

Challenges faced in delivering Pharmaceutical Services during COVID-19 pandemic in Christian Health Association of Malawi (CHAM) facilities in Malawi

Evans Chimayi Chirambo, Kondwani Kaunda, Elled Mwenyekonde and Happy Makala; Christian Health Association of Malawi (CHAM), Malawi.

Abstract

Introduction: Coronavirus disease 2019 (COVID-19) has devastated Malawi with two partial lockdowns instituted in the process. This impacted the delivery of pharmaceutical services in Christian Health Association of Malawi (CHAM) facilities. However, the information on challenges faced and the nature of the problem was lacking. We carried out an exercise to investigate the challenges CHAM facilities have been facing to deliver pharmaceutical services due to COVID-19 in Malawi.

Methods: We implemented a cross-sectional study design of 43 participants from 190 of CHAM facilities spread across Malawi. An online based questionnaire was used to obtain data from study participants after consent. Microsoft Excel version 2016 was used for quantifying qualitative data.

Results: Forty-five participants took part in the exercise and data was available for 43 participants of the participants, 41.9% were female. Facility in-charge formed the largest group with 55.8% responders, and pharmacy personnel were 16.3% of responders. High cost of medical items due to high demand created by COVID-19 (44.2% response rate, transportation problems (20.9%), price escalation (4.6%) and staff absenteeism due to COVID-19 positive diagnosis (51.2% responses) or COVID-19 fears (27.9% responses) were some of the challenges which compromised delivery of pharmaceutical services.

Conclusion: Pharmaceutical services have been compromised in CHAM facilities with donations making up for the medical supplies shortage. Reviving the Drug Revolving Fund (DRF) at CHAM can be investigated and tried as a long term solution to the critical challenges (medical supplies stockouts)

Background

Corona virus disease 2019 has changed the way the world functions. Multiple lockdowns have been implemented in countries across the globe to curb the spread and the terrorizing effect of COVID-19 virus. Malawi, a sub-Saharan African country, has not been spared of lockdowns with two partial lockdowns initiated since the beginning of the pandemic (1; 2). Lockdowns, the mode of disease transmission and disease terrorizing effects have impacted on delivery of different services including pharmaceutical services through disturbance in transportation, financial crisis, change of companies' effort to COVID-19 response items, and failure of companies to cope with demand of COVID-19 response items. Pharmaceuticals are critical for health service delivery and any shortage cripple the health system. Therefore, availability of pharmaceuticals and tackling to access or deliver these important items at all times is key.

COVID-19 devastating effect have been far and reaching (1145 fatality as of 23th April 2021) (3) compromising delivery of essential services. Pharmaceutical services delivery has been affected with information on how it has been affected and the challenges faced lacking. The exercise investigated the challenges CHAM health facilities have been facing in the delivery pharmaceutical services due to COVID-19 pandemic. CHAM is an ecumenical and second largest health service provider and largest health service provider for hard-to-reach areas in Malawi, institutions. Malawi as a country is divided in three geographic regions (Northern, Central and Southern regions) while for planning purposes is divided into four regions (Northern, Central, Eastern and Southern regions).

Method

Setting and Population

A descriptive cross-sectional study was conducted in CHAM facilities in Malawi to understand the challenges facilities were facing to deliver pharmaceutical services. The target facilities are in 27 of the 28 districts of Malawi. The study targeted in-charge of the facility, in-charge of the pharmacy department, and the personnel involved in procurement and management of pharmaceuticals.

Procedures

A convenient sampling method was used to select participants in our 190 facilities (179 health facilities and 11 training colleges). Christian Health Association of Malawi is divided into five categories; training colleges, hospital (full fledge hospital), community hospital (smaller than hospitals), health centres with maternity wing and health centres without maternity wing.

For each category of CHAM, we selected one facility in each region (planning region demarcation) making a total of 20 facilities. From each facility, we targeted two people in category of respondents (an in-charge of pharmacy department and either in-charge of facility or anyone in-charge of procurement) forming a total of 80 respondents. A link for online based questionnaire was sent to potential participants to obtain data after consent.

Analysis

Data was analysed using Microsoft Excel Version 2016. Percentage, mean, median and mode were used to quantify descriptive parameters on challenges CHAM facilities face to deliver pharmaceutical services.

Results

Participants Baseline Characteristics

Data were available from 43 participants, representing 53.6% (43/80) response rate. From the 43 participants, 41.9% (18/43) were female. Seven (16.3%) of the participants were pharmacy professionals; one pharmacist, one pharmacy technician and five pharmacy assistance. Facility in-charges formed the largest group with 55.8% (24/43) response rate. Of the respondents, four (9.3%) were master degree holders, seven (16.3%) undergraduate degree holders, and the majority (41.9%, 18/43) were certificate holders. Two percent of participants were from the training colleges.

Table 1 summarises participant characteristics data.

