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'So we just look at the well-being of the baby and not the money required,' exploring experiences and perceptions of quality of maternity care amongst women in Nairobi's informal settlements and how they influence the women's choice of health facility: A qualitative study

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3 **'So we just look at the well-being of the baby and not the money required,'**
4 **exploring experiences and perceptions of quality of maternity care amongst**
5 **women in Nairobi's informal settlements and how they influence the women's**
6 **choice of health facility: A qualitative study**
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Abstract

Objective To examine how women, living in Nairobi's informal settlements, perceive the quality of maternity care received during delivery experiences and how it influences their choice of a health facility

Design Qualitative study

Settings Dandora, an informal settlement, Nairobi City.

Participants Six focus group discussions with 40 purposively selected women aged between 18 and 49 years at six health facilities.

Results Four broad themes were identified: 1) Perceived quality of delivery care services, 2) financial access to delivery service, 3) physical amenities at the health facility, 4) The 2017 health workers strike.

The four facilitators that influenced women toward the choice of a private health facility were: 1) interpersonal treatment at health facilities, 2) the quality of clinical services, 3) financial access to health services at the facility, 4) the physical amenities at the health facility. The three barriers to the choice of a private health facility were: 1) poor quality clinical services at low-cost health facilities, 2) shortage of specialist Doctors 3) referral to public health facilities during an emergency

The facilitators that influenced women toward the choice of a public health facility were 1) physical amenities for dealing with obstetric emergencies at public health facilities 2) early referral to public maternity during antenatal care services. The six barriers to the choice of a public health facility were 1) perception of poor quality clinical services 2) security of newborns at tertiary health facilities 3) Mistreatment of women during delivery 4) use of unsupervised trainee doctors for deliveries and 5) Poor quality of physical amenities

Conclusion The study provides insights into decision making pathways used by women when choosing a delivery health facility. It also identifies critical attributes of the health facility that women find valuable how these perceptions help influence their choice of a delivery health facility.

Article summary

Strengths and limitations of the study

The study employed focus group discussions with women to understand a complex contextual issue through their lived experiences.

The women recruited into the study were purposively selected, and data collection conducted until saturation of themes.

The data was collected from a variety of health facilities ranging from private both for-profit low cost and not-for-profit (mission health facilities) to public health facilities (both at health center level and secondary maternities)

The data quality was assured by having enumerators trained in qualitative research methods. Data was collected data from a private setting at the health facilities to ensure privacy and confidentiality.

The main limitation was the inability to recruit women who had delivered at home with the help of traditional birth attendants. The views from these women would have provided unique insights regarding their choices for a place of delivery.

Key words: Experiences Quality of Maternity Care Informal settlements

Background

Far too many women die while trying to give birth, and 66% of all maternal deaths globally occur in sub-Saharan Africa (1). The maternal mortality rate in sub-Saharan Africa is estimated at 546 deaths per 100 000 live births (2). Most deaths occur during the immediate time of delivery and are preventable. The WHO has established skilled birth attendance during delivery and high-quality obstetric care at a health facility as the most definitive way of reducing maternal mortality (3),(4).

Kenya's current maternal mortality ratio stands at 342 for every 100,000 live births, a figure that remains unacceptably high (5). Evidence evaluating the factors influencing place of delivery point to women identifying distance or lack of transport as the predominant reason for delivering outside a health facility. Women in Kenya also identified other factors such as deeming the delivery services not necessary (20.5%), abrupt delivery (18.5%) and cost (11%) as barriers towards facility-based delivery(6). To reduce the high maternal mortality, national policies have been put in place to substantively address the significant barriers of cost and distance to accessing skilled delivery care. In June 2013, the Kenyan Government initiated a free maternity services policy that ensured delivery services for all public health facilities nationwide without user-fees (7). Additionally, selected private health facilities with National Health Insurance Fund (NHIF) accreditation could provide free maternity services with a voucher dubbed *Linda Mama*. This policy directly addressed the cost barrier and resulted in a sudden and substantial increase in women utilizing health facilities for delivery within the country, particularly in urban settings (8).

The corresponding barrier of geographic access to a facility has been addressed by both the public and private sectors. There has been an increase in the total number of public and private health facilities registered in Kenya. As a consequence, a majority of Kenyan women now live within 5km of a health center (9) However, in cities like Nairobi, a significant proportion of women (88.7%) of women deliver at a health facility, confirming that addressing cost and distance has not been sufficient to deter the rising maternal mortality (9). Studies within informal settlements in Nairobi have shown that the women in such settings face higher mortality rates, with one study estimating 700 deaths for every 100,000 live births (10).

Additionally the introduction of the free maternity service came with some unintended consequences, such as concerns about a reduction in the quality of services delivered (11). Recent studies also demonstrate challenges with the implementation of the free maternity services such as stock out of essential drugs and lack of ambulances for referral of women with obstetric emergencies to higher levels of care, and delays in the reimbursement of the health facilities and hospitals (11-13). Sadly, the free maternity policy has not demonstrated significant reductions in maternal mortality (14). These challenges are likely to be further exacerbated by trends of rapid urbanization in Kenya particularly in informal settlements.

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3 Studies assessing access to facility based-delivery conducted in informal settlements in Kenya have
4 mostly focused on maternal health utilization trends, and experiences with obstetric emergencies (15-16).
5 A few studies have examined what women think of as quality, quantifying women's satisfaction with
6 delivery care services (15),(17). Some studies identified that women valued low-cost unregulated health
7 facilities because of their response to women's socio-cultural sensitivities (18). However, what is less
8 understood is how a women's lived experiences and perceptions of quality of delivery care services
9 influence their choices of health facility. Women in informal settlements have choices, they actively choose
10 to deliver in a facility that they perceive as having better quality of delivery services. We sought to explore
11 women's experiences and perceptions of quality care when choosing a delivery health facility. These
12 findings can offer insights for policymakers and program managers to improve of the quality of care at
13 health facility services, particularly in informal settlements within urban areas.
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21 **Methods**

22 **Study Setting and sampling**

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24 This qualitative study was part of formative research to establish women's preferences for place of delivery
25 in the informal settlements of Dandora in Embakasi-North sub-county in East of Nairobi City. Dandora is
26 characterized by residents who belong to the lowest wealth quintile in Kenya, and there is widespread
27 poverty and high unemployment in this setting. Dandora, which constitutes four of the administrative units
28 in Embakasi-North, including the City of Nairobi's garbage dump. The presence of the garbage dump has
29 led to high criminal activity and general insecurity. The health system consists of four public health centers,
30 Njiru health center, Dandora health center 2, and 3, Kariobangi-North Health Centre. There are several low-
31 cost private health facilities and mission health facilities. The main referral health facility is a short distance
32 away in the neighboring Embakasi-West.
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40 **Data collection**

41 **Study design, recruitment, and participants**

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43 We used a phenomenological descriptive qualitative study to explore the lived experiences of women
44 during delivery service at six different health facilities. The data were collected in January 2018 by
45 enumerators trained in qualitative research methods. The facilities were purposively selected to represent a
46 diverse set of health facilities such as public (both health centers and secondary maternities) and private,
47 for-profit and mission health facilities. We recruited women during immunization clinics. The inclusion
48 criteria were women who were aged between 18 and 49 and had delivered their babies within the informal
49 settlements.
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3 We began the study by mentioning the purpose of the study to the women. We informed them they
4 intended for them to share their experiences around the decision making on selecting a delivery health
5 facility. We obtained written consent from all the women and informed the participants of the potential
6 benefits and risks of their involvement in the study. We used a semi-structured focus group discussion
7 guide to lead the interviews. (See Appendix 1) and conducted the interviews in Kiswahili, a language
8 commonly spoken by women in this setting. The discussions were tape-recorded, transcribed, and translated
9 into English by research assistants and the first author, who is a native speaker of Kiswahili. The focus
10 group discussions were all conducted in private rooms within the health facilities to safeguard privacy. We
11 obtained ethical review from AMREF Ethics and Scientific Review Committee (ESRC). Permission to
12 conduct the research was obtained from The National Commission on Science Technology and Innovation
13 (NACOSTI).

21 **Data Analysis**

22
23 We started the data analysis by reading all the transcripts repeatedly to gain an in-depth understanding of
24 the transcripts. We triangulated the data using the interview transcripts and field notes to aid understanding
25 of the interviews. Two of the authors MA and JOA, coded the data. A coding scheme was developed from
26 the Focus Group Discussion guides and using conceptual frameworks from the literature on facility-based
27 delivery. During the process of data analysis the main author JOA met with members of the research team
28 with extensive qualitative and clinical experience (MA) to discuss the emerging codes and categories as
29 well as the interpretation of the emerging themes hence combining insights. We used a thematic analysis
30 framework to classify identified key themes (19). We compared the themes identified to the standards of
31 quality of care contained in the WHO conceptual framework for improving the quality of care for mothers
32 and newborns (20).

40 **Patient and public involvement**

41
42 The women in this setting were consulted and participated in the design of the study instruments by
43 suggesting relevant questions to be included in the focus group discussion guide with regard to their
44 perceptions on the quality of services and choice of health facility within their setting.

48 **Results**

49 We interviewed a total of 40 women, and each focus group discussion was composed of between six and
50 eight women. Table 1 shows the sociodemographic characteristics of the respondents. Respondents were
51 mainly on average 22 years, and 65% were multiparous with between two and three children. About 30%
52 delivered at health facilities classified as private
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Characteristics	Informal setting N (%)
Age: mean	22
Age of children	2
Parity	
Primiparous	14 (35)
Multiparous	26 (65)
Delivery facility	
Public hospital	9 (23)
Public health center	10 (25)
Mission health facility	9 (23)
Private Facility	12 (30)
Total	40

Themes identified

We identified three themes that led women to the choice of a private health facility; the first theme was the perceived quality of care. We re-classified the theme on perceived quality of care into two sub-themes; interpersonal treatment at the health facility and quality of clinical care. The second theme was financial access to delivery service, with one sub-theme; the free maternity services policy. The third theme was the availability of physical amenities at the health facility. All barriers related to the choice of a private health facility fell under the theme of perceived quality of care. We identified three sub-themes; poor quality clinical services at some low cost private health facilities, shortage of specialist Doctors at some private health facilities, and referrals to public hospitals.

We identified three themes that led to the choice of public health facilities. The first theme was on perceived quality of care. Under the perceived quality of care, we identified two main sub-themes 1) Good quality clinical services in public health facilities to deal with obstetric emergencies, 2) early referral for complications during antenatal (ANC) services. The second theme was on financial access to delivery service. The third theme, sociocultural context and lastly the availability of physical amenities at the health facility.

We classified the barriers to choice of a public health facility identified under the themes of perceived quality of care into the following five different sub-themes: 1) perceived poor quality clinical and non-clinical services 2) security of newborns, 3) mistreatment of women during facility-based birth 4) use of unsupervised trainee Doctors, 5) understaffing at health facilities. The second theme of financial access to

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3 delivery service only had one sub-theme on the free maternity policy, acting as a barrier to delivery at public
4 health facilities. The third theme of the 2017 health workers strike was identified as a theme that acted as a
5 barrier to the choice of public health facilities. For a clear illustration of the themes and sub-themes that
6 served as facilitators and barriers to access of delivery service at both private and public health facilities,
7 see Table 2.
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12 **Table 2. Showing the themes and sub-themes generated from focus group discussions with women in**
13 **an informal settlement in Embakasi-north.**
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Choice of health facility	Themes	Sub-themes	
		Facilitators	Barriers
Private health facilities	Perceived quality of care	Good interpersonal treatment at the health facility	Shortage of specialist Doctors
		Good quality clinical and non-clinical services.	Poor quality clinical services
	Financial access to health care at the facility	Free maternity services policy.	
	Physical amenities at health facility		Poor physical amenities at low-cost private health facilities.
Public health facilities	Perceived quality of care	Availability of physical amenities (medical equipment for cesarean section and neonatal complications)	Poor quality clinical services
		Early referral for delivery to public maternity during ANC	Security of newborns.
			Mistreatment of women during delivery
			Use of unsupervised trainees Doctors at tertiary health facilities
			Inadequate staffing at health facilities

	Financial access to health care		The free maternity policy
	Physical amenities		Poor physical amenities at public health facilities.
	The 2017 health workers strike.		Acted as a barrier to the choice of public health facilities

Facilitators to the choice of delivery at private health facilities

Perceived quality of delivery care at the health facility

We identified four key facilitators of delivery at private health facilities under the theme of perceptions of quality of delivery care. They are discussed below.

Good interpersonal treatment at the health facility. The women reported that one of the key facilitators for delivery at a private health facility was the good interpersonal treatment they received at private hospitals. The women described receiving good treatment by the health facility staff at private hospitals and compared it to the bad treatment at public hospitals illustrated by the quotes below;

"...They treated us well. Like me personally, that is why I go to private hospitals because I know they will treat me well there..."

"... You know, the first thing is I have previously given birth in a public hospital, and when I went there, they would chase me, and at that time, I am almost due, and I am in so much pain. So the suffering I went through made me decide not to go to a public hospital again. I decided to go to a private hospital because you know where you use your money so you will be treated well. And when I went to a private health facility A, I was treated well, and that is why I went there again, I have given birth to two children there."

They went on to speak about how the private hospitals where they delivered provided accompaniment and close monitoring during labor, at the delivery itself and after the birth. At the private hospitals, the women mentioned that there is the constant presence of a Doctor. They said the Doctors stayed with them from the commencement of labor through to the delivery time. They reported that how they were treated at a health facility was a key determinant in whether they would access services at a health facility again. They mentioned that the health care providers (both nurses and Doctors) during their delivery

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3 who attended to them were "very caring," "respectful," "very welcoming," "very concerned about you,"
4 "very understanding," and "would make you feel safe." They explained that they did not feel abandoned at
5 any one time during the delivery, especially when they are in pain, unlike in public hospitals. They describe
6 the experience below;
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11 *"... They are very careful, and they attend to patients well. Then something else that makes someone*
12 *happy is immediately when you walk in how someone will speak to you would make you feel safe. They*
13 *are respectful and very welcoming, and so it makes it easy to express yourself. You can go somewhere*
14 *and how they welcome you makes you have low morale. That was one thing I saw with them, they are*
15 *welcoming, and they speak to you well. And the doctors there are very keen on what they are doing..."*
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23 *"...But there are some other hospitals let's say like public, you will just be left there and last minute*
24 *when the baby is out that is when they will come. But in private hospitals, they are usually very caring..."*
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28
29 *"...The doctor would come and check up on me to see how my baby was doing. Then after giving birth,*
30 *they would stay there with you, not just leaving you alone like how they do in public hospitals, whereby you*
31 *have to be in so much pain before you call a doctor to help you. Here, they are just there with you..."*
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36 **Quality of clinical and non-clinical services.** The Women described having received excellent quality
37 services and specified clinical delivery services provided by nurses and Doctors at private health facilities.
38 They subsequently recommended private health facilities to other women in their family or friends based
39 on their perceptions of the quality of services they receive during delivery, as seen in the quote below.
40
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42

43
44 *"...I am her mother, but I am the one who advised her to go to Private health facility B because, but it*
45 *would be better if she was the one speaking, but I also have something to say. I have taken two women to*
46 *Private health facility B, and I had seen that the clinical service there is good and that is why I preferred*
47 *to take her to Private health facility B. Also for her when I took her there she can say what she thought of*
48 *Private health facility B..."*
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55 **Financial access to delivery services.**
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3 **The Free maternity Services policy.** Some women were informed by their friends and relatives that there
4 were vouchers for a free maternity service from the Government, including private health facilities. This
5 voucher program called *Linda mama* allowed them to start attending antenatal health services at the health
6 facility to have their subsequent deliveries at the same health facility as illustrated by the quote below;
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11 *"...First, there is a friend of mine who will live in the same plot, and she was pregnant. She went to Private*
12 *health facility B. I don't even know who told her to go to Private health facility B, but when she went there,*
13 *she said to me that a Private health facility was giving out vouchers for giving birth I think 'Linda Mama.'*
14 *So she told me to start attending my clinic there, but before I was attending a clinic at Mission health facility*
15 *A. So I left here ..."*
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22 Women who had health insurance through the national scheme, The National Health Insurance Fund
23 (NHIF) used their cards to access care at private hospitals that were accredited by the Government, and this
24 determined if the women could deliver at a private health facility. They saw this as an opportunity to opt-
25 out of care at public health facilities that they would have otherwise had used. This resulted in making
26 access to maternity services affordable to them as seen in the quotes below;
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31
32 *"...again, I saw that they accept NHIF card, we had asked before, and they told us they do and you know*
33 *that is something that is mostly with private hospitals but here they take it. So we saw that I did not have to*
34 *struggle to go to National Referral hospital A or Maternity hospital B because they would take the card*
35 *here, and that is what I used..."*
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40 **Physical amenities at the health facility**

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42 **Health facility cleanliness.** Women in this setting described the most important amenity to them as facility
43 cleanliness. This experience was universal across all focus groups, and there was a mutual agreement that
44 the private health facilities that they attended had clean health facilities in comparison to the public health
45 facilities in the area. They described wanting to deliver in a generally clean health facility. They described
46 wanting clean beds where the beddings were replaced after every delivery as well as cleaning of toilets and
47 bathrooms regularly as seen in the quotes below;
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53 *"...Even the bed. Like if you sleep here today, tomorrow they will change the sheets..."*
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3 *"...A hospital needs to be clean. Because there are some other hospitals that you go to, you can find the*
4 *toilet is slippery, it is dirty, and then again, you are not treated well, and that is why we also prefer private*
5 *hospitals because they are clean...."*
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9 **Availability of hot water and good food.** The women also spoke extensively about the need to provide
10 items such as hot water for showering after the delivery, occasional tea, and good food. The women
11 repeatedly mentioned these items as essential elements to what was perceived by women as constituting
12 excellent service during delivery seen in the quote below;
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16
17 *"...But treating people, giving people water to bathe we were even given hot water, tea, I can say their*
18 *services are okay..."*
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21 22 23 24 **Barriers to the choice of private health facilities**

25 We identified three key barriers to delivery at private health facilities. First, women reported experiences
26 that reflected the fact that low cost private health facilities provided poor quality delivery care. Secondly,
27 the shortage of specialist clinicians at private health facilities and thirdly the referral of women with
28 complications during obstetric emergencies to the public health system. We discuss them in detail below;
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31

32 33 34 **Perceived quality of care at health facilities**

35 **Poor quality clinical services at low-cost private health facilities.** Some women described poor quality
36 care at some of the low-cost private health facilities within the setting where some women reported injuries
37 on newborns during delivery. One woman described a bad experience of a woman who switched her
38 delivery decision from a low-cost private health facility to one with a slightly higher cost. She went on to
39 say this experience made her distrust private health facilities and the bad experiences generally discouraged
40 her from delivering at private health facilities as seen in the narration below;
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42
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46
47 *"...I have a friend; I had not started going for the clinic when I was five months, and she went somewhere,*
48 *I do not want to mention the name of that hospital, but it is within Dandora. She went there, and I had gone*
49 *for one clinic check up there. She went to deliver there, and her baby was 4.1kg when she was giving birth,*
50 *the doctors pulled the baby, and now the mother has a problem with her leg, she stayed for two months*
51 *without walking. When I saw that, I told myself I could not go and deliver there because they did not give*
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3 *her a tear; instead, they just pulled the baby even though the baby is big. So that scared me, and that is why*
4 *I decided to come to Health facility B ..."*
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10 **Shortages of specialists Doctors.** Women described a situation where some of the private health facilities
11 lacked specialist Doctors who had surgical skills and who could provide cesarean section surgeries in the
12 event of an obstetric emergencies. They described a situation where they had to wait and in the process risk
13 their lives, and in some cases, they needed to pay upfront for the Doctor to come to the private health
14 facilities.
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19 *"...They need to have all types of Doctors, even the ones for CS. Like you see, when I went to this health*
20 *facility. I really waited because they were hiring doctors for cash, you have to send them money so that*
21 *they can come. Without sending them money, they will not come. So they need to have all the doctors*
22 *present, even the ones for CS, so that in case of an emergency, you do not have to wait..."*
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30 **Referral to public health facilities during obstetric complications**

31 Some women described poor amenities at some of the low-cost private health facilities situated within the
32 informal settlement. They reported that the health facilities lacked essential amenities such as theatres for
33 cesarean sections, and equipment for neonatal resuscitation. Therefore in the event of an obstetric
34 emergency, women who went to deliver at private hospitals described that they were referred back to the
35 public maternities that they were trying to avoid in the first place because almost all referral health facility
36 including for all private health facilities in the area was the public referral health facility. The two quotes
37 below illustrate the referral circumstances described.
38
39
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43

44 *"...Let's say like for me, I went to public health facility A, they told me that I could not give birth even*
45 *there, they just referred me to big hospitals like Major Maternity A and B, but when I went there, they*
46 *were on strike. They are the ones who also told me with the first child I cannot deliver in a private*
47 *hospital..."*
48
49
50

51 *"...Then again, I can add when I went to deliver at Private hospital A, there was a complication when I*
52 *went for my CS. I wanted a qualified doctor because you never know what will happen. Then again, I was*
53 *given a referral to the main national referral hospital, and that is where they attended to me. But at the*
54 *national referral hospital, there was also a lot of complications.*
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Facilitators to the choice of public health facilities

The women spoke of two main facilitators to delivering at a public health facility; the physical amenities in the form of the availability of medical equipment for cesarean section during an obstetric emergency and referral during antenatal care services to delivery at higher level tertiary health facilities.

