatives"* *"Continuation of services by LHWs following SOPs"* *"Establishment of Telemedicine services for ANC, PNC , essential newborn care, Child care"* *"Outreach Services "* *"Integrated service provision might maximize the effect with the limited resources and the access to recipients"* *"Task shifting & sharing for use of available human resources to continue essential health services"* *"Referral pathways"*		
Community based services	*"Community based service should be strengthened."* *"provision of PPEs to frontline health* workers *for community based activities"* *"Since mobility is restricted due to lockdown, there is need to focus on strengthening community based RMNCH services".* *"Establishment of services for home based care of newborn"* *"Use of outreach and community services for minor/ non-emergency service delivery and awareness creation"* *"Strengthening of outreach vaccination services"* *"Provide psychological support to the patients, families, and communities.*	Awarness raising	*"Written material for health messages, use of TV & Radio channels for communication and restoration"* *"Creating demand through messaging and LHWs"* *"Use of mosque announcement for community mobilisation"* *"Communicating to women,children and adolescents about how to keep them safe if they have to attend the health facility"* *"BCC to guide communities on COVID and FP/RH, alleviating fear to encourage communities to continue accessing services"*

Implmentation of SOP	*"RMNCAH services should be continued taking care of all the precautions advised by WHO in this COVID-19 pandemic.Otherwise antenatal,natal and postnatal problems will be on rise."* *"NICU working to cater for sick newborns. SOP for follow up and examinatio. Immunisation on specific days with SOP and preventive measures"* *Separate Isolation Centers from routine and RMNCAH services to prevent cross- infections. "Ensure strict IPC protocols in RMNCAH centers to gain patient confidence that they will not ge infected from the service center."* *"Segregating the flow of patientst health facilities: interm of space, staff, equipment and training from tertiary care hospital"* *"Monitoring and health information for generation of information"* *"By ensuring the service availability 24/7 so the crowd will be managed, free and accessible services to be ensured"* *"The services should be available at every health facility"* *"Following SOPs of social distance and other approved ways to treat the people in this pandemic can b fruit full to deliver health services in every community."*		*"Communication for awareness specifically addressing to key influencers in the household, like elders, grandmothers, fathers and religious leaders in community, talk about myths."* *"Community awareness programs Bridge the Gaps created due to COVID 19 fears and hazard"s* *"disseminating health and nutrition messages for newborns, children and adolescents, and families"*
Human resource	"*First, all health and outreach staff must be trained on IPC, proper utilization of PPEs, disinfection of facilities etc."* *"Increasing staff ,training, encouragement, insentive and monitoring of health care workers"* *"Orientation of HWs on COVID 19 and continuation of essential services"* *"Psychological support to health care providers"* *."and increased supportive supervision."*	Community Engagment	*"Reaching closer to communities"* *"Allocation of resources for community health program for PNC, home-based newborn care"* *"In this regard social mobilization will be helpfull to continue the services of RMNCAH"*

The next part of the section includes disuption of nutrtion services. According to figure 3 Vitamen A supplmentation (12.2%) was chosen by most respondents as the nutrtion service most disupted. Followed by early detection and treatment of child wasting (11.8%).

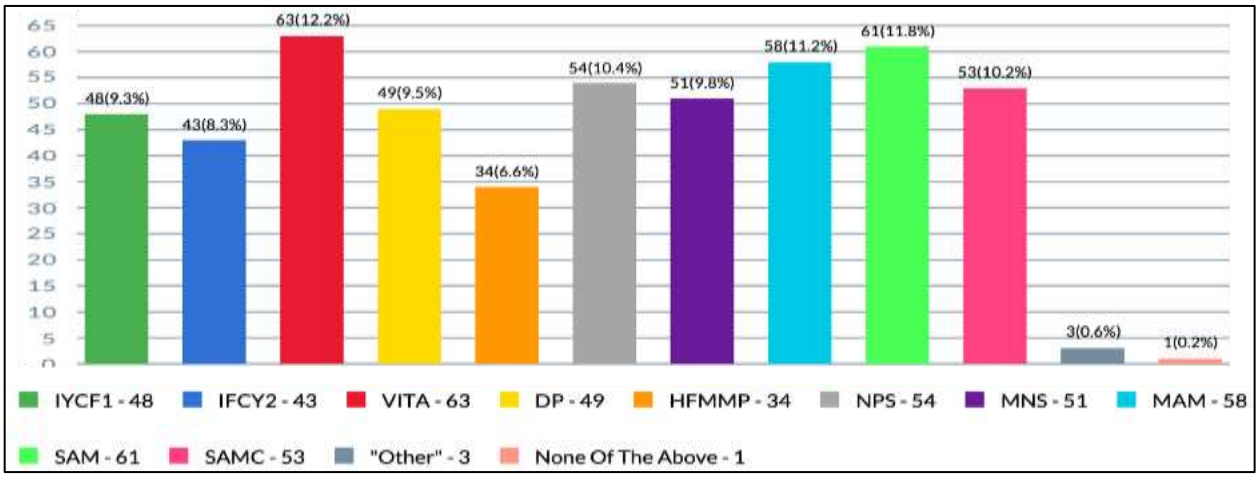

Figure 3 Disruptions of nutrition services due to COVID-19 according to the key informants

Regarding level of disruption in nutrition services. High disruption (medium=4) for early detection and treatment of child wasting services, home fortifications, and deworming prophylaxis. For rest of the services level of discuption was between moderate to high (medium=3.5) according to the key informants.

