Maternal and Child Health Services-why do caregivers not attend

A REVIEW OF BARRIERS TO THE UTILISATION OF MATERNAL AND CHILD HEALTH SERVICES IN NAIROBI INFORMAL SETTLEMENTS

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Acronyms

ANC	Antenatal care
CCC	Comprehensive Care Centre
CHC	Community Health Committee
CHEW	Community Health Extension Worker
CHMT	County Health Management Team
CHV	Community Health Volunteer
CU	Community unit
FBO	Faith-based organisation
GMP	Growth monitoring promotion
HINI	High impact nutrition interventions
IMAM	Integrated management of acute malnutrition
IYCF	Infant and young child feeding
MAM	Moderate acute malnutrition
MCH	Maternal and child health
SAM	Severe acute malnutrition
SCHMT	Sub-County Health Management Teams

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Executive Summary

This review was commissioned by Concern Worldwide, in collaboration with Nairobi County and Sub-County Health Management Teams, and supported financially by UNICEF Kenya. The review was prompted by concerns over the low coverage of nutrition services – specifically integrated management of acute malnutrition (IMAM) - in Nairobi's informal settlements. Coverage assessment reports for Nairobi repeatedly attribute low utilization to, among other factors, competing tasks of caregivers. Access to health and nutrition services is a challenge since very few public health providers serve informal settlements. Those that do, lack client oriented services to suit the circumstances of informal settlement dwellers. County and Sub-County Health Management Teams therefore requested an in-depth review to identify barriers to the utilisation of maternal and child health (MCH) services.

The review entailed key informant interviews with County and Sub-County Health Management Team members as well as health workers and caretakers in high volume public and faith-based and non-governmental organisation (FBO/NGO) supported MCH clinics, located within and on the periphery of informal settlements in eight sub counties: Kamukunji, Westlands, Dagoreti, Embakasi, Makadara, Kasarani, Starehe and Ruaraka. To understand the myriad barriers that exist in accessing health services, an analytical framework was employed. This framework recognises that barriers exist and interact on both the supply and demand side. Demand-side determinants are factors influencing the ability to use health services at individual, household or community level, while supply-side determinants are aspects inherent to the health system that hinder service uptake by individuals, households or the community. Barriers included geographical access; availability; affordability; and acceptability.

Findings were arranged by barrier as well as their supply- and demand-side orientation based on the analytical framework. Key supply-side barriers identified included inadequate health service infrastructure serving informal settlements and inconsistent quality resulting in "erratic" utilisation of available facilities; relaxed opening hours in some facilities and concentrated periods during which services are offered in most facilities, with only a few facilities adhering to stipulated operating hours; long and multiple queues, a lack of triage, as well as short registration periods resulting in long waiting times and caretakers being sent away (or giving up); as well as inconsistent supply of nutrition human resources and commodities. On the demand side, caretaker competing priorities were largely work-related, whether this was through casual, self-employment or formal employment arrangements. In most instances, time taken to attend the MCH clinic, is done at the expense of an income for that day or the needs of the household, including other children. Caretakers also highlighted the lack of voice to effectively "negotiate" complex health service arrangements. The review confirmed that it is often the system itself which serves to limit an individual's capacity to engage with it.

Recommendations for consideration by the County and Sub-County Health Management Teams include the following:

Operating hours: Whilst the Government of Kenya civil service handbook states that the official working hours are Monday to Friday from 8 am to 5 pm with one hour for lunch, the window for accessing health services in the majority of facilities visited is much shorter than this. Clients have been conditioned to attend *en masse* with resultant long queues for MCH services. It is therefore recommended that health facilities are "reconditioned" to provide services in a timely manner starting at 8 am and continuing through to 5 pm. This would need to be done in conjunction with community sensitization so that caretakers are made aware of the longer hours and can plan accordingly. It is further recommended to trial Saturday morning MCH clinic hours in selected high volume facilities. This does not require a policy change, as some health workers have alluded, but rather management intervention.

Service reorientation and integration: As recommended by some Sub-County Medical Officers, nutrition should be a "whole site" effort, reinforced at all service contact points with referrals managed in a timely manner for those requiring treatment. This would serve to reorient health services to the promotion of *good nutrition*, from their current orientation of *treating malnutrition* (i.e. a curative focus). This would imply that health workers have the requisite skills to provide nutrition information and counselling, tailored to the needs of the client. Reconfiguration of MCH services is also recommended so that caretakers, and their children, do not have to queue for each MCH service but, rather, can access a constellation of related services as a form of "one stop shop". This would serve to reduce waiting times and improve client experience; furthermore, while services are delivered on a first come, first serve basis, it is recommended that severely ill children are given priority. Greater integration could also extend to

the private sector, given their proliferation in informal settlements, as sites for promoting good nutrition and referring children who require treatment services.

Client voice and accountability: Caretakers welcomed the opportunity to be heard and to voice their views, both positive and negative, about their client experience. This form of feedback, if captured in real time and fed back into the health system has the potential to improve the responsiveness of service delivery. Positive feedback should be recognised and rewarded (where feasible) while remedial measures should be taken to address sub-optimal performance. This should look at both facility as well as individual performance. The review uncovered outstanding performance – recognised as such by caretakers – but "invisible" in the health system. Greater understanding of what motivates and drives high performance should be sought so that these behaviours can be emulated.