Availability of physical amenities

Medical equipment for cesarean sections. Women described public hospitals as having all the necessary equipment, particularly for dealing with obstetric emergencies such as a theatre for a cesarean section within the same public hospital. They expressed awareness that some of the private hospitals and smaller public health facilities did not have access to cesarean section, hence in the case of an obstetric complication they would have a referral if complications arose as described below;

"...Others feel if they go to those hospitals, they have the equipment and everything else. If things go wrong with the normal delivery, they will just be taken for a cesarean section (CS) because everything is just under one environment. Because you know not all private hospitals can conduct a CS, so if a complication arises, you are told to go to a public hospital..."

Referral for delivery to public maternity during ANC. Women described having advantages of been screened early for possible complications and then been referred for the index child during antenatal care clinics.

"...Maybe if you go to the clinic, they can tell you like with the first child that you cannot give birth in a private hospital, and you should go to public hospitals because of complications. So you will just have to go to a public hospital like Maternity A...."

The barriers to the choice of public health facilities

Perceived poor quality of care at public health facilities

The barriers to the choice of public health facilities were mainly related to the poor quality of care received at the health facilities. We describe six key barriers identified by the women that influenced their choice

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3 of the public health facilities ; poor quality clinical care leading unnecessary cesarean sections, the security
4 of newborns, mistreatment of women, use of unsupervised trainee Doctors, poor physical amenities, and
5 inadequate staffing. They are discussed in detail below;
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9 **Poor quality clinical care leading to unnecessary cesarean sections.** Women in this setting described
10 sharing experiences of delivery with each other, and some women advised other women that Maternity
11 hospitals in the area would subject them to unnecessary cesarean sections. This suggested a lack of use of
12 evidence-based care by health care workers as well as poor communication between healthcare workers
13 and women. Women also described lack of consent for cesarean sections within this setting, and these
14 experiences of the women (or their friends) rendered the women afraid of delivering at the public
15 maternities as seen in the quote below;
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22 *"...Like for me, when I had my first pregnancy, there was a lady who told me since it was my first pregnancy,*
23 *I should not go to Major Maternity A because if I go there they will just take me to the theatre and operate*
24 *on me and so I was very afraid..."*
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29 **Security of newborns.** Women described been informed by other women based on their experiences that
30 there was a possibility that their new newborns would be stolen or exchanged if they delivered at the larger
31 public maternity hospitals. This particularly made women switch their delivery from public maternities to
32 private health facilities where they perceived the security of their newborns would be upheld as described
33 below;
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39 *"...And they also told me if I gave birth to my child, they would steal it if I went to Maternity A or Maternity*
40 *B. They told me to go to a private hospital. So I looked around and thought of which private hospital to go*
41 *"...because you know I was new to Nairobi, and I did not know where to go. So now I was told to either go*
42 *to the new Nursing home or health facility A. I didn't even know those hospitals. I was told if I boarded a*
43 *matatu 36 (public transportation), it will take me to health facility A, so I just went to health facility A..."*
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51 **Mistreatment of women.** There were many forms of mistreatment described by women during labor and
52 delivery at public health facilities and hospitals. The manifestations ranged from verbal abuse, physical
53 abuse to neglect, and abandonment during childbirth. Women also described discrimination based on
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3 ethnicity and age. Women, particularly young women, described verbal abuse and termed nurses at the
4 public health facilities as having 'unnecessary rudeness'. They described been yelled at and chased based
5 during labor on accusations that they had come to the health facility too early. They also described the
6 health workers using language that was 'bad' as seen in the quote below;
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11 *"...You know people say that is the best because they have all the equipment, but then you see when I went*
12 *there, they kept chasing me telling me I was not yet due. Others tell you to go and sit down, or you go back*
13 *to your place because they don't baby people there. The language they use is very bad..."*
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19 Women described experiences where they witnessed fellow women been abandoned and neglected during
20 care at public hospitals as seen below;
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24 *"...I just saw that it was a nice place to give birth because if you go to a place like Major maternity hospital*
25 *B, there was a time I had a problem. I was taken to Major Maternity hospital B, and when I went there, I*
26 *saw a lady who had pushed, and the baby's head was out. Still, the doctor was not even bothered; they were*
27 *just walking and talking, so I said I wouldn't go there. I would rather go to a private hospital than a public*
28 *hospital..."*
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35 Some women described instances of physical abuse by the Doctors and nurses during labor and delivery as
36 seen in the quote below;
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38 *"...The way you will be treated by those doctors because some of them are usually very harsh. You can find*
39 *when you are in labor, you need to walk around, but you find some of them become very tough with you. if*
40 *a complication happens, you find others even beat you..."*
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47 **Use of unsupervised trainees Doctors.** Women described been referred to the tertiary hospitals and been
48 attended to by trainee Doctors. They described these trainee Doctors as been inadequately prepared to attend
49 to them and prone to error. One of the women described an experience whereby the trainee Doctor
50 interfering with her bladder during surgery and creating the need for another Doctor to be called in to repair
51 the damage done. We describe this experience in the quote below that narrates that experience;
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3 *“...Then again, I can add when I went to deliver at health facility B, there was a complication when I went*
4 *for my CS. I wanted a qualified doctor because you never know what will happen. Then again, I was given*
5 *a transfer to Tertiary hospital A, and that is where they attended to me. But in Tertiary hospital A, there*
6 *were also a lot of complications. First, the Doctor who was a trainee interfered with my bladder, and they*
7 *had to put a catheter for two weeks. Second, they did it poorly, and they had to call in another doctor. You*
8 *see, when you go for a theatre in a public hospital, and more so if the line is long they will take trainees to*
9 *attend to you, and they are not competent, so you find complications are a lot...”*
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18 **Inadequate staffing.** Women described situations where there were insufficient nurses to accompany them
19 during labor and delivery at the public health maternities. They described situations where they felt
20 abandoned and were frequently forced to deliver their babies on their own. They also described long waiting
21 times for services as a result of the inadequate staff. The long waits ensued even in the event of an obstetric
22 emergency as seen in the quote below;
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27 *“...The way they will welcome you. You see sometimes it is an emergency, so they should just take you and*
28 *start attending to you, but sometimes you find yourself just going there and waiting in line for so long before*
29 *someone comes to assist you so if you are an angry person you become mad and say you will never go back*
30 *there again...”*
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34 **Financial access to delivery service.**

35 **Effects of the free maternity service policy.** This policy was also seen as a barrier to public health
36 facilities. Some women described experiences where they were treated poorly, and they perceived the bad
37 treatment because the delivery service was free. They expressed their suffering as a result of this treatment
38 and said they would rather pay for delivery and get services that safeguard their health and that of their
39 babies, as seen in the quote below.
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46 *“...Like I told you, I have delivered in those hospitals offering free maternity, I did not even remove a*
47 *shilling, but I was not happy. When I got there, and they started chasing me, telling me that I was not due*
48 *yet, and I had dilated 4 cm. A doctor was examining us, and one told me to rest on the bed because I had*
49 *dilated 7 cm, and then another one came to chase me, telling me I am 3cm. I suffered when I went there.*
50 *You know sometimes it is not about the money, you can go like that, and then you are being told to go*
51 *here and there and maybe you have no one to help you. So we just look at the well-being of the baby and*
52 *not money ...”*
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Others reinforced this view that in the private hospitals, ' people are treated well primarily because of the money you pay, and they wished they could be handled better at the public health facilities.

"...Then again, you find some doctors that are not keen when you have labor pains instead of them taking care of you. They just tell you to walk around. They need to treat us the same way we would be treated in private hospitals because you know in private hospitals they treat you well because of the money you pay. But we would like to see the same services in public because you people are better than private...."

The public medical workers Strike in 2017.

A few months into the start of this study (in 2017), there was a public medical workers' strike that lasted for 100 days. This strike greatly impacted the ability of the health system to provide public delivery services. Some women described been referred to their relatives to alternative private health facilities as detailed below

"...I knew before, and I went there for my clinic when I was about two months. During the third month, because I had a problem, I had to go to a public hospital in phase I where I had to go for a scan, which lied to me that I was ten months, and it was 11 months because I was counting days. They referred me to Public Maternity A, but when I got there, the people there were rude, just shouting at everyone and telling people to go back home because there was no space, and the doctors were on strike. I was in so much pain, so I just left there and came back home and told my mother that I had decided just to go and deliver at Private health facility A..."

"...I went to Major maternity hospital B, but I found that the nurses were on strike, so I had a relative who had given birth at Health facility C before, and their services were good, so they referred us there. So when I went, I found that there was this initiative, and I also got lucky..."

Recommendations by women for better quality care at health facilities

We asked the women to provide key recommendations for improving the health system (both public and private). The most mentioned item was the need for healthcare workers to show empathy towards women, especially during labor. They also said that healthcare workers needed to improve their communications and have "Polite language." Secondly, almost all women asked for clean health facilities as well as uphold basic standards of care such as warm blankets post-delivery, tea, hot showers, and regular provision of

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3 meals. Thirdly they asked that health facilities Organize for timely admissions. They pleaded with
4 healthcare workers to reconsider, making women wait under challenging positions such as labor pains.
5 Lastly, they asked for the health workers to reduce the focus on the payments (at private health facilities)
6 and (procedures at public health facilities) and focus primarily on safeguarding the well-being of the
7 babies and mother.
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11 **DISCUSSION**

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15 We report on a qualitative study aimed at understanding informal settlements women's delivery
16 experiences, their perceptions of quality of care, and how they influence their choice of a delivery health
17 facility. We compared women who chose to deliver at private health facilities to those who delivered at
18 public health facilities. We found out that the women in this informal settlement reported more facilitators
19 for delivery at private health facilities, suggesting a more favorable user experience, relative to the
20 numerous barriers raised for delivery at public health facilities. We used the WHO framework on improving
21 quality care for maternal and newborns in a health facility to assess our findings (20).
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28 **Facilitators and barriers to delivery at private health facilities**

29 Women described private health facilities as providers of high-quality services (both clinical and non-
30 clinical). They described healthcare workers at these health facilities as treating women well. The women
31 used terms such as "respectful," "caring," and "kind" to describe the healthcare workers at the private health
32 facilities. This finding has been described before in literature confirming that women have a preference for
33 private health facilities because they are responsive to their socio-cultural and economic sensitivities.
34 (16);(17) When asked about the high quality services at private health facilities, the women suggested that
35 the health workers in the for-profit health facilities were competent because of their for-profit status. These
36 perceptions led them to experience a level of competence that encouraged them to continue choosing private
37 health facilities over public health facilities. Competent systems where high-quality delivery care is
38 provided has been described by the Lancet report on quality health systems in the era of sustainable
39 development goals. (21).
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48 Another theme that was brought up by the women was financial access to care, with the national
49 policy of free maternity services recently introduced in 2013 influencing choices (6). This policy abolished
50 all user-fees for delivery services at public health facilities and at selected gazetted private health facilities
51 for women with health insurance. This subsequently allowed the women to access care at private health
52 facilities that they would have otherwise foregone because of the delivery fees. As a result of this policy,
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3 there was an overall increase in the number of women in the informal settlement accessing skilled birth
4 attendance. A similar increase in women accessing skilled birth attendance has previously been reported in
5 urban settings in Kenya and in 10 sub-Saharan African countries that removed their user-fees (22,23).
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10 A third facilitator to private health facilities was the condition of the physical amenities at private
11 health facilities. This was primarily centered on the conditions such as health facility cleanliness in the
12 labor and delivery wards and other service provision elements such as the provision of hot water for bathing
13 and good food during meal times. These basic amenities have been previously identified by similar studies
14 set in informal settlements in Nairobi as lacking for women during the delivery (21). This is despite the fact
15 that standards identified for the Kenya Quality model of care for health facilities in Kenya explicitly identify
16 a clean work environment as a key standard (24). Such low-cost, basic amenities such as having a clean
17 ward and delivery rooms need to be put by health facilities in place to ensure women's satisfaction with the
18 delivery experience.
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26 In terms of barriers to delivery at private health facilities, the women spoke of a few low-cost
27 private health facilities as providers of poor quality clinical services and lacking specialist Doctors to
28 perform surgeries. This consequently led women to perceptions of low-quality care and acted as barriers to
29 the choice of a private health facility. Previous studies in informal settlements have identified such facilities
30 and labeled them "inappropriate" in terms of staffing, equipment, and drugs, posing a barrier to high-quality
31 delivery service in informal settlements (14).
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37 Some women in this setting also mentioned the physical amenities at low-cost private health
38 facilities that directly influenced the state of referrals to public health facilities as a significant barrier. They
39 provided experiences of obstetric emergencies situations that necessitated referral and stated that the only
40 referral facilities that could handle emergencies were public hospitals. They noted that the private health
41 facilities lacked sufficient specialized equipment to deal with obstetric complications hence putting private
42 health facilities at a disadvantage. They also described an ineffective referral process, characterized by
43 communications and transportation challenges. Previous studies assessing the state of obstetric care in
44 slums have identified private health facilities within slums been inadequately equipped and are unable to
45 handle emergencies well (15).
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52 **Facilitators and Barriers to delivery at public health facilities**

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3 The key theme that arose that aided their choice of public health facilities was the presence of physical
4 amenities at the major maternity hospitals. This was explicitly attributed to the presence of a functioning
5 theater and resuscitation equipment for newborns, which bestowed them an ability to handle obstetric
6 complications. This has subsequently led to women choosing public health facilities over private health
7 facilities. This finding should be taken with caution, though, recent studies in Kenya have described the
8 availability of emergency equipment might not necessarily lead to quality delivery at some health facilities.
9 This might be due to the functionality of the equipment, and the provision of life-saving services might
10 depend on other factors such as staffing (22). The second facilitator was the process of early screening for
11 complications during antenatal care services that allowed women referred for delivery at maternity with
12 specialized staff. They mentioned that this allowed them to choose higher-level maternities that could
13 handle complications.
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22 Most of the barriers to delivery at public health facilities were related to the perceived poor quality
23 of care at public health facilities. Women described unnecessary cesarean sections because of the
24 availability of the equipment. They described situations where no consent was obtained regarding the
25 procedures and over-medicalization of the process of childbirth, a finding that has been described in several
26 contexts in a systematic review (23). A few women described having been attended to by trainee Doctors,
27 particularly at tertiary teaching institutions, a situation that exacerbated the already low quality of care
28 described. Safety concerns such as theft of newborns at tertiary health facilities were described at tertiary
29 health facilities. There were concerns about incompetent systems with basic and affordable facility items
30 such as cleanliness in the facility, hot water for showering, curtains for privacy and food after delivery we're
31 missing elements of a competent health system. These standards of care demonstrate experiences of care
32 that are contrary to WHO standards for a high-quality health system that recommends the health system
33 should have components such as safety effectiveness, equity (20).
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43 We described the theme of financial access, primarily concerning the new free maternity service
44 that was aimed at increasing access to maternity services. Women described the implementation of free
45 maternity as been flawed. They shared experiences suggesting that the policy only covered 24-hour vaginal
46 births and not providing for possible post-birth complications at the health facilities. They also described
47 overcrowding and poor quality service. This led to the belief that because the maternity service was free,
48 the health workers were unconcerned with their well-being and that of their babies. The childbirth
49 experience subsequently led to a trade-off between the costs of childbirth and concerns of their well-being
50 and that of their babies. Even women who didn't have insurance such as the NHIF, were willing to make
51 out of pocket payments to ensure that they received the caliber of quality of care they deemed highly
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3 effective and safe. Diverse implementation challenges have been described regarding the free maternity
4 in different settings within Kenya (10),(11). This calls for improved implementation of guidelines that can
5 assist with enforcing standards for quality care for the free maternity service.
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10 Process indicators of quality of care were identified with mistreatment of women by healthcare
11 identified by most of the women who delivered at public health facilities. This finding is supported by
12 qualitative research in several contexts in Kenya that confirm that mistreatment during facility-based care
13 in Kenya is a growing problem. (15),(25),(26). Some studies have measured, and found frequencies of
14 physical abuse reported ranging from 20% and verbal abuse 56% (27). This mistreatment implied that
15 women would choose their subsequent delivery at a private health facility where they would hope for better
16 quality of care. Globally measurement of mistreatment during delivery has improved with recent studies
17 spanning four countries that utilized observations confirming that physical and verbal abuse peaked 30
18 minutes before birth and 15 minutes after birth. Previous studies have called for health provider empathy,
19 particularly in informal settlements (21). Global calls have now been put forward for accountability for
20 mistreatment by health systems (28).
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29 Lastly, the 2017 medical workers strike that lasted 100 days resulted in women switching from
30 public health facilities to seek delivery services at private health services. Recent evidence investigating
31 the impact of medical strikes suggests that they can lead to a crippling of healthcare delivery in the public
32 sector (32). Hence the private sector that absorbs the capacity needs to be competent and capable of
33 providing the necessary services to avert the potential morbidity and mortality that comes with a medical
34 worker strike.
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39 **Study limitations and areas for future research**

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42 Our main weakness was in not interviewing women who delivered at home or with the help of a traditional
43 birth attendant. We however strengthened our study by having focus group discussions with women who
44 delivered at a range of health facilities, including private facilities (both profit and not-for-profit), including
45 low-cost private facilities. We also interviewed at both levels (primary and tertiary) of public health
46 facilities; to get a wide range of experiences from women. Areas for future research include interviewing
47 women who had a delivery at a health facility and had a subsequent delivery at home. Additionally, women
48 who switched between private and public health facilities and why they changed their facility preference
49 would provide insights on attributes of a health facility that women find important in making their choice
50 of place of delivery.
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Conclusion

Understanding why women choose certain types of delivery health facilities in informal settlements is important. It can help contribute policy recommendations that address inequalities in quality of care at health facilities and provide useful toward the implementation of the free maternity service policy.