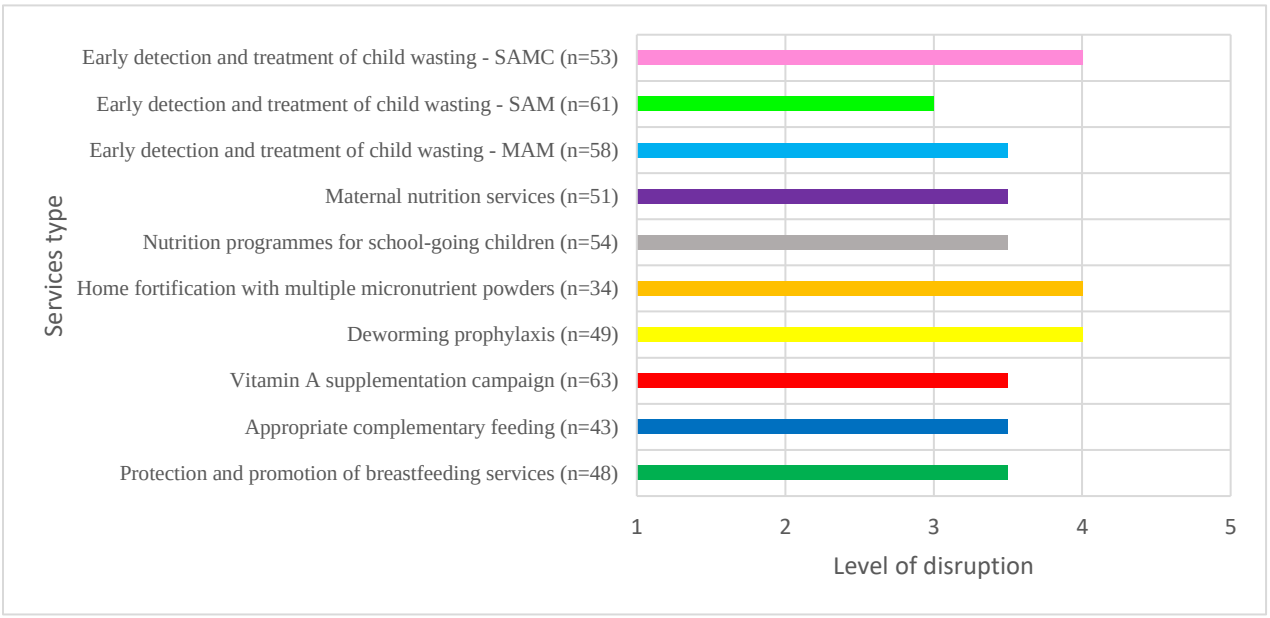

Figure 4 Nutrition services median for level of disruption (Median of 1=very low disruption; 2=low disruption; 3=moderate disruption;4 =high disruption; 5=very high disruption) according to the key informants

Major reason for nutrition services disruption was due to lockdown restricts users' mobility, transportation (25.9%). Other reason for nutrition services disruptions were fear of infection (10%), unavailability of key nutrition supplies at service point (11%), and reduction in demand due to fear of infection (10%).

Table 4 Top reasons for disruption of nutrition services according to key informants

Reasons	Number	Pecentage
Closure of services/facilities/postponement of services	66	21.9
Lockdown restricts users' mobility, transportation	78	25.9
Lack of income to pay fees transportation/travel charges	17	5.6
Personnel gaps (due to sickness, mobility restriction, fear, other)	31	10.3
Unavailability of key nutrition supplies at service point	32	10.6
Reduction in demand due to fear of infection	31	10.3
Infrastructure deterioration	9	3.0
Suspension of community engagement/communication for behaviour change	36	11.6
Other	2	0.7

Community for awanress rasing (26%) is selected by most of the repondents as health system response for coninuatuin of nutrtion services. Followed by outreach (23%). This finding is different from RMNCAH services response where telemedicnce was selected by most.

Table 5 Health systems response to ensure continuity of nutrition services according to key informants

Responses	Number	Pecentage
Psychosocial support services	32	12.1
Outreach/ mobile services	61	23.0
Community engagement for sustaining behaviors	52	19.6
Communication for awareness raising	69	26.0
Use of telemedicine/ digital technologies for service delivery and/or counseling	43	16.2
Other	4	1.5
None of the Above/Do not	4	1.5

According to box 3, thematic analysis of the responses to the open-ended question was done. The themes emerged for nutrition services are identical to RMNCAH services (box 1). Both supply and demand side reccomendations were given by our key informants for continuation of nutrition services in Pakistan.