Community engagement: Greater awareness, sensitization and linkages with the community is also required. This presupposes functional community units as well as greater multi-sectoral engagement – with specific attention to employers as well as the day cares that women rely upon to participate in the labour market. A critical factor to community engagement, is Community Health Volunteer (CHV) motivation and incentives. In all health facilities, attrition of CHVs was extremely high, a lost resource to the community and health system. To redress this, introducing a basic stipend for the most active CHVs and ensuring that this group have adequate capacity and support to promote maternal, infant and young child nutrition is suggested. In addition, sensitization of employers on health rights and access to health services should also be prioritized. Again, positive employer behaviours (e.g. those employers allowing caretakers to attend MCH services with pay) should be identified and recognised so that they can be emulated in the sector. Greater engagement would facilitate improved health seeking behaviours and prevention by addressing some of the underlying causes of malnutrition in urban informal settlements.

1. Introduction

This review was commissioned by Concern Worldwide in collaboration with Nairobi County and Sub-County Health Management Teams. Concern Worldwide, a long standing partner of the Ministry of Health, has been supporting the delivery of maternal and child health (MCH) services in Nairobi County since 2008 with specific attention to the neglected issue of malnutrition found in the urban informal settlements. Concern Worldwide has noted that, since 2012 when IMAM services were scaled up, coverage of these has remained below 70%, the Sphere standard for urban settings.

Coverage assessment reports for Nairobi repeatedly attribute low utilization of nutrition services to among other factors, competing tasks by the mother/caregiver. Access to health and nutrition services is a challenge since very few public health providers serve urban slum residents. Those that do, lack client oriented services to suit the living conditions of the most vulnerable. While deliberating on barriers to access to nutrition services in coordination meetings, the Sub-County Health Management Teams (SCHMTs) and County Health Management Team (CHMT) requested an in-depth analysis to identify and address barriers. This review has been undertaken to serve this purpose.

2. Methodology

The review of MCH clinics, with specific attention to utilisation of nutrition services, employed a mixed method design. This included:

- Key informant interviews with County and Sub-County Health Management Team members;
- Key informant interviews with health workers in high volume public and faith-based organisation (FBO) MCH clinics. At least two health facilities per sub-county were selected. These included facilities within the informal settlements as well as those located on the periphery but serving informal settlement dwellers,;
- Interviews with caretakers attending the MCH clinic at the health facilities visited;
- Observation of MCH clinic operations;
- Review of county human resource policy documents;
- Literature review.

In total, 21 health facilities were visited in eight sub-Counties[1]. From these facilities, 28 health workers and 25 caretakers were interviewed. Caretakers were selected randomly from those attending for MCH and IMAM services and were interviewed upon exit from or whilst waiting for the service. In addition, four Sub-County Medical Officers were interviewed. The review itself was guided by the Nairobi CHMT. Table 1 presents the names and distribution of facilities as well as those interviewed from the Sub-Counties. Field work was conducted over the period 29th June through to 24th July, 2015. A key limitation of the review was that only caretakers attending MCH clinics were consulted; those that do not attend were not accessed as part of the review.

Table 1: Distribution of sub-county facilities and key informants

Sub county	Facilities visited	Health workers interviewed	Mother interviews
Kamukunji	Majengo Health Centre Eastleigh Health Centre (Biafra)	2 Majengo 1 Biafra	1 Majengo 2 Biafra
Westlands	Mji wa Huruma Dispensary Mji wa Huruma Health Centre Kangemi Health Centre	1 Mji Wa 2 Kangemi	1 Mji Wa 1 Kangemi
Embakasi	MMM (FBO Health Centre) Mukuru Health Centre Kayole2 Health Centre	2 MMM 2 Mukuru 1 Kayole	2 MMM 2 Mukuru 2 Kayole

[1] Selected Sub-Counties include those where Concern Worldwide operates and not all Sub-Counties of Nairobi County.

	Mukuru Kwa Reuben FBO	2 MKR	1 MKR
Makadara	Makadara Health Centre Bahati Health Centre	3 Makadara 1 Bahati	2 Makadara 1 Bahati
Kasarani	Dandora 1 Health Centre Karobangi North Health Centre Kasarani Health Centre German Baraka Hospital	1 Dandora 1 German Baraka 1 Kariobangi	1 Dandora 1 German Baraka 1 Kariobangi
Starehe	Huruma Lions Health Centre Pangani Health Centre	2 Huruma 1 Pangani	2 Huruma 1 Pangani
Ruaraka	Korogocho Health Centre Kahawa West Health Centre	1 Korogocho 1 Kahawa	2 Korogocho 1 Kahawa
Dagoreti	Riruta Health Centre Waithaka Health Centre	1 Riruta 2 Waithaka	1 Riruta
Total	21 health facilities	28 health workers	25 caretakers

3. Analytical Framework

The WHO has developed a framework to promote a common understanding of what a health system is and what constitutes health systems strengthening.[2] A health system consists of all organizations, people and actions whose *primary intent* is to promote, restore or maintain health. The WHO framework defines six discrete "building blocks" that make up the system (figure 1). The WHO views a health system as more than a pyramid of publicly owned facilities that deliver personal health services. In their view, it includes a mother caring for a sick child at home; private providers; behaviour change interventions; and inter-sectoral action, to name but a few. People feature at the centre of the WHO framework, a reminder that health systems – and their constituent building blocks – should be people-centred, designed to be responsive to the needs of the communities they serve. This broad interpretation of a health system has been employed for this review.