Women's experiences at health facilities inform their perceptions and eventually preferences for the standards of maternity service they expect. Identification of patient-centered aspects of quality of care at health facilities will be critical to improve maternal health outcomes and reduce maternal mortality in informal settings in the long term.

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8 **Author Contributions.**

9 JOA conceived and designed the study, contributed to the data collection, MA participated in the data
10 analysis. JOA drafted the manuscript. JOA and MA provided interpretation for the findings .GK and FW
11 revised the transcript for clarity. All authors read and approved the final version of the transcript.
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23 **Competing interests** JOA, GK, FW and MA have no competing interests to declare

24 Patient Consent for publication not required.
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28 **Ethics approval.** The study was approved by the AMREF ESRC IRB REF No. P388/ 2017 and National
29 Council for Science and Technology and Innovation (NACOSTI) permit No P/17/34367/2013.
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33 **Data Availability statement.** De-identified data are available upon reasonable request to the
34 corresponding author
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APPENDIX 6: FGD GUIDE

Exploring attributes of women's preferences for place of delivery in Dandora, Embakasi-North sub-County.

Purpose of FGD

The purpose of this Focus Group Discussion is to try and understand where women residing within Dandora, *Embakasi-North* deliver their babies and why they prefer these specific facilities. The study intends to specifically elucidate the following;

- 1) What women's preferences are with regard to place of delivery
- 2) Why they choose certain places or health facilities over the other
- 3) To determine attributes of the health system that they deem important
- 4) To determine possible attribute levels of the attributes identified

Logistical arrangements

I would like to go over a few logistical arrangements before we begin the interview: Thank you for joining me today. My name is Jackline Aridi and I am a PhD student registered at Strathmore University at the Institute of Healthcare Management at the Strathmore Business School in Nairobi. The interview will last approximately 30- 45 minutes. I have obtained Ethical clearance to conduct this research from Strathmore University's Institutional Review Board (IRB) and permission to conduct research within Nairobi and Nakuru County from the National Science and Technology Research Institute (NACOSTI)

Everything we discuss during this interview will be kept in strict confidence and your real name will not appear in any of our results. As such, please make every effort to be open and honest when responding to the questions. I will provide you with a consent form which you will read and sign if you find it agreeable with you. For data capture purposes, this interview will be recorded using a mobile phone device. Start tape recording if consent is granted: (Facilitator to switch recorder on)

FGD Discussion Questions

The questions fall into five key categories: Follow the guide below to lead the focus group discussion on the 5 key themes.

Key questions	Probes
1. Birthing Experience -What are the things that make for a good birthing experience?	Describe your dream birthing experience. Who needs to be present? What needs to be present? What are your worries or concerns? Are there cultural traditions that need to be followed judiciously? What makes you feel safe during the process? What would absolutely make it a bad experience?
2. Place of delivery -How did you and your family decide where to deliver?	What are the options for places to deliver?

	<p>Who were involved in the decision making process as to where to deliver?</p> <p>Are you usually involved in deciding where to deliver? If so, what did you have to consider in making that decision? (cost, distance, risks, benefits)</p> <p>What makes the delivery place a good or bad experience? Were you treated nicely and with respect? Give examples.</p>
<p>3. Recommendation to friends- What would you tell your friends about where they should deliver and why?</p>	<p>Is it culturally appropriate to share your experiences with your friends?</p> <p>Does your opinion have an impact on where your pregnant friend delivers her baby?</p> <p>Does the Chief/leaders in your community recommend/suggest that you deliver at certain places?</p> <p>If you hear something negative about a place to deliver, does it affect where you choose to deliver?</p>
<p>4. Family Involvement -How did your family show support for you during pregnancy and delivery?</p>	<p>Is your husband and extended family usually involved in the birthing experience?</p> <p>Which family members are actively involved in delivery?</p> <p>What roles do they play in the delivery process?</p>
<p>5. Newborn Care -What are the things you believe make for the best environment for the newborn immediately after delivery?</p>	<p>What are the traditional customs on how to handle and care for newborns?</p> <p>Does anyone help you care for the newborn? What makes them qualifies to do so?</p> <p>What do you believe is the best way to feed your newborn? And the timeline to starting solid foods?</p> <p>How do you keep your newborn warm?</p> <p>Do siblings play a role in taking care of newborns? If so, as soon as when? And how?</p>

Deriving Attribute Levels

Having delivered in health facilities and hospitals within Embakasi-North or Naivasha. Can you please speak on what you thought was the most important factors in selection of the facility where you choose to deliver. If I were to ask you to rank the list below, which of these factors did you think were most important in the selection of the health facility?

(Rank: Very important, somewhat Important, Not important)

- a. Cost of the health facility
- b. Availability of drugs
- c. Distance of the health facility
- d. Health provider attitude
- e. Quality of care (cleanliness etc.)
- f. Whether or not abuse and disrespect occurs during the delivery
- g. Time spent waiting for service
- h. Cost of transportation

Reporting checklist for qualitative study.

Based on the SRQR guidelines.

Instructions to authors

Complete this checklist by entering the page numbers from your manuscript where readers will find each of the items listed below.

Your article may not currently address all the items on the checklist. Please modify your text to include the missing information. If you are certain that an item does not apply, please write "n/a" and provide a short explanation.

Upload your completed checklist as an extra file when you submit to a journal.

In your methods section, say that you used the SRQR reporting guidelines, and cite them as:

O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Med.* 2014;89(9):1245-1251.

	Reporting Item	Page Number
Title		
	#1 Concise description of the nature and topic of the study identifying the study as qualitative or indicating the approach (e.g. ethnography, grounded theory) or data collection methods (e.g. interview, focus group) is recommended	4
Abstract		
	#2 Summary of the key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results and conclusions	2
Introduction		
Problem formulation	#3 Description and significance of the problem / phenomenon studied: review of relevant theory and empirical work; problem statement	3

1	Purpose or research	#4	Purpose of the study and specific objectives or	4
2	question		questions	
3				
4	Methods			
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7	Qualitative approach and	#5	Qualitative approach (e.g. ethnography, grounded	4
8	research paradigm		theory, case study, phenomenology, narrative	
9			research) and guiding theory if appropriate; identifying	
10			the research paradigm (e.g. postpositivist,	
11			constructivist / interpretivist) is also recommended;	
12			rationale. The rationale should briefly discuss the	
13			justification for choosing that theory, approach,	
14			method or technique rather than other options	
15			available; the assumptions and limitations implicit in	
16			those choices and how those choices influence study	
17			conclusions and transferability. As appropriate the	
18			rationale for several items might be discussed	
19			together.	
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27	Researcher	#6	Researchers' characteristics that may influence the	5
28	characteristics and		research, including personal attributes, qualifications /	
29	reflexivity		experience, relationship with participants,	
30			assumptions and / or presuppositions; potential or	
31			actual interaction between researchers'	
32			characteristics and the research questions, approach,	
33			methods, results and / or transferability	
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39	Context	#7	Setting / site and salient contextual factors; rationale	4
40				
41	Sampling strategy	#8	How and why research participants, documents, or	5
42			events were selected; criteria for deciding when no	
43			further sampling was necessary (e.g. sampling	
44			saturation); rationale	
45				
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48	Ethical issues pertaining	#9	Documentation of approval by an appropriate ethics	5
49	to human subjects		review board and participant consent, or explanation	
50			for lack thereof; other confidentiality and data security	
51			issues	
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55	Data collection methods	#10	Types of data collected; details of data collection	5
56			procedures including (as appropriate) start and stop	
57			dates of data collection and analysis, iterative	
58				
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process, triangulation of sources / methods, and modification of procedures in response to evolving study findings; rationale

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6	Data collection	#11	Description of instruments (e.g. interview guides,
7	instruments and		questionnaires) and devices (e.g. audio recorders)
8	technologies		used for data collection; if / how the instruments(s)
9			changed over the course of the study
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12	Units of study	#12	Number and relevant characteristics of participants,
13			documents, or events included in the study; level of
14			participation (could be reported in results)
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16			
17	Data processing	#13	Methods for processing data prior to and during
18			analysis, including transcription, data entry, data
19			management and security, verification of data
20			integrity, data coding, and anonymisation /
21			deidentification of excerpts
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26	Data analysis	#14	Process by which inferences, themes, etc. were
27			identified and developed, including the researchers
28			involved in data analysis; usually references a specific
29			paradigm or approach; rationale
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32			
33	Techniques to enhance	#15	Techniques to enhance trustworthiness and credibility
34	trustworthiness		of data analysis (e.g. member checking, audit trail,
35			triangulation); rationale
36			
37			
38	Results/findings		
39			
40	Syntheses and	#16	Main findings (e.g. interpretations, inferences, and
41	interpretation		themes); might include development of a theory or
42			model, or integration with prior research or theory
43			
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46	Links to empirical data	#17	Evidence (e.g. quotes, field notes, text excerpts,
47			photographs) to substantiate analytic findings
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50	Discussion		
51			
52	Intergration with prior	#18	Short summary of main findings; explanation of how
53	work, implications,		findings and conclusions connect to, support,
54	transferability and		elaborate on, or challenge conclusions of earlier
55	contribution(s) to the field		scholarship; discussion of scope of application /
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generalizability; identification of unique contributions(s) to scholarship in a discipline or field

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3			
4	Limitations	#19	Trustworthiness and limitations of findings 22
5			
6	Other		
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9	Conflicts of interest	#20	Potential sources of influence of perceived influence 22
10			on study conduct and conclusions; how these were
11			managed
12			
13			
14	Funding	#21	Sources of funding and other support; role of funders 22
15			in data collection, interpretation and reporting
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17			

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 20 <https://www.goodreports.org/>, a tool made by the [EQUATOR Network](#) in collaboration with
 21 [Penelope.ai](#)
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BMJ Open

“...We just look at the well-being of the baby and not the money required...”, exploring experiences of quality of maternity care amongst women in Nairobi’s informal settlements in Kenya: A qualitative study.

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3 **“...We just look at the well-being of the baby and not the money required...”,**
4 **exploring experiences of quality of maternity care amongst women in**
5 **Nairobi’s informal settlements in Kenya: A qualitative study.**
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9 Jackline Oluoch-Aridi^{1,2} Francis Wafula¹ Gilbert Kokwaro¹, and Mary Adam³
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Abstract

Objective To examine how women, living in Nairobi's informal settlements, perceive the quality of maternity care received during delivery experiences and how it influences their choice of a health facility.

Design Qualitative study.

Settings Dandora, an informal settlement, Nairobi City in Kenya.

Participants Six focus group discussions with 40 purposively selected women aged between 18 and 49 years at six health facilities.

Results Four broad themes were identified: 1) Perceived quality of delivery care services, 2) financial access to delivery service, 3) physical amenities at the health facility, 4) The 2017 health workers strike.

The four facilitators that influenced women toward the choice of a private health facility were: 1) interpersonal treatment at health facilities, 2) the quality of clinical services, 3) financial access to health services at the facility, 4) the physical amenities at the health facility. The three barriers to the choice of a private health facility were: 1) poor quality clinical services at low-cost health facilities, 2) shortage of specialist Doctors 3) referral to public health facilities during an emergency

The facilitators that influenced women toward the choice of a public health facility were 1) physical amenities for dealing with obstetric emergencies at public health facilities 2) early referral to public maternity during antenatal care services. The six barriers to the choice of a public health facility were 1) perception of poor-quality clinical services 2) security of newborns at tertiary health facilities 3) Mistreatment of women during delivery 4) use of unsupervised trainee doctors for deliveries and 5) poor quality of physical amenities 6) inadequate staffing.

Conclusion The study provides insights into decision making pathways used by women when choosing a delivery health facility. It also identifies critical attributes of the health facility that women find valuable how these perceptions help influence their choice of a delivery health facility.

Article summary

Strengths and limitations of the study

The study employed focus group discussions with women to understand a complex contextual issue through their lived experiences.

The women recruited into the study were purposively selected, and data collection conducted until saturation of themes.

The data was collected from a variety of health facilities ranging from private both for-profit low cost and not-for-profit (mission health facilities) to public health facilities (both at health center level and secondary maternities)

The data quality was assured by having enumerators trained in qualitative research methods. Data was collected data from a private setting at the health facilities to ensure privacy and confidentiality.

The main limitation was the inability to recruit women who had delivered at home with the help of traditional birth attendants. The views from these women would have provided unique insights regarding their choices for a place of delivery.

Key words: Women's Experiences, Quality of Maternity Care, Informal settlements, Kenya.

Background

Far too many women die while trying to give birth, and 66% of all maternal deaths globally occur in sub-Saharan Africa. (1) The maternal mortality rate in sub-Saharan Africa is estimated at 546 deaths per 100 000 live births. (2) Most deaths occur during the immediate time of delivery and are preventable. The WHO has established skilled birth attendance during delivery and high-quality obstetric care at a health facility as the most definitive way of reducing maternal mortality. (2)(3)(4)

Kenya's current maternal mortality ratio stands at 342 for every 100,000 live births, a figure that remains unacceptably high. (5) Evidence evaluating the factors influencing place of delivery point to women identifying distance or lack of transport as the predominant reason for delivering outside a health facility. Women in Kenya also identified other factors such as deeming the delivery services not necessary (20.5%), abrupt delivery (18.5%) and cost (11%) as barriers towards facility-based delivery. (6) To reduce the high maternal mortality, national policies have been put in place to substantively address the significant barriers of cost and distance to accessing skilled delivery care. In June 2013, the Kenyan Government initiated a free maternity services policy that ensured delivery services for all public health facilities nationwide without user-fees. (7) Additionally, selected private health facilities with National Health Insurance Fund (NHIF) accreditation could provide free maternity services with a voucher dubbed *Linda Mama*. This policy directly addressed the cost barrier and resulted in a sudden and substantial increase in women utilizing health facilities for delivery within the country, particularly in urban settings. (8)

The corresponding barrier of geographic access to a facility has been addressed by both the public and private sectors. There has been an increase in the total number of public and private health facilities registered in Kenya. As a consequence, a majority of Kenyan women now live within 5km of a health center. (5) However, in cities like Nairobi, a significant proportion of women (88.7%) of women deliver at a health facility, confirming that addressing cost and distance has not been sufficient to deter the rising maternal mortality. (5) Studies within informal settlements in Nairobi have shown that the women in such settings face higher mortality rates, with one study estimating 700 deaths for every 100,000 live births. (9)

Additionally the introduction of the free maternity service came with some unintended consequences, such as concerns about a reduction in the quality of services delivered. (10) Recent studies also demonstrate challenges with the implementation of the free maternity services such as stock out of essential drugs and lack of ambulances for referral of women with obstetric emergencies to higher levels of care, and delays in the reimbursement of the health facilities and hospitals.(10)(11)(12) Sadly, the free maternity policy has not demonstrated significant reductions in maternal mortality. (13) These challenges are likely to be further exacerbated by trends of rapid urbanization in Kenya particularly in informal settlements.

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Studies assessing access to facility based-delivery conducted in informal settlements in Kenya have mostly focused on maternal health utilization trends, and women's experiences with obstetric emergencies. (14),(15,16) A few studies have examined what women think of as quality, quantifying women's satisfaction with delivery care services. (15),(17) Some studies identified that women valued low-cost unregulated health facilities because of their response to women's socio-cultural sensitivities. (17) However, what is less understood is how a women's lived experiences and perceptions of quality of delivery care services influence their choices of health facility. Women in informal settlements have choices, they actively choose to deliver in a facility that they perceive as having better quality of delivery services. We sought to explore women's experiences and perceptions of quality care when choosing a delivery health facility. These findings can offer insights for policymakers and program managers to improve of the quality of care at health facility services, particularly in informal settlements within urban areas.

Methods

Study Setting and sampling

This qualitative study was part of formative research to establish women's preferences for place of delivery in the informal settlements of Dandora in Embakasi-North sub-county in the East of Nairobi City. Dandora is characterized by residents who belong to the lowest wealth quintile in Kenya, and there is widespread poverty and high unemployment in this setting. Dandora constitutes four of the administrative units in Embakasi-North, including the City of Nairobi's garbage dump. The presence of the garbage dump has led to high criminal activity and general insecurity. The health system consists of four public primary health facilities namely; Njiru health center, Dandora health center 2, and 3, Kariobangi-North Health Centre. There are several low-cost private health facilities and a few mission health facilities. The main referral health facility is a secondary hospital a short distance away in the neighboring Embakasi-West.

Data collection

Study design, recruitment, and participants

We used a phenomenological descriptive qualitative study to explore the lived experiences of women during delivery service at six different health facilities. The data were collected in January 2018 by enumerators trained in qualitative research methods. We selected facilities that cover the spectrum of choices available to women in Dandora. We identified health facilities to represent both the primary care and referral maternity services both in the public and private sector. (See Appendix 1 Table 1) Women were recruited from, public, and private facilities in order to represent the range of facility choices in the Dandora informal settlement region. It is important to note that each type of facility catered to the local women, thus reflecting the range of both cost and quality available to women in Dandora. In Kenya,

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3 mission (faith based) facilities are considered private facilities according to government licensing criteria.
4 Therefore, the private facilities we utilized included both mission and for-profit facilities. At each facility
5 recruitment was done with the assistance of the health care workers in charge of the maternity. The
6 women were identified during their child welfare clinics, these typically occur on a specific day of the
7 week. We specifically targeted women who had just delivered and were coming for postnatal care visit
8 which was typically 4 to 6 weeks postpartum. The inclusion criteria were women who were aged between
9 18 and 49 and had delivered their babies within the informal settlements. We targeted a sample size of
10 twenty women for each type of health facility. We targeted at least 20 women from each type of health
11 facilities public or private-which includes both mission and other non-public facilities totaling to 40
12 interviews. Previous studies assessing similar topic have used a similar sample size.(18),(19)
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19 We began the study by mentioning the purpose of the study to the women. We informed them they
20 intended for them to share their experiences around the decision making on selecting a delivery health
21 facility. We obtained written consent from all the women and informed the participants of the potential
22 benefits and risks of their involvement in the study. We used a semi-structured focus group discussion
23 guide to lead the interviews and conducted the interviews in Kiswahili, a language commonly spoken by
24 women in this setting. (See Appendix 2) The discussions were tape-recorded, transcribed, and translated
25 into English by research assistants and the first author, who is a native speaker of Kiswahili. The focus
26 group discussions were all conducted in private rooms within the health facilities to safeguard privacy. We
27 obtained ethical review from AMREF Ethics and Scientific Review Committee (ESRC). Permission to
28 conduct the research was obtained from The National Commission on Science Technology and Innovation
29 (NACOSTI).
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37 **Data Analysis**

38 We started the data analysis by reading all the transcripts repeatedly to gain an in-depth understanding of
39 the transcripts. We triangulated the data using the interview transcripts and field notes to aid understanding
40 of the interviews. Two of the authors MA and JOA, coded the data. A coding scheme was developed from
41 the focus group discussion guides and using conceptual frameworks from the literature on facility-based
42 delivery. During the process of data analysis, the main author JOA met with members of the research team
43 with extensive qualitative and clinical experience (MA) to discuss the emerging codes and categories as
44 well as the interpretation of the emerging themes hence combining insights. We used a thematic analysis
45 framework by Braun and Clarke to classify identified key themes.(20) We compared the themes identified
46 to the standards of quality of care contained in the WHO conceptual framework for improving the quality
47 of care for mothers and newborns. (21)
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Patient and public involvement

The women in this setting were consulted and participated in the design of the study instruments by suggesting relevant questions to be included in the focus group discussion guide with regard to their perceptions on the quality of services and choice of health facility within their setting.

Results

We interviewed a total of 40 women, and each focus group discussion was composed of between six and eight women. Table 1 shows the sociodemographic characteristics of the respondents. Respondents were mainly on average 22 years, and 65% were multiparous with between two and three children. About 30% delivered at health facilities classified as private.