Characteristics	Number out of total (43)	Percentage (%)
Sex		
Male	25	58.1
Female	18	41.9
Academic qualification		
Master	4	9.3%
Degree	7	16.3%
Diploma	13	30.2%
Certificate	18	41.9%
Others	1	2.3%
Position Category		
Pharmacy Professional	7	16.3%
Facility in-charge	24	55.8%
Administrator	7	16.3%
Procurement professional	0	0.0%
Others	5	11.6%
Facility type		
Full Hospital	6	14.0%
Community Hospital	3	7.0%
Health Centre with Maternity	12	27.9%
Health Centre without maternity	20	46.5%
Training College	2	4.7%
Region of Responder facility		
Northern	6	14.0%
Central	16	37.2%
Eastern	10	23.3%
Southern	11	25.6%

Challenges Faced in Delivering Pharmaceutical Services

Christian Health Association of Malawi facilities have been facing challenges like price escalation by suppliers due to suppliers responding to high demand to COVID-19 medical items, frequent medical supplies stock-out at the suppliers, high cost of medical items due to stock-outs at suppliers, long lead time for facilities to receive medical items, transportation problems, hustle for facilities to find medical items at affordable price, reduced income due to low patients' turn-up, lack of trusted suppliers and general financial challenges from institutions (Figure 1a).

The highest respondents, 19 participants (44.2%), indicated high prices (expensive) as a challenge their facilities faced due to COVID-19. Price escalation and transportation had response rate of 4.6% and 20.9% response rate, respectively.

Staff problem were experienced due to the COVID-19. Twenty-two facilities (51.2%) had staff diagnosed with COVID-19. Twelve respondents (27.9%) said that staff were absent from work due to the fear of COVID-19. The staff shortage problem was indicated to be very big by seven (16.3%) respondents.

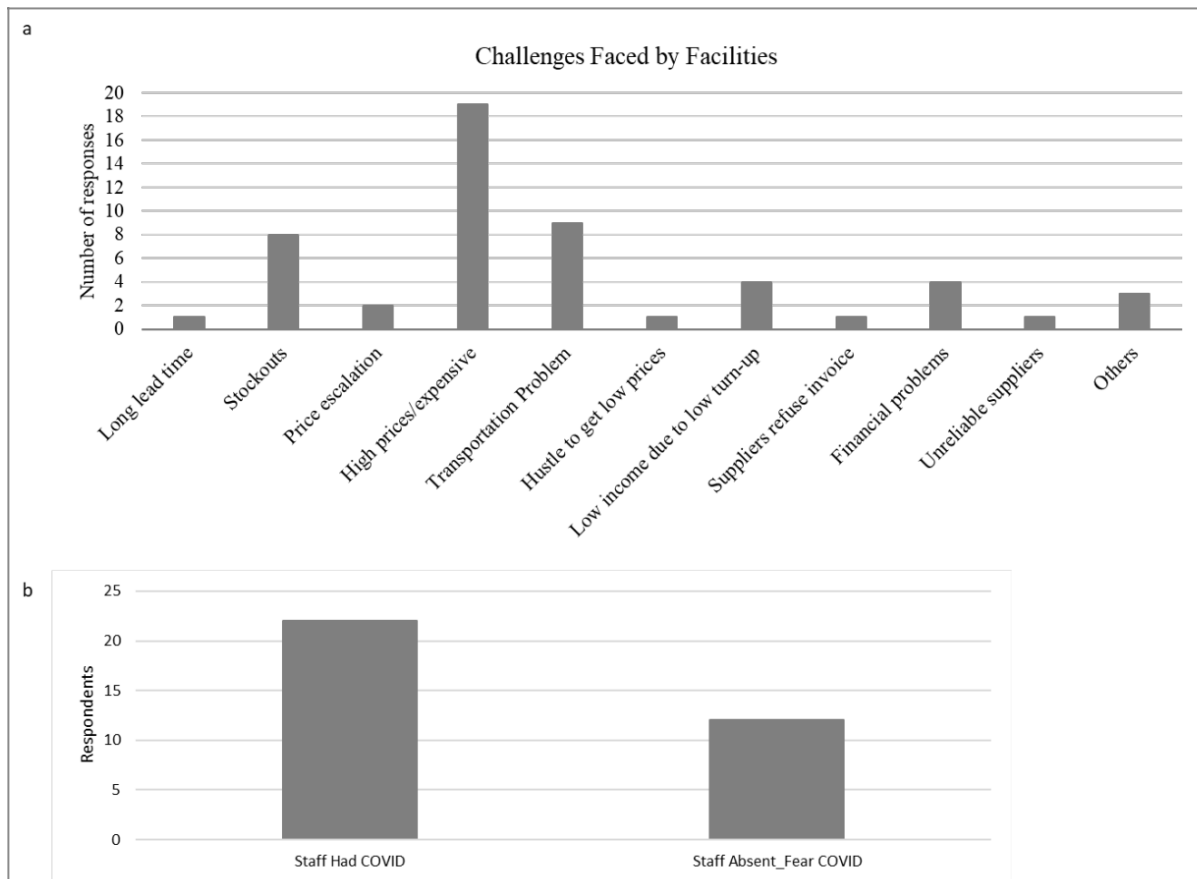


Figure 1: Challenges faced by CHAM facilities to deliver pharmaceutical services. (a) challenges related to delivery of the service, and (b) challenges related to personnel availability.