Figure 1: Health system building blocks

To understand the myriad barriers that exist in accessing health services, an analytical framework (Table 2), adopted from Jacobs *et al* (2012) was employed. This recognises that barriers exist and interact on both the supply and demand side. Demand-side determinants are factors influencing the ability to use health services at individual, household or community level, while supply-side determinants are aspects inherent to the health system that hinder service uptake by individuals, households or the community. The need to differentiate demand-side from supply-side barriers is related to the formulation of appropriate interventions, although it is noted that both sides have to be addressed concurrently[3].

[2] World Health Organisation (2007) *Everybody's Business: strengthening health systems to improve health outcomes* (WHO's Framework for Action), WHO, Geneva.

[3] O'Donnell, 2007 in Jacobs, B., Por, I. Bigdeli, M., Annear, P.L. and W. Van Damme, 2012. Addressing access barriers to health services: an analytical framework for selecting appropriate interventions in low-income Asian countries. Health Policy and Planning 2012;27: 288–300 doi:10.1093/heapol/czr038.

Table 2: Analytical Framework

Supply-side barriers	Demand-side barriers
Geographic accessibility	
• Service location	• Indirect costs to households • Means of transportation available
Availability	
• Unqualified health workers, staff absenteeism, opening hours • Waiting times • Motivation of staff • Drugs and other consumables • Non-integration of health services • Lack of opportunity (exclusion from services) • Late or no referral	• Information on health care services, providers • Education
Affordability	
• Costs and prices of services, including informal payments • Private-public dual practices	• Household resources and willingness to pay • Opportunity costs • Cash flow within society
Acceptability	
• Complexity of billing system and inability for patients to know prices beforehand • Staff interpersonal skills including trust	• Household characteristics • Low self-esteem and lack of assertiveness • Community and cultural preferences • Stigma • Lack of health awareness

Adapted from Jacobs *et al*, 2012.

4. Findings

Findings are arranged by barrier as well as their supply- and demand-side orientation based on the analytical framework.

4.1 Accessibility

Supply-side

Service location: The majority of public health facilities visited are situated on the periphery of the informal settlements while FBO/NGO clinics visited are situated within. Irrespective of location, the pattern of service utilisation in many of the health facilities is erratic, with one health facility serving women from the immediate as well as distant communities. There is a perception by health workers and managers that utilisation, and the decision to seek services from one facility over another, is based on the reputation of the facility. Reputation is a function of availability, affordability and acceptability. As noted by one health worker, *"the majority of the persons in attendance are from Mathare section 4A. However, the patients come from as far as Uganda and the rural areas due to the services that we offer"* (Health Worker, Baraka FBO). "Erratic" utilisation as well as in- and out-migration patterns within informal settlements, create challenges for follow up, defaulter tracing, as well as health service organisation.

Demand side

Indirect costs to households: Costs of transportation were not cited by caretakers attending the MCH clinic, however it can be assumed that this is a factor for those that do not attend.

Means of transportation available: Means of transportation was not cited as an issue although it was reported by health workers that attendance at the MCH clinic is seasonally effected. In particular, attendance is lower in the rainy season when the roads in the informal settlements become quagmires, making movement difficult.

4.2 Availability

Supply-side

Unqualified health workers, staff absenteeism, and opening hours: There is a shortage of nutritionists within the health facilities visited. The fall-back position is to use CHEWs as "declared" nutritionists; this tactic also extends to CHVs. It was observed that, in many instances, CHVs, CHEWs and students were providing IMAM and growth monitoring promotion (GMP) services. While some have received training, others have learned on-the-job. Impressively, one CHV was self-taught using online training programmes from USAID and UNICEF to deepen his knowledge. Of note, most of the students that were observed providing nutrition services did not demonstrate good inter-personal skills.

Staff absenteeism was also an issue in some of the health facilities visited. This practice was more in relation to late arrival than complete absence. In one instance, the Interviewer arrived at the health facility at 8.30 am. Mothers were waiting to be attended to. A health worker who was present, advised the interviewer to go way at 9.00 am and return at about 11.00 am when the health workers would have arrived at the facility. In a similar instance, the interviewer arrived at another health facility by 8.00 am but none of the health workers had arrived. The persons present were two cleaners and more than 20 mothers at the waiting bay. Interviews were also not possible at the one Health Centre where the interviewer arrived at 8:30 am. The facility had only one health worker at 9:25 am when the interviewer decided to leave and only a few patients in the waiting bay; none had come for MCH services.