Table 1. Characteristics of women participants in the focus group discussions

Characteristics	Informal setting N (%)
Age: mean	22
Age of children	2
Parity	
Primiparous	14 (35)
Multiparous	26 (65)
Delivery facility	
Public hospital	9 (23)
Public health center	10 (25)
Mission health facility	9 (23)
Private Facility	12 (30)
Total	40

Themes identified

We identified three themes that led women to the choice of a private health facility; the first theme was the perceived quality of care. We re-classified the theme on perceived quality of care into two sub-themes; interpersonal treatment at the health facility and quality of clinical care. The second theme was financial access to delivery service, with one sub-theme; the free maternity services policy. The third theme was the availability of physical amenities at the health facility. All barriers related to the choice of a private health facility fell under the theme of perceived quality of care. We identified three sub-themes; poor quality clinical services at some low-cost private health facilities, shortage of specialist Doctors at some private health facilities, and referrals to public hospitals.

We identified three themes that led to the choice of public health facilities. The first theme was on perceived quality of care. Under the perceived quality of care, we identified two main sub-themes 1) Good quality clinical services in public health facilities to deal with obstetric emergencies, 2) early referral for complications during antenatal (ANC) services. The second theme was on financial access to delivery service. The third theme, sociocultural context and lastly the availability of physical amenities at the health facility.

We classified the barriers to choice of a public health facility identified under the themes of perceived quality of care into the following five different sub-themes: 1) perceived poor quality clinical and non-clinical services 2) security of newborns, 3) mistreatment of women during facility-based birth 4) use of unsupervised trainee Doctors, 5) understaffing at health facilities. The second theme of financial access to delivery service only had one sub-theme on the free maternity policy, acting as a barrier to delivery at public health facilities. The third theme of the 2017 health workers strike was identified as a theme that acted as a barrier to the choice of public health facilities. For a clear illustration of the themes and sub-themes that served as facilitators and barriers to access of delivery service at both private and public health facilities, see Table 2.

Table 2. Showing the themes and sub-themes generated from focus group discussions with women in an informal settlement in Embakasi-north.

Choice of health facility	Themes	Sub-themes	
		Facilitators	Barriers
Private health facilities	Perceived quality of care.	Good interpersonal treatment at the health facility.	Shortage of specialist Doctors.
		Good quality clinical and non-clinical services.	Poor quality clinical services.
	Financial access to health care at the facility.	Free maternity services policy.	
	Physical amenities at health facility.		Poor physical amenities at low-cost private health facilities.

Public health facilities	Perceived quality of care.	Availability of physical amenities (medical equipment for cesarean section and neonatal complications).	Poor quality clinical services.
		Early referral for delivery to public maternity during ANC.	Security of newborns.
			Mistreatment of women during delivery.
			Use of unsupervised trainees Doctors at tertiary health facilities.
			Inadequate staffing at health facilities.
	Financial access to health care.		The free maternity policy.
	Physical amenities.		Poor physical amenities at public health facilities.
	The 2017 health workers strike.		Acted as a barrier to the choice of public health facilities.

Facilitators to the choice of delivery at private health facilities

Perceived quality of delivery care at the health facility

We identified four key facilitators of delivery at private health facilities under the theme of perceptions of quality of delivery care. They are discussed below.

Good interpersonal treatment at the health facility. The women reported that one of the key facilitators for delivery at a private health facility was the good interpersonal treatment they received at private hospitals. The women described receiving good treatment by the health facility staff at private hospitals and compared it to the bad treatment at public hospitals illustrated by the quotes below;

“...They treated us well. Like me personally, that is why I go to private hospitals because I know they will treat me well there...”

(22-year-old first-time mother at a private HF A)

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2
3 *"... You know, the first thing is I have previously given birth in a public hospital, and when I went*
4 *there, they would chase me, and at that time, I am almost due, and I am in so much pain. So, the suffering*
5 *I went through made me decide not to go to a public hospital again. I decided to go to a private hospital*
6 *because you know where you use your money so you will be treated well. And when I went to a private*
7 *health facility A, I was treated well, and that is why I went there again, I have given birth to two children*
8 *there."*
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15 They went on to speak about how the private hospitals where they delivered provided
16 accompaniment and close monitoring during labor, at the delivery itself and after the birth. At the private
17 hospitals, the women mentioned that there is the constant presence of a Doctor. They said the Doctors
18 stayed with them from the commencement of labor through to the delivery time. They reported that how
19 they were treated at a health facility was a key determinant in whether they would access services at a health
20 facility again. They mentioned that the health care providers (both nurses and Doctors) during their delivery
21 who attended to them were "very caring," "respectful," "very welcoming," " very concerned about you,"
22 "very understanding," and "would make you feel safe." They explained that they did not feel abandoned at
23 any one time during the delivery, especially when they are in pain, unlike in public hospitals. They describe
24 the experience below;
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33 *"... They are very careful, and they attend to patients well. Then something else that makes someone*
34 *happy is immediately when you walk in how someone will speak to you would make you feel safe. They*
35 *are respectful and very welcoming, and so it makes it easy to express yourself. You can go somewhere*
36 *and how they welcome you makes you have low morale. That was one thing I saw with them, they are*
37 *welcoming, and they speak to you well. And the doctors there are very keen on what they are doing..."*
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44

45 *"...But there are some other hospitals let's say like public, you will just be left there and last minute*
46 *when the baby is out that is when they will come. But in private hospitals, they are usually very caring..."*
47
48
49
50

51 *"...The doctor would come and check up on me to see how my baby was doing. Then after giving birth,*
52 *they would stay there with you, not just leaving you alone like how they do in public hospitals, whereby you*
53 *have to be in so much pain before you call a doctor to help you. Here, they are just there with you..."*
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7 **Quality of clinical and non-clinical services.** The Women described having received excellent quality
8 services and specified clinical delivery services provided by nurses and Doctors at private health facilities.
9 They subsequently recommended private health facilities to other women in their family or friends based
10 on their perceptions of the quality of services they receive during delivery, as seen in the quote below.
11
12

13
14 *"...I am her mother, but I am the one who advised her to go to Private health facility B because, but it would*
15 *be better if she was the one speaking, but I also have something to say. I have taken two women to Private*
16 *health facility B, and I had seen that the clinical service there is good and that is why I preferred to take*
17 *her to Private health facility B. Also, for her when I took her there, she can say what she thought of Private*
18 *health facility B..."*
19
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25 **Financial access to delivery services.**

26 **The Free maternity Services policy.** Some women were informed by their friends and relatives that there
27 were vouchers for a free maternity service from the Government, including private health facilities. This
28 voucher program called *Linda mama* allowed them to start attending antenatal health services at the health
29 facility to have their subsequent deliveries at the same health facility as illustrated by the quote below;
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31
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34
35 *"...First, there is a friend of mine who will live in the same plot, and she was pregnant. She went to Private*
36 *health facility B. I don't even know who told her to go to Private health facility B, but when she went there,*
37 *she said to me that a Private health facility was giving out vouchers for giving birth I think 'Linda Mama.'*
38 *So, she told me to start attending my clinic there, but before I was attending a clinic at Mission health*
39 *facility A. So, I left here ..."*
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46 Women who had health insurance through the national scheme, The National Health Insurance Fund
47 (NHIF) used their cards to access care at private hospitals that were accredited by the Government, and this
48 determined if the women could deliver at a private health facility. They saw this as an opportunity to opt-
49 out of care at public health facilities that they would have otherwise had used. This resulted in making
50 access to maternity services affordable to them as seen in the quotes below;
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3 *"...again, I saw that they accept NHIF card, we had asked before, and they told us they do and you know*
4 *that is something that is mostly with private hospitals but here they take it. So, we saw that I did not have*
5 *to struggle to go to National Referral hospital A or Maternity hospital B because they would take the card*
6 *here, and that is what I used..."*
7
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9

10 11 **Physical amenities at the health facility**

12 **Health facility cleanliness.** Women in this setting described the most important amenity to them as facility
13 cleanliness. This experience was universal across all focus groups, and there was a mutual agreement that
14 the private health facilities that they attended had clean health facilities in comparison to the public health
15 facilities in the area. They described wanting to deliver in a generally clean health facility. They described
16 wanting clean beds where the beddings were replaced after every delivery as well as cleaning of toilets and
17 bathrooms regularly as seen in the quotes below;
18
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24 *"...Even the bed. Like if you sleep here today, tomorrow they will change the sheets..."*
25
26
27
28

29 *"...A hospital needs to be clean. Because there are some other hospitals that you go to, you can find the*
30 *toilet is slippery, it is dirty, and then again, you are not treated well, and that is why we also prefer private*
31 *hospitals because they are clean...."*
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37 **Availability of hot water and good food.** The women also spoke extensively about the need to provide
38 items such as hot water for showering after the delivery, occasional tea, and good food. The women
39 repeatedly mentioned these items as essential elements to what was perceived by women as constituting
40 excellent service during delivery seen in the quote below;
41
42
43
44

45 *"...But treating people, giving people water to bathe we were even given hot water, tea, I can say their*
46 *services are okay..."*
47
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51 **Barriers to the choice of private health facilities**

52 We identified three key barriers to delivery at private health facilities. First, women reported experiences
53 that reflected the fact that low cost private health facilities provided poor quality delivery care. Secondly,
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3 the shortage of specialist clinicians at private health facilities and thirdly the referral of women with
4 complications during obstetric emergencies to the public health system. We discuss them in detail below;
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7

8 **Perceived quality of care at health facilities**

9
10 **Poor quality clinical services at low-cost private health facilities.** Some women described poor quality
11 care at some of the low-cost private health facilities within the setting where some women reported injuries
12 on newborns during delivery. One woman described a bad experience of a woman who switched her
13 delivery decision from a low-cost private health facility to one with a slightly higher cost. She went on to
14 say this experience made her distrust private health facilities and the bad experiences generally discouraged
15 her from delivering at private health facilities as seen in the narration below;
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21 *"...I have a friend; I had not started going for the clinic when I was five months, and she went somewhere,*
22 *I do not want to mention the name of that hospital, but it is within Dandora. She went there, and I had gone*
23 *for one clinic check up there. She went to deliver there, and her baby was 4.1kg when she was giving birth,*
24 *the doctors pulled the baby, and now the mother has a problem with her leg, she stayed for two months*
25 *without walking. When I saw that, I told myself I could not go and deliver there because they did not give*
26 *her a tear; instead, they just pulled the baby even though the baby is big. So that scared me, and that is why*
27 *I decided to come to Health facility B ..."*
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35 **Shortages of specialists Doctors.** Women described a situation where some of the private health facilities
36 lacked specialist Doctors who had surgical skills and who could provide cesarean section surgeries in the
37 event of an obstetric emergencies. They described a situation where they had to wait and, in the process,
38 risk their lives, and in some cases, they needed to pay upfront for the Doctor to come to the private health
39 facilities.
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41
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45 *"...They need to have all types of Doctors, even the ones for CS. Like you see, when I went to this health*
46 *facility. I really waited because they were hiring doctors for cash, you have to send them money so that*
47 *they can come. Without sending them money, they will not come. So, they need to have all the doctors*
48 *present, even the ones for CS, so that in case of an emergency, you do not have to wait..."*
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55 **Referral to public health facilities during obstetric complications**

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3 Some women described poor amenities at some of the low-cost private health facilities situated within the
4 informal settlement. They reported that the health facilities lacked essential amenities such as theatres for
5 cesarean sections, and equipment for neonatal resuscitation. Therefore in the event of an obstetric
6 emergency, women who went to deliver at private hospitals described that they were referred back to the
7 public maternities that they were trying to avoid in the first place because almost all referral health facility
8 including for all private health facilities in the area was the public referral health facility. The two quotes
9 below illustrate the referral circumstances described.
10
11
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15
16 *"...Let's say like for me, I went to public health facility A, they told me that I could not give birth even*
17 *there, they just referred me to big hospitals like Major Maternity A and B, but when I went there, they*
18 *were on strike. They are the ones who also told me with the first child I cannot deliver in a private*
19 *hospital..."*
20
21
22

23
24
25 *"...Then again, I can add when I went to deliver at Private hospital A, there was a complication when I*
26 *went for my CS. I wanted a qualified doctor because you never know what will happen. Then again, I was*
27 *given a referral to the main national referral hospital, and that is where they attended to me. But at the*
28 *national referral hospital, there was also a lot of complications.*
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31

32 33 34 **Facilitators to the choice of public health facilities**

35
36 The women spoke of two main facilitators to delivering at a public health facility; the physical amenities
37 in the form of the availability of medical equipment for cesarean section during an obstetric emergency and
38 referral during antenatal care services to delivery at higher level tertiary health facilities.
39
40
41

42 43 **Availability of physical amenities**

44 **Medical equipment for cesarean sections.** Women described public hospitals as having all the necessary
45 equipment, particularly for dealing with obstetric emergencies such as a theatre for a cesarean section within
46 the same public hospital. They expressed awareness that some of the private hospitals and smaller public
47 health facilities did not have access to cesarean section, hence in the case of an obstetric complication they
48 would have a referral if complications arose as described below;
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51

52
53 *"...Others feel if they go to those hospitals, they have the equipment and everything else. If things go wrong*
54 *with the normal delivery, they will just be taken for a cesarean section (CS) because everything is just under*
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3 *one environment. Because you know not all private hospitals can conduct a CS, so if a complication arises,*
4 *you are told to go to a public hospital..."*
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11 **Referral for delivery to public maternity during ANC.** Women described having advantages of been
12 screened early for possible complications and then been referred for the index child during antenatal care
13 clinics.
14

15
16
17 *"...Maybe if you go to the clinic, they can tell you like with the first child that you cannot give birth in a*
18 *private hospital, and you should go to public hospitals because of complications. So, you will just have to*
19 *go to a public hospital like Maternity A...."*
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25 **The barriers to the choice of public health facilities**

26 **Perceived poor quality of care at public health facilities**

27
28 The barriers to the choice of public health facilities were mainly related to the poor quality of care received
29 at the health facilities. We describe six key barriers identified by the women that influenced their choice
30 of the public health facilities; poor quality clinical care leading unnecessary cesarean sections, the security
31 of newborns, mistreatment of women, use of unsupervised trainee Doctors, poor physical amenities, and
32 inadequate staffing. They are discussed in detail below;
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38 **Poor quality clinical care leading to unnecessary cesarean sections.** Women in this setting described
39 sharing experiences of delivery with each other, and some women advised other women that Maternity
40 hospitals in the area would subject them to unnecessary cesarean sections. This suggested a lack of use of
41 evidence-based care by health care workers as well as poor communication between healthcare workers
42 and women. Women also described lack of consent for cesarean sections within this setting, and these
43 experiences of the women (or their friends) rendered the women afraid of delivering at the public
44 maternities as seen in the quote below;
45
46
47
48
49

50
51 *"...Like for me, when I had my first pregnancy, there was a lady who told me since it was my first pregnancy,*
52 *I should not go to Major Maternity A because if I go there they will just take me to the theatre and operate*
53 *on me and so I was very afraid..."*
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5 **Security of newborns.** Women described been informed by other women based on their experiences that
6 there was a possibility that their new newborns would be stolen or exchanged if they delivered at the larger
7 public maternity hospitals. This particularly made women switch their delivery from public maternities to
8 private health facilities where they perceived the security of their newborns would be upheld as described
9 below;
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11
12
13

14 *"...And they also told me if I gave birth to my child, they would steal it if I went to Maternity A or Maternity*
15 *B. They told me to go to a private hospital. So, I looked around and thought of which private hospital to go*
16 *"...because you know I was new to Nairobi, and I did not know where to go. So now I was told to either go*
17 *to the new Nursing home or health facility A. I didn't even know those hospitals. I was told if I boarded a*
18 *matatu 36 (public transportation), it will take me to health facility A, so I just went to health facility A..."*
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27 **Mistreatment of women.** There were many forms of mistreatment described by women during labor and
28 delivery at public health facilities and hospitals. The manifestations ranged from verbal abuse, physical
29 abuse to neglect, and abandonment during childbirth. Women also described discrimination based on
30 ethnicity and age. Women, particularly young women, described verbal abuse and termed nurses at the
31 public health facilities as having 'unnecessary rudeness'. They described been yelled at and chased based
32 during labor on accusations that they had come to the health facility too early. They also described the
33 health workers using language that was 'bad' as seen in the quote below;
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47 *"...You know people say that is the best because they have all the equipment, but then you see when I went*
48 *there, they kept chasing me telling me I was not yet due. Others tell you to go and sit down, or you go back*
49 *to your place because they don't baby people there. The language they use is very bad..."*
50
51

52 Women described experiences where they witnessed fellow women been abandoned and neglected during
53 care at public hospitals as seen below;
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55
56
57

58 *"...I just saw that it was a nice place to give birth because if you go to a place like Major maternity hospital*
59 *B, there was a time I had a problem. I was taken to Major Maternity hospital B, and when I went there, I*
60 *saw a lady who had pushed, and the baby's head was out. Still, the doctor was not even bothered; they were*

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3 *just walking and talking, so I said I wouldn't go there. I would rather go to a private hospital than a public*
4 *hospital..."*
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9 Some women described instances of physical abuse by the Doctors and nurses during labor and delivery as
10 seen in the quote below;

11 *"...The way you will be treated by those doctors because some of them are usually very harsh. You can find*
12 *when you are in labor, you need to walk around, but you find some of them become very tough with you. if*
13 *a complication happens, you find others even beat you..."*
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22 **Use of unsupervised trainees Doctors.** Women described been referred to the tertiary hospitals and been
23 attended to by trainee Doctors. They described these trainee Doctors as been inadequately prepared to attend
24 to them and prone to error. One of the women described an experience whereby the trainee Doctor
25 interfering with her bladder during surgery and creating the need for another Doctor to be called in to repair
26 the damage done. We describe this experience in the quote below that narrates that experience;
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29
30

31 *"...Then again, I can add when I went to deliver at health facility B, there was a complication when I went*
32 *for my CS. I wanted a qualified doctor because you never know what will happen. Then again, I was given*
33 *a transfer to Tertiary hospital A, and that is where they attended to me. But in Tertiary hospital A, there*
34 *were also a lot of complications. First, the Doctor who was a trainee interfered with my bladder, and they*
35 *had to put a catheter for two weeks. Second, they did it poorly, and they had to call in another doctor. You*
36 *see, when you go for a theatre in a public hospital, and more so if the line is long, they will take trainees to*
37 *attend to you, and they are not competent, so you find complications are a lot..."*
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45 **Inadequate staffing.** Women described situations where there were insufficient nurses to accompany them
46 during labor and delivery at the public health maternities. They described situations where they felt
47 abandoned and were frequently forced to deliver their babies on their own. They also described long waiting
48 times for services as a result of the inadequate staff. The long waits ensued even in the event of an obstetric
49 emergency as seen in the quote below;
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3 *"...The way they will welcome you. You see sometimes it is an emergency, so they should just take you and*
4 *start attending to you, but sometimes you find yourself just going there and waiting in line for so long before*
5 *someone comes to assist you so if you are an angry person you become mad and say you will never go back*
6 *there again..."*
7
8
9

10 11 **Financial access to delivery service.**

12 **Effects of the free maternity service policy.** This policy was also seen as a barrier to public health
13 facilities. Some women described experiences where they were treated poorly, and they perceived the bad
14 treatment because the delivery service was free. They expressed their suffering as a result of this treatment
15 and said they would rather pay for delivery and get services that safeguard their health and that of their
16 babies, as seen in the quote below.
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21