Box 3 Thematic analysis of the open-ended question on key information recommendation for continuation of nutrition services

Major themes			
A. Supply side reccomendations		B. Demand side reccomendations	
Sub-themes	Supporting quotes	Sub-themes	Supporting quotes
Ensuring supplies	*"...Provision of PPEs"* *"Ensure field mobilization by providing protective gears to workers and providing enough supply of commodities"* *"Sufficient supplies to cater additional caseload and for extended duration."* *"Supplements should be ensured at all levels to avoid default."* *"Availability of nutrition services at service delivery centers"*	Advocacy	*Continue the opd services* *Till lockdown is lifted and schools reopen , public fears allayed, nutritional services cannot be strealined* *he services for Nutrition needs to be continued as the risk of morbidity and mortality from COVID-19 is higher for malnourished children as compared to healthy child.* *Health and nutrition posts created (1 for 1000 households) in areas with no LHWs.* *Investing more in nutrition* *Focus mostly on RMNCAH*
Services delivery modalities	*"Continuity of nutrition services through static and outreach services with full pace."* *"Telemedicine, better communication"* *"...integration of services..."* *"...Outreach door to door services should be available"* *"Mobile nutrition"*		
Community based services	*"Psychosocial support"* *"Sustainable community based multi-sectoral approach which doesn't rely on the such service should be endorsed more after emergency response."* *"...train parents to check MAUC and communicate to the HF staff for replenishment etc."* *"mobile vechile for providing these things to the Weak childrens in there home side"*	Awarness raising	*"Health awareness messages through media, in low COVID-19 areas services can be continued"* *"Public awareness about availability of all services related to nutrition and diffusing fear of infection spread"* *"Use of digital technologies for raising awareness"* *"awareness for breast feeding and providing support to healthcare professionals"* *"Mass media campaign for awareness"* *"Increase awareness by using all forms of media."* *"Intensive awareness campaign on Breastfeeding (BF) and Complementary Feeding (CF)"*
Implmentation of SOP	*"to improve the quality of community services, restoration of confidence of health care workers for protecting themselves from virus transmission and supporting community"* *"improve counseling skills with assuring agreed SOPs including appropriate physical distancing etc."* *"Motivational sessions for CHWs and encourage them to deliver their services in accordance with their protection"*		
Human resource	*"Awareness raising and provision of PPE for frontline workers"* *"Training of Nutrition team on awareness of COVID-19* *, "Capacity building of CHWs to work in COVID-19"* *"Digital media use for training and information dissemination"*	Community Engagment	*"Reaching closer to communities"* *"Community training in frequent hand washing, physical distancing services"* *"Rigorous community engagement plan for BF & CF"*

Conclusion and Recommendations

The web-based survey tried to explore perceptions of key informants working in RMNCAH&N on disruption of services due to COVID-19 in Pakistan. Immunization, wellness checks and family planning services were selected by most of respondents as services being disrupted during the pandemic. Antenatal care service was considered to be highly disrupted due to COVID-19. The main reason for disruption was due to lockdown restriction and mobility issues. Health system response to dealing with the situation was telemedicine and communication for awareness raising. Regarding nutrition services, Vitamin A supplementation and early detection and treatment of child wasting (SAM) were perceived as most disrupted services. High level of disruption for early detection and treatment of child wasting (SAM). Reasons for disruption of these services were similar to those of RMNCAH. However, responses varied for nutrition services in which outreach and communication for awareness were the two main strategies adopted by the health system.

Following are recommendations made based on the findings:

1. Prioritization of services should be done because of lack of resources in the country. Services with the greatest impact on mortality and morbidity should be prioritized. There are many analytical tools such as LiST (Lives Safed Tool) that can be used to prioritized services according to the country context. As well as, by consulting key experts working in RMNCAH&N.

2. Demand of RMNCAH&N services should be increased. Mass media can be used for awareness raising on COVID-19 and addressing fears of infections related to COVID-19 infection. Reaching out to communities by involving local stakeholders like community influential for awareness raising.

3. Supply side issues must be addressed on priority to ensures continuation RMNCAH&N services. Such as:

    a. Supply of essential commodities for continuation of services like FP, nutrition etc;

    b. Supply of PPE to health care workers at all levels;

    c. Reorientation training of health workforce for working under the new circumstances;

d. Strengthening of primary health care and secondary health care;

e. Implementation and scaling up of community-based services for newborns and others;

f. Use of implementation science and practice frameworks for ensuring effective implementation, of SOPs on IPC, trainings of health care workers, and importantly maintaining of quality health services;

g. Adopting some novel and some older modalities of services delivery to be adopted such as use of telemedicine, outreach services, integration of services etc.

4. Advocacy needs to be done for allocation of appropriate resources for continuation of RMNCAH&N services. And, to keep reiterating to the policy makers not to ignore the most vulnerable groups like the pregnant women, mothers and children in this battle against the coronavirus pandemic.

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