These examples highlight a relaxed practice in relation to the opening hours in some health facilities. However, the practice of limited MCH "operating" hours was found to be more prevalent across the facilities visited. Table 3 provides an overview of operating hours on the days that the interviewers visited the facilities. This was gleaned through a combination of observation as well as caretaker and health worker feedback.

Table 3: MCH operating hours

Sub county	Facilities	MCH operating hours (practice)
Kamukunji	Majengo Health Centre Eastleigh Health Centre (Biafra)	Monday–Friday (M-F) morning hours (open at 8 am but do not start to see patients until 10 am – Biafra; Majengo starts at 9 am).
Westlands	Mji Wa Huruma Dispensary Mji wa Huruma Health Centre[4] Kangemi Health Centre	M-F 9 am – 3 pm (closed for lunch) M-F after 9 am – closing time not indicated M-F 8 am – closing time not indicated
Embakasi	MMM (FBO Health Centre) Mukuru Health Centre Kayole2 Health Centre Mukuru Kwa Reuben FBO	M-F 8 am (MCH; nutrition from 9 am) – 1 pm M-F 8 am – afternoon (not indicated) M-F 8 am (MCH 8 am; 10 am nutrition clinic) – 4 pm M-F 8 am – 1 pm
Makadara	Makadara Health Centre Bahati Health Centre	M-F morning hours (finish at lunch time or shortly thereafter) Observation and caretakers recounted that Makadara turns women away when they arrive late
Kasarani	Dandora 1 Health Centre Karobangi North Health Centre Kasarani Health Centre German Baraka Hospital	M-F morning hours (start seeing patients at 9:30 am (Kariobangi; registration closed after midday) German Baraka: M-F 8 am – 4 pm (registration starts at 6 am)
Starehe	Huruma Lions Health Centre Pangani Health Centre	M-F 8 am – 4 pm (one hour lunch break) M-F 9 am – 4:30 pm (one hour lunch break)
Ruaraka	Korogocho Health Centre Kahawa West Health Centre	M-F 8 am – 4:30 pm (with a one hour lunch break) M-F morning hours (mothers turned away if arrive after 10 am)

[4] This health centre was visited however the interviewer waited an hour (from 8:25 – 9:25) and left as only one health worker had arrived, and just a few patients had arrived, none of who had come for MCH services.

Dagoreti	Riruta Health Centre Waithaka Health Centre	M-F 8 am – 5 pm (not indicated when stop attending to patients)

As recounted by caretakers:

"…if a mother comes in after 10.00 am, she is not attended to and has to come another day" (Mother, Health Centre in Makadara Sub-County).

"The mothers are expected to report to the health facility by 8.00 am but they begin to be served at 10.00 am. Yet any mothers arriving after 10.00 am are not registered and attended to…" Father, Health Centre in Kamukunji Sub-County (He was with his 22 month child, with severe acute malnutrition (SAM), had been waiting three hours, and had still not been attended to at the time of the interview).

According to some health workers, the short MCH operating hours and the practice of turning caretakers away contributes to high defaulter rates. When asked if extended hours would improve service utilisation, including opening the MCH clinic on Saturday mornings, many health workers and caretakers considered that this would be beneficial. As one mother indicated, *"today I had to take an unpaid day off from my place of work to bring baby to the baby well clinic. If they were open on Saturdays, I would have preferred to come then, but they are not open. And yet I need someone to advise me on how to introduce other foods to the baby"* (Mother, Health Centre in Embakasi Sub-County). This sentiment was expressed in many instances as most mothers attending the MCH clinic are working mothers. Other health workers did not feel that a change in opening hours would improve uptake. As noted by one health worker, *"no, a change or increase in operating hours will not improve uptake. A change in people's attitudes is what needs to change. A lot of mobilization and awareness creation on the importance of MCH services is what is required"* (Health Worker, Health Centre in Kasarani Sub-County). Some health workers cited the lack of staff for a rotation system as well as the need for a policy change as impediments to expanding service hours.

Waiting times: As many MCH clinics operate in "bursts of energy" for just a few hours in the day, this pattern ensures lengthy queues and long waiting times before caretakers and their children are attended to. As noted, by one mother, *"it's on a first come, first served basis. Today I have been here since 8.30 am. My baby has been weighed but I am still waiting for the immunization"* (Mother, Health Centre in Makadara Sub-County). This statement was made at 12:23 pm, she had been waiting almost four hours at that point. In a FBO Health Centre, the caretaker had been waiting five hours with a child with a fever to see the doctor and was still not attended at the time of interview while in a Health Centre in Embakasi Sub-County, the caretaker interviewed had also been waiting five hours. She indicated that she often comes at 6 am as the queue is very long. Other facilities had shorter waiting periods however in almost all facilities, long queues are the norm. If a child requires multiple services, there is a separate queue for each service compounding the waiting time.