22 *"...Like I told you, I have delivered in those hospitals offering free maternity, I did not even remove a*
23 *shilling, but I was not happy. When I got there, and they started chasing me, telling me that I was not due*
24 *yet, and I had dilated 4 cm. A doctor was examining us, and one told me to rest on the bed because I had*
25 *dilated 7 cm, and then another one came to chase me, telling me I am 3cm. I suffered when I went there.*
26 *You know sometimes it is not about the money, you can go like that, and then you are being told to go*
27 *here and there and maybe you have no one to help you. So, we just look at the well-being of the baby and*
28 *not money ..."*
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37 Others reinforced this view that in the private hospitals, ' people are treated well primarily because of the
38 money you pay, and they wished they could be handled better at the public health facilities.
39
40

41 *"...Then again, you find some doctors that are not keen when you have labor pains instead of them taking*
42 *care of you. They just tell you to walk around. They need to treat us the same way we would be treated in*
43 *private hospitals because you know in private hospitals, they treat you well because of the money you*
44 *pay. But we would like to see the same services in public because you people are better than private...."*
45
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47
48

49 **The public medical workers Strike in 2017.**

50 A few months into the start of this study (in 2017), there was a public medical workers' strike that lasted
51 for 100 days. This strike greatly impacted the ability of the health system to provide public delivery services.
52 Some women described been referred to their relatives to alternative private health facilities as detailed
53 below
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3 *"...I knew before, and I went there for my clinic when I was about two months. During the third month,*
4 *because I had a problem, I had to go to a public hospital in phase I where I had to go for a scan, which lied*
5 *to me that I was ten months, and it was 11 months because I was counting days. They referred me to Public*
6 *Maternity A, but when I got there, the people there were rude, just shouting at everyone and telling people*
7 *to go back home because there was no space, and the doctors were on strike. I was in so much pain, so I*
8 *just left there and came back home and told my mother that I had decided just to go and deliver at Private*
9 *health facility A..."*
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16

17 *"...I went to Major maternity hospital B, but I found that the nurses were on strike, so I had a relative who*
18 *had given birth at Health facility C before, and their services were good, so they referred us there. So, when*
19 *I went, I found that there was this initiative, and I also got lucky..."*
20
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24 **Recommendations by women for better quality care at health facilities**

25
26 We asked the women to provide key recommendations for improving the health system (both public and
27 private). The most mentioned item was the need for healthcare workers to show empathy towards women,
28 especially during labor. They also said that healthcare workers needed to improve their communications
29 and have "Polite language." Secondly, almost all women asked for clean health facilities as well as uphold
30 basic standards of care such as warm blankets post-delivery, tea, hot showers, and regular provision of
31 meals. Thirdly they asked that health facilities organize for timely admissions. They pleaded with
32 healthcare workers to reconsider, making women wait under challenging positions such as labor pains.
33 Lastly, they asked for the health workers to reduce the focus on the payments (at private health facilities)
34 and (procedures at public health facilities) and focus primarily on safeguarding the well-being of the
35 babies and mother.
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42 **DISCUSSION**

43
44 We report on a qualitative study aimed at understanding informal settlements women's delivery
45 experiences, their perceptions of quality of care, and how they influence their choice of a delivery health
46 facility. We compared women who chose to deliver at private health facilities to those who delivered at
47 public health facilities. We found out that the women in this informal settlement reported more facilitators
48 for delivery at private health facilities, suggesting a more favorable user experience, relative to the
49 numerous barriers raised for delivery at public health facilities. We used the WHO framework on improving
50 quality care for maternal and newborns in a health facility to assess our findings. (21)
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Facilitators and barriers to delivery at private health facilities

Women described private health facilities as providers of high-quality services (both clinical and non-clinical). They described healthcare workers at these health facilities as treating women well. The women used terms such as “respectful,” “caring,” and “kind” to describe the healthcare workers at the private health facilities. This finding has been described before in literature confirming that women have a preference for private health facilities because they are responsive to their socio-cultural and economic sensitivities. (17) When asked about the high-quality services at private health facilities, the women suggested that the health workers in the for-profit health facilities were competent because of their for-profit status. These perceptions led them to experience a level of competence that encouraged them to continue choosing private health facilities over public health facilities. Competent systems where high-quality delivery care is provided has been described by the Lancet report on quality health systems in the era of sustainable development goals.(22) Another plausible explanation for the women’s perception that private health facilities in this area provided high quality care is the presence of low volume of deliveries. Hence the attentiveness and responsiveness that they described above during delivery at the private health facilities it is possible that the quality of care received was a function of staff having to serve fewer women and pay more attention to them. Evidence from studies including other sub-Saharan countries have found that health facilities that have low volumes of deliveries have been associated with higher quality of care. (23)

Another theme that was brought up by the women was financial access to care, with the national policy of free maternity services recently introduced in 2013 influencing choices. (7) This policy abolished all user-fees for delivery services at public health facilities and at selected gazetted private health facilities for women with health insurance. This subsequently allowed the women to access care at private health facilities that they would have otherwise foregone because of the delivery fees. As a result of this policy, there was an overall increase in the number of women in the informal settlement accessing skilled birth attendance. A similar increase in women accessing skilled birth attendance has previously been reported in urban settings in Kenya and in 10 sub-Saharan African countries that removed their user-fees. (8),(24)

A third facilitator to private health facilities was the condition of the physical amenities at private health facilities. This was primarily centered on the conditions such as health facility cleanliness in the labor and delivery wards and other service provision elements such as the provision of hot water for bathing and good food during meal times. These basic amenities have been previously identified by similar studies set in informal settlements in Nairobi as lacking for women during the delivery. (25) This is despite the fact that standards identified for the Kenya Quality model of care for health facilities in Kenya explicitly identify

1
2
3 a clean work environment as a key standard. (26) Such low-cost, basic amenities such as having a clean
4 ward and delivery rooms need to be put by health facilities in place to ensure women's satisfaction with the
5 delivery experience.
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10 In terms of barriers to delivery at private health facilities, the women spoke of a few low-cost
11 private health facilities as providers of poor-quality clinical services and lacking specialist Doctors to
12 perform surgeries. This consequently led women to perceptions of low-quality care and acted as barriers to
13 the choice of a private health facility. Previous studies in informal settlements have identified such facilities
14 and labeled them "inappropriate" in terms of staffing, equipment, and drugs, posing a barrier to high-quality
15 delivery service in informal settlements. (15)
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19
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21 Some women in this setting also mentioned the physical amenities at low-cost private health
22 facilities that directly influenced the state of referrals to public health facilities as a significant barrier. They
23 provided experiences of obstetric emergencies situations that necessitated referral and stated that the only
24 referral facilities that could handle emergencies were public hospitals. They noted that the private health
25 facilities lacked sufficient specialized equipment to deal with obstetric complications hence putting private
26 health facilities at a disadvantage. They also described an ineffective referral process, characterized by
27 communications and transportation challenges. Previous studies assessing the state of obstetric care in
28 slums have identified private health facilities within slums been inadequately equipped and are unable to
29 handle emergencies well. (17)
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36 **Facilitators and Barriers to delivery at public health facilities**

37

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40 The key theme that arose that aided their choice of public health facilities was the presence of physical
41 amenities at the major maternity hospitals. This was explicitly attributed to the presence of a functioning
42 theater and resuscitation equipment for newborns, which bestowed them an ability to handle obstetric
43 complications. This has subsequently led to women choosing public health facilities over private health
44 facilities. This finding should be taken with caution, though, recent studies in Kenya have described the
45 availability of emergency equipment might not necessarily lead to quality delivery at some health facilities.
46 (27) This might be due to the functionality of the equipment, and the provision of life-saving services might
47 depend on other factors such as staffing. The second facilitator was the process of early screening for
48 complications during antenatal care services that allowed women referred for delivery at maternity with
49 specialized staff. They mentioned that this allowed them to choose higher-level maternities that could
50 handle complications.
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5 Most of the barriers to delivery at public health facilities were related to the perceived poor quality
6 of care at public health facilities. Women described unnecessary cesarean sections because of the
7 availability of the equipment. They described situations where no consent was obtained regarding the
8 procedures and over-medicalization of the process of childbirth, a finding that has been described in several
9 contexts in a systematic review. (28) A few women described having been attended to by trainee Doctors,
10 particularly at tertiary teaching institutions, a situation that exacerbated the already low quality of care
11 described. Safety concerns such as theft of newborns at tertiary health facilities were described at tertiary
12 health facilities. There were concerns about incompetent systems with basic and affordable facility items
13 such as cleanliness in the facility, hot water for showering, curtains for privacy and food after delivery we're
14 missing elements of a competent health system. These standards of care demonstrate experiences of care
15 that are contrary to WHO standards for a high-quality health system that recommends the health system
16 should have components such as safety effectiveness, equity. (21)
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25 We described the theme of financial access, primarily concerning the new free maternity service
26 that was aimed at increasing access to maternity services. Women described the implementation of free
27 maternity as been flawed. They shared experiences suggesting that the policy only covered 24-hour vaginal
28 births and not providing for possible post-birth complications at the health facilities. They also described
29 overcrowding and poor-quality service. This led to the belief that because the maternity service was free,
30 the health workers were unconcerned with their well-being and that of their babies. The childbirth
31 experience subsequently led to a trade-off between the costs of childbirth and concerns of their well-being
32 and that of their babies. Even women who didn't have insurance such as the NHIF, were willing to make
33 out-of-pocket payments to ensure that they received the caliber of quality of care they deemed highly
34 effective and safe. Diverse implementation challenges have been described regarding the free maternity
35 in different settings within Kenya. (11),(12) This calls for improved implementation of guidelines that can
36 assist with enforcing standards for quality care for the free maternity service.
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46 Process indicators of quality of care were identified with mistreatment of women by healthcare
47 identified by most of the women who delivered at public health facilities. This finding is supported by
48 qualitative research in several contexts in Kenya that confirm that mistreatment during facility-based care
49 in Kenya is a growing problem.(29),(30),(31)Some studies have measured, and found a prevalence of 20%
50 for physical abuse (32). This mistreatment implied that women would choose their subsequent delivery at
51 a private health facility where they would hope for better quality of care. In order to better understand
52 mistreatment, recent studies aimed at measuring mistreatment during delivery across four countries has
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3 improved understanding of mistreatment. This study confirmed that physical and verbal abuse peaked 30
4 minutes before birth and 15 minutes after birth. (33) These observations have provided vital information
5 for policy makers to suggest strategies of reducing mistreatment. Other Kenyan studies have suggested
6 strategies such as health provider empathy, particularly in informal settlements. (30) Global calls have now
7 been put forward for accountability for mistreatment by health systems.(34), (35)
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13 Lastly, the 2017 medical workers strike that lasted 100 days resulted in women switching from
14 public health facilities to seek delivery services at private health services. Recent evidence investigating
15 the impact of medical strikes suggests that they can lead to a crippling of healthcare delivery in the public
16 sector.(36) Hence the private sector that absorbs the capacity needs to be competent and capable of
17 providing the necessary services to avert the potential morbidity and mortality that comes with a medical
18 worker strike.
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22 Evidence shows that women are unable to accurately assess technical aspects of quality care. (37)
23 Perceptions of quality care such as dignified and respectful treatment may or may not lead to improved
24 outcomes if there is a lack of technical quality care. Studies assessing the quality of services across five
25 African countries suggests that primary health facilities with low patient volumes often exhibit low
26 quality of services because of their inability to deal with obstetric emergencies. (23) This is congruent with
27 our findings. Women reported that private health facilities with good processes of care were often unable
28 to provide emergency obstetric care and referral services. Choosing a private health facility would result
29 in an emergent transfer to the public health facilities in the event of an obstetric emergency during
30 delivery, something women wanted to avoid.
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38 **Study limitations and areas for future research**

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41 Our main weakness was in not interviewing women who delivered at home or with the help of a traditional
42 birth attendant. We however strengthened our study by having focus group discussions with women who
43 delivered at a range of health facilities, including private facilities (both profit and not-for-profit), including
44 low-cost private facilities. We also interviewed at both levels (primary and tertiary) of public health
45 facilities; to get a wide range of experiences from women. Areas for future research include interviewing
46 women who had a delivery at a health facility and had a subsequent delivery at home. Additionally, women
47 who switched between private and public health facilities and why they changed their facility preference
48 would provide insights on attributes of a health facility that women find important in making their choice
49 of place of delivery.
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Conclusion

Understanding why women choose certain types of delivery health facilities in informal settlements is important. It can help contribute policy recommendations that address inequalities in quality of care at health facilities and provide useful toward the implementation of the free maternity service policy.

Women's experiences at health facilities inform their perceptions and eventually preferences for the standards of maternity service they expect. Identification of patient-centered aspects of quality of care at health facilities will be critical to improve maternal health outcomes and reduce maternal mortality in informal settings in the long term.

For peer review only

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Author Contributions.

JOA conceived and designed the study, contributed to the data collection, MA participated in the data analysis. JOA drafted the manuscript. JOA and MA provided interpretation for the findings. GK and FW revised the transcript for clarity. All authors read and approved the final version of the transcript.

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Competing interests JOA, GK, FW and MA have no competing interests to declare

Patient Consent for publication not required.

Ethics approval. The study was approved by the AMREF ESRC IRB REF No. P388/ 2017 and National Council for Science and Technology and Innovation (NACOSTI) permit No P/17/34367/2013.

Data Availability statement. De-identified data are available upon reasonable request to the corresponding author

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Appendix 1 table 1. Study sites operational characteristics and common features

Demographic features	Health facility 1	Health facility 2	Health facility 3	Health facility 4	Health facility 5	Health facility 6
Type of health facility	Private	Private	Private	Public	Public	low-cost private
Owned and managed	Faith based	Private	Private	Government	Government	Private
Level of care	Secondary	Primary	Secondary	Secondary	Primary	Primary
Designation	Peri-Urban	Peri-Urban	Peri-Urban	Urban	Peri-Urban	Peri-Urban
Volume of deliveries	>500	<500	>1000	>5000	<500	<500
Service departments	Maternity, OPD, PMTCT, HIV/AIDS counselling, ANC, PNC, CWC, CHU, Full Lab, Theatre able to perform C-sections 24/7, Sick Newborn Care Unit, Inpatient Wards	Maternity, OPD, PMTCT, ANC, PNC, CWC, Family Planning, CHU, HIV/AIDS counselling, Basic Lab, Inpatient Wards	Maternity, OPD, PMTCT, ANC, PNC, CWC, Family Planning, CHU, Basic Lab, Inpatient Wards, HIV/AIDS counselling, performs C-sections	Maternity, OPD, PMTCT, ANC, PNC, CWC, Family Planning, CHU, CCC, Full Lab, Theatre able to perform C-sections 24/7, Sick Newborn Care Unit, Inpatient Wards, HIV/AIDS counselling	Maternity, OPD, PMTCT, ANC, PNC, CWC, Family Planning, CHU, Basic Lab, HIV/AIDS counselling	Maternity, PMTCT, OPD, ANC, PNC, Family Planning, CHU, Basic Lab, Inpatient Wards, HIV/AIDS counselling, Sick Newborn Care Unit
Professional staff	Doctor, nurses, clinical officer	Nurse	Doctors, nurses, clinical officers	Doctor, clinical officer, nurses	Nurse	Nurse
Electricity	Available	Available	Available	Available	Available	Available
Water	Available	Available	Available	Available	Available	Available
Hours of operation	24 Hours	24 Hours	24 Hours	24 Hours	8am-4pm	24 Hours
Legend:						
* All secondary health facilities have caesarean section capacity						
OPD - Outpatient Department						
PMTCT - Preventative Mother to Child Transmission						
ANC - Antenatal Care						
PNC - Postnatal Care						
CWC - Child Welfare Clinic						
CCC - Comprehensive Care Center for HIV						
CHU - Community Health Unit						

APPENDIX 2: FGD GUIDE

Exploring attributes of women's preferences for place of delivery in Embakasi-North sub-County.

Purpose of FGD

The purpose of this Focus Group Discussion is to try and understand where women residing within *Embakasi-North* deliver their babies and why they prefer these specific facilities. The study intends to specifically elucidate the following;

- 1) What women's preferences are with regard to place of delivery
- 2) Why they choose certain places or health facilities over the other
- 3) To determine attributes of the health system that they deem important
- 4) To determine possible attribute levels of the attributes identified

Logistical arrangements

I would like to go over a few logistical arrangements before we begin the interview: Thank you for joining me today. My name is Jackline Aridi and I am a PhD student registered at Strathmore University at the Institute of Healthcare Management at the Strathmore Business School in Nairobi. The interview will last approximately 30- 45 minutes. I have obtained Ethical clearance to conduct this research from Strathmore University's Institutional Review Board (IRB) and permission to conduct research within Nairobi and Nakuru County from the National Science and Technology Research Institute (NACOSTI)

Everything we discuss during this interview will be kept in strict confidence and your real name will not appear in any of our results. As such, please make every effort to be open and honest when responding to the questions. I will provide you with a consent form which you will read and sign if you find it agreeable with you. For data capture purposes, this interview will be recorded using a mobile phone device. Start tape recording if consent is granted: (Facilitator to switch recorder on)

FGD Discussion Questions

The questions fall into five key categories: Follow the guide below to lead the focus group discussion on the 5 key themes.

Key questions	Probes
1. Birthing Experience -What are the things that make for a good birthing experience?	Describe your dream birthing experience. Who needs to be present? What needs to be present? What are your worries or concerns? Are there cultural traditions that need to be followed judiciously? What makes you feel safe during the process? What would absolutely make it a bad experience?
2. Place of delivery -How did you and your family decide where to deliver?	What are the options for places to deliver? Who were involved in the decision making process as to where to deliver?

	<p>Are you usually involved in deciding where to deliver? If so, what did you have to consider in making that decision? (cost, distance, risks, benefits)</p> <p>What makes the delivery place a good or bad experience? Were you treated nicely and with respect? Give examples.</p>
<p>3. Recommendation to friends- What would you tell your friends about where they should deliver and why?</p>	<p>Is it culturally appropriate to share your experiences with your friends?</p> <p>Does your opinion have an impact on where your pregnant friend delivers her baby?</p> <p>Does the Chief/leaders in your community recommend/suggest that you deliver at certain places?</p> <p>If you hear something negative about a place to deliver, does it affect where you choose to deliver?</p>
<p>4. Family Involvement -How did your family show support for you during pregnancy and delivery?</p>	<p>Is your husband and extended family usually involved in the birthing experience?</p> <p>Which family members are actively involved in delivery?</p> <p>What roles do they play in the delivery process?</p>
<p>5. Newborn Care -What are the things you believe make for the best environment for the newborn immediately after delivery?</p>	<p>What are the traditional customs on how to handle and care for newborns?</p> <p>Does anyone help you care for the newborn? What makes them qualifies to do so?</p> <p>What do you believe is the best way to feed your newborn? And the timeline to starting solid foods?</p> <p>How do you keep your newborn warm?</p> <p>Do siblings play a role in taking care of newborns? If so, as soon as when? And how?</p>

Deriving Attribute Levels

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3 Having delivered in health facilities and hospitals within Embakasi-North or Naivasha. Can you please
4 speak on what you thought was the most important factors in selection of the facility where you choose to
5 deliver. If I were to ask you to rank the list below, which of these factors did you think were most
6 important in the selection of the health facility?
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9 (Rank: Very important, somewhat Important, Not important)

- 10 a. Cost of the health facility
11 b. Availability of drugs
12 c. Distance of the health facility
13 d. Health provider attitude
14 e. Quality of care (cleanliness etc.)
15 f. Whether or not abuse and disrespect occurs during the delivery
16 g. Time spent waiting for service
17 h. Cost of transportation
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Reporting checklist for qualitative study.

Based on the SRQR guidelines.