Pharmaceutical Services Affected by COVID-19

Some services were suspended/stopped, reduced, slowed or changed due to COVID-19. Patients started fearing injections due to rumours that health workers were injecting patients with COVID-19. Respondents also indicated that giving patients start dose under observation/supervision of a pharmacy personnel was stopped. Trainings, youth friendly service and lunch hour service were the other services which were stopped. Out Patient Department (OPD), underfive clinics, maternity/antenatal clinics, diabetic clinic, community screening, antiretroviral clinics (ART), health education on drugs, family planning, Sexually Transmitted Infection (STI) treatment due to medicines scarcity, village reach programmes, growth monitoring, medical clinics and surgeries, Human Immunodeficiency Virus (HIV), nutrition service, Teen club were slowed down.

Thirty-seven (86%) of the respondents indicated that COVID-19 response items were the mostly not available on the market. COVID-19 items mostly out of stock were hand sanitisers, methylated spirit, gloves, gowns, head gears, oxygen concentrator, aprons, pulse oximeters and face shield.

Discussion

Participants from the pharmacy professional (16.3%) represented a good picture of the challenges in the CHAM facilities. In additional, the majority of responders (55.8%,24/43) were facility-charge providing critical data on state of facilities' services including pharmaceutical services. Facility in-charge are the main decision makers and where different departmental heads report. This group is well-informed on challenges facilities face and are involved in daily decision making to address the challenges. All levels of facilities (big hospital to health centre) were represented providing holistic data.

The challenge of price escalation has been a very big issue during COVID-19 pandemic. For example, the price of a box of surgical face mask which used to be around USD1 increased to USD60 with prices changing on a daily basis. Price could change for a scarce product three times in a day. This increased burden on health units. One of the mission of CHAM is to provide health services to the poor (people in hard to reach areas). Service level agreement (SLA) is used to supplement finances of the facilities to provide services affordable by the poor. Therefore, price escalation compromised availability of medical supplies in the CHAM facilities.

The COVID-19 pandemic has been marred by frequent stock-outs of medical items. Malawi depends on import of the largest chunk of medical supplies. With restrictions in place, it was impossible to get the medical supplies on time and re-filling of the supplies by local suppliers has been a huge problem. Frequent stock-outs of both COVID-19 response items and general medical items has been the order of the day. This contributed to great hustles for CHAM facilities to procure all the needed pharmaceuticals in their facilities. The medical supplies mostly not found on the market (86% response rate) were items for responding to COVID-19. Suppliers playing around with market demand to inflate price by holding stock played a role in making supplies scarce.

The pandemic hit the human resource too with 27.9% respondents indicating that some staff were absent from work because they were afraid of contracting the virus. The presentation of COVID-19 information was received with mixed feeling since the diagnosis of the first three cases in Malawi on 2nd April in 2020 (4). People panicked initially and fear gripped the public as the news portrayed a picture of COVID-19 as a death sentence. With time, the fear lessened for a short period of time but the coming of the second wave which was more terrifying (as shown by high fatality rate and death of high ranking government officials) re-kindled the fear. The moment of fear contributed to staff absconding from. Furthermore, facilities have had their staff diagnosed of COVID-19 with 51.2% response rate. This compromised delivery of vital pharmaceutical services.

Limitations

Low response rate due to participant's failure to complete responses on the link based questionnaire. The study investigators tried to give more details on how to go about accessing the questionnaire and it improved responses by 50% compared to initial response rate.

Conclusion

Christian Health Association of Malawi facilities faced challenges from price escalation, suppliers holding stocks to inflate the prices, general stock-outs and personnel failure to report for duty due to COVID-19 diagnosis and fear of contracting the virus. Creation of centralized system through formation of a Drug Revolving Fund (DRF) for CHAM facilities can mitigate the challenge of stock-out and local suppliers inflating prices due to high demand. Further investigation need to be done to find-out about facilities perception on having a DRF and steps to be undertaken to successfully implement it.

Acknowledgement

I would like to thank the CHAM Management for giving me an opportunity to lead this exercise, and providing all the needed information. I acknowledge the ICT department for swiftly coming in to provide tools for data collection. My regards to the following people for reviewing the article; Mutisunge Samuti, Patience Khomani and Pearson Chirambo. Importantly, my appreciation goes to all participants who spared time to take part in this exercise.

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