Motivation of staff: Some health workers were visibly motivated, passionate even, in counseling mothers on nutrition issues, in particular exclusive breast feeding and complementary feeding. This was expressed by multiple health workers in many of the sites visited. The presence of motivated staff was one reason that woman chose one health facility over another. As one mother explained at Huruma Lions Health Centre, she loves the facility because it is clean, offers good services and the staff handles the patients with care. Another women praised the nutritionist at the Kayole 2 Health Centre, noting that *"the day I miss the lady, I'm sincerely hurt"*. She further noted that only a few health workers offer good service and some are abusive sending women to the end of the queue if they miss their name being called out[5].

In many instances it was also reported that Community Health Volunteers (CHVs) were also not motivated. This does not diminish the fact that, at facility level, the contribution of CHVs and Community Health Extension Workers (CHEWs) to the provision of MCH – and nutrition services – was very visible and commendable, and, in some instances, the nutrition service was solely supported by these cadres. One Sub-County Medical Officer acknowledged that she had 800 CHVs of which only 20 were engaged at any given time, implying that the rest are dormant but could be activated with incentives. This was confirmed by another health worker who suggested that CHVs are re-activated through active case finding (by Concern and ACF, when they receive Ksh 500) or HIV activities through Aphia*Plus*; as she noted "a*ll the active CHVs are also HIV reactive"* (Health Worker, Biafra Health Centre).Reportedly,

[5] Health workers alternate between calling for the caretaker and calling for the child which can create some confusion for the caretakers. The caretaker was Congolese so finds language a bit of a challenge.

CHVs attached to FBO facilities are more active than those attached to the public health facilities; this is attributed to the provision of a monthly stipend. For example, the MMM Health Centre provides CHVs with a monthly stipend of Ksh 2,000 as well as Ksh 200 for work in the clinic.

Drugs and other consumables: Reportedly, IMAM commodities are a major issue in all health facilities visited with stock outs of Plumpy-Nut and Plumy-Sup common for significant periods of time (reported to range from 1-6 months). This contributes to the low utilisation of services. *"If a mother comes to the health facility, one to two times and meets there is no Plumpy Nut, she does not come back again"* (Health Worker, Waithaka Health Centre). Availability of commodities is also hampered by the lack of transportation for distribution of supplies to the facilities, which is left to the devices of the facility in-charges. One Sub-County Medical Officer further noted that commodities are often received with a short expiry date (this was in relation to micro-nutrient powders) which results in pragmatic "mass sharing" of the products in order that they are utilised before they expire. Other pragmatic responses to commodity stock outs are to revert to the provision of health education and counselling of mothers on infant and young child feeding (IYCF), encouraging them to use locally available, nutritious, foods. As one health worker recounted, *"I tell the mothers that these commodities [Plumy Nut and Plumpy Sup] will not always be available and that it is up to them to feed their children well"* (Health Worker, Kayole 2 Health Centre). Ironically, stock outs may encourage better communication with mothers as health workers seek to fill the commodity gap with promotive and preventive measures. It was also noted, that, in some instances, Plumpy Nut was distributed at the waiting area to quiet the children down (Biafra and Makadara Health Centres).

Non-integration of health services: There was little mention of the lack of integration of health services by health workers or caretakers however Sub-County Medical Officers consulted highlighted this as a critical issue. It was noted that vertical programme approaches resulted in missed opportunities and a lack of *"accountability to the child"*. Another Sub-County Medical Officer indicated that a "whole of facility" approach to promoting good nutrition was required, however, he noted that *"nutrition services [are treated] as a 'by the way'"*. In some facilities it was further noted that there was no ownership of the nutrition treatment programme, and, should the CHEW or CHV be absent, no nutritional services would be offered. In her opinion, the nurses view the nutrition programme as an extension of the community programme (Health Worker, Health Centre in Kamukunji Sub-County).

Lack of opportunity (exclusion from services): A whole of facility approach to the promotion of nutrition would reduce exclusion from nutrition services. It was noted that, in some facilities, even antenatal care (ANC) clients and those with babies at six months beginning complementary feeding, were not counselled unless a CHV or CHEW intervened. Where high impact nutrition intervention (HINI) assessments have been conducted, identified gaps have been addressed suggesting that more systematic performance assessments would reduce exclusion and other supply-side barriers.

Late or no referral: Referrals do occur, from the community to health facilities and from other departments within health facilities however this practice is not systemic. In almost all instances, health facility personnel did not report the presence of an active community unit (CU), limiting referrals from communities to health facilities or follow up in communities. As moderate acute malnutrition (MAM) and stunting are not viewed by most mothers as an illness, children requiring treatment are identified when they come for routine GMP or when seeking health care for other illnesses such as diarrhoea or coughs and colds. Of the 25 caretakers consulted only one had been referred by a CHV and three knew of active CUs (these caretakers were attending the Korogocho Health Centre and Mji wa Huruma Dispensary).

Furthermore, despite widespread recognition of informal day care centres as a "source" of malnutrition, there is no sustained engagement with these sites by health facilities or CUs. It was reported that therapeutic foods, Plumpy Nut and Plumy Sup, are often shared in the day cares and that their operators do not actively feed the children with food provided. It is reportedly a common practice for Plumpy Nut to be used like peanut butter on bread and shared with other children in the day cares in lieu of other food options. As mothers work long hours, this means their children go for significant periods without adequate care or food. One mother recounted that in the day cares, the children face neglect and appear to have brittle, discoloured hair and bulging stomachs. The lack of referral or engagement with day cares is a significant missed opportunity for addressing malnutrition within the community.