Instructions to authors

Complete this checklist by entering the page numbers from your manuscript where readers will find each of the items listed below.

Your article may not currently address all the items on the checklist. Please modify your text to include the missing information. If you are certain that an item does not apply, please write "n/a" and provide a short explanation.

Upload your completed checklist as an extra file when you submit to a journal.

In your methods section, say that you used the SRQR reporting guidelines, and cite them as:

O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Med.* 2014;89(9):1245-1251.

	Reporting Item	Page Number
Title		
	#1 Concise description of the nature and topic of the study identifying the study as qualitative or indicating the approach (e.g. ethnography, grounded theory) or data collection methods (e.g. interview, focus group) is recommended	4
Abstract		
	#2 Summary of the key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results and conclusions	2
Introduction		
Problem formulation	#3 Description and significance of the problem / phenomenon studied: review of relevant theory and empirical work; problem statement	3

1	Purpose or research	#4	Purpose of the study and specific objectives or	4
2	question		questions	
3				
4	Methods			
5				
6				
7	Qualitative approach and	#5	Qualitative approach (e.g. ethnography, grounded	4
8	research paradigm		theory, case study, phenomenology, narrative	
9			research) and guiding theory if appropriate; identifying	
10			the research paradigm (e.g. postpositivist,	
11			constructivist / interpretivist) is also recommended;	
12			rationale. The rationale should briefly discuss the	
13			justification for choosing that theory, approach,	
14			method or technique rather than other options	
15			available; the assumptions and limitations implicit in	
16			those choices and how those choices influence study	
17			conclusions and transferability. As appropriate the	
18			rationale for several items might be discussed	
19			together.	
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26				
27	Researcher	#6	Researchers' characteristics that may influence the	5
28	characteristics and		research, including personal attributes, qualifications /	
29	reflexivity		experience, relationship with participants,	
30			assumptions and / or presuppositions; potential or	
31			actual interaction between researchers'	
32			characteristics and the research questions, approach,	
33			methods, results and / or transferability	
34				
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39	Context	#7	Setting / site and salient contextual factors; rationale	4
40				
41	Sampling strategy	#8	How and why research participants, documents, or	5
42			events were selected; criteria for deciding when no	
43			further sampling was necessary (e.g. sampling	
44			saturation); rationale	
45				
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48	Ethical issues pertaining	#9	Documentation of approval by an appropriate ethics	5
49	to human subjects		review board and participant consent, or explanation	
50			for lack thereof; other confidentiality and data security	
51			issues	
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55	Data collection methods	#10	Types of data collected; details of data collection	5
56			procedures including (as appropriate) start and stop	
57			dates of data collection and analysis, iterative	
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1		process, triangulation of sources / methods, and	
2		modification of procedures in response to evolving	
3		study findings; rationale	
4			
5	Data collection	#11 Description of instruments (e.g. interview guides,	5
6	instruments and	questionnaires) and devices (e.g. audio recorders)	
7	technologies	used for data collection; if / how the instruments(s)	
8		changed over the course of the study	
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12	Units of study	#12 Number and relevant characteristics of participants,	6
13		documents, or events included in the study; level of	
14		participation (could be reported in results)	
15			
16			
17	Data processing	#13 Methods for processing data prior to and during	5
18		analysis, including transcription, data entry, data	
19		management and security, verification of data	
20		integrity, data coding, and anonymisation /	
21		deidentification of excerpts	
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25			
26	Data analysis	#14 Process by which inferences, themes, etc. were	5
27		identified and developed, including the researchers	
28		involved in data analysis; usually references a specific	
29		paradigm or approach; rationale	
30			
31			
32			
33	Techniques to enhance	#15 Techniques to enhance trustworthiness and credibility	5
34	trustworthiness	of data analysis (e.g. member checking, audit trail,	
35		triangulation); rationale	
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37			
38	Results/findings		
39			
40	Syntheses and	#16 Main findings (e.g. interpretations, inferences, and	6
41	interpretation	themes); might include development of a theory or	
42		model, or integration with prior research or theory	
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45			
46	Links to empirical data	#17 Evidence (e.g. quotes, field notes, text excerpts,	8
47		photographs) to substantiate analytic findings	
48			
49			
50	Discussion		
51			
52	Intergration with prior	#18 Short summary of main findings; explanation of how	19
53	work, implications,	findings and conclusions connect to, support,	
54	transferability and	elaborate on, or challenge conclusions of earlier	
55	contribution(s) to the field	scholarship; discussion of scope of application /	
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generalizability; identification of unique contributions(s) to scholarship in a discipline or field

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4	Limitations	#19	Trustworthiness and limitations of findings 22
5			
6	Other		
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9	Conflicts of interest	#20	Potential sources of influence of perceived influence 22
10			on study conduct and conclusions; how these were
11			managed
12			
13			
14	Funding	#21	Sources of funding and other support; role of funders 22
15			in data collection, interpretation and reporting
16			
17			

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BMJ Open

“We just look at the well-being of the baby and not the money required”: A qualitative study exploring experiences of quality of maternity care amongst women in Nairobi’s informal settlements in Kenya.

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3 **“We just look at the well-being of the baby and not the money required”: A**
4 **qualitative study exploring experiences of quality of maternity care amongst**
5 **women in Nairobi’s informal settlements in Kenya.**
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Abstract

Objective To examine how women living in an informal settlement in Nairobi perceive the quality of maternity care and how it influences their choice of a delivery health facility.

Design Qualitative study.

Settings Dandora, an informal settlement, Nairobi City in Kenya.

Participants Six focus group discussions with 40 purposively selected women aged 18 to 49 years at six health facilities.

Results Four broad themes were identified: 1) perceived quality of the delivery services, 2) financial access to delivery service, 3) physical amenities at the health facility, and 4) the 2017 health workers strike.

The four facilitators that influenced women to choose a private health facility were: 1) interpersonal treatment at health facilities, 2) perceived quality of clinical services, 3) financial access to health services at the facility and 4) the physical amenities at the health facility. The three barriers to choosing a private facility were: 1) poor quality clinical services at low-cost health facilities, 2) shortage of specialist doctors and 3) referral to public health facilities during emergencies.

The facilitators that influenced women to choose a public facility were 1) physical amenities for dealing with obstetric emergencies and 2) early referral to public maternity during antenatal care (ANC) services. Barriers to the choosing a public facility were 1) perception of poor-quality clinical services 2) concerns over security for newborns at tertiary health facilities 3) fear of mistreatment during delivery 4) use of unsupervised trainee doctors for deliveries and 5) poor quality of physical amenities and 6) inadequate staffing.

Conclusion The study provides insights into decision making processes for women when choosing a delivery facility by identifying critical attributes that they value and how perceptions of quality influence their choices.

Article summary

Strengths and limitations of the study

The study employed focus group discussions with women to understand a complex contextual issue through their lived experiences.

The women recruited into the study were purposively selected, and data collection conducted until saturation of themes.

Data was collected from a variety of health facilities ranging from private, both for-profit low cost and not-for-profit (faith-based health facilities) to public health facilities (both at health center level and secondary maternities)

The data quality was assured by having enumerators trained in qualitative research methods. Data was collected data from private locations at the health facilities to ensure privacy and confidentiality.

The main limitation was the inability to recruit women who had delivered at home with the help of traditional birth attendants. The views from these women would have provided unique insights regarding their choices for a place of delivery.

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3 **Key words:** Women's Experiences, Quality of Maternity Care, Informal settlements, Kenya.
4

5 **Background**

6
7 Far too many women die while trying to give birth, and 66% of all maternal deaths globally occur in sub-
8 Saharan Africa (1). The maternal mortality ratio in sub-Saharan Africa is estimated to be 546 deaths per
9 100 000 live births (2). Most deaths occur during the immediate time of delivery and are preventable.
10 According to the WHO, skilled birth attendance and high-quality obstetric care at a health facility are the
11 two most effective ways of reducing maternal mortality (2-4).
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15 Kenya's current maternal mortality ratio is estimated to be roughly 342 for every 100,000 live
16 births, a figure that remains unacceptably high (5). Previous evidence evaluating the factors influencing
17 choice of a place of delivery identified distance to a facility or lack of transport as the predominant reason
18 for delivering outside a health facility. Women in Kenya also identified other factors such as deeming the
19 delivery services unnecessary (20.5%), abrupt delivery (18.5%) and cost (11%) as barriers towards facility-
20 based delivery (6). To reduce the high maternal mortality, national policies have been put in place to
21 substantively address the significant barriers of cost and distance to accessing skilled delivery care. In June
22 2013, the Kenyan Government introduced the free maternity services (FMS) policy that eliminated user
23 fees for delivery services at all public health facilities (7). Additionally, selected private health facilities
24 with National Health Insurance Fund (NHIF) accreditation would provide free maternity services against a
25 voucher dubbed *Linda Mama*. This policy directly addressed the cost barrier and resulted in a sudden and
26 substantial increase in women utilizing health facilities for delivery, particularly in urban areas (8).
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35 The corresponding barrier of geographic access to a facility has been addressed with an overall
36 increase in the total number of public and private health facilities in Kenya. The majority of Kenyan women
37 now live within 5km of a health facility. (5) However, in cities like Nairobi, a significant proportion of
38 women (88.7%) deliver at a health facility, suggesting that addressing cost and distance may not be
39 sufficient to deter the rising maternal mortality (5). Studies have shown that the women in informal
40 settlements in Nairobi face higher mortality rates, with one study estimating 700 deaths for every 100,000
41 live births (9).
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47 The introduction of the free maternity services policy is reported to have some unintended
48 consequences, including a reduction in the quality of services delivered (10). Implementation challenges
49 included stock out of essential drugs, absence of ambulances for emergency obstetric referrals and delayed
50 reimbursement of the health facilities by the Government (10-12). Sadly, the free maternity policy has not
51 demonstrated significant reductions in maternal mortality (13). These challenges are likely to be further
52 exacerbated by trends of rapid urbanization in Kenya particularly in informal settlements.
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3 Studies assessing access to facility based-delivery in informal settlements have mostly focused on
4 maternal health utilization trends, and women's experiences with obstetric emergencies (14-16). Few
5 studies examine what women perceive as quality, with regard to delivery services (15),(17). Some studies
6 discovered that women who valued low-cost unregulated facilities did so because of their responsiveness
7 to the women's socio-cultural sensitivities (17). What is less understood is how a women's lived experiences
8 and perceptions of quality of delivery care services influence their facility choices. Women in informal
9 settlements have choices, they actively choose to deliver in a facility that they perceive as having better
10 quality of delivery services. We sought to explore women's past experiences and perceptions of quality of
11 care and how these influence their choice of a delivery facility. These findings can offer insights for
12 policymakers and program managers on strategies for improving the quality of care of delivery services in
13 facilities particularly in informal settlements within urban areas.

21 **Methods**

22 **Study**

23 **Setting and sampling**

24
25 This qualitative study was part of a broader project seeking to establish women's preferences for place of
26 delivery in the informal settlements of Dandora in Embakasi-North sub-county in Nairobi City. Dandora is
27 characterized by residents who belong to the lowest wealth quintile in Kenya, with the area having
28 widespread poverty and high unemployment. Dandora is also home to the City of Nairobi's largest garbage
29 dump. The presence of the garbage dump is known to harbor criminal activity and has general insecurity.
30 The health system consists of four public primary health facilities, several low-cost private health facilities
31 and a few faith-based health facilities. The main referral health facility is a secondary hospital situated in
32 the neighboring Embakasi-West sub-County.

33 **Data collection**

34 **Study design, recruitment, and participants**

35
36 We used a phenomenological descriptive qualitative study to explore the lived experiences of women
37 during delivery service at six different health facilities. The data were collected in January 2018 by
38 trained qualitative researchers. We selected facilities that cover the spectrum of choices available to
39 women in Dandora. We identified health facilities to represent both the primary care and referral
40 maternity services both in the public and private sector. (See Appendix 1 Table 1) Women were recruited
41 from, public, and private facilities in order to represent the range of facility choices in the Dandora
42 informal settlement region. It is important to note that each type of facility catered to the local women,
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3 thus reflecting the range of cost and perceived quality options available to women in Dandora. Therefore,
4 the private facilities we utilized included both faith-based and for-profit facilities. At each facility
5 recruitment was done with the assistance of the health care worker in charge of the maternity. The women
6 were identified during child welfare clinics, which occur on specific days of the week. We targeted
7 women who had just delivered and were coming for postnatal visit which is usually 4 to 6 weeks after
8 delivery. The inclusion criteria were women aged 18 to 49 and had delivered within the informal
9 settlements. We targeted a sample size of twenty women for each type of health facility. We targeted at
10 least 20 women from public and 20 from private facilities totaling to 40 interviews. Previous studies
11 assessing similar topic have used a similar sample size (18),(19).
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18 We obtained written consent from all participants after providing information on the purpose of the
19 study potential benefits and risks. We used a semi-structured focus group discussion (FGD) guide to lead
20 the interviews and conducted the interviews in Kiswahili, a language commonly spoken by women in this
21 setting. (See Appendix 2) The FGDs were tape-recorded, transcribed, and translated into English by
22 research assistants and the first author, who is a native speaker of Kiswahili. The focus group discussions
23 were all conducted in private rooms within the health facilities to safeguard privacy. We obtained ethical
24 review from AMREF Ethics and Scientific Review Committee (ESRC). Permission to conduct the research
25 was obtained from The National Commission on Science Technology and Innovation (NACOSTI).
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31 **Data Analysis**

32
33 We started the data analysis by reading all the transcripts repeatedly to gain an in-depth understanding of
34 the transcripts. We triangulated the data using the interview transcripts and field notes to aid understanding
35 of the interviews. Two of the authors MA and JOA, coded the data. A coding scheme was developed from
36 the focus group discussion guides and using conceptual frameworks from the literature on facility-based
37 delivery. During the process of data analysis, the main author JOA met with members of the research team
38 with extensive qualitative and clinical experience (MA) to discuss the emerging codes and categories as
39 well as the interpretation of the emerging themes hence combining insights. We used a thematic analysis
40 framework by Braun and Clarke to classify identified key theme (20). We compared the themes identified
41 to the standards of quality of care contained in the WHO conceptual framework for improving the quality
42 of care for mothers and newborns (21).
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50 **Patient and public involvement**

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52 The women in this setting were consulted and participated in the design of the study instruments by
53 suggesting relevant questions to be included in the focus group discussion guide with regard to their
54 perceptions on the quality of services and choice of health facility within their setting.
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Results

We interviewed a total of 40 women, and each focus group discussion was composed of between six and eight women. Table 1 shows the sociodemographic characteristics of the respondents. Respondents were mainly on average 22 years, and 65% were multiparous with between two and three children. About 30% delivered at health facilities classified as private.

Table 1. Characteristics of women participants in the focus group discussions

Characteristics	Informal setting N (%)
Age: mean	22
Age of children	2
Parity	
Primiparous	14 (35)
Multiparous	26 (65)
Delivery facility	
Public hospital	9 (23)
Public health center	10 (25)
Mission health facility	9 (23)
Private Facility	12 (30)
Total	40

Themes identified

We identified three themes that led women to the choice of a private health facility; perceived quality of delivery care, financial access to delivery service and availability of physical amenities. We re-classified the first theme on perceived quality of delivery care into interpersonal treatment at the health facility and quality of clinical care. The second theme was financial access to delivery service, with one sub-theme; the free maternity services policy. The third theme was the availability of physical amenities at the health facility. All barriers related to the choice of a private health facility fell under the theme of perceived quality of delivery care. We identified three sub-themes; poor quality clinical services at some low-cost private health facilities, shortage of specialist doctors at some private health facilities, and referrals to public hospitals.

We identified three themes that led to the choice of public health facilities. The first theme was on perceived quality of care. Under the perceived quality of care, we identified two main sub-themes; good quality clinical services and early referral for complications during antenatal (ANC) services. The second and third

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3 theme was financial access to delivery service and availability of physical amenities at the health facility
4 respectively.
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8 We classified the barriers to choice of a public health facility identified under the themes of perceived
9 quality of care into six different sub-themes: 1) perceived poor quality clinical services 2) security of
10 newborns, 3) fear of mistreatment during delivery, 4) use of unsupervised trainee doctors, 5) poor quality
11 physical amenities and 6) understaffing at health facilities. The second theme of financial access to delivery
12 service only had one sub-theme on the free maternity policy, acting as a barrier to delivery at public health
13 facilities. The third theme of the 2017 health workers strike was identified as a theme that acted as a barrier
14 to the choice of public health facilities. For a clear illustration of the themes and sub-themes that served as
15 facilitators and barriers to access of delivery service at both private and public health facilities, see Table
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Table 2. Showing the themes and sub-themes generated from focus group discussions with women in an informal settlement in Embakasi-north.

Choice of health facility	Themes	Sub-themes	
		Facilitators	Barriers
Private health facilities	Perceived quality of care.	Good interpersonal treatment at the health facility.	Shortage of specialist Doctors.
		Good quality clinical and non-clinical services.	Poor quality clinical services.
	Financial access to health care at the facility.	Free maternity services policy.	
	Physical amenities at health facility.		Poor physical amenities at low-cost private health facilities.
Public health facilities	Perceived quality of care.	Availability of physical amenities (medical equipment for cesarean section and neonatal complications).	Poor quality clinical services.
		Early referral for delivery to public maternity during ANC.	Security of newborns.
			Mistreatment of women during delivery.
			Use of unsupervised trainees Doctors at tertiary health facilities.
			Inadequate staffing at health facilities.
	Financial access to health care.		The free maternity policy.
	Physical amenities.		Poor physical amenities at public health facilities.
	The 2017 health workers strike.		Acted as a barrier to the choice of public health facilities.

Facilitators to the choice of delivery at private health facilities

Perceived quality of delivery care at the health facility

We identified four key facilitators of delivery at private health facilities under the theme of perceptions of quality of delivery care. They are discussed below.

Good interpersonal treatment at the health facility. The women reported that one of the key facilitators for delivery at a private health facility was the good interpersonal treatment they received at private hospitals. The women described receiving good treatment by the health facility staff at private hospitals and compared it to the bad treatment at public hospitals illustrated by the quotes below;

"...They treated us well. Like me personally, that is why I go to private hospitals because I know they will treat me well there..."

(mother of two who delivered at a private facility A)

"... You know, the first thing is I have previously given birth in a public hospital, and when I went there, they would chase me, and at that time, I am almost due, and I am in so much pain. So, the suffering I went through made me decide not to go to a public hospital again. I decided to go to a private hospital because you know where you use your money so you will be treated well. And when I went to a private health facility A, I was treated well, and that is why I went there again, I have given birth to two children there."

(mother of three who delivered at a private facility A)

They went on to speak about how the private hospitals where they delivered provided accompaniment and close monitoring during labor, at the delivery itself and after the birth. At the private hospitals, the women mentioned that there is the constant presence of a Doctor. They said the Doctors stayed with them from the commencement of labor through to the delivery time. They reported that how they were treated at a health facility was a key determinant in whether they would access services at a health facility again. They mentioned that the health care providers (both nurses and Doctors) during their delivery who attended to them were "very caring," "respectful," "very welcoming," "very concerned about you," "very understanding," and "would make you feel safe." They explained that they did not feel abandoned at any one time during the delivery, especially when they are in pain, unlike in public hospitals. They describe the experience below;

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2
3 *“... They are very careful, and they attend to patients well. Then something else that makes someone*
4 *happy is immediately when you walk in how someone will speak to you would make you feel safe. They*
5 *are respectful and very welcoming, and so it makes it easy to express yourself. You can go somewhere*
6 *and how they welcome you makes you have low morale. That was one thing I saw with them, they are*
7 *welcoming, and they speak to you well. And the doctors there are very keen on what they are doing...”*

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12 *(Mother of three who delivered at a private facility D)*
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15 *“...But there are some other hospitals let's say like public, you will just be left there and last minute*
16 *when the baby is out that is when they will come. But in private hospitals, they are usually very caring...”*

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18 *(Mother of two who delivered at a private facility C)*
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21 *“...The doctor would come and check up on me to see how my baby was doing. Then after giving birth,*
22 *they would stay there with you, not just leaving you alone like how they do in public hospitals, whereby you*
23 *have to be in so much pain before you call a doctor to help you. Here, they are just there with you...”*

24
25 *(Mother of two who delivered at a private facility A)*
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29
30 **Quality of clinical and non-clinical services.** The Women described having received excellent quality
31 services and specified clinical delivery services provided by nurses and Doctors at private health facilities.
32 They subsequently recommended private health facilities to other women in their family or friends based
33 on their perceptions of the quality of services they receive during delivery, as seen in the quote below.
34
35

36
37 *“...I am her mother, but I am the one who advised her to go to Private health facility B because, but it would*
38 *be better if she was the one speaking, but I also have something to say. I have taken two women to Private*
39 *health facility B, and I had seen that the clinical service there is good and that is why I preferred to take*
40 *her to Private health facility B. Also, for her when I took her there, she can say what she thought of Private*
41 *health facility B...”*

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43 *(Mother of one who delivered at private facility B)*
44
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46

47 **Financial access to delivery services.**

48
49 **The Free maternity Services policy.** Some women were informed by their friends and relatives that there
50 were vouchers for a free maternity service from the Government, including private health facilities. This
51 voucher program called *Linda mama* allowed them to start attending antenatal health services at the health
52 facility to have their subsequent deliveries at the same health facility as illustrated by the quote below;
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5 *"...First, there is a friend of mine who will live in the same plot, and she was pregnant. She went to Private*
6 *health facility B. I don't even know who told her to go to Private health facility B, but when she went there,*
7 *she said to me that a Private health facility was giving out vouchers for giving birth I think 'Linda Mama.'*
8 *So, she told me to start attending my clinic there, but before I was attending a clinic at Mission health*
9 *facility A. So, I left here ..."*

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13 *(Mother of two who delivered at private facility B)*
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16 Women who had health insurance through the national scheme, The National Health Insurance Fund
17 (NHIF) used their cards to access care at private hospitals that were accredited by the Government, and this
18 determined if the women could deliver at a private health facility. They saw this as an opportunity to opt-
19 out of care at public health facilities that they would have otherwise had used. This resulted in making
20 access to maternity services affordable to them as seen in the quotes below;
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22
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26 *"...again, I saw that they accept NHIF card, we had asked before, and they told us they do and you know*
27 *that is something that is mostly with private hospitals but here they take it. So, we saw that I did not have*
28 *to struggle to go to National Referral hospital A or Maternity hospital B because they would take the card*
29 *here, and that is what I used..."*

30
31
32 *(Mother of three delivered at private facility C)*
33

34 **Physical amenities at the health facility**

35 **Health facility cleanliness.** Women in this setting described the most important amenity to them as facility
36 cleanliness. This experience was universal across all focus groups, and there was a mutual agreement that
37 the private health facilities that they attended had clean health facilities in comparison to the public health
38 facilities in the area. They described wanting to deliver in a generally clean health facility. They described
39 wanting clean beds where the beddings were replaced after every delivery as well as cleaning of toilets and
40 bathrooms regularly.
41
42
43
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45
46 *"...Even the bed. Like if you sleep here today, tomorrow they will change the sheets..."*

47
48 *(Mother of one who delivered at a private facility A)*
49
50

51 *"...A hospital needs to be clean. Because there are some other hospitals that you go to, you can find the*
52 *toilet is slippery, it is dirty, and then again, you are not treated well, and that is why we also prefer private*
53 *hospitals because they are clean...."*
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(Mother of two who delivered at a private facility B)

Availability of hot water and good food. The women also spoke extensively about the need to provide items such as hot water for showering after the delivery, occasional tea, and good food. The women repeatedly mentioned these items as essential elements to what was perceived by women as constituting excellent service during delivery seen in the quote below;

"...But treating people, giving people water to bathe we were even given hot water, tea, I can say their services are okay..."

(Mother of one who delivered at a private facility B)

Barriers to the choice of private health facilities

We identified three key barriers to delivery at private health facilities. First, women reported experiences that reflected the fact that low cost private health facilities provided poor quality delivery care. Secondly, the shortage of specialist clinicians at private health facilities and thirdly the referral of women with complications during obstetric emergencies to the public health system. We discuss them in detail below;

Perceived quality of care at health facilities

Poor quality clinical services at low-cost private health facilities. Some women described poor quality care at some of the low-cost private health facilities within the setting where some women reported injuries on newborns during delivery. One woman described a bad experience of a woman who switched her delivery decision from a low-cost private health facility to one with a slightly higher cost. She went on to say this experience made her distrust private health facilities and the bad experiences generally discouraged her from delivering at private health facilities as seen in the narration below;

"...I have a friend; I had not started going for the clinic when I was five months, and she went somewhere, I do not want to mention the name of that hospital, but it is within Dandora. She went there, and I had gone for one clinic check up there. She went to deliver there, and her baby was 4.1kg when she was giving birth, the doctors pulled the baby, and now the mother has a problem with her leg, she stayed for two months without walking. When I saw that, I told myself I could not go and deliver there because they did not give her a tear; instead, they just pulled the baby even though the baby is big. So that scared me, and that is why I decided to come to Health facility B ..."

(Mother of three who delivered at public health facility A)

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5 **Shortages of specialist doctors.** Women described a situation where some of the private health facilities
6 lacked specialist Doctors who had surgical skills and who could provide cesarean section surgeries in the
7 event of an obstetric emergencies. They described a situation where they had to wait and, in the process,
8 risk their lives, and in some cases, they needed to pay upfront for the Doctor to come to the private health
9 facilities.
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14 *"...They need to have all types of Doctors, even the ones for CS. Like you see, when I went to this health*
15 *facility. I really waited because they were hiring doctors for cash, you have to send them money so that*
16 *they can come. Without sending them money, they will not come. So, they need to have all the doctors*
17 *present, even the ones for CS, so that in case of an emergency, you do not have to wait..."*
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21

22 *(Mother of two who delivered at public Health*
23 *Centre C)*
24
25

26 **Referral to public health facilities during obstetric complications**

27 Some women described poor amenities at some of the low-cost private health facilities situated within the
28 informal settlement. They reported that the health facilities lacked essential amenities such as theatres for
29 cesarean sections, and equipment for neonatal resuscitation. Therefore in the event of an obstetric
30 emergency, women who went to deliver at private hospitals described that they were referred back to the
31 public maternities that they were trying to avoid in the first place because almost all referral health facility
32 including for all private health facilities in the area was the public referral health facility. The two quotes
33 below illustrate the referral circumstances described.
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40 *"...Let's say like for me, I went to public health facility A, they told me that I could not give birth even*
41 *there, they just referred me to big hospitals like Major Maternity A and B, but when I went there, they*
42 *were on strike. They are the ones who also told me with the first child I cannot deliver in a private*
43 *hospital..."*
44
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47 *(Mother of one who delivered at public health facility D)*
48

49 *"...Then again, I can add when I went to deliver at Private hospital A, there was a complication when I*
50 *went for my CS. I wanted a qualified doctor because you never know what will happen. Then again, I was*
51 *given a referral to the main national referral hospital, and that is where they attended to me. But at the*
52 *national referral hospital, there was also a lot of complications.*
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56 *(Mother of two who delivered at a private facility C)*
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Facilitators to the choice of public health facilities

The women spoke of two main facilitators to delivering at a public health facility; the physical amenities in the form of the availability of medical equipment for cesarean section during an obstetric emergency and referral during antenatal care services to delivery at higher level tertiary health facilities.

Availability of physical amenities

Medical equipment for cesarean sections. Women described public hospitals as having all the necessary equipment, particularly for dealing with obstetric emergencies such as a theatre for a cesarean section within the same public hospital. They expressed awareness that some of the private hospitals and smaller public health facilities did not have access to cesarean section, hence in the case of an obstetric complication they would have a referral if complications arose as described below;

"...Others feel if they go to those hospitals, they have the equipment and everything else. If things go wrong with the normal delivery, they will just be taken for a cesarean section (CS) because everything is just under one environment. Because you know not all private hospitals can conduct a CS, so if a complication arises, you are told to go to a public hospital..."

(Mother of two delivered at a private facility B)

Referral for delivery to public maternity during ANC. Women described having advantages of been screened early for possible complications and then been referred for the index child during antenatal care clinics.

"...Maybe if you go to the clinic, they can tell you like with the first child that you cannot give birth in a private hospital, and you should go to public hospitals because of complications. So, you will just have to go to a public hospital like Maternity A...."

(Mother of one who delivered at private facility C)

The barriers to the choice of public health facilities

Perceived poor quality of care at public health facilities

The barriers to the choice of public health facilities were mainly related to the poor quality of care received at the health facilities. We describe six key barriers identified by the women that influenced their choice of the public health facilities; poor quality clinical care leading unnecessary cesarean sections, the security

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3 of newborns, mistreatment of women, use of unsupervised trainee Doctors, poor physical amenities, and
4 inadequate staffing. They are discussed in detail below;
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8 **Poor quality clinical care leading to unnecessary cesarean sections.** Women in this setting described
9 sharing experiences of delivery with each other, and some women advised other women that Maternity
10 hospitals in the area would subject them to unnecessary cesarean sections. This suggested a lack of use of
11 evidence-based care by health care workers as well as poor communication between healthcare workers
12 and women. Women also described lack of consent for cesarean sections within this setting, and these
13 experiences of the women (or their friends) rendered the women afraid of delivering at the public
14 maternities.
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19
20 *"...Like for me, when I had my first pregnancy, there was a lady who told me since it was my first pregnancy,*
21 *I should not go to Major Maternity A because if I go there they will just take me to the theatre and operate*
22 *on me and so I was very afraid..."*
23
24

25 *(Mother of two, who delivered at private facility B)*
26
27

28 **Security of newborns.** Women described been informed by other women based on their experiences that
29 there was a possibility that their new newborns would be stolen or exchanged if they delivered at the larger
30 public maternity hospitals. This particularly made women switch their delivery from public maternities to
31 private health facilities where they perceived the security of their newborns would be upheld as described
32 below;
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37 *"...And they also told me if I gave birth to my child, they would steal it if I went to Maternity A or Maternity*
38 *B. They told me to go to a private hospital. So, I looked around and thought of which private hospital to go*
39 *"...because you know I was new to Nairobi, and I did not know where to go. So now I was told to either go*
40 *to the new Nursing home or health facility A. I didn't even know those hospitals. I was told if I boarded a*
41 *matatu 36 (public transportation), it will take me to health facility A, so I just went to health facility A..."*
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47 *(Mother of two, who delivered at a private facility A)*
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50 **Fear of mistreatment during delivery.** There were many forms of mistreatment described by women
51 during labor and delivery at public health facilities and hospitals. The manifestations ranged from verbal
52 abuse, physical abuse to neglect, and abandonment during childbirth. Women also described discrimination
53 based on ethnicity and age. Women, particularly young women, described verbal abuse and termed nurses
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3 at the public health facilities as having 'unnecessary rudeness'. They described been yelled at and chased
4 based during labor on accusations that they had come to the health facility too early. They also described
5 the health workers using language that was 'bad' as seen in the quote below;
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7

8
9 *"...You know people say that is the best because they have all the equipment, but then you see when I went
10 there, they kept chasing me telling me I was not yet due. Others tell you to go and sit down, or you go back
11 to your place because they don't baby people there. The language they use is very bad..."*
12
13

14 *(Mother of one who delivered at a private facility C)*
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16

17 Women described experiences where they witnessed fellow women been abandoned and neglected during
18 care at public hospitals as seen below;
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21
22 *"...I just saw that it was a nice place to give birth because if you go to a place like Major maternity hospital
23 B, there was a time I had a problem. I was taken to Major Maternity hospital B, and when I went there, I
24 saw a lady who had pushed, and the baby's head was out. Still, the doctor was not even bothered; they were
25 just walking and talking, so I said I wouldn't go there. I would rather go to a private hospital than a public
26 hospital..."*
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30 *(Mother of two who delivered at a private facility D)*
31
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33 Some women described instances of physical abuse by the Doctors and nurses during labor and delivery as
34 seen in the quote below;
35

36 *"...The way you will be treated by those doctors because some of them are usually very harsh. You can find
37 when you are in labor, you need to walk around, but you find some of them become very tough with you. if
38 a complication happens, you find others even beat you..."*
39
40

41 *(Mother of two who delivered at a public facility A)*
42
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45 **Use of unsupervised trainees doctors.** Women described been referred to the tertiary hospitals and been
46 attended to by trainee Doctors. They described these trainee Doctors as been inadequately prepared to attend
47 to them and prone to error. One of the women described an experience whereby the trainee Doctor
48 interfering with her bladder during surgery and creating the need for another Doctor to be called in to repair
49 the damage done. We describe this experience in the quote below that narrates that experience;
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3 “...Then again, I can add when I went to deliver at health facility B, there was a complication when I went
4 for my CS. I wanted a qualified doctor because you never know what will happen. Then again, I was given
5 a transfer to Tertiary hospital A, and that is where they attended to me. But in Tertiary hospital A, there
6 were also a lot of complications. First, the Doctor who was a trainee interfered with my bladder, and they
7 had to put a catheter for two weeks. Second, they did it poorly, and they had to call in another doctor. You
8 see, when you go for a theatre in a public hospital, and more so if the line is long, they will take trainees to
9 attend to you, and they are not competent, so you find complications are a lot...”
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15
16 (Mother of two referred to public facility A)
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19 **Inadequate staffing.** Women described situations where there were insufficient nurses to accompany them
20 during labor and delivery at the public health maternities. They described situations where they felt
21 abandoned and were frequently forced to deliver their babies on their own. They also described long waiting
22 times for services as a result of the inadequate staff. The long waits ensued even in the event of an obstetric
23 emergency as seen in the quote below;
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27
28 “...The way they will welcome you. You see sometimes it is an emergency, so they should just take you and
29 start attending to you, but sometimes you find yourself just going there and waiting in line for so long before
30 someone comes to assist you so if you are an angry person you become mad and say you will never go back
31 there again...”
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35 (Mother of two who delivered at a private facility D)
36

37 **Financial access to delivery service.**

38 **Effects of the free maternity service policy.** This policy was also seen as a barrier to public health
39 facilities. Some women described experiences where they were treated poorly, and they perceived the bad
40 treatment because the delivery service was free. They expressed their suffering as a result of this treatment
41 and said they would rather pay for delivery and get services that safeguard their health and that of their
42 babies, as seen in the quote below.
43
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47
48 “...Like I told you, I have delivered in those hospitals offering free maternity, I did not even remove a
49 shilling, but I was not happy. When I got there, and they started chasing me, telling me that I was not due
50 yet, and I had dilated 4 cm. A doctor was examining us, and one told me to rest on the bed because I had
51 dilated 7 cm, and then another one came to chase me, telling me I am 3cm. I suffered when I went there.
52 You know sometimes it is not about the money, you can go like that, and then you are being told to go
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3 *here and there and maybe you have no one to help you. So, we just look at the well-being of the baby and*
4 *not money ... ”*

5
6 *(Mother of three who delivered at a private facility A)*
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10 Others reinforced this view that in the private hospitals, people are treated well primarily because of the
11 money you pay, and they wished they could be handled better at the public health facilities.
12

13
14 *"...Then again, you find some doctors that are not keen when you have labor pains instead of them taking*
15 *care of you. They just tell you to walk around. They need to treat us the same way we would be treated in*
16 *private hospitals because you know in private hospitals, they treat you well because of the money you*
17 *pay. But we would like to see the same services in public because you people are better than private...."*
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22 *(Mother of one who delivered at public facility B)*
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25 **The public medical workers Strike in 2017.**

26 In 2017, there was a public medical workers' strike that lasted for 100 days. This strike greatly impacted
27 the ability of the health system to provide public delivery services. Some women described been referred
28 to their relatives to alternative private health facilities.
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33 *"...I knew before, and I went there for my clinic when I was about two months. During the third month,*
34 *because I had a problem, I had to go to a public hospital in phase I where I had to go for a scan, which lied*
35 *to me that I was ten months, and it was 11 months because I was counting days. They referred me to Public*
36 *Maternity A, but when I got there, the people there were rude, just shouting at everyone and telling people*
37 *to go back home because there was no space, and the doctors were on strike. I was in so much pain, so I*
38 *just left there and came back home and told my mother that I had decided just to go and deliver at Private*
39 *health facility A..."*
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41

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44 *(Mother of one who delivered at a private facility A)*
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47 *"...I went to Major maternity hospital B, but I found that the nurses were on strike, so I had a relative who*
48 *had given birth at Health facility C before, and their services were good, so they referred us there. So, when*
49 *I went, I found that there was this initiative, and I also got lucky..."*
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52 *(Mother of one who delivered at a private facility C)*
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Recommendations by women for better quality care at health facilities

We asked the women to provide key recommendations for improving the health system (both public and private). The most mentioned item was the need for healthcare workers to show empathy towards women, especially during labor. They also said that healthcare workers needed to improve their communications and have "Polite language." Secondly, almost all women asked for clean health facilities as well as uphold basic standards of care such as warm blankets post-delivery, tea, hot showers, and regular provision of meals. Thirdly they asked that health facilities organize for timely admissions. They pleaded with healthcare workers to reconsider, making women wait under challenging positions such as labor pains. Lastly, they asked for the health workers to reduce the focus on the payments (at private health facilities) and (procedures at public health facilities) and focus primarily on safeguarding the well-being of the babies and mother.

DISCUSSION

We report on a qualitative study aimed at understanding informal settlements women's delivery experiences, their perceptions of quality of care, and how they influence their choice of a delivery health facility. We compared women who chose to deliver at private health facilities to those who delivered at public health facilities. We found out that the women in this informal settlement reported more facilitators for delivery at private health facilities, suggesting a more favorable user experience, relative to the numerous barriers raised for delivery at public health facilities. We used the WHO framework on improving quality care for maternal and newborns in a health facility to assess our findings (21).