Demand-side

Information on health care services, providers: The lack of functionality of CUs as well as the infrequency of community outreach has a significant bearing on utilisation of nutrition and by extension other services. Word of mouth however does play a role in where caretakers decide to seek services with some facilities, such as Baraka German Doctors, having a virtuous reputation so much so that they have to ration health services on a daily basis so that quality of care is not compromised. Other facilities are considered not to be service-oriented. As one caretaker noted, health workers do not have time to answer her questions and she never receives any useful information (Mother, Health Centre in Makadara Sub-County). While most facilities visited were busy this should not be taken as an indicator of good performance.

Education: It is recognised that caretaker education levels have a direct bearing on child nutrition status. These were not established as part of the caretaker interviews however it was noted that many of the mothers that were interviewed were young, often with their first child. They were in search of IYCF education and were motivated to attend MCH services to ensure that their child was thriving. Health workers interviewed acknowledged that many mothers lacked knowledge on feeding practices, contributing to sub optimal IYCF. Despite this, most health education is rote and there were few visible job aids to guide this exchange. As one Sub-County Medical Officer noted, health education needs to be contextualised to the caretaker's situation, it is *"not a conversation that you can have in five minutes"*.

4.3 Affordability

Supply-side

Costs and prices of services, including informal payments: As services are free in the public health facilities and the cost minimal in FBO/NGO supported clinics, this was not noted as a barrier to utilisation. Additionally, informal payments were also not mentioned.

Private-public dual practices: Dual practice was not reported during the field work although it is understood that the practice exists. Most health workers suggested that private-for-profit providers in their catchment areas were operating illegally and were not qualified to practice; this view was expressed despite the fact that the private sector is the predominant health care provider in the sub-counties visited, and considerably out-number public facilities. For example, in Westlands Sub-County the Medical Officer reports that there are 65 registered health facilities of which only seven are public; similarly in Embakasi Sub-County, there are 120 private health facilities as compared to 12 public facilities. There appears to be very little engagement with private practices[6].

Demand-side

Household resources and willingness to pay: The health facilities selected for this review all serve informal settlements. In these settlements, household resources are extremely limited and poverty is often cited as a reason for poor nutritional status. This also contributes to poor caring practices particularly when mothers are required to leave their children for significant periods of time, often in the hands of informal day care centres. As services are free in the public health facilities and highly subsidized in FBO facilities, willingness-to-pay was not cited as a barrier.

Opportunity costs: Opportunity costs are a significant barrier to the utilisation of MCH services. Most women who attend the MCH clinics work, whether this is casually (e.g. day labourer, house help), through self-employment (e.g. market vendor), as housewives, or under formal employment arrangements (e.g. factories). In most instances, time taken to attend the MCH clinic, is done at the expense of an income for that day or the needs of the household, including other children. Some employers respect health rights and allow caretakers time off to attend MCH clinics, provided they can demonstrate attendance, but this was mentioned rarely[7].

Cash flow within society: Given the high poverty levels found within the catchment areas of the health facilities visited, nutrition commodities are sometimes sold, and often shared with other household members. There is limited ability to purchase nutritious foods for children exposing them to poor nutrition and common infections.

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[6] Facility-in-charge meetings include registered private sector providers.

[7] There is potential to have this right respected for those working in formal employment (full time or casually) as well as those working as domestic house help.

4.4 Acceptability

Supply-side

Complexity of billing system and inability for patients to know prices beforehand: As services are free of charge in the facilities visited, pricing was not identified as a barrier to service utilisation.

Staff interpersonal skills including trust: Many of the staff observed had good interpersonal skills and were actively engaging both caretaker and child. Often this was witnessed with the CHEWs and CHVs and less with the other cadres. As noted by caretakers:

"The health workers are friendly, knowledgeable but very slow" (Mother, Bahati Health Centre).

"…the health workers are very nice to us, especially the nutritionist. She counsels the mothers very well on importance of exclusive breastfeeding and proper feeding practices" (Mother, Kahawa West Health Centre).

Demand-side

Household expectations: Caretaker expectations have been "conditioned" to the availability of services. While they may not be informed of official working hours, many caretakers are aware of operational practices and conform to these as much as possible. This means, invariably, that some caretakers and their children, cannot attend for MCH services or do so with significant opportunity costs, including foregoing income – and the ability to buy food - for that day. This is extremely difficult for many caretakers who live on day-to-day subsistence.