Facilitators and barriers to delivery at private health facilities

Women described private health facilities as providers of high-quality services (both clinical and non-clinical). They described healthcare workers at these health facilities as treating women well. The women used terms such as "respectful," "caring," and "kind" to describe the healthcare workers at the private health facilities. This finding has been described before in literature confirming that women have a preference for private health facilities because they are responsive to their socio-cultural and economic sensitivities (17). When asked about the high-quality services at private health facilities, the women suggested that the health workers in the for-profit health facilities were competent because of their for-profit status. These perceptions led them to experience a level of competence that encouraged them to continue choosing private health facilities over public health facilities. Competent systems where high-quality delivery care is provided has been described by the Lancet report on quality health systems in the era of sustainable development goals (22). Another plausible explanation for the women's perception that private health

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3 facilities in this area provided high quality care is the presence of low volume of deliveries. Hence the
4 attentiveness and responsiveness that they described above during delivery at the private health facilities it
5 is possible that the quality of care received was a function of staff having to serve fewer women and pay
6 more attention to them. Evidence from studies including other sub-Saharan countries have found that health
7 facilities that have low volumes of deliveries have been associated with higher quality of care (23).
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13 Another theme that was brought up by the women was financial access to care, with the national
14 policy of free maternity services recently introduced in 2013 influencing choices (7). This policy abolished
15 all user-fees for delivery services at public health facilities and at selected gazetted private health facilities
16 for women with health insurance. This subsequently allowed the women to access care at private health
17 facilities that they would have otherwise foregone because of the delivery fees. As a result of this policy,
18 there was an overall increase in the number of women in the informal settlement accessing skilled birth
19 attendance. A similar increase in women accessing skilled birth attendance has previously been reported in
20 urban settings in Kenya and in 10 sub-Saharan African countries that removed their user-fees (8),(24).
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27 A third facilitator to private health facilities was the condition of the physical amenities at private
28 health facilities. This was primarily centered on the conditions such as health facility cleanliness in the
29 labor and delivery wards and other service provision elements such as the provision of hot water for bathing
30 and good food during meal times. These basic amenities have been previously identified by similar studies
31 set in informal settlements in Nairobi as lacking for women during the delivery (25). This is despite the fact
32 that standards identified for the Kenya Quality model of care for health facilities in Kenya explicitly identify
33 a clean work environment as a key standard (26). Such low-cost, basic amenities such as having a clean
34 ward and delivery rooms need to be put by health facilities in place to ensure women's satisfaction with the
35 delivery experience.
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43 In terms of barriers to delivery at private health facilities, the women spoke of a few low-cost
44 private health facilities as providers of poor-quality clinical services and lacking specialist Doctors to
45 perform surgeries. This consequently led women to perceptions of low-quality care and acted as barriers to
46 the choice of a private health facility. Previous studies in informal settlements have identified such facilities
47 and labeled them "inappropriate" in terms of staffing, equipment, and drugs, posing a barrier to high-quality
48 delivery service in informal settlements (15).
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54 Some women in this setting also mentioned the physical amenities at low-cost private health
55 facilities that directly influenced the state of referrals to public health facilities as a significant barrier. They
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3 provided experiences of obstetric emergencies situations that necessitated referral and stated that the only
4 referral facilities that could handle emergencies were public hospitals. They noted that the private health
5 facilities lacked sufficient specialized equipment to deal with obstetric complications hence putting private
6 health facilities at a disadvantage. They also described an ineffective referral process, characterized by
7 communications and transportation challenges. Previous studies assessing the state of obstetric care in
8 slums have identified private health facilities within slums been inadequately equipped and are unable to
9 handle emergencies well (17).
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14 15 **Facilitators and Barriers to delivery at public health facilities**

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18 The key theme that arose that aided their choice of public health facilities was the presence of physical
19 amenities at the major maternity hospitals. This was explicitly attributed to the presence of a functioning
20 theater and resuscitation equipment for newborns, which bestowed them an ability to handle obstetric
21 complications. This has subsequently led to women choosing public health facilities over private health
22 facilities. This finding should be taken with caution, though, recent studies in Kenya have described the
23 availability of emergency equipment might not necessarily lead to quality delivery at some health facilities
24 (27). This might be due to the functionality of the equipment, and the provision of life-saving services might
25 depend on other factors such as staffing. The second facilitator was the process of early screening for
26 complications during antenatal care services that allowed women referred for delivery at maternity with
27 specialized staff. They mentioned that this allowed them to choose higher-level maternities that could
28 handle complications.
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38 Most of the barriers to delivery at public health facilities were related to the perceived poor quality
39 of care at public health facilities. Women described unnecessary cesarean sections because of the
40 availability of the equipment. They described situations where no consent was obtained regarding the
41 procedures and over-medicalization of the process of childbirth, a finding that has been described in several
42 contexts in a systematic review (28). A few women described having been attended to by trainee Doctors,
43 particularly at tertiary teaching institutions, a situation that exacerbated the already low quality of care
44 described. Safety concerns such as theft of newborns at tertiary health facilities were described at tertiary
45 health facilities. There were concerns about incompetent systems with basic and affordable facility items
46 such as cleanliness in the facility, hot water for showering, curtains for privacy and food after delivery we're
47 missing elements of a competent health system. These standards of care demonstrate experiences of care
48 that are contrary to WHO standards for a high-quality health system that recommends the health system
49 should have components such as safety effectiveness, equity (21).
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5 We described the theme of financial access, primarily concerning the new free maternity service
6 that was aimed at increasing access to maternity services. Women described the implementation of free
7 maternity as been flawed. They shared experiences suggesting that the policy only covered 24-hour vaginal
8 births and not providing for possible post-birth complications at the health facilities. They also described
9 overcrowding and poor-quality service. This led to the belief that because the maternity service was free,
10 the health workers were unconcerned with their well-being and that of their babies. The childbirth
11 experience subsequently led to a trade-off between the costs of childbirth and concerns of their well-being
12 and that of their babies. Even women who didn't have insurance such as the NHIF, were willing to make
13 out-of-pocket payments to ensure that they received the caliber of quality of care they deemed highly
14 effective and safe. Diverse implementation challenges have been described regarding the free maternity
15 in different settings within Kenya (11),(12). This calls for improved implementation of guidelines that can
16 assist with enforcing standards for quality care for the free maternity service.
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25 Process indicators of quality of care were identified with mistreatment of women by healthcare
26 identified by most of the women who delivered at public health facilities. This finding is supported by
27 qualitative research in several contexts in Kenya that confirm that mistreatment during facility-based care
28 in Kenya is a growing problem (29-31)., Some studies have measured, and found a prevalence of 20% for
29 physical abuse (32). This mistreatment implied that women would choose their subsequent delivery at a
30 private health facility where they would hope for better quality of care. In order to better understand
31 mistreatment, recent studies aimed at measuring mistreatment during delivery across four countries has
32 improved understanding of mistreatment. This study confirmed that physical and verbal abuse peaked 30
33 minutes before birth and 15 minutes after birth (33). These observations have provided vital information
34 for policy makers to suggest strategies of reducing mistreatment. Other Kenyan studies have suggested
35 strategies such as health provider empathy, particularly in informal settlements. (30)Global calls have now
36 been put forward for accountability for mistreatment by health systems (34-35).
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46 Lastly, the 2017 medical workers strike that lasted 100 days resulted in women switching from
47 public health facilities to seek delivery services at private health services. Recent evidence investigating
48 the impact of medical strikes suggests that they can lead to a crippling of healthcare delivery in the public
49 sector (36). Hence the private sector that absorbs the capacity needs to be competent and capable of
50 providing the necessary services to avert the potential morbidity and mortality that comes with a medical
51 worker strike.
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3 Evidence shows that women are unable to accurately assess technical aspects of quality care (37).
4 Perceptions of quality care such as dignified and respectful treatment may or may not lead to improved
5 outcomes if there is a lack of technical quality care. Studies assessing the quality of services across five
6 African countries suggests that primary health facilities with low patient volumes often exhibit low
7 quality of services because of their inability to deal with obstetric emergencies (23). This is congruent with
8 our findings. Women reported that private health facilities with good processes of care were often unable
9 to provide emergency obstetric care and referral services. Choosing a private health facility would result
10 in an emergent transfer to the public health facilities in the event of an obstetric emergency during
11 delivery, something women wanted to avoid.
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19 **Study limitations and areas for future research**

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22 Our main weakness was in not interviewing women who delivered at home or with the help of a traditional
23 birth attendant. We however strengthened our study by having focus group discussions with women who
24 delivered at a range of health facilities, including private facilities (both profit and not-for-profit), including
25 low-cost private facilities. We also interviewed at both levels (primary and tertiary) of public health
26 facilities; to get a wide range of experiences from women. Areas for future research include interviewing
27 women who had a delivery at a health facility and had a subsequent delivery at home. Additionally, women
28 who switched between private and public health facilities and why they changed their facility preference
29 would provide insights on attributes of a health facility that women find important in making their choice
30 of place of delivery.
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38 **Conclusion**

39 Understanding why women choose certain types of delivery health facilities in informal settlements is
40 important. It can help contribute policy recommendations that address inequalities in quality of care at
41 health facilities and provide useful toward the implementation of the free maternity service policy.
42 Women's experiences at health facilities inform their perceptions and eventually preferences for the
43 standards of maternity service they expect. Identification of patient-centered aspects of quality of care at
44 health facilities will be critical to improve maternal health outcomes and reduce maternal mortality in
45 informal settings in the long term.
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Author Contributions.

JOA conceived and designed the study, contributed to the data collection, MA participated in the data analysis. JOA drafted the manuscript. JOA and MA provided interpretation for the findings. GK and FW revised the transcript for clarity. All authors read and approved the final version of the transcript.

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Patient Consent for publication not required.

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Appendix 1 table 1. Study sites operational characteristics and common features

Demographic features	Health facility 1	Health facility 2	Health facility 3	Health facility 4	Health facility 5	Health facility 6
Type of health facility	Private	Private	Private	Public	Public	low-cost private
Owned and managed	Faith based	Private	Private	Government	Government	Private
Level of care	Secondary	Primary	Secondary	Secondary	Primary	Primary
Designation	Peri-Urban	Peri-Urban	Peri-Urban	Urban	Peri-Urban	Peri-Urban
Volume of deliveries	>500	<500	>1000	>5000	<500	<500
Service departments	Maternity, OPD, PMTCT, HIV/AIDS counselling, ANC, PNC, CWC, CHU, Full Lab, Theatre able to perform C-sections 24/7, Sick Newborn Care Unit, Inpatient Wards	Maternity, OPD, PMTCT, ANC, PNC, CWC, Family Planning, CHU, HIV/AIDS counselling, Basic Lab, Inpatient Wards	Maternity, OPD, PMTCT, ANC, PNC, CWC, Family Planning, CHU, Basic Lab, Inpatient Wards, HIV/AIDS counselling, performs C-sections	Maternity, OPD, PMTCT, ANC, PNC, CWC, Family Planning, CHU, CCC, Full Lab, Theatre able to perform C-sections 24/7, Sick Newborn Care Unit, Inpatient Wards, HIV/AIDS counselling	Maternity, OPD, PMTCT, ANC, PNC, CWC, Family Planning, CHU, Basic Lab, HIV/AIDS counselling	Maternity, PMTCT, OPD, ANC, PNC, Family Planning, CHU, Basic Lab, Inpatient Wards, HIV/AIDS counselling, Sick Newborn Care Unit
Professional staff	Doctor, nurses, clinical officer	Nurse	Doctors, nurses, clinical officers	Doctor, clinical officer, nurses	Nurse	Nurse
Electricity	Available	Available	Available	Available	Available	Available
Water	Available	Available	Available	Available	Available	Available
Hours of operation	24 Hours	24 Hours	24 Hours	24 Hours	8am-4pm	24 Hours
Legend:						
* All secondary health facilities have caesarean section capacity						
OPD - Outpatient Department						
PMTCT - Preventative Mother to Child Transmission						
ANC - Antenatal Care						
PNC - Postnatal Care						
CWC - Child Welfare Clinic						
CCC - Comprehensive Care Center for HIV						
CHU - Community Health Unit						

APPENDIX 2: FGD GUIDE

Exploring attributes of women's preferences for place of delivery in Embakasi-North sub-County.

Purpose of FGD

The purpose of this Focus Group Discussion is to try and understand where women residing within *Embakasi-North* deliver their babies and why they prefer these specific facilities. The study intends to specifically elucidate the following;

- 1) What women's preferences are with regard to place of delivery
- 2) Why they choose certain places or health facilities over the other
- 3) To determine attributes of the health system that they deem important
- 4) To determine possible attribute levels of the attributes identified

Logistical arrangements

I would like to go over a few logistical arrangements before we begin the interview: Thank you for joining me today. My name is Jackline Aridi and I am a PhD student registered at Strathmore University at the Institute of Healthcare Management at the Strathmore Business School in Nairobi. The interview will last approximately 30- 45 minutes. I have obtained Ethical clearance to conduct this research from Strathmore University's Institutional Review Board (IRB) and permission to conduct research within Nairobi and Nakuru County from the National Science and Technology Research Institute (NACOSTI)

Everything we discuss during this interview will be kept in strict confidence and your real name will not appear in any of our results. As such, please make every effort to be open and honest when responding to the questions. I will provide you with a consent form which you will read and sign if you find it agreeable with you. For data capture purposes, this interview will be recorded using a mobile phone device. Start tape recording if consent is granted: (Facilitator to switch recorder on)

FGD Discussion Questions

The questions fall into five key categories: Follow the guide below to lead the focus group discussion on the 5 key themes.

Key questions	Probes
1. Birthing Experience -What are the things that make for a good birthing experience?	Describe your dream birthing experience. Who needs to be present? What needs to be present? What are your worries or concerns? Are there cultural traditions that need to be followed judiciously? What makes you feel safe during the process? What would absolutely make it a bad experience?
2. Place of delivery -How did you and your family decide where to deliver?	What are the options for places to deliver? Who were involved in the decision making process as to where to deliver?

	<p>Are you usually involved in deciding where to deliver? If so, what did you have to consider in making that decision? (cost, distance, risks, benefits)</p> <p>What makes the delivery place a good or bad experience? Were you treated nicely and with respect? Give examples.</p>
<p>3. Recommendation to friends- What would you tell your friends about where they should deliver and why?</p>	<p>Is it culturally appropriate to share your experiences with your friends?</p> <p>Does your opinion have an impact on where your pregnant friend delivers her baby?</p> <p>Does the Chief/leaders in your community recommend/suggest that you deliver at certain places?</p> <p>If you hear something negative about a place to deliver, does it affect where you choose to deliver?</p>
<p>4. Family Involvement -How did your family show support for you during pregnancy and delivery?</p>	<p>Is your husband and extended family usually involved in the birthing experience?</p> <p>Which family members are actively involved in delivery?</p> <p>What roles do they play in the delivery process?</p>
<p>5. Newborn Care -What are the things you believe make for the best environment for the newborn immediately after delivery?</p>	<p>What are the traditional customs on how to handle and care for newborns?</p> <p>Does anyone help you care for the newborn? What makes them qualifies to do so?</p> <p>What do you believe is the best way to feed your newborn? And the timeline to starting solid foods?</p> <p>How do you keep your newborn warm?</p> <p>Do siblings play a role in taking care of newborns? If so, as soon as when? And how?</p>

Deriving Attribute Levels

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3 Having delivered in health facilities and hospitals within Embakasi-North or Naivasha. Can you please
4 speak on what you thought was the most important factors in selection of the facility where you choose to
5 deliver. If I were to ask you to rank the list below, which of these factors did you think were most
6 important in the selection of the health facility?
7

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9 (Rank: Very important, somewhat Important, Not important)

- 10 a. Cost of the health facility
11 b. Availability of drugs
12 c. Distance of the health facility
13 d. Health provider attitude
14 e. Quality of care (cleanliness etc.)
15 f. Whether or not abuse and disrespect occurs during the delivery
16 g. Time spent waiting for service
17 h. Cost of transportation
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Reporting checklist for qualitative study.

Based on the SRQR guidelines.

Instructions to authors

Complete this checklist by entering the page numbers from your manuscript where readers will find each of the items listed below.

Your article may not currently address all the items on the checklist. Please modify your text to include the missing information. If you are certain that an item does not apply, please write "n/a" and provide a short explanation.

Upload your completed checklist as an extra file when you submit to a journal.

In your methods section, say that you used the SRQR reporting guidelines, and cite them as:

O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Med.* 2014;89(9):1245-1251.

	Reporting Item	Page Number
Title		
	#1 Concise description of the nature and topic of the study identifying the study as qualitative or indicating the approach (e.g. ethnography, grounded theory) or data collection methods (e.g. interview, focus group) is recommended	4
Abstract		
	#2 Summary of the key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results and conclusions	2
Introduction		
Problem formulation	#3 Description and significance of the problem / phenomenon studied: review of relevant theory and empirical work; problem statement	3

1	Purpose or research	#4	Purpose of the study and specific objectives or	4
2	question		questions	
3				
4	Methods			
5				
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7	Qualitative approach and	#5	Qualitative approach (e.g. ethnography, grounded	4
8	research paradigm		theory, case study, phenomenology, narrative	
9			research) and guiding theory if appropriate; identifying	
10			the research paradigm (e.g. postpositivist,	
11			constructivist / interpretivist) is also recommended;	
12			rationale. The rationale should briefly discuss the	
13			justification for choosing that theory, approach,	
14			method or technique rather than other options	
15			available; the assumptions and limitations implicit in	
16			those choices and how those choices influence study	
17			conclusions and transferability. As appropriate the	
18			rationale for several items might be discussed	
19			together.	
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27	Researcher	#6	Researchers' characteristics that may influence the	5
28	characteristics and		research, including personal attributes, qualifications /	
29	reflexivity		experience, relationship with participants,	
30			assumptions and / or presuppositions; potential or	
31			actual interaction between researchers'	
32			characteristics and the research questions, approach,	
33			methods, results and / or transferability	
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39	Context	#7	Setting / site and salient contextual factors; rationale	4
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41	Sampling strategy	#8	How and why research participants, documents, or	5
42			events were selected; criteria for deciding when no	
43			further sampling was necessary (e.g. sampling	
44			saturation); rationale	
45				
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48	Ethical issues pertaining	#9	Documentation of approval by an appropriate ethics	5
49	to human subjects		review board and participant consent, or explanation	
50			for lack thereof; other confidentiality and data security	
51			issues	
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55	Data collection methods	#10	Types of data collected; details of data collection	5
56			procedures including (as appropriate) start and stop	
57			dates of data collection and analysis, iterative	
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1		process, triangulation of sources / methods, and	
2		modification of procedures in response to evolving	
3		study findings; rationale	
4			
5	Data collection	#11 Description of instruments (e.g. interview guides,	5
6	instruments and	questionnaires) and devices (e.g. audio recorders)	
7	technologies	used for data collection; if / how the instruments(s)	
8		changed over the course of the study	
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12	Units of study	#12 Number and relevant characteristics of participants,	6
13		documents, or events included in the study; level of	
14		participation (could be reported in results)	
15			
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17	Data processing	#13 Methods for processing data prior to and during	5
18		analysis, including transcription, data entry, data	
19		management and security, verification of data	
20		integrity, data coding, and anonymisation /	
21		deidentification of excerpts	
22			
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25			
26	Data analysis	#14 Process by which inferences, themes, etc. were	5
27		identified and developed, including the researchers	
28		involved in data analysis; usually references a specific	
29		paradigm or approach; rationale	
30			
31			
32			
33	Techniques to enhance	#15 Techniques to enhance trustworthiness and credibility	5
34	trustworthiness	of data analysis (e.g. member checking, audit trail,	
35		triangulation); rationale	
36			
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38	Results/findings		
39			
40	Syntheses and	#16 Main findings (e.g. interpretations, inferences, and	6
41	interpretation	themes); might include development of a theory or	
42		model, or integration with prior research or theory	
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46	Links to empirical data	#17 Evidence (e.g. quotes, field notes, text excerpts,	8
47		photographs) to substantiate analytic findings	
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50	Discussion		
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52	Intergration with prior	#18 Short summary of main findings; explanation of how	19
53	work, implications,	findings and conclusions connect to, support,	
54	transferability and	elaborate on, or challenge conclusions of earlier	
55	contribution(s) to the field	scholarship; discussion of scope of application /	
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generalizability; identification of unique contributions(s) to scholarship in a discipline or field

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4	Limitations	#19	Trustworthiness and limitations of findings 22
5			
6	Other		
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8			
9	Conflicts of interest	#20	Potential sources of influence of perceived influence 22
10			on study conduct and conclusions; how these were
11			managed
12			
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14	Funding	#21	Sources of funding and other support; role of funders 22
15			in data collection, interpretation and reporting
16			
17			

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 19 American Medical Colleges. This checklist was completed on 09. January 2020 using
 20 <https://www.goodreports.org/>, a tool made by the [EQUATOR Network](#) in collaboration with
 21 [Penelope.ai](#)
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