Low self-esteem and lack of assertiveness: Caretakers, particularly young women, new migrants and minority groups, including people with disability, may lack the confidence to negotiate the complexity of health service organisation and procedural requirements. One mother recounted that she had arrived at 10.00 am and was turned away because the registration of the patients had already been finalized. She requested to speak to the nurse who listened to her and accepted to see the baby who had a fever. However, she also wanted the baby to be weighed, given Vitamin A and she wanted family planning pills for herself. She was advised to come back tomorrow because she arrived late. As she stated, *"mothers who lack a voice or are unable to negotiate are turned away".* In another instance, a mother explained that her child was seriously ill but she could not get anyone to attend to her; as she was leaving the facility in tears, a doctor saw her and intervened. As she stated, if not for his intervention her child might not have survived[8]. This suggests that greater voice and accountability are required to ensure a more people-centred service.

Community and cultural preferences: There was widespread reference to cultural practices, reflecting the diversity of the population in the informal settlements – these range from those who will not seek services due to religious or cultural beliefs (and choose to use traditional birth attendants and healers in lieu) as well as those who restrict the diets of children and mothers. As noted, poor feeding practices are passed along generations, from grandmother, to mother, to daughter. For example, a health worker recounted that the *"daughter was told by mother that salt should not be added to the baby's food. Baby should only be fed on mashed bananas and pumpkin. Baby should not eat onions and fried foods". So, what is the source of iodine for this baby? What about other essential micro nutrients?"* (Health Worker, Bahati Health Centre). Another mother explained that her baby cannot eat eggs as the *"baby cannot digest such powerful animal protein".* When asked about cereals and pulses such as green grams, beans, and split peas she explained that her husband's culture (Kamba) discourages consumption of such food *"as baby will not achieve milestones in a timely manner as required"* (Mother, Biafra Health Centre). The diversity of cultural and community preferences reinforces the need for contextualised, client-focused IYCF counselling and education.

Stigma: Fear and stigma associated with malnutrition was mentioned in only a few instances while the fear of HIV testing for the mothers during ANC was cited as a reason for not attending formal services and resorting to TBAs for delivery however it is not clear how prevalent this concern is. In one instance, the nutrition office location next to the comprehensive care centre (CCC) was cited as a reason for not attending for IMAM services as mothers did not want to be seated on the chairs outside the CCC office because of the stigma associated with HIV in the community (Kangemi Health Centre).

[8] The child in question has a chronic growth issue for which she is getting specialist attention in Langata.

Lack of health awareness: Most caretakers and some health workers acknowledged that the CUs were not active, creating challenges for defaulter tracing and community sensitisation. In only one instance, the case of the Huruma Lions Health Centre, was the community health committee (CHC) referenced in relation to efforts to contain the cholera outbreak in Mathare North. It was unclear if this level of engagement was sustained or motivated by the outbreak. Where the community health strategy is operating, it has *"changed so many things in the health centre. Men are now coming with their wives"*. (Health Worker, Huruma Lions Health Centre). It suggests that CUs, when functional, are a powerful tool for community engagement and sensitization. An area noted where intensified health awareness is required is the utilisation of Baby Well Clinic services after the baby's ninth month as thereafter most children do not attend unless they fall ill. This is a missed opportunity for promoting optimal IYCF during the *entire* 1,000 day period.

5. Discussion

As evidenced from Nairobi[9], and other rapidly urbanizing contexts, the health risks of unplanned urbanisation are disproportionately shouldered by the urban poor. Given that the large majority of informal settlement dwellers are involved in income generation activities during daytime hours, important attributes of health service delivery in poor urban settlements are the days and hours of service[10]. It is further noted in the health seeking behaviour literature that, *"…**it is often the system itself which serves to limit an individual's capacity to engage with it**"*[11]. MacKian (2003) further suggests that we need to develop a tool for understanding how populations engage with health systems, rather than using health seeking behaviour as a tool for describing how individuals engage with services. This, in her opinion, opens up into the broader arena of community organisation, social capital and citizenship; of political and non-political pressure points on the system. It aligns with WHO "optics" of people at the centre of the health system (Figure 1).

The analytical framework used in this review has been employed as one such tool in order to better understand supply and demand side barriers – and their interactions – to MCH service utilisation in the public sector with specific attention to IMAM services. The review highlights considerable obstacles for the working poor, many of which could be overcome with greater orientation and accountability to – as one Sub-County Medical Officer aptly reflected - the child. While the review focused on public sector provision of MCH services, it should be recognised that the informal private sector has infiltrated slum settlements inadequately served by the formal health system, providing longer service hours and convenient access to many of the working poor[12]. The downside of dependence on the unregulated informal system are issues of quality and rational care, both of which demand attention[13] but are outside the scope of this review. However as some commentators note, features of informal private sector service provision that have facilitated market penetration may be relevant in **designing formal services that better meet the needs of the urban poor**.

6. Recommendations

Findings from the review suggest that greater attention to the design and delivery of both supply- and demand-side interventions is warranted in order that services are more accountable to clients and child-centred. Intervention focus and barriers addressed are presented in Table 4. These are further elaborated as recommendations.

[9] Zulu EM, Beguy D, Ezeh AC et al. 2011. Overview of migration, poverty and health dynamics in Nairobi City's slum settlements. Journal of Urban Health, Bulletin of the New York Academy of Medicine 88: 185–99.
[10] Adams, A., Islan, R. and T. Ahmed, 2015. Who serves the urban poor? A geospatial and descriptive analysis of health services in slum settlements in Dhaka, Bangladesh. Health Policy and Planning 2015;30:i32–i45 doi:10.1093/heapol/czu094.
[11] Sara MacKian. A review of health seeking behaviour: problems and prospects, DFID Health Systems Development Programme, HSD/WP/05/03.
[12] (Bloom et al. 2011).
[13] Zulu EM, Beguy D, Ezeh AC et al. 2011. Overview of migration, poverty and health dynamics in Nairobi City's slum settlements. Journal of Urban Health, Bulletin of the New York Academy of Medicine 88: 185–99.

Table 4: Design considerations for greater child-centred services

	Geographic accessibility	Availability	Acceptability
Demand		Counselling and information	Counselling and information
	Community units	Community engagement	Client voice and accountability
Supply	Referral systems	Operating hours	Service reorientation and integration
		Commodities and health workers	
	Improved management, including supervision and feedback		

Operating hours: Whilst the Government of Kenya civil service handbook states that the official working hours are Monday to Friday from 8 am to 5 pm with one hour for lunch[14], the window for accessing health services is much shorter than this. This is acknowledged by Nairobi County Medical Officers who concur that in most health facilities ***the norm is less than what is provided for, while the exception is closer to what is officially stipulated***. Clients have been conditioned to attend *en masse* with resultant long queues for MCH services. This approach is inefficient, compromises quality of care and is not client-centred. It is therefore strongly recommended that health facilities are "reconditioned" to provide services in a timely manner starting at 8 am and continuing through to 5 pm, or until the last client has been served (which may be earlier). This would need to be done in conjunction with community sensitization so that caretakers are made aware of the longer hours and can plan accordingly. It is further recommended to trial Saturday morning MCH clinic hours. One Sub-County Medical Officer suggested that maternity and outpatient department services be provided along with an appropriate constellation of supportive services, including nutrition. This does not require a policy change, as some health workers have alluded, but rather management intervention.

Service reorientation and integration: As recommended by some Sub-County Health Managers, nutrition should be a "whole site" effort, reinforced at all service contact points with referrals managed in a timely manner for those requiring treatment. This would serve to **reorient health services to the promotion of *good nutrition*, from their current orientation of *treating malnutrition*** (i.e. a curative focus). This would imply that health workers have the requisite skills to provide nutrition information and counselling, tailored to the needs of the client. Supportive job aids, visibly absent in almost all health facilities, would also facilitate more effective communication exchange. Reconfiguration of MCH services is also recommended so that caretakers, and their children, do not have to queue for each MCH service but, rather, can access a constellation of related services as a form of "one stop shop". This would serve to reduce waiting times and improve client experience furthermore, while services are delivered on a first come, first serve basis, it is recommended that severely ill children are given priority. Greater integration could also extend to the private sector, given their proliferation in informal settlements, as sites for promoting good nutrition and referring children who require treatment services.

Client voice and accountability: Caretakers welcomed the opportunity to be heard and to voice their views, both positive and negative, about their client experience. This form of feedback, if captured in real time and fed back into the health system has the potential to improve the responsiveness of service delivery. Various mechanisms are being tested in other parts of Kenya as well as East Africa[15]. Positive feedback should be recognised and rewarded (where feasible) while remedial measures should be taken to address sub-optimal performance. This should look at both facility as well as individual performance. **The review uncovered outstanding performance – recognised as such by caretakers – but "invisible" in the health system.** Greater understanding of what motivates and drives high performance should be sought so that these behaviours can be emulated.

Community engagement: Greater awareness, sensitization and linkages with the community is also required. This presupposes functional CUs and well as greater multi-sectoral engagement – with specific attention to employers as

[14] Republic of Kenya, Office of the President, 2006. Handbook for Civil Service Staff Induction, Directorate of Personnel Management, Nairobi, Kenya.

[15] An example of this can be accessed from http://www.iicd.org/articles/service-in-ugandan-health-clinics-improves-thanks-to-digital-patient-feedback. Note, reference to Uganda's mHealth client feedback system was suggested by one Sub-County Medical Officer.

well as the day cares that women rely upon to participate in the labour market (Concern and the SCHMTs are currently undertaking an assessment of informal day cares which could inform engagement with the latter). A critical factor to community engagement, is CHV motivation and incentives. In all health facilities, attrition of CHVs was extremely high, a lost resource to the community and health system. To redress this, introducing a basic stipend for the most active CHVs and ensuring that this group have adequate capacity and support to promote maternal, infant and young child nutrition is suggested. In addition, sensitization of employers on health rights and access to health services should also be prioritized. Again, positive employer behaviours (e.g. those work sites allowing caretakers to attend MCH services with pay) should be identified and recognised so that they can be emulated in the sector. Greater engagement would facilitate improved health seeking behaviours (including continued GMP after the ninth month)[16] and prevention by addressing some of the underlying causes of malnutrition in urban informal settlements.

[16] The measles booster at 18 months also provides additional opportunity for GMP and nutrition counselling.

7. References

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